

56-1 One Report

2024



*Together for
Sustainable Thailand,
Sustainable World*

Contents

| | |
|--|-----|
| Vision, Mission and PTT Values | 002 |
| PTT Information | 004 |
| Financial Highlights | 006 |
| Achievement Highlights | 008 |
| Sustainability Performance Highlights | 010 |
| Corporate Governance Highlights | 012 |
| Awards and Recognition | 014 |
| Message of the Chairman and the CEO | 022 |
| Economic, Petroleum and Petrochemical Review and Outlook | 026 |

Section 1

Business Operations and Performance

| | |
|--|-----|
| 1. Structure and Business Operations of PTT Group | 035 |
| 2. Risk Management | 112 |
| 3. Driving Business towards Sustainability | 126 |
| 4. Management Discussion and Analysis (MD&A) | 202 |
| 5. General Information and Other Important Information | 234 |

Section 2

Corporate Governance

| | |
|---|-----|
| 6. Corporate Governance | 239 |
| 7. Governance Structure and Key Data on the Board of Directors, Specific Committees, Management, Employees and Others | 266 |
| 8. Corporate Governance Milestones | 300 |
| 9. Internal Control and Connected Transactions | 344 |

Section 3

Financial Report

| | |
|------------------|-----|
| Financial Report | 376 |
|------------------|-----|

Attachment

| | |
|--|-----|
| Attachment 1 Information of the Board of Directors, Executives, the Person Supervising Accounting, Company Secretary | 382 |
| Attachment 2 Details of Directors and Subsidiaries | 452 |
| Attachment 3 Details of Head of the Office of Corporate Audit | 454 |
| Attachment 4 Business Assets and Details on Asset Valuation | 455 |
| Attachment 5 Corporate Governance, Ethical Standards and Code of Business Ethics Handbook of PTT Public Company Limited | 455 |
| Attachment 6 Report of the Audit Committee | 455 |
| About This Report | 456 |
| Assurance Report | 458 |



PTT, we prioritize a balance
between ensuring energy security
and reducing greenhouse gas emissions at every steps,
striving to make cleaner energy accessible for all,
offering new alternatives to life,
creating new professions,
and lowering carbon dioxide emissions,
all in pursuit of sustainable happiness.

*Together for
Sustainable Thailand,
Sustainable World*



VISION

Together for Sustainable Thailand, Sustainable World

MISSION

To conduct integrated energy and related business as a National Energy Company, while delivering values to all stakeholders with balanced and sustainable approach

STAKEHOLDERS



Public Sector
Ensuring long-term energy security by providing adequate high quality energy supply at fair prices to foster economic growth with sustainable approach



Committee & Employees
Supporting the board of directors to effectively govern the organization, promoting employees' capability building professionally and ensuring that employees' well-being remains competitive with other leading companies



Suppliers & Partners
Conducting transparent and fair business practice with all partners, while promoting trust, good relationship, and strong cooperation to expand business capability and increase efficiency in long-term business partnership



Society & Communities
Being an organization that Thai society is proud of, by exercising environmental stewardship of internationally accepted standards and enhancing the quality of life for the society and community



Investors
Operating commercial business with transparency and good governance to generates sustainable growth and returns



Customers
Ensuring customers' satisfaction and loyalty by delivering world-class quality products and services at fair prices

PTT
VALUES

Synergy

Synchronize through partnership

Performance
Excellence

Agile for excellence



Innovation

Invent future growth through innovation

Responsibility
for Society

Reach sustainability with green economy and social care

Integrity
& Ethics

Embed integrity & ethics to enhance good corporate citizenship

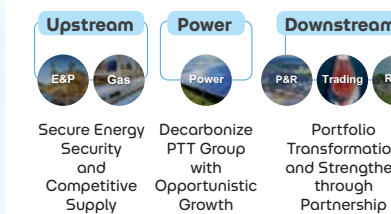
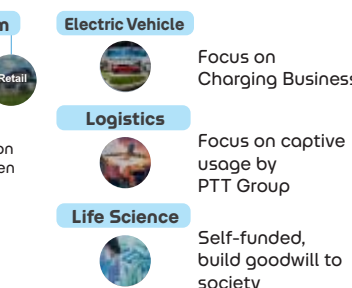
Trust
& Respect

Tune-up trust through empowerment and respect

STRATEGIC DIRECTION

LT Adj. EBITDA & Net Profit BALANCE Sustainability: Net Zero by 2050

1 Competitiveness Enhancement: Existing Business

1.1 Hydrocarbon & Power Business
Cost Competitiveness Enhancement1.2 Non-Hydrocarbon Business
Right to Play & Attractiveness

2 Growth: Necessity & Opportunity

Hydrogen & Carbon Business Integration

- H₂ and CCS as decarbonize tools for PTT Group
- Opportunistic play to transform PTT business, for long-term growth
- PTT to act as an orchestrator/PMO for group cooperation
- PTT to lead Thailand towards its Net Zero target



3 Sustainability: Unleash Business Values through Sustainability



- Integrate Sustainability into Business Strategy & Portfolio Planning
- Strive for Net Zero, Balancing ESG outcomes toward Resilience & Sustainable businesses
- Incorporate Sustainability Framework to drive PTT Group sustainability management

4 Enablers for Transformation



- Operational Excellence Enhancement



- People, Organization & Digital Transformation
Lean & Efficient with Digital Integration

5 Foundation



- Convergence of GRC & Sustainability



- Value-Driven Financial Excellence

PTT Information

| Name | Abbreviation | Registered Number |
|----------------------------|--------------|-------------------|
| PTT Public Company Limited | PTT | 0107544000108 |

Registered Capital

THB 28,562,996,250
comprising 28,562,996,250
ordinary shares whose value is THB 1 per share
(as of December 31, 2024)

Issued and Fully Paid-up Capital

THB 28,562,996,250
comprising 28,562,996,250
ordinary shares whose value is THB 1 per share
(as of December 31, 2024)

Head Office
555 Vibhavadi Rangsit Road, Chatuchak, Chatuchak,
Bangkok 10900, Thailand
Telephone: 66 (0) 2537-2000
Contact Center: 1365
Website: www.pttplc.com
E-Mail: contact@pttplc.com

Investor Relations
Telephone: 66 (0) 2537-3518-9
Fax: 66 (0) 2537-3948
E-Mail: ptt-ir@pttplc.com

Office of the President
Telephone: 66 (0) 2537-3855
Fax: 66 (0) 2537-3883, 66 (0) 2537-3887
E-Mail: corporatesecretary@pttplc.com

References

Securities Registrar
Thailand Securities Depository Company Limited
1st Floor, The Stock Exchange of Thailand Building,
93 Ratchadaphisek Road, Din Daeng, Din Daeng,
Bangkok 10400, Thailand
Telephone: 66 (0) 2009-9999

Auditor
EY Office Limited
193/136-137, 33rd Floor, Lake Rajada Office Complex,
Ratchadaphisek Road, Klong Toei, Klong Toei,
Bangkok 10110, Thailand
Telephone: 66 (0) 2264-9090 **Fax:** 66 (0) 2264-0789

THB Debentures Registrar
Siam Commercial Bank Public Company Limited
Registrar 1 Services Office, Head Office,
17th Floor, Zones B&C,
9 Ratchadaphisek Road, Chatuchak, Chatuchak,
Bangkok 10900, Thailand
Telephone: 0-2777-6784 **E-Mail:** registrar1@scb.co.th
Bank of Ayudhya Public Company Limited
Security Services Operations Department,
AA Floor (13) Head Office-Rama III, Rama III Road,
Bang Phongphang, Yannawa, Bangkok 10120, Thailand
Telephone: 66 (0) 2296-5999
Legal Consultant for Debenture Issuance and Sales Offering
Chandler MHM Company Limited
98 Sathorn Square Office Tower, 17th and 36th Floors
North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand
Telephone: 66 (0)-2009-5000 **Fax:** 66 (0) 2009-5080

PTT Public Company Limited

Type of Business

PTT's own businesses
natural gas, gas transmission,
international trading, new business and sustainability;

PTT invests through subsidiaries,
joint operations, joint ventures, and associates (PTT Group)
exploration and production, liquefied natural gas,
petrochemical and refining, oil and retail,
power and utilities, and service businesses.

Financial Highlights

Statement of Income

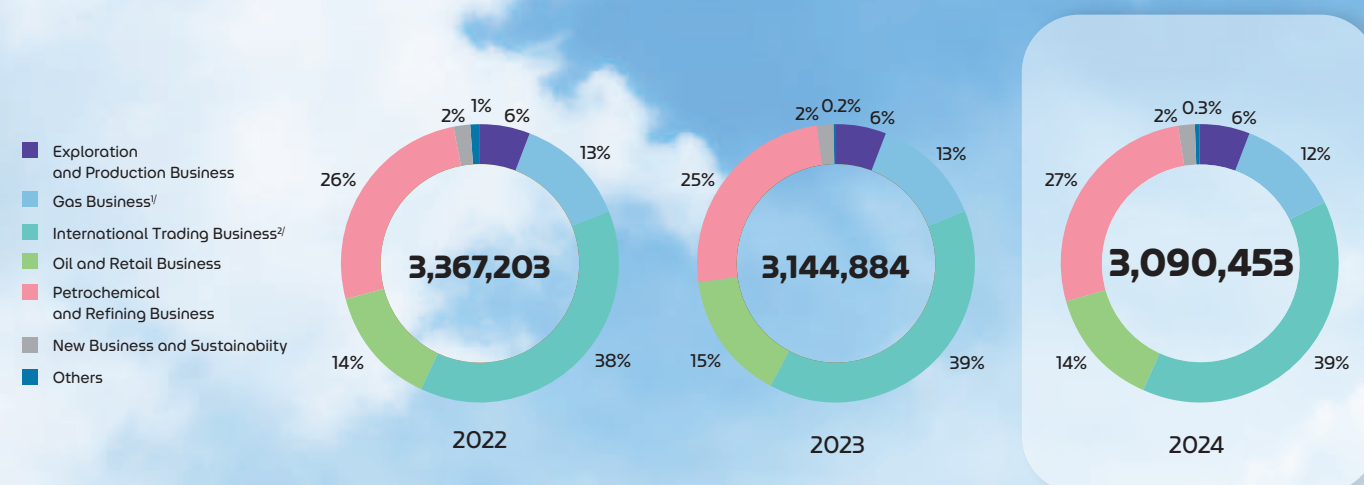
| Unit: THB million | 2022 | 2023 | 2024 |
|---|-----------|-----------|-----------|
| Sales and service revenue | 3,367,203 | 3,144,884 | 3,090,453 |
| Earnings before interest, taxes, depreciation and amortization (EBITDA) | 491,288 | 426,895 | 396,234 |
| Profit attribute to equity holders of the company | 91,175 | 112,024 | 90,072 |

Statement of Financial Position

| Unit: THB million | 2022 | 2023 | 2024 |
|---|-----------|-----------|-----------|
| Total assets | 3,415,632 | 3,460,462 | 3,438,784 |
| Total liabilities | 1,881,939 | 1,835,486 | 1,781,907 |
| Shareholders' equity | | | |
| - Equity attributable to owners of the company | 1,052,591 | 1,121,198 | 1,149,652 |
| - Non-controlling interests of the subsidiaries | 481,102 | 503,778 | 507,225 |

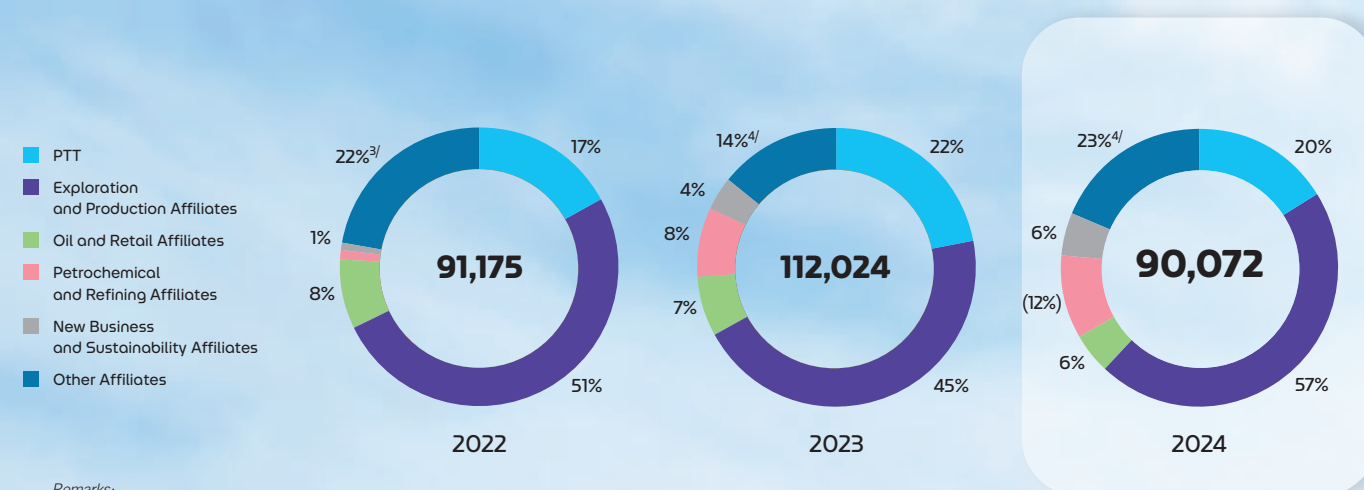
Sales and Service Revenue

Unit: THB million



Net Income

Unit: THB million



Remarks:

1/ Gas Business consists of Gas Business Unit and subsidiaries

2/ International Trading Business consists of International Trading Business Unit and subsidiaries

3/ In 2022, net income of other affiliates mainly came from coal business

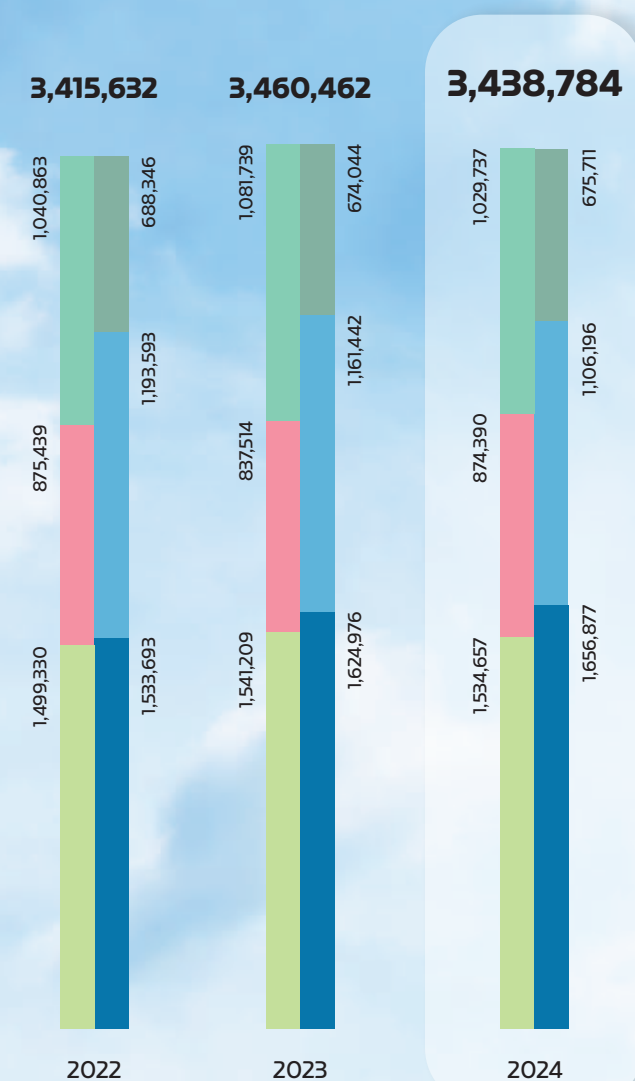
4/ In 2023-2024, net income of other affiliates mainly came from PTT LNG Co., Ltd. (PTTLNG) and PTT International Trading Pte. Ltd. (PTTT)

Shares or Information about Common Shares

| | 2022 | 2023 | 2024 |
|---|--------|--------|--------|
| Issued and paid up share capital (Million Shares) | 28,563 | 28,563 | 28,563 |
| Book value per share (THB) | 36.85 | 39.25 | 40.25 |
| Earnings per share (THB) | 3.20 | 3.92 | 3.15 |
| Dividend per share (THB) | 2.00 | 2.00 | 2.10 |
| Dividend payout ratio (%) | 63 | 51 | 67 |
| Share price at the end of period (THB) | 33.25 | 35.75 | 31.75 |

Statement of Financial Position

Unit: THB million



Current Assets
Other Non-current Assets
Property, Plant, and Equipment
Trade Payable and Other Liabilities
Interest Bearing Debt (IBD)
Shareholder's Equity

Financial Ratios

| | 2022 | 2023 | 2024 |
|---|-------|-------|------|
| Net profit margin (%) | 3.63 | 4.94 | 3.67 |
| Net profit margin (attributable to equity holders of the Company) (%) | 2.71 | 3.56 | 2.91 |
| Return on equity (%) | 8.85 | 10.31 | 7.93 |
| Return on total assets (%) | 3.76 | 4.52 | 3.29 |
| Debt to equity¹/ (Times) | 0.78 | 0.71 | 0.67 |
| Net debt²/ to equity (Times) | 0.55 | 0.44 | 0.40 |
| Net debt²/ to EBITDA (Times) | 1.71 | 1.67 | 1.65 |
| Interest coverage (Times) | 13.25 | 9.41 | 8.46 |

Remarks:

1/ Debt to equity = Interest bearing debt divided by Total shareholder's equity

2/ Net debt = Interest bearing debt (IBD) - Cash and cash equivalents - Short-term investments in financial assets

Statement of Cash Flows

Unit: THB million

Net cash provided by operating activities

| | |
|------|---------|
| 2022 | 191,700 |
| 2023 | 382,045 |
| 2024 | 373,240 |

Net cash used in investing activities

| | |
|------|-----------|
| 2022 | (186,690) |
| 2023 | (161,245) |
| 2024 | (188,763) |

Net cash provided by (used in) financing activities

| | |
|------|-----------|
| 2022 | 50,668 |
| 2023 | (142,159) |
| 2024 | (186,411) |

Cash and cash equivalents at the beginning of year³/

| | |
|------|---------|
| 2022 | 312,730 |
| 2023 | 340,054 |
| 2024 | 417,134 |

Cash and cash equivalents at the end of year³/

| | |
|------|---------|
| 2022 | 340,054 |
| 2023 | 417,134 |
| 2024 | 405,139 |

Remark: 3/ Excluding short-term investment

Achievement Highlights

Hydrocarbon
and Power Business

Upstream



Expanding both domestic and international petroleum exploration and production in collaboration with strategic partners at competitive costs



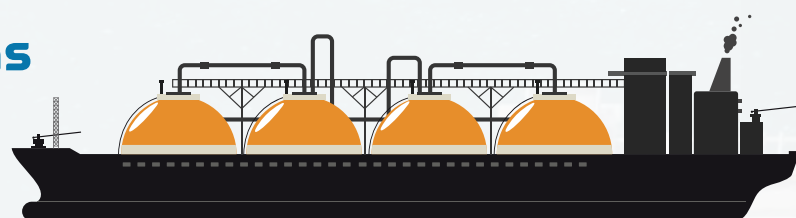
Jointly invested with EGAT in **LNG Receiving Terminal 2 (LMPT2)** establishing PE LNG with an equal **shareholding ratio between PTT LNG and EGAT at 50%**, resulting in PTT recognizing gain on sale of investments at approximately



Imported **Spot LNG** and **Contract LNG** totaling

9.6
million tons

THB 4,300 million



Downstream



Jointly created synergy in international trade in PTT Group under **Project ONE**, which has generated a total value of

USD 109.6 million



Selling investment in **Alvogen Malta (Out-licensing) Holding Ltd.**, which operates the business of trading and licensing pharmaceuticals in Europe and other regions. **PTT Group** recognized a profit from the sale of investment

THB 4,537 million

Non-Hydrocarbon
Business

Focused on investing in the EV charging business, integrating platforms to create business collaborations within PTT Group, and optimizing the existing ecosystem of affiliated companies nationwide. **PTT Group** has totaling

2,911
Chargers

Acquired all common shares of **Teva Pharma (Thailand) Co., Ltd.** valued at approximately

THB 1,650 million

in line with the strategy for **pharmaceutical business expansion** with a greater focus on the **Asia-Pacific market**



Power



Undertaking on portfolio transformation and creating synergy within PTT Group, while simultaneously strengthening partnerships



Becoming Thailand's mobility partner by leveraging the ecosystem to create value and maintain market leadership



Providing reliable power supply, and supporting the decarbonization for PTT Group, while pursuing opportunistic growth both domestically and internationally

Sustainability Performance Highlights

Environmental



Greenhouse Gas Emissions (Direct and Indirect):

PTT
11.06
million tons of carbon dioxide equivalent
(Target: Not exceeding 11.5 million tons of carbon dioxide equivalent)

PTT Group
41.45
million tons of carbon dioxide equivalent
(Target: Not exceeding 51.0 million tons of carbon dioxide equivalent)

PTT established the "Prem Pracha Vana Rak" public park on a 10-rai area. This Park is a royal tribute to His Majesty King Maha Vajiralongkorn Phra Vajiraklaochaoyuhua, providing a public space for the community to promote a green space for relaxation, recreation, and connecting local neighborhoods through accessible pathways



C³ Approach

PTT integrates sustainability into its core business operations, aligning investment portfolio with greenhouse gas reduction to achieve Net Zero Emissions through the C³ approach across PTT Group

Climate-Resilience Business

- LNG Portfolio (Long-Term Contracts)
6.2 million tons per annum
- Renewable Energy Portfolio
9.9 Gigawatts

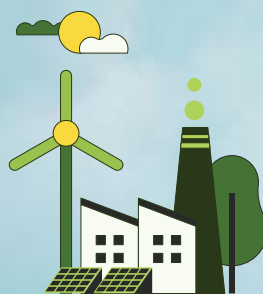
Carbon-Conscious Asset

- Installed Regenerative Thermal Oxidizers (RTO) in natural gas separation plants (Units 5, 6) and ethane separation plant, expected to reduce
190,000 tons of carbon dioxide equivalent per year

Coalition, Co-Creation, and Collective Efforts for All

- Carbon Capture and Storage (CCS) Project** at PTTEP's Arthit field: Completed its study and engineering design, with capacity of capturing **1** million tons of carbon dioxide equivalent per year
- Eastern Thailand CCS Hub** Scheduled for construction by 2034
- Carbon Footprint for Organization (CFO) Certification** with greenhouse gas removal through reforestation, as the first organization in Thailand
- Achieved Net Zero Pathway Certification** by the Thailand Greenhouse Gas Management Organization (Public Organization) (TGO)

Social



Total Recordable Injuries Rate per 200,000 hours worked of employees and contractors are **0.031** and **0**, not exceeding the targets of 0.040 and 0.048 respectively

Major Truck Accident Rate per 1,000,000 km is **zero**, achieved the target

Charitable donations as a Proportion of Social Investment Budget is **19.07%**, well below the target of 30%

Human Capital Index (HCI) is **80%**, achieved the target



Community Empowerment Project

- Sustainable community development according to sustainability dimensions in 7 host areas with 143 households** reduce expenditure to **increase household income by 10%**
- Development of community skills for 33 individuals**, empowering the community to independently install and maintain community technologies

Human Rights

Human Rights due diligence

conducted across PTT and PTT Group
17 subsidiaries in **31** countries, covering **81** areas

Human Rights Violations: Zero



Governance

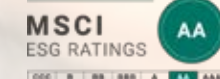
The National Anti-Corruption Commission's Integrity and Transparency Assessment (ITA) are at a **Passed, "Good" level**



ESG Ratings



Dow Jones Best-in-Class Indices
PTT has been assessed and ranked No. 1 in the Oil & Gas Upstream & Integrated (OGX) industry in S&P Global's Corporate Sustainability Assessment (CSA) 2024, as recognized Top 1% in The Sustainability Yearbook 2025 and has been listed in Dow Jones Best-in-Class Indices in the World Index and Emerging Markets Index for the 13th consecutive year



Corporate Governance Highlights

Effectiveness of the Directors



1. The Chairman of the Board of Directors is a different person from the Chief Executive Officer.
2. The Chairman is an independent director.
3. All directors hold the position of director in a state-owned enterprise and/or a juristic person in which the state-owned enterprise is a shareholder of no more than 3 companies.
4. All directors hold directorships in no more than 3 companies listed on The Stock Exchange of Thailand.
5. All directors hold directorships in both state-owned enterprises and listed companies combined, totaling no more than 5 companies.
6. The executive director does not hold an executive position in another listed company.
7. The average tenure of directors in 2024 is 1.8 years.

Composition of the Board of Directors



Number of Board of Directors:

15 persons

Independent Directors

12 persons



Female Directors

2 persons



Non-Executive Directors

14 persons



Meetings, Assessment, and Election of the Board of Directors



Number of Board of Directors' Meetings in 2024:

24 times

- Average attendance: **95% of the whole Board**
- **1/3** of the board members left their directorship annually
- Directors' election at the Annual General Meeting of Shareholders is **conducted on an individual basis**
- **Directors are assessed** annually, and the assessment results are disclosed

Awards and Recognition

PTT focuses on operating sustainable business in all sectors, aiming for the 3-dimensional balance:

Environmental

Environmental management aims to strike a balance between business growth and efficient resource consumption.

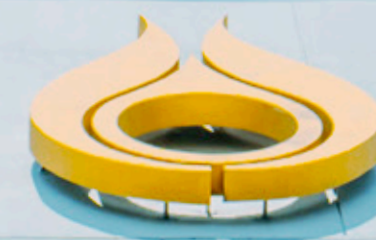
Social

Social management applies PTT Group's expertise, innovation, and collaboration in creating model communities of wisdom and expanding nationwide in support of the well-being of people and communities in a sustainable manner.

Governance

Conducting business under good governance principles.

In 2024, PTT garnered national and international awards, prestigious rankings, and certifications.



Significant Sustainability Awards



National



SET ESG Ratings

PTT was ranked in the 2024 SET ESG Ratings for the 2nd consecutive year, at the highest level of AAA from The Stock Exchange of Thailand, reflecting the success of well-balanced integrating sustainability into business operations.

International



Dow Jones Best-in-Class Indices

PTT has been assessed and ranked No. 1 in the Oil & Gas Upstream & Integrated (OGX) industry in S&P Global's Corporate Sustainability Assessment (CSA) 2024, as recognized Top 1% in The Sustainability Yearbook 2025 and has been listed in Dow Jones Best-in-Class Indices in the World Index and Emerging Markets Index for the 13th consecutive year.

Environmental

National



The Saint Francis of Assisi Award

PTT received the Saint Francis of Assisi Award for being "an organization that operates its business in connection with natural ecosystems to sustainably improve the quality of life".



Plaque of Honor for Good People Protect the Earth

PTT received plaque of honor for Good People Protect the Earth, which honors organizations that uphold good principles and practices in driving and recognizing the importance of natural resource conservation and environmental protection.



Thai Wisdom and Herbal Health Tourism Award

The Herb Garden in honor of Her Royal Highness Princess Maha Chakri Sirindhorn received the excellent Thai wisdom and herbal health tourism award at the 21st National Herbal Expo.

International



Certificate of Honor for Low Emission Support Scheme

The Sirinat Rajini Mangrove Ecosystem Learning Center, PTT Reforestation and Ecology Institute received the Low Emission Support Scheme (LESS) Certificate of Honor for 2 waste management projects: increasing awareness of the use of Biodegradation Bins and recycling waste sorting at Chicken and Bee Restaurant.



ICQCC 2024

The PIC Project of Gas Business Unit received the Gold Award, the highest honor, demonstrating its exceptional potential for improving work processes and establishing a reputation for PTT and Thailand. The 4 projects that received the award are listed below:

1. Unleashed Agru Performance for GSP5, 6, and ESP of Aminovators Group
2. Cost Reduction of Gas Consumption Data Sending for Industrial Customers, NB-IoT InnovateX Group
3. Intelligent Smell Analyzer Project, I-SMELL Group
4. NGR AIoT Platform Project, NGR Industrial Technology Group

Social

National



Human Rights Awards 2024

PTT received the outstanding role model organization Human Rights Awards 2024 in the state-owned enterprise sector for the 4th consecutive year.



The Organizational Health Workplace and State-Owned Enterprises Award 2024

PTT was honored with the outstanding Organizational Health Workplace and State-Owned Enterprises Award 2024 (the highest level).



Award of Honor for Outstanding Safety Model Enterprise 2024

PTT's Natural Gas Transmission received award of honor for outstanding Safety Model Enterprise 2024 at the national level (platinum) in 7 areas:

1. Chonburi Operations Center (OC) received the highest award for the 23rd consecutive year
2. Region 5 Pipeline Operations Division (the 22nd consecutive year)
3. Region 3 Pipeline Operations Division (the 19th consecutive year)
4. Region 4 Pipeline Operations Division (the 19th consecutive year)
5. Region 2 Pipeline Operations Division (the 16th consecutive year)
6. Region 6 Pipeline Operations Division (the 14th consecutive year)
7. Region 8 Pipeline Operations Division (the 14th consecutive year)



Zero Accident Campaign 2024

PTT's Rayong Gas Separation Plant received a plaque of honor for the campaign to reduce accident statistics from Zero Accident Campaign 2024 at the platinum level for the 4th consecutive year and the runner-up prize for innovation in safety, occupational health, and working environment for its Safety and Health Integration Platform (SHIP) at the 36th National Safety and Occupational Health Fair.



Top 50 Companies in Thailand 2024

PTT was ranked as the most coveted organization for the new generation for the 6th consecutive year. According to a survey, conducted by Work Venture, a consultant and leader in employer branding for leading companies, PTT was the second-most desired company by the young generation in 2024 and the highest-ranked Thai company this year.

International

Governance

National



Top CEO of the Year 2024

Dr. Kongkrapan Intarajang, CEO & President of PTT, received the Top CEO of the Year 2024 from the Dailynews Top CEO of the Year 2024.



IAA Awards for Listed Companies 2024

PTT received the Outstanding CEO, Best CFO, and Outstanding IR Awards in the Energy and Utilities business category from the IAA Awards for Listed Companies 2024.



State-Owned Enterprise Awards

PTT was honored with a total of 6 State-Owned Enterprise Awards (SOE Awards) of 2024 reinforcing the success for the 19th consecutive year, as follow:

1. Outstanding Board of Directors Award (Honorable Acclaim)
2. Outstanding Organizational Management Award (Honorable Acclaim)
3. Sustainable Development State-Owned Enterprise Award
4. Outstanding Social and Environmental Implementation Award
5. Outstanding Creativity and Innovation Award (Creativity Category)
6. Outstanding Creativity and Innovation Award (Innovation Category)

Remark:

PTT was honored with a total of 7 SOE Awards of 2023, as follows:

1. Outstanding Board of Directors Award (Honorable Acclaim)
 2. Outstanding Organizational Management Award (Honorable Acclaim)
 3. Digital State-Owned Enterprise Development Award
 4. Sustainable Development State-Owned Enterprise Award
 5. Outstanding Creativity and Innovation Award (Innovation Category)
 6. Outstanding Creativity and Innovation Award (Creativity Category)
 7. Social and Environmental Implementation Award (Commendation)
- (Received the awards on January 31, 2024)



Investors' Choice Award

PTT received the Investors' Choice Award 2024 from the Quality Assessment of Annual General Meeting of Shareholders project, which was given to companies listed on The Stock Exchange of Thailand (SET) that scored 100 full points for the 11th consecutive year.



Membership Certificate from the Thai Private Sector Collective Action against Corruption

PTT received a membership certificate from the Thai Private Sector Collective Action against Corruption (CAC) for the 4th time at the CAC Certification Ceremony 2024 - Business Beyond CAC: Spotlight on Supply Chain hosted by the Thai Institute of Directors Association (IOD).

Governance

National



SET Awards 2024

PTT received 2 SET Awards 2024: The Sustainability Awards of Honor for the 4th year and SET Awards of Honor: Best Innovative Company Awards.



Excellent CG Scoring

PTT received an Excellent CG Scoring or 5 badges for the 16th consecutive year and was ranked among the TOP Quartile of listed companies with a market value of at least THB 10,000 million by the Corporate Governance Report of Thai Listed Companies (CGR) 2024.



Thailand Corporate Excellence Awards 2024

PTT was honored with the Thailand Corporate Excellence Awards 2024, the Royal Award of Her Royal Highness Princess Maha Chakri Sirindhorn for Financial Management Excellence, and the Thailand Digital Excellence Awards for End-to-End Digital Transformation.



Thailand's Most Admired Company 2023 - 2024

PTT was awarded Thailand's Most Admired Company in the energy business for 2023 - 2024 as the most trusted company by consumers, confirming its success and commitment to efficient business operations.



Certificate of Quality Assurance of Internal Audit of the Government Sector from External Organization

PTT received an honorary certificate of Quality Assurance for Internal Audit of the Government Sector from External Organization for Fiscal Year 2021 - 2023^{1/}

Remark:
^{1/} Receive the certificate on March 26, 2024



EGAT Outstanding Partner Award 2024

PTT received the EGAT Outstanding Partner Award 2024 as a tribute to outstanding partners in product and service delivery and an incentive for suppliers to adhere to their efficient operations and good governance principles.

International



Asian Excellence Award 2024

PTT achieved 7 Asian Excellence Awards 2024 (14th Asian Excellence Award), highlighting professional excellence in sustainable business operations and good governance, along with social responsibility and environmental stewardship:

1. Asia's Best CEO
2. Asia's Best CFO
3. Asia's Best CSR Award
4. Best Investor Relations Professional
5. Sustainable Asia Award
6. Best Investor Relations Company
7. Best Corporate Communications



Fortune Southeast Asia 500

PTT was ranked the first among Thailand's leading companies and the second-largest in Southeast Asia, according to the Fortune Southeast Asia 500 list. This first-ever ranking was based on financial performance in the fiscal year 2023^{1/} and organizational direction, reflecting its position as a strong leading company in Southeast Asia.

Remark:
^{1/} Received the awards on June 20, 2024



Institutional Investor Corporate Awards 2024

PTT received 4 outstanding awards at the ASEAN regional level from the 14th Institutional Investor Corporate Awards 2024, comprising:

1. The Strongest Adherence to Corporate Governance
2. Most Consistent Dividend Policy
3. Best Senior Management Investor Relations Support
4. Best Strategic CSR

Brand Finance®

Brand Guardianship Index 2025

Dr. Kongkrapan Intarajang, CEO & President of PTT, has been ranked 66th among the top 100 CEOs worldwide, and also ranked 4th among leaders in the oil and gas industry.

Brand Finance Global 500

PTT is the only Thai brand ranked among the top 500 brands in the world with the highest brand value of over USD 9 billion. The position has risen to the 249th, up from the 267th in 2024.

Brand Finance ASEAN 500

PTT was ranked the most valuable Thai brand and the 4th in Southeast Asia for 2024, reaffirming its excellence in both sustainable management and social responsibility, as well as striving to drive the economy and ensure energy security.

Message of the Chairman and the CEO

Over the past 3 - 4 years, the world has faced multiple challenges, including economic uncertainty, prolonged geopolitical tensions, volatile global energy and feedstock prices, rapid technological advancements, and climate change, accelerating the global energy transition toward cleaner energy. Simultaneously, there is increasing global emphasis on achieving Net Zero Greenhouse Gas Emissions, alongside evolving policies and regulations, and industry landscape changes in the petrochemical and refining industries. Coupled with PTT's core mission as the national energy company, ensuring energy security for the country while balancing the interests of stakeholders, PTT has therefore revisited its vision of **"Together for Sustainable Thailand, Sustainable World"**, reflecting PTT's dedication to fostering energy security while balancing growth and sustainability. Accordingly, the strategic direction has been realigned as follows:

Competitive Enhancement: Existing Business

The Hydrocarbon Business remains PTT's core business, with a renewed focus on its areas of expertise to enhance national energy security, reinforce internal capabilities, and strengthen its long-term competitive position. Regarding the petroleum exploration and production business, the focus is on expanding both domestic and international petroleum exploration and production in collaboration with strategic partners at competitive costs. The goal of the natural gas business is to drive growth by securing a reliable natural gas supply and expanding investments across the LNG value chain, maximizing the benefits of the country's infrastructure. The power business focuses on providing a reliable power supply and supporting PTT Group's decarbonization target while pursuing domestic and international opportunistic growth. Portfolio transformation is undertaken in the petrochemical and refining business to strengthen partnerships and enable growth amidst competition and changing market conditions while creating synergies within PTT Group. For the international trading business, the emphasis is on collaboration to source feedstocks at competitive costs through Project ONE (P1), which is being further extended to Project D1, enhancing PTT Group's collaboration in the domestic distribution of petroleum and petrochemical products. Meanwhile, the oil and retail business aims to become Thailand's mobility partner, focusing on substantive and Asset-Light investments while leveraging its existing ecosystem to create value and maintain market leadership.



Non-Hydrocarbon Business

The **Non-Hydrocarbon Business** includes the electric vehicle, life science, and logistics businesses. Over the past 3 - 4 years, PTT has invested in the Non-Hydrocarbon Business to respond to megatrends and government policies. However, due to the highly competitive business environment, and rapid technological and market changes, PTT needs to revisit its Non-Hydrocarbon Business strategy from 2 main perspectives: (1) Attractiveness: Business attractiveness and the opportunity to generate appropriate returns, and (2) Right to Play: Businesses where PTT has strengths and capabilities to further develop. This includes considering suitable management structures and collaborating with expert partners to reduce business risks and create value for PTT Group. The electric vehicle business focuses on investing in the EV charging business by utilizing the affiliates' nationwide environs to maximize returns and exit unprofitable businesses. In the life science business, which has growth opportunities and profitability, the focus is on seeking strategic partners with expertise to drive growth while also benefiting Thailand through a self-funding approach. Meanwhile, the logistics business focuses only on synergistic businesses with strong ties to PTT Group's captive demand while adhering to the Asset-Light principle.

Integrating Sustainability into Business, Moving towards Net Zero Emissions while Creating Opportunities in Carbon Capture and Storage and Hydrogen Business

PTT Group aspires to be a leader in driving the organization towards internationally recognized sustainability by incorporating sustainability according to ESG (Environmental, Social and Governance) principles into all business dimensions in a manner suitable for the organization's context. This involves creating business growth concurrently with reducing greenhouse gas emissions to achieve its Net Zero Emissions target while also promoting the hydrogen and carbon capture and storage (CCS) businesses. PTT Group's achievement of these initiatives will be critical for both PTT Group and Thailand to reach Net Zero Emissions target, following the C³ approaches as follows:

- Climate-Resilience Business: Investing in clean energy and transforming the business portfolio towards a low-carbon business to align with the global and Thailand's energy transition directions.
- Carbon-Conscious Asset: Reducing greenhouse gas emissions in production processes and operational activities through various methods, utilizing clean and renewable energy, reducing waste, increasing production efficiency, and adopting advanced technologies, including Digital & AI.
- Coalition, Co-Creation, and Collective Efforts for All: Collaborating with stakeholders, as a national leader in developing infrastructure and technologies to reduce greenhouse gas emissions, such as Carbon Capture and Storage (CCS), and reforestation to absorb carbon dioxide through nature-based solutions.

Driving Transformation, Building Internal Strength While Enhancing Competitiveness

PTT Group prioritizes transformation as a strategy to enhance competitiveness and create continuous returns while achieving sustainable long-term growth, which is implemented through Operational Excellence initiatives to improve operational efficiency and reduce costs across PTT Group, with a target of achieving an EBITDA Uplift of at least THB 30 billion by 2027. This is pursued alongside Digital Transformation, incorporating digital technologies and upgrading digital infrastructure, aiming for a productivity improvement of THB 2 billion annually by 2027. Concurrently, People and Organization Transformation is being accelerated, restructuring the organization to drive new strategies, developing employee capabilities, and cultivating a "Conviction to Change" culture among employees to create sustainable business value.

Emphasizing Governance and Good Business Practices

PTT strictly adheres to the principles of governance and good business practices, managing the organization with transparency and GRC (Governance, Risk, and Compliance) in operations, which serves as a crucial foundation that cultivates internal resilience, fosters external trust, and achieves financial excellence. PTT continues to promote the improvement of GRC operations and received an ITA (Integrity & Transparency Assessment) assessment from the National Anti-Corruption Commission (NACC) at a "Passed, Good" level.

Growing on the "Balanced Sustainability" Principle

PTT is committed to being a strong organization alongside Thai society, Together for Sustainable Thailand, continuously implementing projects with communities and society. In 2024, PTT's significant contribution was the development of the "Prem Pracha Vana Rak" public park on a 10-rai area. This park is a royal tribute to His Majesty King Maha Vajiralongkorn Phra Vajiraklaochaoyuhua, which has been royally bestowed to the people as a community public space.

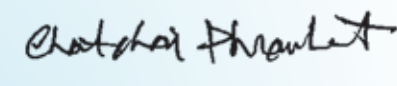
In addition, PTT has leveraged its success in enhancing the resilience of communities through sustainability initiatives in the Innovation for Community Project while advocating for the conservation and restoration of natural resources and the environment through various reforestation projects. PTT also supports the development of sports potential for youths and the underprivileged nationwide. Furthermore, PTT strives to reduce energy costs for the public by alleviating costs in electricity production, maintaining the retail price of natural gas for vehicles (NGV), and postponing increases in retail fuel prices, including the provision of disaster relief.

Due to its commitment to conducting business with balanced sustainability principles, in 2024, PTT garnered over 60 honorary awards from 27 international and national institutions. PTT has been assessed and ranked No. 1 in the Oil & Gas Upstream & Integrated (OGX) industry in S&P Global Corporate Sustainability Assessment (CSA) 2024, recognized as Top 1% and has been listed in Dow Jones Best-in-Class Indices in the World Index and Emerging Markets Index for the 13th consecutive year, an international recognition of pride which reflects the company's sustainable business practices in all dimensions.

Amidst challenging external circumstances, the performance of PTT Group in 2024, driven by the implementation of new visions and strategies, has shown strong performance, generating a total revenue of THB 3.1 trillion, with a net income of THB 90,072 million, accounting for a net profit margin (attributable to equity holders of the Company) of 2.9% of total revenue, divided into 20% from PTT's operations and 80% from PTT Group's companies, respectively.

On behalf of PTT's Board of Directors and management, we would like to express our gratefulness to our shareholders, investors, and all stakeholders for their trust and confidence in PTT's business potential and their ongoing support for PTT's growth. PTT, as a Thai energy company with the main mission to ensure the country's energy security, aims to grow while achieving greenhouse gas emissions reduction targets, driving the organization to be strong **Together for Sustainable Thailand, Sustainable World.**

TOGETHER
FOR
SUSTAINABLE
THAILAND,
SUSTAINABLE
WORLD


Mr. Chatchai Phromlert
Chairman


Dr. Kongkrapan Intarajang
Chief Executive Officer
and President



Economic, Petroleum and Petrochemical Review and Outlook

1. 2024 in Review

1.1 World Economy

The global economy in 2024 expanded at a similar pace to the previous year amid the continued recovery of the services sector, especially in advanced economies; more accommodative monetary policy by major central banks in the second half of 2024 after the gradual decline of inflation to the target level; and investments in artificial intelligence (AI) technology, which helped drive the semiconductor and electronics industries, especially in emerging Asia. Meanwhile, fiscal policy normalisation in many countries, China's economic slowdown amid prolonged debt and liquidity problems in the real estate sector, and geopolitical conflicts are factors holding back the global economy in 2024. As of January 2025, the International Monetary Fund (IMF) estimated the global economic growth rate in 2024 to be 3.2%, down from 3.3% in 2023 (Figure 1).

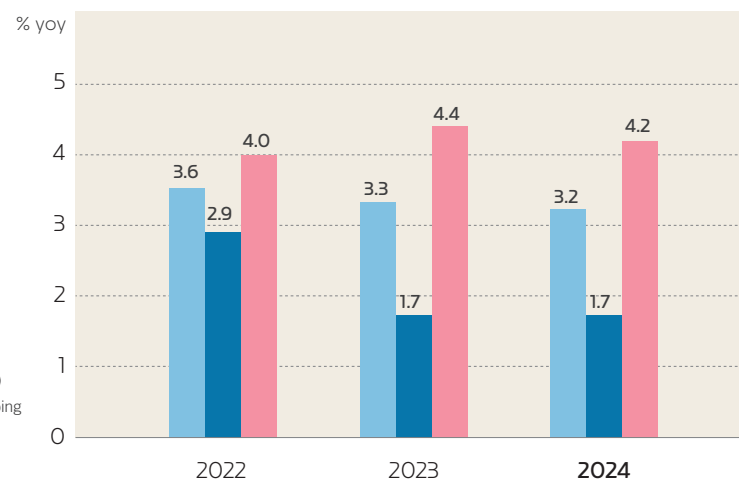
2024 global economic growth of **3.2%**, down from 3.3% in 2023

Figure 1

Global Economic Growth
2022 - 2024

Unit: % yoy
Source: IMF as of January 2025

■ World
■ Advanced Economies
(Including U.S. and Eurozone)
■ Emerging Market and Developing
Economies (including China)



1.2 Global Petroleum and Petrochemical Industries

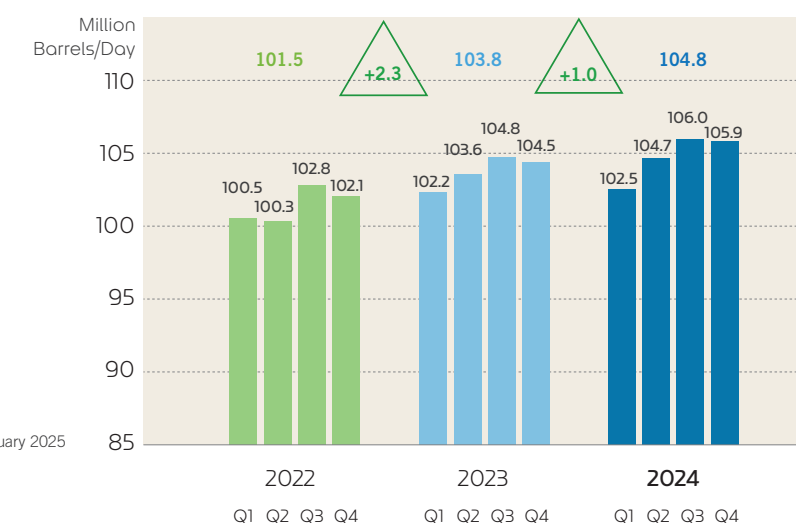
Global oil demand in 2024, according to S&P Global estimates as of February 2025, was 104.8 million barrels per day, up 1.0 million barrels per day, a smaller increase than 2023 due to a slowdown in the Chinese economy, a weak global manufacturing sector, rising global energy efficiency, and an increase in sales of electric vehicles (Figure 2).

Dubai crude oil prices declined to an average of USD 79.6 per barrel in 2024 from USD 82.1 per barrel in 2023 due to a combination of factors, including a slowdown in global oil demand, a rise in supply from non-OPEC+ nations led by record-high crude oil production in the U.S. and Canada in 2024, OPEC+ efforts to curb production and reduced supply, and limited impact of geopolitical tensions (Figure 3).

Figure 2

World Oil Demand
2022 - 2024

Unit: Million Barrels/Day
Source: S&P Global as of February 2025



As for the prices of refined petroleum products in 2024, the price of 95-octane gasoline averaged USD 93.0 per barrel, declining in line with lower crude oil prices and increased supply from new refineries in China. Meanwhile, gasoline demand continued to be pressured by improved fuel efficiency and remote work policy in the U.S., as well as the rise of electric vehicles, particularly in China. As a result, gasoline crack spreads decreased. Diesel price averaged USD 96.3 per barrel in 2024, declining in line with lower crude oil prices and increased supply from new refineries. Meanwhile, diesel demand was hampered by increasing LNG and alternative-fuel trucking in China, as well as weak manufacturing in Europe and the U.S. As a result, diesel crack spreads decreased. High sulfur fuel oil 3.5%S (HSFO 3.5%S) price averaged USD 74.0 per barrel in 2024, increasing as shipowners added more scrubbers and OPEC+ production cuts weighed on sour crude oil supply, despite lower Dubai crude oil prices. As a result, HSFO 3.5%S crack spreads increased.

The Singapore cracking margin against Dubai crude in 2024 averaged USD 4.9 per barrel, down from USD 6.8 per barrel in 2023.

As for the petrochemical product prices in 2024, high-density polyethylene (HDPE) prices averaged USD 1,014 per ton. The decline was due to weak demand in China, coupled with new supply from China and Vietnam continuously entering the market despite the increase in naphtha prices, resulting in a decrease in naphtha-to-HDPE spreads. Paraxylene (PX) price in 2024 averaged USD 962 per ton, falling in line with the decreased use of PX as a gasoline octane booster and weak PX demand from purified terephthalic acid (PTA) manufacturing, despite the rise in naphtha prices, resulting in a decrease in naphtha-to-PX spreads (Figure 4).

Figure 3

Dubai and Petroleum Products Prices 2022 - 2024

Unit: USD/ Barrel
Source: Reuters

| | 2022 | 2023 | 2024 |
|--------------------|-------|-------|------|
| Dubai | 96.3 | 82.1 | 79.6 |
| Gasoline 95 Octane | 115.2 | 98.8 | 93.0 |
| Diesel* | 135.3 | 106.4 | 96.3 |
| Fuel Oil 3.5%S | 82.3 | 71.8 | 74.0 |

Note:
* From 2023 onwards, reporting of diesel price changed from diesel 0.05%S to diesel 0.001%S (Euro 5 standards)

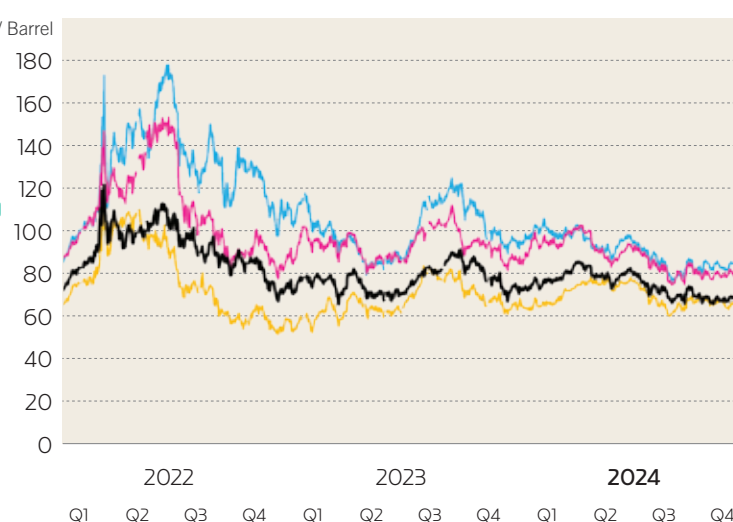
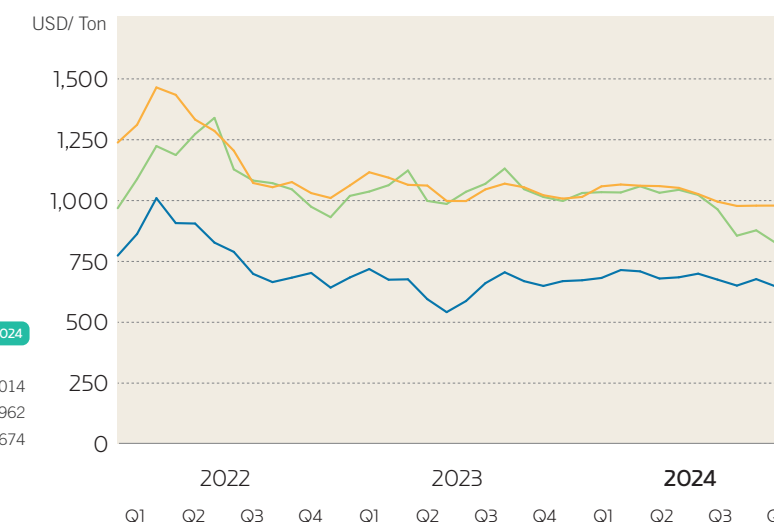


Figure 4

Prices of Petrochemical Products in Asia Market 2022 - 2024

Unit: USD/ Ton
Source: ICIS/ Platts

| | 2022 | 2023 | 2024 |
|---------------------------|-------|-------|-------|
| High Density Polyethylene | 1,203 | 1,044 | 1,014 |
| Paraxylene | 1,103 | 1,038 | 962 |
| Naphtha | 785 | 649 | 674 |

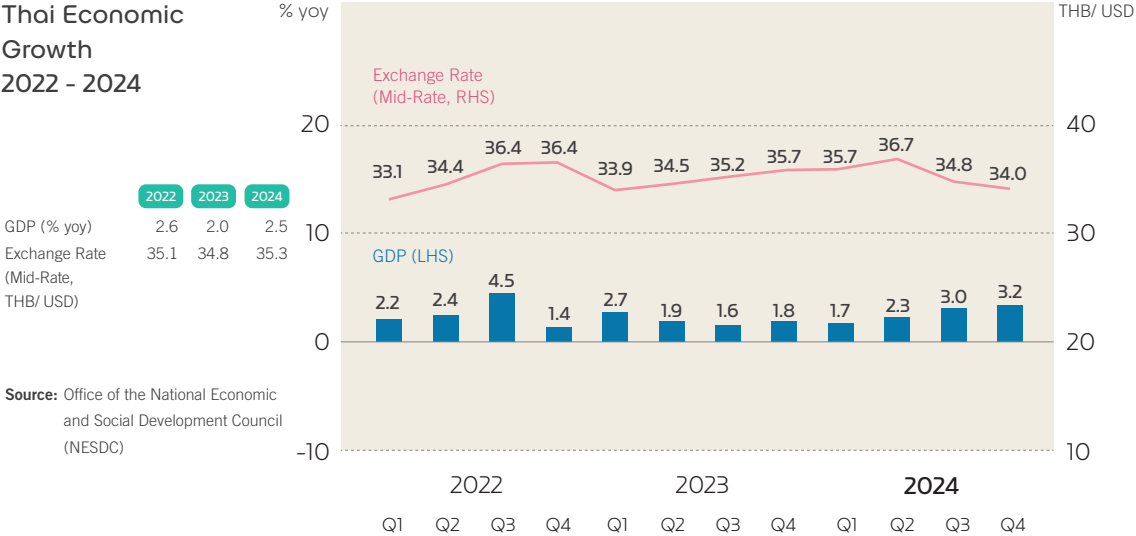


1.3 Thai Economy

Thai economy in 2024 accelerated from the previous year, due to the return of foreign tourists (almost all nationalities) to 89% of the pre-COVID-19 level. Merchandise exports improved, in line with the electronics upturn and global trade recovery. Private consumption picked up, partly due to fiscal stimulus program for state welfare cardholders and disabled people phase 1 in the fourth quarter of 2024, while the Bank of Thailand's policy rate cut in October 2024 helped lower financing costs for businesses. However, there were pressures from the still-weak real estate and construction sectors, unfavorable weather conditions and high household debt level. The Office of the National Economic and Social Development Council (NESDC) reported the growth rate of Thai economy in 2024 at 2.5%, up from 2.0% in 2023. The Thai baht in 2024 averaged THB 35.3 per USD, a depreciation due to a strong USD amid tight monetary policy of the U.S. Federal Reserve (Fed) before the start of easing cycle in September 2024 (Figure 5).

Figure 5

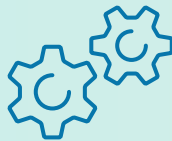
Thai Economic Growth
2022 - 2024



Source: Office of the National Economic and Social Development Council (NESDC)

1.4 Thailand Petroleum Industry

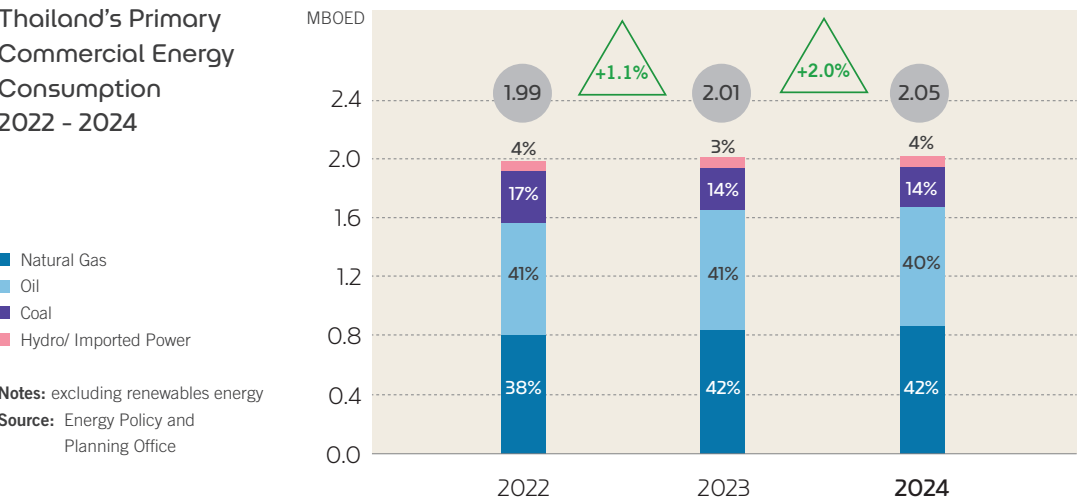
In 2024, Thailand's commercial primary energy consumption (excluding renewable energy) was 2.05 million barrels per day, up 2.0% from the previous year (Figure 6). Oil consumption increased by 1.5%, while natural gas consumption rose by 2.2% as fuel for electricity generation in line with increased economic activity.



Thailand's refined products consumption increased by 1.9% in 2024 (Figure 7), with LPG up by 1.5% from household consumption, transportation, and industry. Aviation fuel rose 18.6% from the continuously recovering tourism sector. Gasoline consumption increased slightly by 0.2% due to negative factors such as increased electric vehicle usage and changes in travel behavior. The use of gasoline has not yet returned to pre-COVID-19 levels. Diesel consumption rose by 0.1%, driven by higher use of high-speed diesel (HSD) due to recovering economic activities and exports. However, demand for base diesel for power generation to replace Spot LNG fell significantly in the first half of the year, resulting in only a slight annual growth. Fuel oil was down by 6.5% due to a slowdown in industrial use.

Figure 6

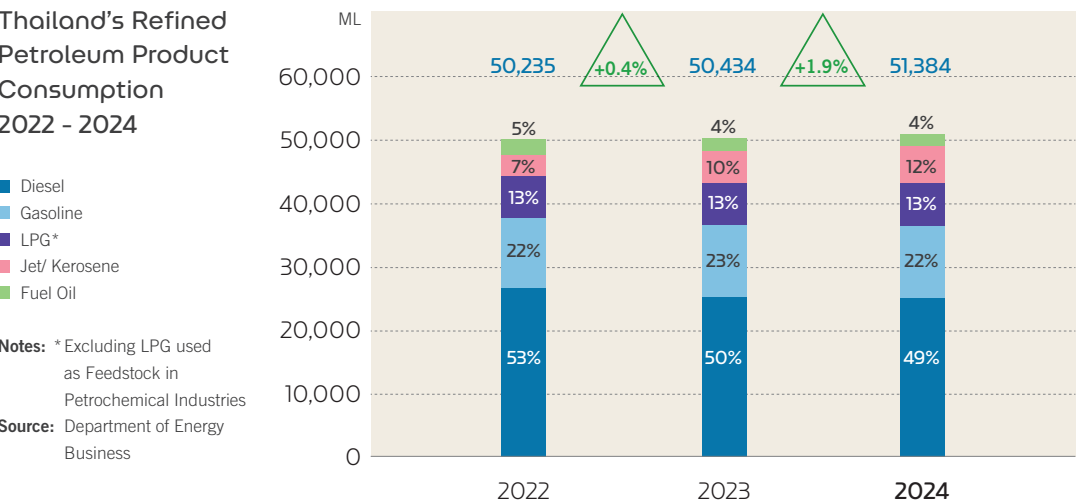
Thailand's Primary Commercial Energy Consumption
2022 - 2024



Notes: excluding renewables energy
Source: Energy Policy and Planning Office

Figure 7

Thailand's Refined Petroleum Product Consumption
2022 - 2024

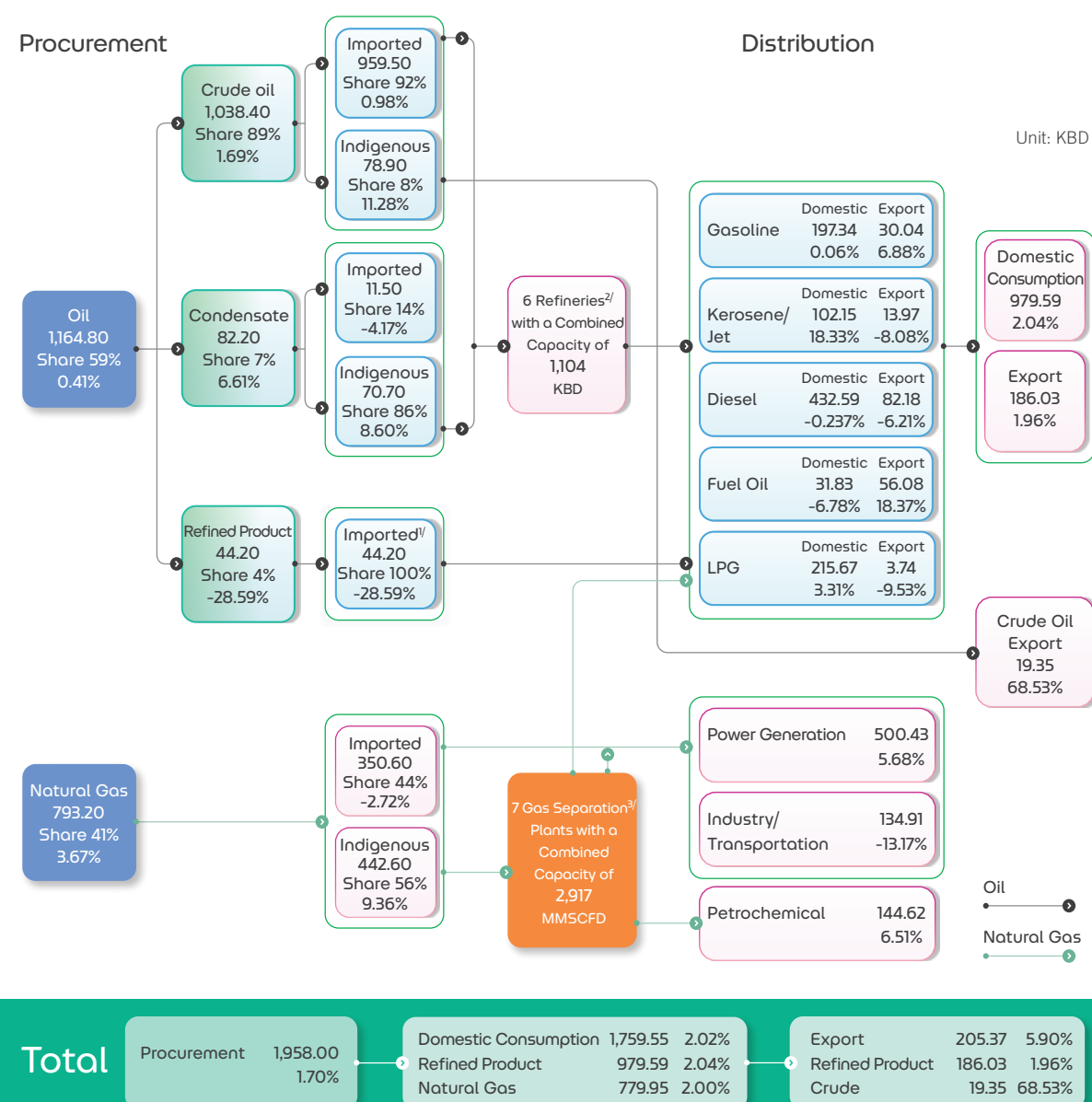


Notes: * Excluding LPG used as Feedstock in Petrochemical Industries
Source: Department of Energy Business

Thailand's petroleum balance in 2024 increased from 2023, with petroleum procurement totaling 1,958.00 thousand barrels per day (KBD), up 1.7% from 2023 (Figure 8). Oil and natural gas procurement accounted for 59% and 41%, respectively. 92% of crude oil and 44% of natural gas were imported. Domestic consumption totaled 1,759.55 KBD, up 2.0% from 2023, with refined products accounting for 56% and natural gas 44%, whereas petroleum product exports totaled 205.37 KBD, up 5.9% from 2023.

Figure 8 Procurement and Distribution of Thailand Petroleum 2024

Sources: Energy Policy and Planning Office, Department of Energy Business, Department of Mineral Fuels, and PTT



Remarks:

1/ Including LPG

2/ Capacity includes those of BCP, ESSO, IRPC, PTTGC, SPRC, TOP and excludes GC's condensate splitters & Fang refinery.

3/ Capacity includes those of PTT's GSP 1 - 6 (including ESP), and PTTEP's Siam/ Phalang Phet. The petroleum procurement and distribution exclude bitumen

2. 2025 Outlook

2.1 Global Economic Outlook

The global economy is expected to continue expanding in 2025, supported by a decline in policy rates, particularly in major economies, along with accelerated investments in AI amid intensifying technology competition. Whereas policy uncertainty, especially in the U.S., as a result of the great election year in 2024, could adversely impact growth. However, a close monitoring must be kept on China's effort to address the property sector problems and economic stimulus measures, as well as geopolitical conflicts. The IMF in January 2025 expected the global economy to grow 3.3% in 2025.

2.2 Global Petroleum and Petrochemical Industry Outlook

According to S&P Global in February 2025, global oil demand in 2025 is expected to rise by 1.3 million barrels per day to 106.1 million barrels per day, amid continuing global economic expansion. Regarding global oil supply, while OPEC+ effort to curb production is expected to continue, increasing non-OPEC+ production is currently raising oversupply concerns. In 2025, Dubai crude oil prices are expected to average USD 71 - 81 per barrel. The Singapore cracking margin against Dubai crude oil in 2025 is expected to average USD 4.1 - 5.1 per barrel.

Overall petrochemical product prices are expected to fall slightly in 2025 due to lower crude oil and naphtha prices, as well as new and excess supplies from North Asia continuing to enter the market. Whereas production cut by existing producers as a result of low profits in recent years should help somewhat support petrochemical prices. HDPE price in 2025 is expected to average USD 927 - 1,027 per ton, and PX price USD 840 - 940 per ton.

2.3 Thailand Economic Outlook

Economic recovery is expected to continue in Thailand in 2025, led by the tourism sector, as foreign tourists return to pre-COVID-19 levels – benefiting the service and manufacturing sectors, as well as employment in related industries. Also to help support growth will be the government's economic stimulus measures (the second and third phase of cash handout scheme, as well as the Easy E-Receipt program), expected to gradually be implemented in the first half of 2025. Merchandise exports are expected to keep growing in tandem with an upturn in the global electronics cycle. However, a close monitoring must be kept on the implementation of the U.S. economic and trade policies, the impact of influx of low-cost imports into Thailand, as well as geopolitical conflicts which could push up energy prices. The NESDC in February 2025 projected the growth rate for Thai economy in 2025 at 2.3 - 3.3%. Analysts expect the Thai baht to average THB 34.5 - 35.5 per USD in 2025, with the Fed's policy rate cuts and Thailand's current account surplus to be closely monitored.

2.4 Thailand Petroleum Industry Outlook

Thailand's petroleum consumption in 2025 is expected to improve from 2024, driven by economic expansion, particularly in the tourism sector, which is anticipated to continue growing. Additionally, government economic stimulus measures will contribute to this positive trend. However, there are significant risk factors that need to be closely monitored, such as the high level of household debt in Thailand, changing travel behaviors, trade protection measures, and intense international competition. These factors could impact the industrial sector and exports, potentially causing petroleum usage to fall short of expectations.

Section

1

*Business Operations
and Performance*

1. Structure and Business Operations of PTT Group
2. Risk Management
3. Driving Business towards Sustainability
4. Management Discussion and Analysis (MD&A)
5. General Information and Other Important Information

1. Structure and Business Operations of PTT Group

1.1 Business Policy and Overview

Background

The Petroleum Authority of Thailand was established on December 29, 1978, according to the Petroleum of Thailand Act B.E. 2521 principally to operate petroleum and related businesses. However, amidst an intense competition environment, the Government recognized the necessity of the private sector's participation in the energy business. The Cabinet resolution on August 21, 2001 approved a corporatization plan of the Petroleum Authority of Thailand, and on September 25, 2001 approved the corporatization under the State Enterprise Corporatization Act B.E. 2542 to establish PTT Plc. (PTT) by converting capital of the Petroleum Authority of Thailand into capital stock. It is mandated that the state holds at least 51% share in PTT and for PTT to remain the national oil company. After the Civil administration reform, PTT was placed under the supervision of the Ministry of Energy.

On October 1, 2001, the Petroleum Authority of Thailand became PTT Plc. under the State Enterprise Corporatization Act with an initial registered capital of THB 20,000 million, divided into 2,000 million ordinary shares at a par value of THB 10, with the Ministry of Finance as the sole shareholder.^{1/} Subsequently, shares were offered to the public and institutional investors and then traded in The Stock Exchange of Thailand on December 6, 2001. The Finance Ministry remained a majority shareholder, and PTT's status remains that of a state enterprise regulated by the Ministry of Energy to this day. (On April 24, 2018, PTT split the par value from THB 10 to THB 1, resulting in a total number of 28,562.9 million common shares, and registered capital of THB 28,562.9 million.) From its corporatization date, the Petroleum Authority of Thailand transferred its businesses, rights, debts, liabilities,

PTT, Thailand's energy leader, is committed to creating a sustainable future by developing energy security along with enhancing international competitiveness.

assets, and staff to PTT to enable PTT to operate seamlessly and efficiently. Through the State Enterprise Corporatization Act B.E. 2544, a Royal Decree was gazetted determining that PTT Plc. maintains the authority, rights, and benefits entitled to the Petroleum Authority of Thailand under the Petroleum Authority of Thailand Act B.E. 2521, with the provision that such authority, rights, and benefits entitlement end upon PTT's state enterprise status are dissolved according to the Budget Procedures Act. A separate Royal Decree was gazetted on the timeframe of revocation of the Petroleum Authority of Thailand Act B.E. 2544 resulting in the end of the law. Then on February 16, 2007, a Royal Decree was gazetted to determine the authority, rights, and benefits of PTT Plc. (Second Edition) in B.E. 2550. Substantively this Decree withheld or limited certain authority, rights, and benefits entitled to PTT under the Petroleum Authority of Thailand Act, and determined the authority, rights, and benefits of PTT such as exploration demarcation of petroleum transmission pipeline zone, planning of petroleum transmission pipeline, southward, northward, or passing through lands owned by any individuals, etc., according to PTT Act to fall under the supervision of a committee regulating the company.

^{1/} PTT is exempted, under the State Enterprise Corporatization Act B.E. 2542, from enforcement of provisions in the Public Company Act on status and corporatization.

Later, when the Energy Industry Act B.E. 2550 came into effect on December 11, 2007, PTT, as an energy business operator, was supervised by the Energy Regulatory Commission as the holder of licenses for natural gas transmission through gas pipelines, natural gas supply and trading, natural gas retail sale through distribution pipeline networks, and the power business. consisting of power generation for its own use at Rayong and Khanom gas separation plants and gas control stations.

1.1.1 Vision, Strategy, and Business Direction of PTT Group

Amidst economic uncertainty, geopolitical tensions, energy price volatility, rapid technological advancements, and energy transition towards clean energy, aligned with growing climate concerns that nations and organizations prioritize and set targets towards Carbon Neutrality and Net Zero Greenhouse Gas Emissions (Net Zero Emissions). This transition coupled with the advancements in carbon capture and storage technologies and the development of alternative energy sources, as well as challenges from evolving policies and regulations, and structural changes in the petrochemical and refining industries, along with the mission to be a national energy company to ensure energy security for the country and balance the interests of stakeholders, PTT, therefore, has revised its vision and strategic direction by refocusing on its core business, where it holds expertise and contributes to national interests, and also integrates sustainability into business operations.

- PTT, Thailand's energy leader, is committed to creating a sustainable future by ensuring energy security along with enhancing international competitiveness under the vision of "Together for Sustainable Thailand, Sustainable World" with a mission to conduct integrated energy and related business as a national energy company, while delivering value to all stakeholders with a balanced and sustainable approach, and recognizing the significance of conducting business responsibly towards society, the environment, and all stakeholders, including public sector, society and communities, investors, customers, suppliers and partners, committee and employees, as well as promoting the SPIRIT core value: Synergy: Synchronize through partnership, Performance Excellence: Agile for excellence, Innovation: Invent future growth through innovation, Responsibility for Society: Reach sustainability with green economy and social care, Integrity & Ethics: Embed integrity & ethics to enhance good corporate citizenship, and Trust & Respect: Tune-up trust through empowerment and respect.
- PTT's strategic direction emphasizes on driving the goal of ensuring energy security for the country and creating sustainable growth while reducing greenhouse gas emissions.

We will drive the growth of our organization considering balance between generating appropriate profits from business operations and fostering sustainability to achieve the Net Zero Emissions target by 2050. PTT strategic direction consists of 5 strategic pillars as follows:

- 1. Competitive Enhancement:**
Existing Business: Enhance competitiveness of existing businesses by strengthening current operations, focusing on cost management, and sourcing competitive resources. The 2 existing business groups are as follows:



1.1 Hydrocarbon & Power Business:

- **Petroleum Exploration and Production Business (E&P) and Gas Business:** Ensure energy security by expanding resource base to secure competitive energy and feedstock supply, alongside pursuing the development of the Overlapping Claims Area between Thailand and Cambodia (OCA) with backup plan and fostering growth by expanding investments in the LNG Value Chain with a clear roles for each business unit to foster synergy within PTT Group.
- **Power Business:** Maintain the reliability and improve the efficiency of power plants, and source clean electricity to support the decarbonization of PTT Group by transitioning the energy mix in power generation and seeking opportunistic growth overseas while generating good returns.
- **Downstream Business:** Enhance synergy within PTT Group for value optimization.
 - Petrochemical and Refining Business: Refine to reshape portfolio to embrace landscape change, and find strategic partners to strengthen competitiveness.
 - International Trading Business: Ensure competitive feedstock.
 - Oil and Retail Business: Becoming Thailand's mobility partner, with focused and Asset-Light portfolio.

1.2 Non-Hydrocarbon Business: Over the past 3 - 4 years, PTT has invested in Non-Hydrocarbon Business to respond to megatrends and government policies. However, due to the current highly competitive business environment, and rapid technological and market changes, PTT needs to revisit its Non-Hydrocarbon Business strategy from 2 main perspectives: (1) Attractiveness: Business attractiveness and the opportunity to generate appropriate returns, and (2) Right to Play: Businesses where PTT has strengths and capabilities to further develop. This includes considering suitable management structures and collaborating with expert partners to reduce business risks and create value for PTT Group.

- **Electric Vehicle (EV) Business:** Focus on investing in EV charging business by utilizing the affiliates' nationwide ecosystem to maximize return and exiting unprofitable businesses.
 - **Logistics Business:** Focus on synergistic business with strong tie to PTT Group's captive demand while adhering to the Asset-Light principle.
 - **Life Science Business:** Set a direction for seeking partners with expertise to drive growth while also benefiting Thailand through a self-funding approach.
- 2. Growth: Necessity & Opportunity:** Create growth and seek new business opportunities from integrated hydrogen and carbon businesses. Promote hydrogen and Carbon Capture and Storage (CCS) as a critical lever to reduce carbon dioxide emissions for PTT Group. Additionally, clearly define roles and responsibilities within PTT Group, with PTT acting as the orchestrator by leveraging the strengths of each company, to lead the nation towards Net Zero Emissions target.
 - 3. Sustainability:** Integrate sustainability into business strategy, create a balance between business growth and achieving sustainability outcomes in the ESG dimensions: (1) Environmental (E), (2) Social (S), and (3) Governance (G). Integrate Portfolio Planning and Net Zero Emissions management across the entire PTT Group, while driving PTT Group sustainability management with the sustainability framework.
 - 4. Enablers for Transformation:** Enhance operational excellence, strengthens internal capabilities and boosts competitiveness in all aspects, including marketing and sales, production, maintenance, and procurement, with a common goal of EBITDA Uplift within PTT Group. Simultaneously, enhance employee capabilities and restructuring the organization by implementing a Lean Organization approach, coupled with the optimization of work processes through digital transformation which aims to enhance competitiveness through the effective application of digital technology and artificial intelligence (AI), focusing on sustainable business value creation by reducing costs and improving operational efficiency. Additionally, strengthen the cultural foundation, raise awareness, and cultivated "Conviction to Change" among employees for sustainable growth (People, Organization & Digital Transformation).
 - 5. Foundation:** Maintain the essential foundation, strengthen convergence of GRC, and ensure value-driven financial excellence including non-performing assets monetization in order to maintain profit and cash flow stability.

1.1.2 Major Development of the Past Three Years

Major Development 2022



January

January 1, 2022:

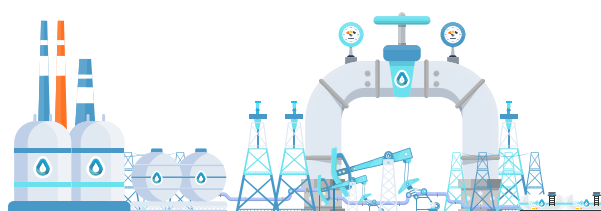
To support Thai people on energy prices, PTT extended the cap of NGV retail price as follows:

- Taxis in Bangkok Metropolitan Area: THB 13.62 per kilogram
- General cars: THB 15.59 per kilogram, and from September 16 to December 15, 2022, THB 16.59 per kilogram

Also, PTT extended the period of LPG's discount for low-income households who sell food or operate food stalls through the State Welfare Card by THB 100 per person per month until March 31, 2023.

January 11, 2022:

The Board of Directors of ARUN PLUS Company Limited (ARUN PLUS), a wholly owned subsidiary of PTT, approved the establishment of Nuovo Plus Company Limited (NUOVO PLUS), a joint venture company with Global Power Synergy Public Company Limited (GPSC) with a registered capital of THB 4,200 million and an initial paid-up capital of THB 1,050 million. ARUN PLUS and GPSC hold 51% and 49% of the shares in NUOVO PLUS, respectively. In 2024, PTT was reviewing its investment strategy in the electric vehicle business.



February

February 17, 2022:

The Boards of Directors of PTT and Thai Oil Public Company Limited (TOP) approved the shareholding restructuring of PTT Group's power business. TOP was to dispose of 304,098,630 ordinary shares of GPSC with a par value of THB 10 per share to PTT and/or Siam Management Holding Company Limited (SMH) (a wholly owned subsidiary of PTT), accounting for approximately 10.78% of the total issued and outstanding shares of GPSC, for a total price of approximately THB 22,351 million, which is the price before dividends of GPSC after December 31, 2021 and before the share transfer date (if any), and TOP would use the proceeds to repay the loan to PTT and commercial banks for financial assistance in the form of bridging loans to finance the investment in PT Chandra Asri Petrochemical Tbk. After the restructuring transaction. PTT and SMH would hold 55.23%, and TOP holds 10% of GPSC's total paid-up capital. SMH and PTT completed the purchase of GPSC's ordinary shares from TOP on June 7, 2022.



April

April 1, 2022:

The Energy Regulatory Commission (ERC) announced criteria for calculating Energy Pool Price (EPP), which is the weighted average price of energy used to generate power, including PTT's pool gas, new shipper's liquefied natural gas (LNG), diesel, fuel oil, LPG and other fuels as specified by the ERC to average the cost of natural gas prices in the Pool Gas to calculate EPP price during the energy crisis. EGAT which is the clearing house is responsible for gathering data from relevant sectors to calculate the EPP gas price and submit it to PTT for determining gas cost for PTT's all customers. This will reduce the overall cost of electricity generation compared to the use of gas as a fuel for total electricity generation. The EPP is effective from April 1, 2022, and implemented on May 1, 2022.

April 7, 2022:

Innobic (Asia) Company Limited (INBA) (a wholly owned subsidiary of PTT), which invested with Aztig HK Limited, an affiliate of Aztig Investment Group, acquired all stakes in Alvogen Emerging Markets Holdings Limited (AEMH), a major shareholder of Lotus Pharmaceutical Company Limited (LOTUS) and with 100% stakes in Alvogen Malta (Out-Licensing) Holding Limited (AMOLH) who owns 100% of Adalvo Limited (Adalvo), a drug marketing rights business through a global network. Consequently, INBA then has an indirect shareholding in LOTUS of approximately 37% of the total issued capital and 60% of the total issued capital in Adalvo.



April

April 8, 2022:

PTT issued the unsubordinated and unsecured debentures No. 1/2022 for the total amount of THB 20,000 million with a tenor of 3 - 12 years and a coupon rate of 1.79% - 3.47% per annum to the institutional investors and/or high net worth investors (excluding individuals). The debentures were issued under the THB 130,000 million Medium-Term Note Program (MTN Program) 2020.

April 20, 2022:

PTT, as a buyer, and PTTEP Energy Development Company Limited (PTTEP ED) (a subsidiary of PTTEP), the operator of G1/61 and G2/61 Project, together with the Department of Mineral Fuels as sellers, completely entered into Gas Sale Agreement, Condensate Sale Agreement, and Crude Sale Agreement. PTTEP ED becomes an operator under a Production Sharing Contract of both projects from April 24, 2022. PTTEP ED also reached an agreement with MP G2 (Thailand) Limited, a subsidiary of Mubadala Petroleum (Thailand) Holdings Limited, for PTTEP ED to be the sole investment operator of G1/61 and recognize all revenues and costs from the petroleum produced with effective date from December 1, 2021.

May

May 17, 2022:

PTT's Board of Directors approved the shareholding restructuring of PTT Global LNG Company Limited (PTTGL) by assigning SMH to purchase all shares of PTTGL from PTT and PTTEP Business Center Company Limited (PTTEP BC), which equally held 50% stake in PTTGL, at the amount of approximately USD 255 million. The transaction was completed in June 2022; after the restructuring transaction, SMH holds 100% of PTTGL's shares, providing PTTGL with flexibility in the LNG business value chain.

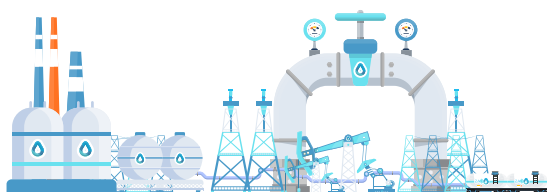
May 20, 2022:

PTT's Board of Directors and Board of Directors of Interpharma Public Company Limited (IP) (Thai listed company on MAI, ticker IP) approved Innobic LL Holding Company Limited (INBL) to acquire IP's newly issued shares via private placement at 20% of the total registered and paid-up capital. The total investment value is approximately THB 1,043 million. The transaction was completed in the third quarter of 2022.



May 20, 2022:

PTT's Board of Directors passed a resolution to help alleviate the burden of electricity generation costs of the Electricity Generating Authority of Thailand (EGAT) to reduce the impact of electricity bills on the public during the energy price crisis in Thailand through the discharge of the interest from late payment of natural gas bills to EGAT at approximately THB 340 million for EGAT's request for postponement of the payment of gas bills for the May 2022 period due in June, EGAT already paid the gas bill in October 2022.

**May 25, 2022:**

Alpha Com Company Limited (Alpha Com) established P-Dictor Company Limited (P-Dictor) with a registered capital of approximately THB 54.5 million to operate the artificial intelligence business for predictive maintenance systems and machinery condition monitoring in industrial plants.

May 27, 2022:

PTT issued the unsubordinated and unsecured debenture No. 2/2022 for the total amount of THB 20,000 million with a tenor of 7 years and coupon rate of 3.25% per annum to the general public, foundations, and non-profit organizations. The debenture was issued under the THB 170,000 million Medium-Term Note Program (MTN Program) 2020.

July

July 11, 2022:

PTT's Board of Directors passed a resolution for PTT's gas business to specifically support the Oil Fuel Fund for the amount of THB 1,000 million per month for 3 months within the year 2022 in the total amount of THB 3,000 million. This is to support the objective of the Oil Fuel Fund in stabilizing domestic fuel prices at an appropriate level during the period of fluctuating global energy prices.

July 21, 2022:

PTT's Board of Directors approved the establishment of Innobic Nutrition Company Limited (INNT) with 100% of shares held through INBL with the registered capital of THB 100 million to conduct nutrition business, including nutraceutical and medical nutrition. INNT completed its registration in September 2022.

July 22, 2022:

PTTGL signed the sale and purchase agreement of LNG with Corpus Christi Liquefaction LLC (CCL), a subsidiary of Cheniere Energy Inc. (an energy company in the U.S.) in the amount of 1 million tons per year for a period of 20 years, starting its first delivery in 2026. The signing of this long-term LNG purchase agreement was in accordance with the resolution of the National Energy Policy Committee (NEPC) which approved PTT to procure an additional 1 million tons per year of LNG, from current long-term LNG contracts of 5.2 million tons per year, to increase the country's energy security.



August

August 2, 2022:

PTT International Holdings Limited (PTTIH) (a wholly owned subsidiary of PTT) entered into a Share Purchase Agreement of its entire investment, being 100% of the total issued shares, in PTT Mining Limited (PTTML) with PT Astrindo Nusantara Infrastruktur Tbk (Astrindo), a listed company in Indonesia Stock Exchange, or its affiliate, on August 1, 2022 with a purchase price of approximately USD 486 million. The transaction was completed on February 15, 2023. This transaction divested all of PTT's investment in the coal business, which is aligned with PTT's strategy towards sustainability and clean energy.

August 17, 2022:

ERC approved the criteria of natural gas tariff for natural gas transportation licensees, consisting of the Demand Charge (Td) for 5 years (2022 - 2026) and Commodity Charge (Tc) for 2022 according to the new natural gas pricing structure approved by the National Energy Policy Committee on August 4, 2021, with effect from August 2022.

August 29, 2022:

The Extraordinary General Meeting of Shareholders of PTT Energy Solutions Company Limited (PTTES) approved the dissolution of PTTES, a subsidiary in which PTT holds 40% together with TOP, PTT Global Chemical Public Company Limited (GC), and IRPC Public Company Limited (IRPC) which equally hold 20%. The dissolution registration was completed in December 2022.

October

October 5, 2022:

The Board of Directors of SMH approved the establishment of Global Multimodal Logistics Company Limited (GML) which is 100% owned by SMH, with a registered capital of THB 230 million. In 2024, PTT was in the process of reviewing its investment strategy in the logistics business.



December

December 14, 2022:

PTT's Board of Directors approved the shareholding restructuring of the AI & Robotics business by assigning SMH to purchase all shares of ReAcc Company Limited (ReAcc) from Alpha Com (SMH, ReAcc, and Alpha Com are indirect wholly owned subsidiaries of PTT). The Board also approved the shareholding restructuring of Mekha Technology Company Limited (Mekha Tech) by assigning ReAcc to purchase all shares of Mekha Tech from Alpha Com. In addition, the Board approved the increase in registered capital and company name, which Mekha Tech completed the registration in 2022 and ReAcc is completed the registration on January 27, 2024, as detailed below:

- Previous name: Mekha Technology Company Limited (Mekha Tech)
New name: Mekha V Company Limited (Mekha V)
Registered capital: THB 266 million (initial registered capital is THB 30 million)
- Previous name: ReAcc Company Limited (ReAcc)
New name: NewVersal Company Limited (NewVersal)
Registered capital: THB 302 million (initial registered capital is THB 29 million).

December 15, 2022:

PTT's Board of Directors approved the five-year (Year 2023 - 2027) investment plan of PTT and its wholly owned subsidiaries in an aggregate amount of THB 100,227 million. PTT's investment in the core businesses is accounted for 55% of PTT's total five-year investment plan. Additionally, PTT prepared provisional capital expenditure for the next 5 years amounting to THB 302,168 million mainly aiming at the investment in clean energy businesses towards a low-carbon society i.e. life science (pharmaceutical, nutrition, and medical device & diagnostics), renewable energy, including gas business which is a transition fuel with a focus on pipeline network expansion and LNG value chain both in Thailand and overseas.

December 15, 2022:

NUOVO PLUS (a subsidiary of which PTT holds 51% of shares and GPSC 49%) entered into a joint venture agreement and established NV Gotion Company Limited (NV Gotion), a joint venture company with Gotion Singapore Pte. Ltd. (Gotion), with the registered capital of not exceeding THB 600 million, in which NUOVO PLUS and Gotion hold 51% and 49% of the shares, respectively. The company completed its registration in the fourth quarter of 2022 and the operations started in the fourth quarter of 2023. In 2024, PTT was reviewing its investment strategy in the electric vehicle business.

Major
Development

2023



January

January 1, 2023:

To support Thai people on energy prices, PTT extended the cap of NGV retail price as follows:

- Taxis in Bangkok Metropolitan Area: THB 13.62 per kilogram, and from June 16 to December 31, 2023: THB 14.62 per kilogram
- Public buses: THB 17.59 per kilogram, and from June 16 to December 31, 2023: THB 18.59 per kilogram
- General cars: THB 17.59 per kilogram, and from June 16 to September 15, 2023: THB 18.59 per kilogram; from September 16 to December 31, 2023: THB 19.59 per kilogram.

As for LPG, PTT ended the LPG's discount for low-income households who sell food or operate food stalls through the State Welfare Card by THB 100 per person per month on March 31, 2023.

February

February 15, 2023:

PTTIH (a wholly owned subsidiary of PTT) divested its entire investment, 100% of the total issued shares, in PTT Mining Limited (PTTML) to an affiliate of Astrindo with a total value of USD 486 million (including interest). PTTML thus ceased to be a subsidiary of PTT, and this transaction divested all of PTT's investment in the coal business.





March

March 10, 2023:

Global Renewable Power Company Limited (GRP) (a subsidiary of which PTT indirectly holds 50% and GPSC holds 50%) completed the establishment of Global Renewable Power China (Shanghai) Company Limited (GRP China) in the first quarter of 2023 with the registered capital of Yuan 5,340,000 (or approximately THB 27,768,000), in which GRP holds 100%.

May

May 10, 2023:

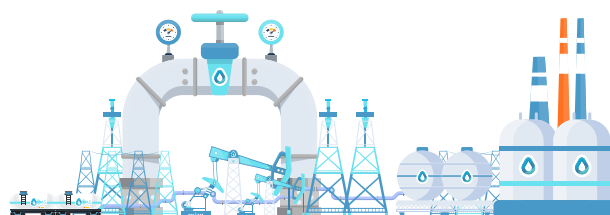
PTT issued the unsubordinated and unsecured debenture No. 1/2023 for the total amount of THB 1,000 million with 2-year tenor at coupon rate of 2.31% per annum and PTTEP Treasury Center Company Limited (a subsidiary of PTTEP Group) issued the senior guaranteed debentures with a bondholders' representative for THB 1,500 million with 3-year tenor at coupon rate of 2.51% per annum to institutional investors. These issuances were implemented through the DIF: Web Portal to support digital bond transactions.

April

April 21, 2023:

The Board of Directors of Energy Complex Company Limited (EnCo) (a subsidiary of which PTT holds 50%) on April 10, 2023 approved EnCo to form a joint venture with One Origin Public Company Limited (ONEO) through the purchase of 50% shares of One District Rayong 2 Company Limited (a subsidiary of ONEO which ONEO holds 99.9997% of shares) from ONEO at the amount of THB 46 million. On April 11, 2023, EnCo signed a share purchase and sale agreement, and the payment was completed on April 21, 2023.





August

August 16, 2023:

ARUN PLUS entered into a joint venture agreement with Kwang Yang Motor Company Limited (KYMCO) and KYMCO CAPITAL PRIVATE EQUITY MANAGEMENT Company Limited (KC), a subsidiary of KYMCO, to establish Aionex Company Limited (Aionex), a joint venture company which ARUN PLUS, KYMCO, and KC hold 51%, 29%, and 20%, respectively, with the registered capital of not exceeding THB 600 million. The establishment of Aionex was completed in 2023. In 2024, PTT was in the process of reviewing its investment strategy in the electric vehicle business.

September

September 21, 2023:

PTT's Board of Directors approved the dissolution of PTT Energy Resources Company Limited (PTTER), a wholly owned subsidiary of PTT. The dissolution registration with the Department of Business Development, Ministry of Commerce was completed on December 28, 2023. The liquidation is currently under process and is expected to be completed by 2026.

December

December 21, 2023:

PTT's Board of Directors approved the five-year (Year 2024 - 2028) investment plan of PTT and its wholly owned subsidiaries in an aggregate amount of THB 89,203 million. PTT's investment in the core business to promote sustainable growth and to ensure national energy security accounted for 51% of PTT's total five-year investment plan. Additionally, PTT has prepared provisional capital expenditure for the next 5 years amounting to THB 106,932 million mainly for the investment expansion during the energy transition period such as the investment in the Gas business and the investment expansion in the LNG value chain both in Thailand and overseas.

December 21, 2023:

PTT's Board of Directors approved the renaming of PTT's subsidiary namely Alpha Com to ExpresSo NB Company Limited (ExpresSo NB) (PTT's 100% owned) through SMH, a subsidiary of PTT, with the total registered capital of not exceeding THB 2,388.5 million, by keeping the original objective to conduct venture business operation. The renaming registration was completed in March 2024.

December 21, 2023:

PTT's Board of Directors approved the shareholder restructuring of GRP by approving PTT Global Management Company Limited (PTTGM), PTT's subsidiary, to sell ordinary shares of GRP (50% owned subsidiary of PTTGM) to Global Renewable Synergy Company Limited (GRSC), a wholly owned subsidiary of GPSC, totaling 10,007,500 shares (equivalent to 50%) at par value of THB 100 per share with the total value of approximately THB 1,275 million. The sale and purchase of GRP shares was completed on October 16, 2024.

Major
Development

2024

January**January 1, 2024:**

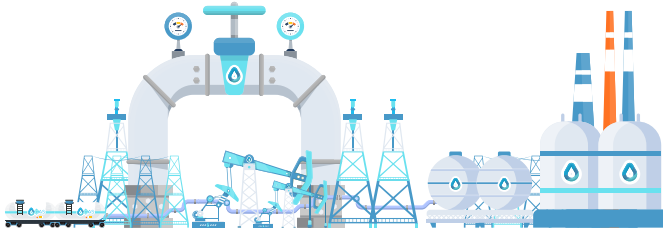
To help with energy prices for Thai people, PTT extended the cap of NGV retail price as follows:

- Taxis in Bangkok Metropolitan Area: THB 14.62 per kilogram, and from July 1, 2024 to December 31, 2025, THB 15.59 per kilogram.
- Public buses: THB 18.59 per kilogram, from January 1, 2024 to December 31, 2025.
- Public buses in Bangkok Metropolitan Area: THB 18.59 per kilogram and from February 1 to June 30, 2024 - THB 14.62 per kilogram, and from July 1, 2024 to December 31, 2025 - THB 15.59 per kilogram.
- General cars: THB 19.59 per kilogram until May 15, 2024, and adjust to the floating price from May 16, 2024.

**January 3, 2024:**

The Board of Directors of ARUN PLUS (PTT's 100% indirectly owned subsidiary) approved ARUN PLUS to establish A C Energy Solution Company Limited (A C Energy Solution) with the registered capital of not exceeding THB 1,851 million in which ARUN PLUS holds 100%. The company registration was completed on January 3, 2024. In 2024, PTT was in the process of reviewing its investment strategy in the electric vehicle business.



**January 9, 2024:**

INBA (PTT's wholly-owned subsidiary) signed a share purchase agreement to dispose of its investment in AMOLH, which is engaged in the trading of medicines and drug sales rights in Europe and other regions to Floki Holding S.à r.l. (Floki). The transaction was completed in the first quarter of 2024.

January 31, 2024:

NUOVO PLUS (a subsidiary in which PTT holds 51% and GPSC 49%) signed a Business Transfer Agreement with 24M Technologies, Inc. (24M) and 24M Technologies (Thailand) Limited on January 30, 2024. The transaction was completed on September 3, 2024. In 2024, PTT was in the process of reviewing its investment strategy in the electric vehicle business.

January 12, 2024:

PTT submitted a clarification letter to the Stock Exchange of Thailand in relation to the measure to reduce the burden of electricity costs as follows:

1. Natural gas price restructuring (Single Pool) would impact the higher operating costs of gas separation business, except liquefied petroleum gas for domestic consumption. PTT has planned measures to mitigate the impact, such as optimizing the operation plans of gas separation plants, proposing LNG procurement strategies to achieve the government's electricity price framework goals, and discussing the overall impact of the gas price restructuring with the Ministry of Energy to find a suitable joint approach.
2. Regarding Shortfall (the transmission of natural gas price from the Gulf of Thailand in case the producer cannot deliver gas according to the gas supply contract conditions), PTT's Board resolved to approve PTT's compliance with the Energy Regulatory Commission's appeal ruling, with PTT considering necessary and appropriate legal actions or rights.

February

February 28, 2024:

The Board of Directors of NewVersal (PTT's 100% indirectly owned subsidiary) approved the establishment of FT1 Corporation Limited (FT1), a joint venture company with Hana Microelectronics Public Company Limited (HANA) with the registered capital of THB 1 million. NewVersal and HANA hold 51% and 49% of the shares in FT1, respectively. FT1 completed its registration on February 28, 2024.

February 29, 2024:

The Board of Directors of ARUN PLUS approved ARUN PLUS to establish ARUN PLUS Mobility Holding Company Limited (AMH) with a registered capital of THB 10 million, in which ARUN PLUS holds 100% and approved AMH to enter into a joint venture agreement to establish Neo Mobility Asia Company Limited (Neo Mobility Asia), a joint venture company with MGC-ASIA Greentech Company Limited (MGC-ASIA Greentech), a subsidiary of Millennium Group Corporation (Asia) Public Company Limited (MGC-ASIA), with the registered capital of THB 30 million. AMH and MGC-ASIA Greentech hold 50.001% and 49.999% of Neo Mobility Asia's shares, respectively. However, in 2024, PTT was in the process of reviewing its investment strategy in the electric vehicle business.

March

March 7, 2024:

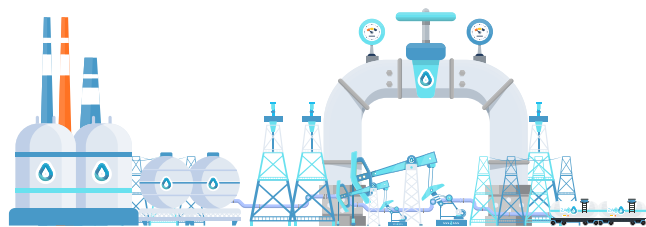
The Board of Directors of ARUN PLUS approved ARUN PLUS to establish Ze Mobility Plus Company Limited (Ze Mobility Plus) and X Mobility (Thailand) Company Limited (X Mobility (Thailand)) with a registered capital of THB 10 million per company which Neo Mobility Asia Company Limited holds 100%. The registration of Ze Mobility Plus and X Mobility (Thailand) was completed on March 6, 2024. In 2024, PTT was in the process of reviewing its investment strategy in the electric vehicle business.

March 15, 2024:

The Annual General Meeting of Shareholders of Alpha Com (PTT's 100% indirectly owned subsidiary) approved the establishment of ExpresSo NB SG Company Limited (ExpresSo NB SG) in Singapore, which Alpha Com holds 100%. The establishment of ExpresSo NB SG was completed on July 1, 2024.

March 19, 2024:

The Board of Directors of ARUN PLUS approved ARUN PLUS to establish X Mobility Plus Company Limited (X Mobility Plus) with a registered capital of THB 10 million which is 100% owned through Neo Mobility Asia Company Limited. The establishment of X Mobility Plus was completed on March 19, 2024. In 2024, PTT is in the process of reviewing its investment strategy in the electric vehicle business.



June

June 28, 2024:

PTT completed the dissolution of PTT International Investments Limited (PTTII), PTT's wholly-owned subsidiary, on June 21, 2024.

August

August 3, 2024:

In a special meeting (STS Board 2024), PTT's Board of Directors approved an adjustment to the vision and strategic direction for PTT Group's business operations in 2024. The focus would shift back to the core businesses in which PTT has expertise and relevance, and which benefit the country. This includes incorporating sustainability into the business, improving Return On Invested Capital (ROIC), reducing assets, and ensuring profitable investments. An emphasis would be placed on strong operational excellence. Details can be found in section 1.1.1 Vision, Strategy, and Business Direction of PTT Group.

March 25, 2024:

PTT's Board of Directors Meeting approved PTT LNG Company Limited (PTTLNG), a wholly owned subsidiary of PTT, to jointly invest with EGAT to operate the LNG Receiving Terminal 2 (LMPT2), located at Ban Nong Fab, Map Ta Phut, Rayong. In this connection, PTTLNG incorporated a joint venture company called PE LNG Company Limited (PE LNG), which in the initial state is wholly owned by PTTLNG. Additionally, PTTLNG signed the Sale and Purchase Agreement (SPA) with EGAT on March 25, 2024. After the conditions precedent specified under the SPA are satisfied or waived (as the case may be), including the completion of relevant regulatory approvals, PTTLNG would sell 50% of its shares in PE LNG to EGAT. The sale price is in accordance with the calculation method specified under the SPA of which the highest value is up to THB 16,350 million. The share sale purchase transaction was completed on April 30, 2024.

August 8, 2024:

LOTUS (PTT's subsidiary) acquired all ordinary shares of Teva Pharma (Thailand) Company Limited (TEVA THAILAND). On August 1, 2024, the share transfer and the payment were completed with the total purchase value of NTD 1,500 million or approximately THB 1,650 million. After the acquisition, LOTUS holds 100% shares of the registered capital in TEVA THAILAND. This investment will enable LOTUS to expand more portfolio and distribution channels in ophthalmology and respiratory into hospitals and retail pharmacies in Thailand.

September

September 23, 2024:

PTT issued the unsubordinated and unsecured debenture No. 1/2024 for the total amount of THB 500 million with a 1-year tenor and 2.38% coupon rate to the specific institutional investors of not more than 10 persons. This issuance was via Blockchain debenture through the Q-Money Wallet by KASIKORNBANK Public Company Limited. The system enables the Real-time payment and settlement of interest and principal.

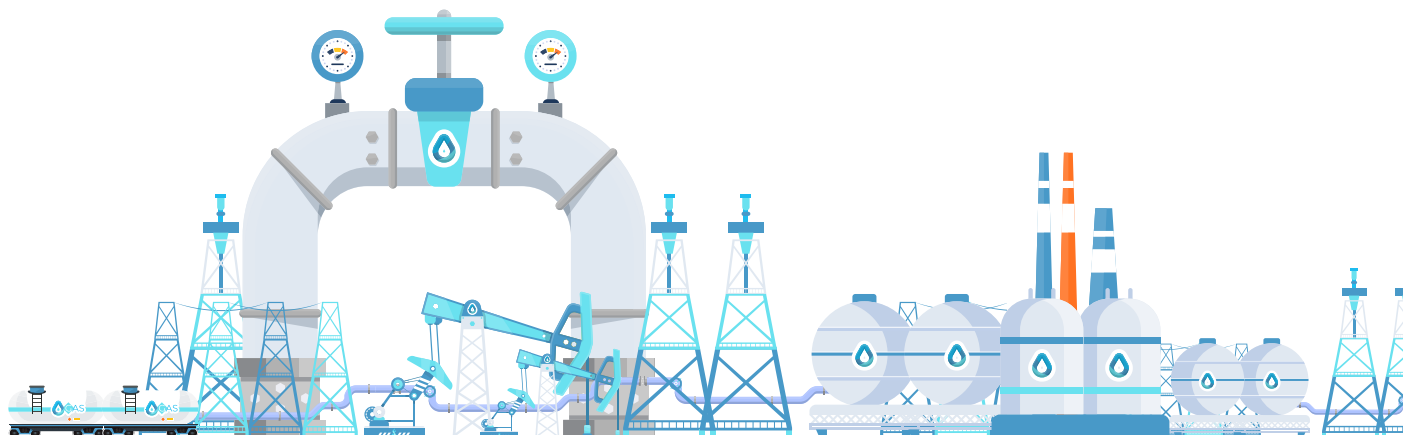
September 30, 2024:

The Extraordinary General Meeting of Shareholders of PTT and TGES Optec Company Limited (OPTEC) approved the dissolution of OPTEC, a subsidiary in which PTT holds 51% through SMH (a wholly-owned subsidiary of PTT) together with Tokyo Gas Engineering Solutions Corporation (TGES) (a wholly-owned subsidiary of Tokyo Gas Company Limited) that holds 49%. The registration of dissolution was completed on September 30, 2024.

December

December 19, 2024:

PTT's Board of Directors approved the five-year (Year 2025 - 2029) investment plan of PTT and its wholly owned subsidiaries in an aggregate amount of THB 54,463 million. PTT has invested in the core business to ensure national energy security while driving sustainable growth, which includes the investment in Gas, Transmission Pipeline, International Trading, and Downstream businesses that account for 64% of PTT's total five-year investment plan. Additionally, PTT continues to explore and seek opportunities for future investment to strengthen and enhance competitiveness in accordance with PTT Group's vision and strategies.



The Milestones of the past three years of each of PTT Group's flagship companies listed on SET were disclosed on the website; the details are as follows:



PTT Exploration
and Production Plc.
(PTTEP)



PTT Global
Chemical Plc.
(GC)



Thai Oil Plc.
(TOP)



IRPC Plc.
(IRPC)



PTT Oil
and Retail
Business Plc.
(OR)



Global Power
Synergy Plc.
(GPSC)



1.1.3 Use of Proceeds

Details of the use of proceeds as of December 31, 2024 are as follows:

Domestic, Unsecured, and Unsubordinated Bonds (Enforced under Thai Laws)

PTT utilized the funds derived from the issuance and offer of Thai Baht Bond consisting of PTTC254A, PTTC255A, PTTC257A, PTTC259A, PTTC268A, PTTC277A, PTTC270A, PTTC288A, PTTC295A, PTTC307A, PTTC318A, PTTC344A, PTTC357A, PTTC457A and PTTC10DA, fulfilling completely the objectives as stated in the Registration Statement.

Foreign, Unsecured, and Unsubordinated Bonds (Enforced under New York Laws)

PTT utilized the funds derived from the offer of USD bond of PTT and PTT Treasury Center Co., Ltd. (PTT TCC) with PTT as guarantor consisting of USD Bond 2005, USD Bond 2012, USD Bond 2019, and USD Bond 2020, fulfilling the objectives completely as stated in the Registration Statement.

1.1.4 Obligations Pledged by the Company in the Registration Statement

Domestic Bonds and Foreign Bonds (Unsecured, Unsubordinated)

PTT has no financial obligation per each tranche of bond as stated in the Registration Statement and other documents pertaining to each tranche. Conditions for the exercising of Put and Call Options of each tranche are disclosed in 1.5 Issuance of Other Securities (1.5.2 Debt Securities).

1.2 Nature of Business

1.2.1 Revenue Structure

| Product/ Service | Operated by | % Share- holding | 2022 (Audited) | | 2023 (Audited) ^{1/} | | 2024 (Audited) | |
|--|--|------------------------|----------------|----|------------------------------|----|----------------|----|
| | | | THB million | % | THB million | % | THB million | % |
| 1. Gas products | PTT Plc. | | 505,520 | 15 | 458,955 | 15 | 402,486 | 13 |
| | PTT Exploration and Production Plc. (PTTEP) | 63.79 | 42,581 | 1 | 38,429 | 1 | 40,926 | 1 |
| | PTT Natural Gas Distribution Co., Ltd. (PTTNGD) | 58.00 | 16,600 | 1 | 14,642 | - | 14,181 | - |
| | Global Power Synergy Plc. (GPSC) | 47.27 | 75 | - | 81 | - | 77 | - |
| | PTT Oil and Retail Business Plc. (OR) | 75.00 | 37,425 | 1 | 41,604 | 1 | 42,746 | 2 |
| | PTT International Trading London Ltd. (PTTT LDN) | 100.00 | - | - | 2,174 | - | - | - |
| Total revenue from gas products | | | 602,201 | 18 | 555,885 | 17 | 500,416 | 16 |
| 2. Oil products | PTT Plc. | | 338,011 | 10 | 274,647 | 9 | 286,489 | 9 |
| | PTT Exploration and Production Plc. (PTTEP) | 63.79 | 35,557 | 1 | 33,360 | 1 | 30,839 | 1 |
| | PTT International Trading Pte. Ltd. (PTTT) | 100.00 | 414,650 | 12 | 525,469 | 16 | 558,123 | 18 |
| | PTT International Trading London Ltd. (PTTT LDN) | 100.00 | 68,138 | 2 | 68,791 | 2 | 61,124 | 2 |
| | PTT Global Chemical Plc. (GC) | 45.18 | 36,976 | 1 | 24,007 | 1 | 19,631 | 1 |
| | Thai Oil Plc. (TOP) | 45.03 | 212,352 | 7 | 200,935 | 6 | 213,591 | 7 |
| | IRPC Plc. (IRPC) | 45.05 | 141,610 | 4 | 147,576 | 5 | 168,721 | 5 |
| | PTT Oil and Retail Business Plc. (OR) | 75.00 | 696,875 | 21 | 653,045 | 20 | 605,977 | 19 |
| | PTT International Trading USA Inc. (PTTT USA) | 100.00 | 51,034 | 2 | 27,308 | 1 | 6,269 | - |
| | Total revenue from oil products | | 1,995,203 | 60 | 1,955,138 | 61 | 1,950,764 | 62 |
| 3. Petrochemical products | PTT Plc. | | 4,558 | - | 14,679 | - | 9,607 | - |
| | PTT Global Chemical Plc. (GC) | 45.18 | 384,204 | 11 | 318,805 | 10 | 323,833 | 10 |
| | Thai Oil Plc. (TOP) | 45.03 | 38,193 | 1 | 32,966 | 1 | 31,428 | 1 |
| | IRPC Plc. (IRPC) | 45.05 | 60,568 | 2 | 45,997 | 1 | 48,878 | 2 |
| | PTT International Trading Pte. Ltd. (PTTT) | 100.00 | 83,768 | 3 | 77,612 | 3 | 74,352 | 3 |
| | PTT Oil and Retail Business Plc. (OR) | 75.00 | 608 | - | 499 | - | 382 | - |
| | PTT International Trading USA Inc. (PTTT USA) | 100.00 | 3,231 | - | 2,092 | - | 8,358 | - |
| | PTT Global Management Co., Ltd. (PTTGM) | 100.00 | 3 | - | 8 | - | - | - |
| Total revenue from petrochemical products | | | 575,133 | 17 | 492,658 | 15 | 496,838 | 16 |
| 4. Mining products | PTT Global Management Co., Ltd. (PTTGM) | 100.00 | 31,331 | 1 | 1,883 | - | - | - |
| Total revenue from mining products | | | 31,331 | 1 | 1,883 | - | - | - |
| 5. Pharmaceutical products | PTT Global Management Co., Ltd. (PTTGM) | 100.00 | 14,411 | 1 | 21,541 | 1 | 20,290 | 1 |
| Total revenue from pharmaceutical products | | | 14,411 | 1 | 21,541 | 1 | 20,290 | 1 |
| 6. Public utilities | Thai Oil Plc. (TOP) | 45.03 | 7,519 | - | 5,516 | - | 4,482 | - |
| | IRPC Plc. (IRPC) | 45.05 | 4,003 | - | 4,201 | - | 4,147 | - |
| | Global Power Synergy Plc. (GPSC) | 47.27 | 100,939 | 3 | 68,347 | 3 | 68,974 | 2 |
| | PTT Tank Terminal Co., Ltd. (PTT TANK) | 100.00 | 59 | - | 61 | - | 51 | - |
| | PTT Global Management Co., Ltd. (PTTGM) | 100.00 | 739 | - | 761 | - | 566 | - |
| Total revenue from utilities products | | | 113,259 | 3 | 78,886 | 3 | 78,220 | 2 |

| Product/ Service | Operated by | % Share- holding | 2022 (Audited) | | 2023 (Audited) ^{1/} | | 2024 (Audited) | |
|---|---|------------------------|------------------|------------|------------------------------|------------|------------------|------------|
| | | | THB million | % | THB million | % | THB million | % |
| 7. Non-oil business | PTT Plc. | | 20 | - | 15 | - | 2 | - |
| | PTT Oil and Retail Business Plc. (OR) | 75.00 | 21,606 | 1 | 23,490 | 1 | 24,778 | 1 |
| Total revenue from non-oil business | | | 21,626 | 1 | 23,505 | 1 | 24,780 | 1 |
| 8. Revenue from services | PTT Plc. | | 314 | - | 257 | - | 1,537 | - |
| | PTT Exploration and Production Plc. (PTTEP) | 63.79 | 5,331 | - | 4,451 | - | 5,084 | - |
| | PTT Global Chemical Plc. (GC) | 45.18 | 4,968 | - | 4,346 | - | 3,925 | - |
| | IRPC Plc. (IRPC) | 45.05 | 487 | - | 545 | - | 511 | - |
| | PTT Oil and Retail Business Plc. (OR) | 75.00 | 472 | - | 1,346 | - | 500 | - |
| | PTT Digital Solutions Co., Ltd. (PTT DIGITAL) | 20.00 | 176 | - | 327 | - | 249 | - |
| | PTT Tank Terminal Co., Ltd. (PTT TANK) | 100.00 | 684 | - | 705 | - | 695 | - |
| | PTT Energy Solutions Co., Ltd. (PTTES) | 40.00 | 3 | - | - | - | - | - |
| | Energy Complex Co., Ltd. (EnCo) | 50.00 | 297 | - | 310 | - | 326 | - |
| | Business Services Alliance Co., Ltd. (BSA ^{2/}) | 25.00 | 240 | - | 183 | - | 358 | - |
| | Global Power Synergy Plc. (GPSC) | 47.27 | 63 | - | 435 | - | 385 | - |
| | PTT LNG Co., Ltd. (PTTLNG) | 100.00 | 314 | - | 451 | - | 808 | - |
| | PTT Natural Gas Distribution Co., Ltd. (PTTNGD) | 58.00 | 13 | - | 14 | - | 8 | - |
| | PTT Global Management Co., Ltd. (PTTGM) | 100.00 | 118 | - | 259 | - | 612 | - |
| | PTT International Trading USA Inc. (PTTT USA) | 100.00 | 5 | - | - | - | 6 | - |
| Total revenue from services | | | 13,485 | - | 13,629 | - | 15,004 | - |
| 9. Other products | PTT Plc. | | - | - | 1 | - | - | - |
| | Global Power Synergy Plc. (GPSC) | 47.27 | - | - | - | - | 9 | - |
| | PTT International Trading Pte. Ltd. (PTTT) | 100.00 | 324 | - | 595 | - | 589 | - |
| | IRPC Plc. (IRPC) | 45.05 | 98 | - | 97 | - | 96 | - |
| | PTT Oil and Retail Business Plc. (OR) | 75.00 | - | - | - | - | 435 | - |
| | PTT Global Management Co., Ltd. (PTTGM) | 100.00 | 123 | - | 501 | - | 2,517 | - |
| | PTT International Trading London Ltd. (PTTT LDN) | 100.00 | 2 | - | - | - | 488 | - |
| | PTT International Trading USA Inc. (PTTT USA) | 100.00 | - | - | 558 | - | 0 | - |
| | PTT LNG Co., Ltd. (PTTLNG) | 100.00 | 7 | - | 7 | - | 7 | - |
| Total revenue from other products | | | 554 | - | 1,759 | - | 4,141 | - |
| Total revenue from products and services | | | 3,367,203 | 101 | 3,144,884 | 98 | 3,090,453 | 98 |
| 10. Others | | | | | | | | |
| 10.1 Other revenue ^{3/} | | | (50,494) | (1) | 25,441 | 1 | 40,992 | 1 |
| 10.2 Gain (loss) from foreign exchange | | | 5,552 | - | 22,285 | 1 | 15,235 | 1 |
| Total other revenue | | | (44,942) | (1) | 47,726 | 2 | 56,227 | 2 |
| 11. Share of profit from investment in joint ventures and associates | | | 5,849 | - | 3,013 | - | (6,668) | - |
| Grand total | | | 3,328,110 | 100 | 3,195,623 | 100 | 3,140,012 | 100 |

Remarks:

Revenue of PTT and subsidiaries represents net revenue derived from external parties.

1/ Adjustments from the previous reporting period due to item reclassification as disclosed in the notes to the financial statements.

2/ PTT holds 100.00% of BSA's ordinary shares. Thus, PTT's ownership interest in BSA is 100.00%.

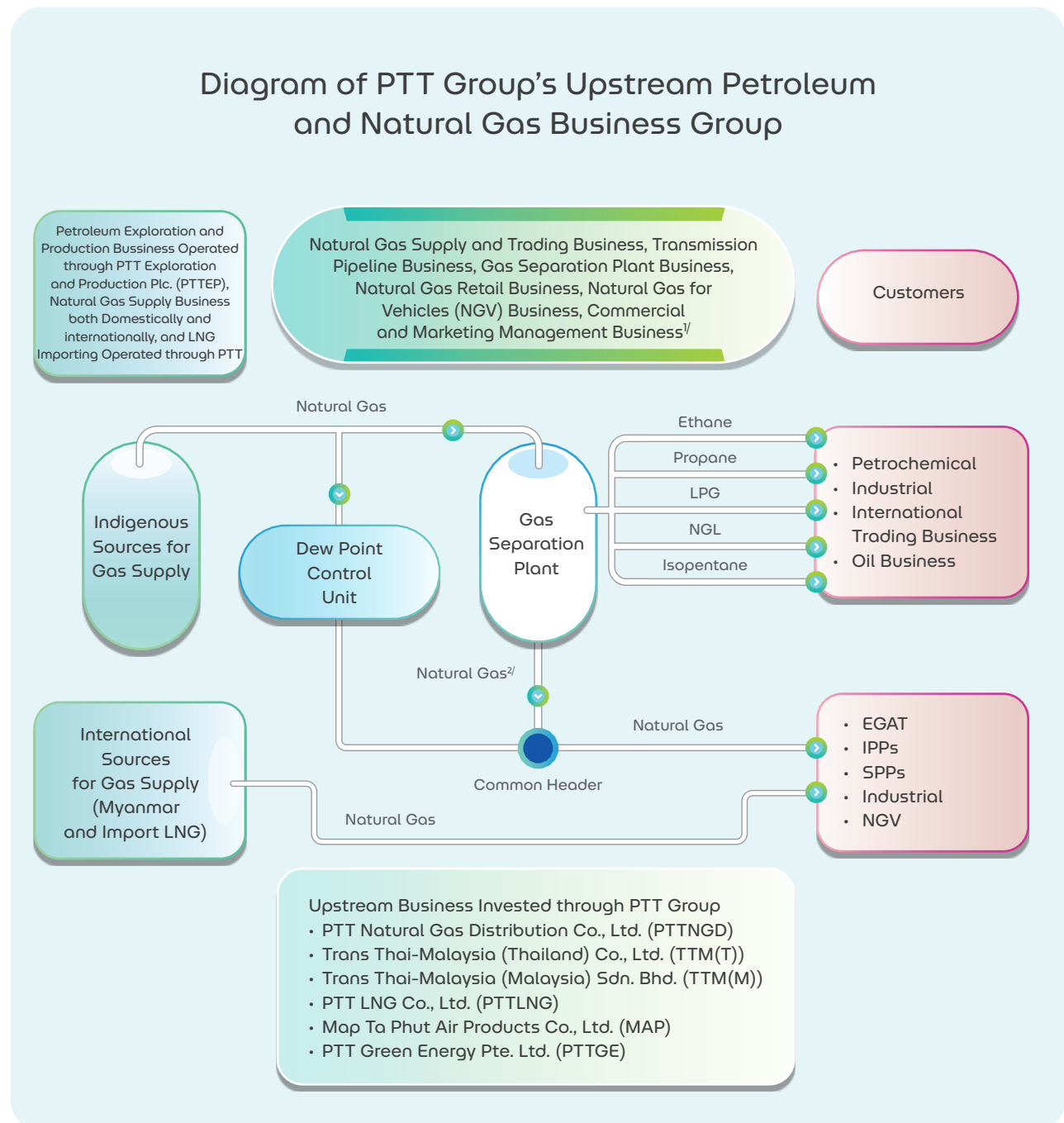
3/ Other revenue includes gain (loss) on derivatives.

1.2.2 Nature of Business, Marketing, and Competition

Upstream Petroleum and Natural Gas Business Group

Currently, PTT and PTT's affiliates under the upstream petroleum and natural gas business are the only fully integrated natural gas operator in Thailand, which covers exploration and production, natural gas supply, Liquefied Natural Gas (LNG) import and regasification, gas pipeline transmission, gas separation, distribution, including investment in natural gas-related business in Thailand and overseas, and business development.

Diagram of PTT Group's Upstream Petroleum and Natural Gas Business Group



Remarks:

1/ Operated by PTT.

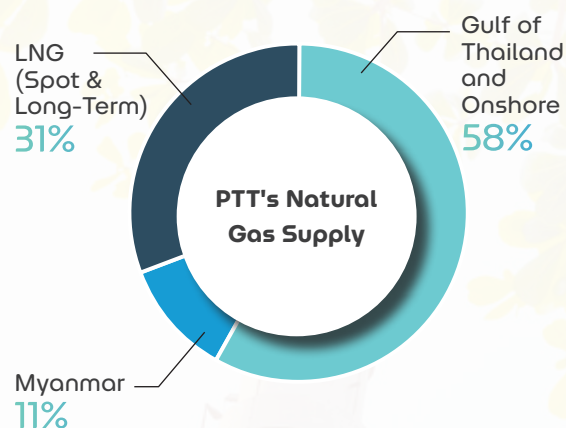
2/ Refers to a portion of natural gas which is left after other products have been separated. It mainly consists of methane.

Upstream Petroleum and Natural Gas Business

PTTEP has petroleum exploration
and production projects
both in Thailand and overseas

more than 50 projects
in 12 countries

PTT's Natural Gas Supply



Currently, Gas Separation Plant has
a maximum processing capacity at



2,660
MMSCFD

Petroleum Exploration and Production

PTT conducts petroleum exploration and production business through PTT Exploration and Production Plc. (PTTEP), which is PTT's Exploration and Production Flagship Company. PTTEP operates the petroleum exploration and production business both domestically and internationally, including joint investments in intermediate petroleum businesses and gas pipeline businesses abroad, to prospect petroleum sources of crude oil and natural gas to ensure Thailand's energy security and sell petroleum outputs from domestic and nearby regional projects, mostly natural gas, primarily to the domestic market. As of December 31, 2024, PTTEP had more than 50 petroleum exploration and production projects in 12 countries, both in Thailand and overseas.

Marketing of Petroleum Exploration and Production

PTTEP is engaged in petroleum exploration and production on both domestic and international scales, with markets supporting both operations. In 2024, the domestic-to-international sales volume was 68 : 32. Petroleum products from Thai and Myanmar projects were mostly marketed in Thailand, with PTT serving as the primary buyer. PTT would process and produce these petroleum products to sell as fuel and feedstocks for power generation, petrochemical, transportation, industrial sectors, and household use.

Competition of Petroleum Exploration and Production

The competition in Thailand's petroleum exploration and production industry is not intense because demand exceeds

supply and starting a business in the field requires advanced technology and high investment. In 2024, PTTEP's petroleum production from domestic sources accounted for 73% of domestic production.

Gas Business Unit

The Gas Business unit is involved in procurement, wholesaling, and retailing, distribution of products from gas separation plants (GSP), as well as investment in businesses that utilize and creates value for natural gas through PTT's affiliates. The gas procurement includes both domestic sourcing and international sourcing from neighboring countries, as well as LNG imports to ensure adequate supply for Thailand's ever-increasing demand. In terms of distribution, it serves the power generators including EGAT, Independent Power Producer (IPP), and Small Power Producer (SPP). Industrial customers are served by a distribution pipeline that has been invested in by PTT. The distribution of natural gas as an alternative to gasoline and diesel through NGV service stations is being incentivized in the transportation sector. PTT invested in gas separation plants to add value to Gulf of Thailand gas for outputs to feed Thailand's petrochemical industry in support of other sectors thereby contributing to national economic growth. LPG is also distributed as a fuel to the residential, industrial, and transportation sectors.

In addition, the Gas Business unit operates other related businesses, including pipeline asset management, gas logistics through transmission pipelines consisting of offshore pipeline system connected to production platforms in the Gulf of Thailand, the onshore eastern pipeline system that receives gas from the Gulf of Thailand, and LNG Receiving Terminal, together with onshore western pipeline system that receives gas from Yadana, Yetagun, and Zawtika in Myanmar along the Thailand-Myanmar border to feed natural gas to power producers, gas separation plants, NGVs, and industries.



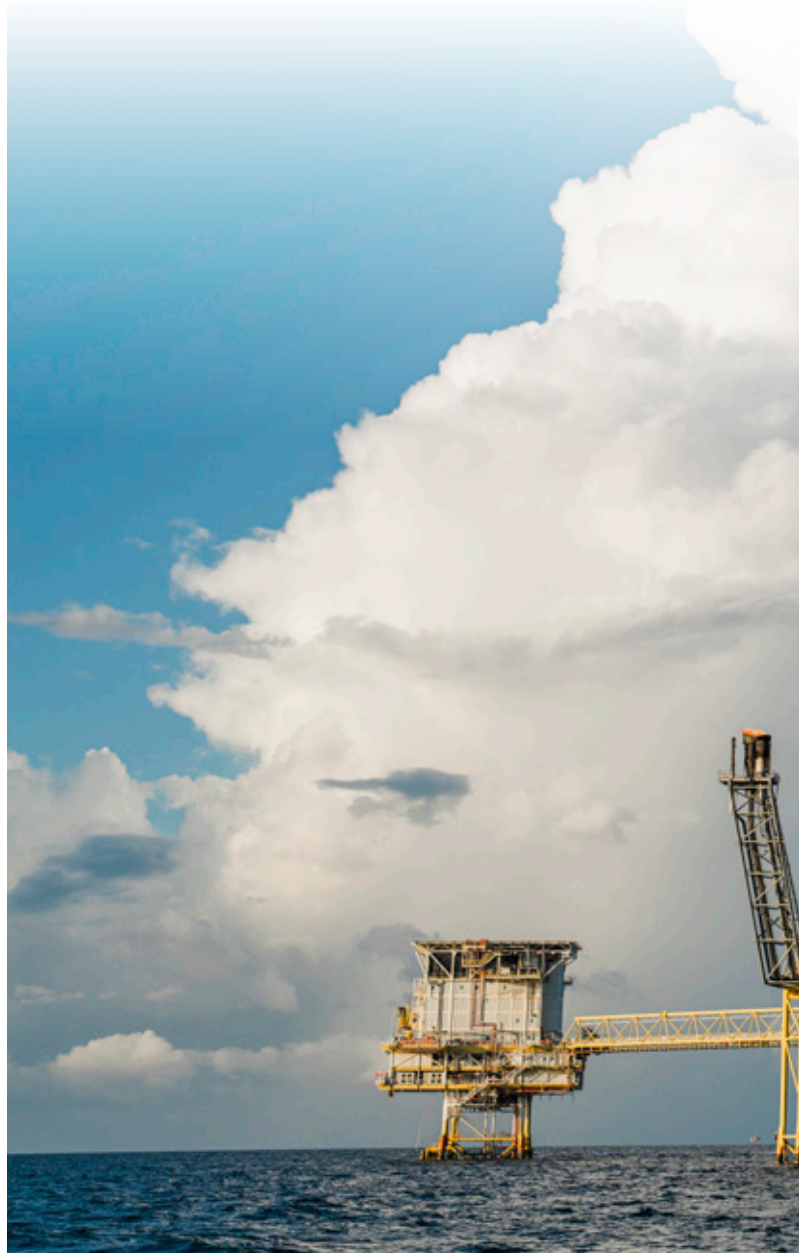
The pricing structure for the sale of natural gas in both wholesale and retail sectors is regulated by the ERC under the Energy Business Act B.E. 2550. PTT has divided its natural gas business into 5 sub-business units:

- (1) Natural Gas Supply and Trading Business: sources natural gas domestically and internationally, including LNG supply and regasification for distribution to customers, with power producers being the primary users.
- (2) Gas Separation Plant Business: operates and develops gas separation plant business. There are currently six units of gas separation plants.
- (3) Natural Gas Retail Business: responsible for distributing natural gas to industrial customers via distribution pipelines and off-pipe transportation, as well as offering comprehensive energy solution provider services.
- (4) Natural Gas for Vehicles (NGV) Business: responsible for the management of NGV service stations and promoting the use of natural gas in the transportation sector as it is cheaper than oil and more environmentally friendly, helping to reduce fuel costs for consumers and alleviate the air pollution problem which is intensifying.

In addition, Phase 2 of the state's gas liberalization policy to promote competition in the natural gas business results in emerging business competitors from existing clients, particularly when LNG price is low which incentivizes the entry of new shippers. The new shipper could seek promising opportunities for the LNG market expansion into the growing international market, especially in the Asia-Pacific. With these developments, PTT formed a fifth sub-business unit:

- (5) Commercial and Marketing Management Business: in charge of commercial supply and distribution of LNG domestically and internationally, and of natural gas-related products and services.

In 2024, PTT's revenue from natural gas sales totals THB 500,416 million, decreased by THB 55,469 million or 10.0% from 2023 sales at THB 555,885 million (More details of PTT's revenue structure and subsidiaries per product specialization are outlined in 1.2.1.)



Natural Gas Supply and Trading Business

Natural Gas Supply

PTT's natural gas procurement is under the responsibility of the Natural Gas Supply and Trading Business. The majority of natural gas procurement is from domestic sources with account around 58%, while the rest is from Myanmar and LNG imports.

Currently, PTT is a natural gas buyer under 15 existing natural gas sales contracts from the sellers. Of the total, 12 contracts are from domestic natural gas sources namely: Pailin, C5 & G4/48, B8/32, Arthit, G12/48, MTJDA Block A-18, MTJDA Block B-17-01, G1/61, G2/61, Nam Phong, Sinphuhorm, Sirikit (Lankrabue Area), and 3 contracts with producers outside Thailand namely: Yadana, Yetagun, and Zawtika in Myanmar.



PTTEP ED, a PTTEP subsidiary, owns exploration and production rights in Blocks G1/61 (Erawan) and G2/61 (Bongkot) and has signed a Production Sharing Contract (PSC) with the public sector since February 2019, with a minimum contractual capacity of 800 MMSCFD and 700 MMSCFD, respectively. PTT and PTTEP ED agreed to a natural gas purchase contract for Block G1/61 to replace the UNOCAL 123 (Erawan) contract, which expired in 2022, and a contract for Block G2/61 to replace the North Bongkot and South Bongkot contracts, which expired in 2022 and 2023, respectively. PTTEP ED and PTT signed their natural gas purchase agreements on April 20, 2022.

At the same time, in order to manage contractual transition risks that may impact production continuity, PTT has negotiated additional supply as a backup from the Gulf of Thailand, and LNG to ensure adequate supply to meet customers' demand, without affecting power generation and energy security.

PTT has procured LNG to enhance the gas supply security and meet the continuously increasing demand. Currently, there are 5 long-term LNG supply contracts, totaling 6.2 million tons per year. These include contracts with Qatar Liquefied Gas Co., Ltd. for 2 million tons per year, Shell Eastern Trading (Pte) Ltd. for 1 million tons per year, BP Singapore Pte. Ltd. for 1 million tons per year, Petronas LNG Ltd. for 1.2 million tons per year, and another 1 million tons per year from PTTGL will be started receiving gas in 2026.

Given the current situation in the country where the demand for LNG has significantly increased, to ensure that Thailand has an adequate supply of LNG at a reasonable price, PTT will continuously seek opportunities to negotiate with LNG sellers to procure LNG in both short-term and long-term to further strengthen the country's energy security.

In any case, a large chunk of PTT's gas supply originates from concessions/ production blocks in-country shown in the volume and proportion of PTT's gas supply 2022 - 2024 as follows:

| Sources/ Concession Block | 2022 | | 2023 | | 2024 | |
|--------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | MMSCFD | % | MMSCFD | % | MMSCFD | % |
| Domestic | | | | | | |
| - Pailin | 399 | 9.5 | 396 | 8.9 | 386 | 8.9 |
| - Bongkot (North/South) | 663 | 15.9 | 123 | 2.8 | - | - |
| - G12/48 | - | - | 5 | 0.1 | 7 | 0.2 |
| - UNOCAL 1, 2, 3 (Erawan) | 136 | 3.3 | - | - | - | - |
| - B8/32 | 51 | 1.2 | 24 | 0.5 | 57 | 1.3 |
| - G1/61 | 138 | 3.3 | 277 | 6.3 | 643 | 14.7 |
| - G2/61 | 134 | 3.2 | 665 | 15.0 | 704 | 16.1 |
| - C5&G4/48 | 4 | 0.1 | 4 | 0.1 | 2 | 0.1 |
| - Arthit | 288 | 6.9 | 319 | 7.2 | 289 | 6.6 |
| - MTJDA | 413 | 9.9 | 408 | 9.2 | 341 | 7.8 |
| - Nam Phong/ Sinphuhorm | 103 | 2.5 | 96 | 2.2 | 109 | 2.5 |
| - Sirikit | 7 | 0.2 | 3 | 0.1 | 3 | 0.1 |
| Total in Thailand | 2,336 | 56.0 | 2,320 | 52.4 | 2,541 | 58.3 |
| Overseas | | | | | | |
| - Yadana | 428 | 10.3 | 287 | 6.5 | 247 | 5.7 |
| - Yetagun | 27 | 0.6 | 32 | 0.7 | 28 | 0.6 |
| - Zawtika | 229 | 5.5 | 237 | 5.4 | 220 | 5.0 |
| - LNG | 1,153 | 27.6 | 1,552 | 35.0 | 1,326 | 30.4 |
| Total overseas | 1,837 | 44.0 | 2,108 | 47.6 | 1,821 | 41.7 |
| Total | 4,173 | 100.0 | 4,428 | 100.0 | 4,362 | 100.0 |
| Average gas buying price (THB/MMBTU) | 391.2 | | 332.3 | | 285.4 | |

Remark:

Natural gas is calculated at a heat rate of 1,000 BTU per cubic foot.

Key Terms in Gas Supply Contract

Gas supply contracts between PTT and sellers typically cover a duration of 25 - 30 years. The parties agree to buy and sell natural gas at the delivery point specified in the contract, such as the wellhead platform or other agreed delivery points, as stipulated in the contract regarding quantity, quality, and pressure as agreed upon.

The seller is duty-bound to prepare Contractual Delivery Capacity (CDC) for PTT to dispatch in the range of 105 - 125% of Daily Contract Quantity (DCQ) depending on the contract, whereas PTT must take the Net Annual Contract Quantity (Net ACQ). PTT also has the right to buy more than the CDC contracted volume provided if the seller is ready to deliver.

However, if in any contractual year, PTT is unable to take the Net ACQ according to the contract, the Take-or-Pay obligation is applied with the right to receive the paid commodity rolled over to subsequent years in the contract without the additional cost (make-up gas). In the year when PTT wishes to exercise the right to take the make-up gas volume, this can be executed only after PTT completes its Net ACQ obligation of the year. In reverse, should PTT buy more than Net ACQ in any contract year, PTT can carry forward the gas surplus to be counted in the CDC portion in subsequent years not exceeding 5 - 20% depending on the contract. The right to exercise those carry forward gas will expire within 5 years.

In the event of a shortfall where the seller is unable to deliver PTT dispatch in full, PTT shall pay for the actual quantity received, and be entitled to a 15 - 25% penalty for the shortfall amount in that month, or subsequent month. Upon the end of each contract year, PTT can use the shortfall to reduce the Annual Contracted Quantity (ACQ).

In terms of pricing, the contract shall establish an Initial Base Price as a fixed price, along with a formula for determining the highest and lowest prices to protect both the buyer and the seller. The gas price formula includes the following factors: High Sulfur Fuel Oil price in the Singapore market, Dubai price, exchange rate, and key economic indicators such as Thailand's wholesale price index, and U.S. oil and gas producers' index, etc. The time frame for pricing adjustments varies by contract, ranging from every 12 months, 6 months, 3 months, or monthly. This pricing will be passed on to customers, mainly the power sector which is the core customers that purchase gas from PTT, according to the pricing formula in the NG contract, resulting in relatively low risks of pricing volatility for PTT.

All gas supply contracts have a force majeure clause, which can be invoked by either PTT or the seller as a reason for failing to meet the obligation. The clause covers acts of gods faced by the contracting party. Some contracts specify cases in which PTT cannot dispatch due to force majeure on parts of PTT clients. This can only be invoked by PTT on the single condition that PTT must decrease dispatch across the Board among sellers involved proportionate to the amount decreased.

Gas supply contracts end in the event of one of the following:

- (1) Expiry date as stated in the contract, or
- (2) Expiry of concession, or production sharing contract (PSC), or
- (3) The natural gas reserves in that source are depleted.

Natural Gas Trading

PTT markets most of its natural gas supply to power producers: EGAT, IPPs, and SPPs, through the Natural Gas Transmission System.

Gas supply volume to different segments (including that used in PTT's gas separation plants) during 2022 - 2024 is detailed as follows:

| Customer | 2022 | | 2023 | | 2024 | |
|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | MMSCFD | % | MMSCFD | % | MMSCFD | % |
| 1. EGAT | 688 | 16.4 | 793 | 17.9 | 664 | 15.1 |
| 2. IPPs | 547 | 13.1 | 753 | 16.9 | 792 | 18.0 |
| 3. SPPs | 1,218 | 29.1 | 1,197 | 26.9 | 1,195 | 27.1 |
| 4. Industry ^{1/} | 957 | 22.8 | 922 | 20.7 | 920 | 20.9 |
| 5. Gas Separation Plant | 780 | 18.6 | 783 | 17.6 | 834 | 18.9 |
| Total | 4,190 | 100.0 | 4,448 | 100.0 | 4,405 | 100.0 |

Source: PTT

Remarks:

Natural Gas volume is calculated at a heat value of 1,000 BTU per 1 cubic foot and based on calendar days.

1/ Including natural gas sold to customers holding licenses of natural gas retail business through the distribution system for sale to the industrial sector and NGV.

Generally, the natural gas pricing structure for the power producer segment consists of 2 components: gas cost and pipeline tariffs, elaborated herewith.

(1) Gas Cost

During January - February 2024, the natural gas price consists of the Pool Gas price, which is the sum of the average gas price PTT buys from the sellers and compensation for gas supply and trading. Starting from March 2024, the price of natural gas consists of the Pool Gas price calculated from the sum of the average gas price that all Shippers purchase from gas sellers, along with the compensation for gas supply and trading.

The Cabinet meeting on December 19, 2023 approved the natural gas management guidelines proposed by the Ministry of Energy by adjusting the natural gas price entering and exiting the gas separation plant to the Pool Gas price, which is the combined price of natural gas from other sources, except for that used in the production of LPG as fuel, which uses the price equal to that from the Gulf of Thailand. This is effective from January 2024 until the criteria for determining the Gulf Gas price structure entering and exiting the gas separation plant, according to the resolution of the NEPC on November 25, 2022, is completed and approved by the NEPC. The Ministry of Energy by the Energy Policy and Planning Office (EPPO) is undertaking a study on the optimal cost structure for the entire value chain to ensure fairness to all parties and maximum benefits to the country.

The compensation for gas supply and trading which covers expenses and risks in sourcing natural gas and marketing varies in rates depending on the type of clients. From January to February 2024, the supply and trading remuneration for EGAT and IPPs equals 1.75% of average gas price that PTT buys from sellers. The rate charged on EGAT and IPPs is capped at THB 2.1525 per MMBTU. For SPPs whose volume is lower than the first two groups, PTT charges 9.33% of the average gas cost that PTT buys from sellers. Nonetheless, the rate charged to SPP must not exceed THB 11.4759 per MMBTU. However, since March 2024, the supply and trading remuneration is at THB 4.9400 per MMBTU for EGAT, IPPs, and Electricity and District Cooling System and Power Plant Co., Ltd. (DCAP) and at THB 5.4660 per MMBTU for SPPs which applied according to the ERC resolution on April 10, 2024.

(2) Pipeline Tariffs

Pipeline tariffs consist of two components. The first part is the fixed cost (Demand Charge: Td), with a 5-year regulatory cycle, which is calculated based on the net present value (NPV) of the allowed revenue for the next regulatory cycle divided by the NPV of the capacity reserved for the next regulatory cycle. The allowed revenue reflects the investment, expenses, and return on investment in the form of the weighted average cost of capital (WACC) as approved by the ERC. The second part is the variable cost (Commodity Charge: Tc), which is calculated based on the expenses incurred in providing the variable service according to the volume of natural gas transmitted through the gas pipeline system.

For the year 2024, the Demand Charge (Td) of the pipeline tariffs for natural gas transportation via pipeline was calculated, according to the criteria for determining the natural gas tariff for licensees transporting natural gas by pipeline through the natural gas transmission system B.E. 2564, has remained the same for the 2022 - 2026 regulatory cycle. As for the Commodity Charge (Tc), PTT proposed the 2023's pipeline tariff to the ERC for approval which effective from October 1, 2023 to December 31, 2024. In 2024, the ERC has considered and resolved to approve the new Tc rate, effective from January 1, 2025 to December 31, 2025 or until the tariff adjustment is approved by the ERC. The details are as follows:

Unit: THB/MMBTU

| Zone | Pipeline | Demand Charge | Commodity Charge | |
|------|---------------------------------|---------------|--|---|
| | | | From October 1, 2023 - December 31, 2024 | From January 1 - December 31, 2025 or until the tariff adjustment is approved by the ERC |
| 1 | Offshore pipeline ^{1/} | 12.8869 | 0.2207 | 0.1996 |
| 2 | Offshore pipeline at Khanom | 2.1135 | 0.0248 | 0.0238 |
| 3 | Onshore pipeline | 11.6894 | 1.9304 | 1.4772 |
| 4 | Onshore pipeline at Chana | 1.0061 | 0.0806 | 0.1224 |
| 5 | Onshore pipeline at Nam Phong | 0.2693 | 0.0000 | 0.0000 |

Remark:

1/ Including offshore natural gas pipeline of PTT and Trans Thai-Malaysia (Thailand) Company Limited (TTM(T)).

The Demand Charge is subject to periodic adjustment, through a review of constant costs over a 5-year cycle or ERC-approved timing, or in the event of significant changes in tariffs to maintain the approved return on equity investment. The Commodity Charge is reviewed annually by defining indexes to adjust variable costs to reflect current circumstances and operational efficiency.

Gas Separation Business

Besides selling natural gas directly to customers, PTT feeds parts of the supply to its gas separation plants to add value and optimize the feed through the extraction of key hydrocarbon components. Products from PTT's gas separation plants include ethane, propane, liquefied petroleum gas, natural gasoline, and isopentane. Another by-product of the process is carbon dioxide which can be utilized in various industries. Products from gas separation plants and applications are listed in this chart.

| Product Application | Product Application |
|-------------------------------|---|
| Ethane | Raw material in the upstream petrochemical industry |
| Propane | Raw material in the upstream petrochemical industry |
| Liquefied Petroleum Gas (LPG) | Fuel for household, vehicle, industrial factories, and raw materials in upstream petrochemical industry |
| Natural Gasoline | Feed for oil refinery as refined oil products and raw material in the upstream petrochemical industry |
| Isopentane | Raw material in upstream petrochemical industry |

PTT is currently the major GSP operator in Thailand, with 6 GSP units. All of PTT's gas separation plants have consistently been improved and optimized. However, the quality of natural gas from the Gulf of Thailand has partially changed, resulting in a maximum processing capacity of 2,660 MMSCFD.

The production volume of GSP products from 2022 to 2024 is as follows:

| Product (Ton) | 2022 | 2023 | 2024 |
|-------------------------------|------------------|------------------|------------------|
| Ethane | 1,752,406 | 1,786,925 | 1,773,938 |
| Propane | 963,476 | 965,193 | 933,328 |
| Liquefied Petroleum Gas (LPG) | 1,912,982 | 1,952,091 | 2,222,903 |
| Natural Gasoline | 385,284 | 387,183 | 436,935 |
| Isopentane | 48,800 | 50,961 | 45,055 |
| Total | 5,062,948 | 5,142,353 | 5,412,159 |

Source: PTT

Commercial and Marketing Management

In support of the government's natural gas liberalization policy and energy reform plan to make Thailand as the Regional LNG hub, in 2021 new sub-unit on Commercial and Marketing Management was established under PTT's Natural Gas Business. This unit is responsible for conducting natural gas and product businesses in the commercial market, including sales and customer service in the commercial natural gas market, natural gas product market, and natural gas services. It also serves as the focal point for the Gas Business's international expansion, with the CLMV countries as its target market such as Cambodia, Laos, Myanmar, and Vietnam, as well as expanding into China. This international market expansion is part of PTT's proactive strategy to enter new overseas markets.

The main product sales volume under Commercial and Marketing Management is divided into two main markets: Commercial Natural Gas Market and Natural Gas Products Market. Currently, Commercial Natural Gas Market primarily sells liquefied natural gas (LNG) transportation. Natural gas products before 2021 were sold by PTT's gas separation plant business, and from 2021, natural gas product distribution is operated by Natural Gas Products Market. The sales volume by key products from 2022 to 2024 is as follows:

| Product (Ton) | 2022 | 2023 | 2024 |
|-------------------------------|------------------|------------------|------------------|
| Ethane | 1,752,287 | 1,786,823 | 1,773,799 |
| Propane | 1,139,216 | 1,028,237 | 996,633 |
| Liquefied Petroleum Gas (LPG) | 3,301,907 | 3,288,262 | 3,440,783 |
| Natural Gasoline | 504,133 | 500,264 | 571,801 |
| Isopentane | 48,803 | 50,965 | 45,056 |
| Total | 6,746,346 | 6,654,551 | 6,828,072 |

Source: PTT





The major customers of Commercial Natural Gas Market are divided into 2 main groups, consisting of: (1) the petrochemical group, including PTT Global Chemical Plc., HMC Polymers Co., Ltd., Rayong Olefins Co., Ltd., and (2) oil operator group according to Section 7 of the Fuel Oil Trade Act B.E. 2543, of which main customers include PTT Oil and Retail Business Plc. (OR), Siam Gas and Petrochemicals Plc., and Unique Gas and Petrochemicals Plc.

Pricing of products from gas separation plants to petrochemical customers complies with the formula mutually agreed upon with individual clients, mainly benchmarked against global petrochemical product prices. Natural gasoline price is benchmarked against the global naphtha price. The selling price of LPG sold domestically is determined according to government policy. Since August 2017, the EPPO has announced reference prices to regulate the LPG domestic retail price. Criteria have been changed for imported LPG price from CP price announced monthly to benchmarking against LPG Cargo with Platts' Spot Cargo data (FOB Arab Gulf) bi-weekly average instead, to make LPG cost from all supply sources comparable and competitive in a liberalization environment. For gas separation plants, currently, the Committee on Energy Policy Administration (CEPA) resolved to collect the spread into the Oil Fuel Fund in case LPG Cargo+X (import expense) is higher than LPG cost from gas separation plants and compensate if LPG Cargo+X is lower than LPG cost from GSPs.

Natural Gas Retail Business

In addition to selling most of natural gas to power producers, PTT supplies industrial customers, having invested in a distribution pipeline system connected from the main transmission pipeline system to industry customers for the purposes of production processes, cogeneration and commercial use, together with the contribution through trucking of CNG (Compressed Natural Gas) and LNG. PTT and retail clients shall enter a gas supply contract that specifies the quantity required and the agreed selling price structure, for a duration ranging from 6 months to 10 years. As of December 31, 2024, PTT is serving a total of 375 pipeline contracts together with 12 CNG and LNG contracts.

The pricing structure for industrial customers differs from that of power producers. For industry clients, the gas charge consists of 2 components: gas cost according to actual volume used per month, and management fees to ensure availability per their advance notification to PTT. Natural gas price for industrial customers is determined to be competitive with other alternatives such as fuel oil and LPG.

Natural Gas for Vehicles Business

In addition to distributing natural gas to power producers and industrial customers, PTT also distributes NGV to the transportation sector by introduced NGV as a fuel for the public bus fleet of Bangkok Metropolitan Mass Transit since 1993 and expand the NGV market to other type of vehicles in order to ease the impact from volatility of global crude oil and refined product prices in the market, reducing environmental impact, and encouraging the use of fuels produced domestically. By the end of December 2024, a total of 237,815 vehicles use NGV as fuel according to the Department of Land Transport. NGV sales in 2024 averaged 2.77 million kilograms per day. The 279 NGV service stations consist of 18 mother stations, distributing and trucking to feed 160 daughter stations outside the pipeline route and 101 conventional stations located along the pipeline route. A total of 109 stations serve Bangkok and surrounding areas while 152 stations are in the upcountry.

The NGV sale price structure consists of natural gas costs based on the actual cost price each month, operating expenses (within a radius of 50 kilometers), and transportation costs exceeding a radius of 50 kilometers as specified by the government. However, in 2024, PTT provided assistance through the benefit cards for public transport groups (taxis and public buses) totaling THB 506 million, as well as NGV price assistance for general vehicle groups, totaling THB 216 million, resulting in a total assistance value ending in December 2024 of THB 722 million.

Transmission Pipeline Business

The business unit operates service, operation, and maintenance work for transmission pipelines, and carries out legal work related to gas transmission pipelines. When the Seller delivers natural gas to PTT at the delivery point, natural gas shall be transmitted to clients via the pipeline systems which are assets of PTT's Upstream Petroleum and Natural Gas Business Group. These assets consist of offshore transmission pipelines, connected to production fields in the Gulf of Thailand and the onshore pipeline system on the east coast receiving gas from the Gulf of Thailand, and the LNG station onshore westward that receives gas from Yadana, Yetagun, and Zawtika fields in Myanmar to be distributed to power producers, GSPs, NGV and industries. Within PTT's pipeline systems, other critical components include the Dew Point Control Unit and Common Header for quality control processes for gas from various sources to yield a unified heat rate and quality across the system.

As of December 31, 2024, PTT's transmission pipeline runs a total length of 4,568 kilometers consisting of a 2,435-kilometer long onshore pipeline (inclusive of pipeline to supply independent power producers and to power plants but excluding distribution pipeline) and a 2,133-kilometer offshore pipeline.

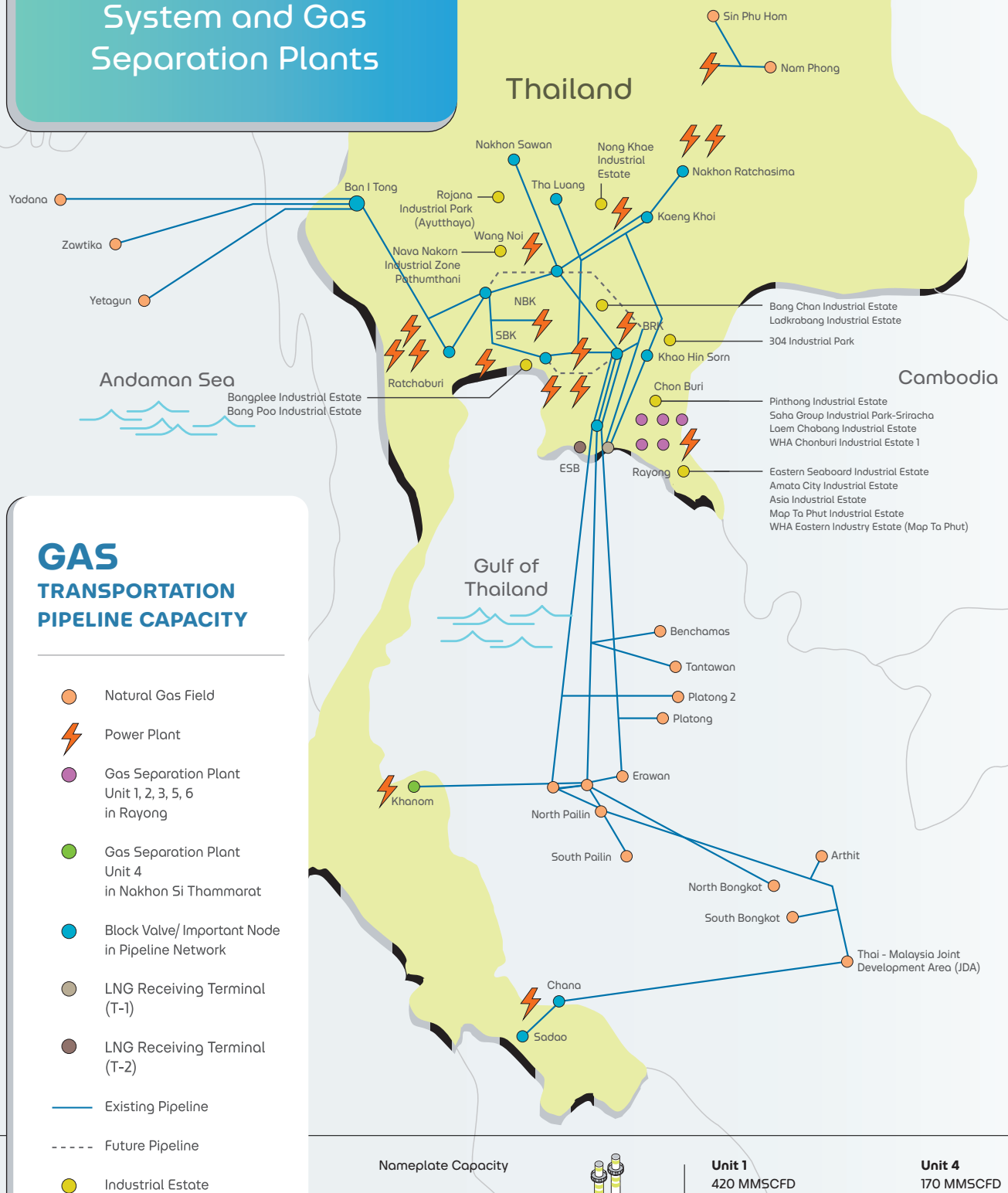
This table presents information on the Transmission Pipeline, only the key systems, as of December 31, 2024.

| Transmission Pipeline System | Length (km) | Pipe size (inch) | COD Year | Details |
|--|-------------|------------------|-------------|--|
| Offshore Pipeline System | | | | |
| Erawan production platform - Rayong Gas Separation Plant (1 st principal offshore pipeline) | 410 | 34 | 1981 | Pipeline from Erawan production platform in the Gulf of Thailand to Rayong Gas Separation Plant in Map Ta Phut, Rayong |
| Bongkot gas field - Erawan platform (2 nd parallel offshore pipeline) | 171 | 32 | 1996 | Pipeline from Bongkot platform in the Gulf of Thailand, connected to Erawan platform |
| Erawan platform - Rayong Gas Separation Plant (2 nd parallel offshore pipeline) | 413 | 36 | 1996 - 1997 | 2 nd parallel offshore pipeline from Erawan platform to Rayong Gas Separation Plant in Map Ta Phut, Rayong |
| Erawan platform - Khanom Power Plant (2 nd parallel offshore pipeline) | 161 | 24 | 1996 | Pipeline from Erawan platform to Khanom Power Plant in Nakhon Si Thammarat |
| Arthit gas field - Rayong Gas Separation Plant (3 rd offshore pipeline) | 605 | 42 | 2007 | 3 rd offshore pipeline from Arthit gas field to Rayong Gas Separation Plant in Map Ta Phut, Rayong |
| JDA gas field - Arthit gas field (3 rd offshore pipeline) | 95 | 42 | 2008 | 3 rd offshore pipeline from JDA gas field to Arthit gas field |
| Chevron Platform Extension (Platong 2) - 3 rd offshore pipeline (3 rd offshore pipeline) | 48 | 28 | 2011 | Pipeline from Chevron Platform Extension (Platong 2) to 3 rd offshore pipeline |
| South Bongkot - 3 rd offshore pipeline (3 rd offshore pipeline) | 38 | 24 | 2012 | Pipeline linked South Bongkot platform with the 3 rd offshore pipeline |
| Onshore Pipeline System | | | | |
| Rayong Gas Separation Plant - Bang Pakong gas control and measurement station BV6 (1 st principal pipeline) | 107 | 28 | 1981 | Pipeline from Rayong Gas Separation Plant in Map Ta Phut to Bang Pakong gas control and measurement station BV6 in Chachoengsao (1 st principal pipeline) |
| Bang Pakong gas control and measurement station BV6 - South Bangkok Power Plant (1 st principal pipeline) | 57 | 28 | 1981 | Pipeline from Bang Pakong gas control and measurement station BV6 in Chachoengsao to South Bangkok Power Plant in Samut Prakan |
| Bang Phli - Saraburi (1 st principal pipeline) | 99 | 24 | 1981 | Pipeline from Bang Phli, Samut Prakan to the cement factory of Siam Cement Plc. in Tha Luang, Saraburi |
| Nam Phong gas field - Nam Phong Power Plant (Gas pipeline to Nam Phong Power Plant) | 3 | 16 | 1990 | Pipeline from Nam Phong gas field to Nam Phong Power Plant in Khon Kaen |

| Transmission Pipeline System | Length (km) | Pipe size (inch) | COD Year | Details |
|--|-------------|------------------|----------|--|
| Rayong Gas Separation Plant - Bang Pakong gas control and measurement station BV6 (2 nd parallel pipeline) | 105 | 28 | 1996 | Parallel pipeline system from Rayong Gas Separation Plant to Bang Pakong gas control and measurement station (BV6) in Chachoengsao (2 nd parallel pipeline) |
| Bang Pakong's compressor station (BCS) - Wang Noi gas control and measurement station (WNMR) (2 nd parallel pipeline) | 101 | 36 | 1996 | Parallel pipeline from the compressor station at Bang Pakong in Chachoengsao to Wang Noi gas control and measurement station in Phra Nakhon Si Ayutthaya |
| Transmission pipeline from Thai-Myanmar border to Ratchaburi Power Plant (Western Transmission Pipeline) | 239 | 42 | 1998 | Pipeline from the delivery point along Thai-Myanmar border at Ban-I-Tong in Kanchanaburi, this system pipes natural gas from Yadana and Yetagun to feed Ratchaburi Power Plant in Ratchaburi |
| Transmission pipeline from Ratchaburi gas measurement station - Wang Noi gas control and measurement station (Ratchaburi - Wang Noi Transmission Pipeline) | 154 | 30 | 2000 | Pipeline from the Ratchaburi gas measurement station in Ratchaburi to Wang Noi gas control and measurement station in Phra Nakhon Si Ayutthaya |
| Rayong Gas Separation Plant - Bang Pakong's compressor station (BCS) (3 rd pipeline) | 111 | 36 | 2006 | 3 rd pipeline from Rayong Gas Separation Plants in Map Ta Phut, Rayong to Bang Pakong's compressor station (BCS) in Chachoengsao |
| Wang Noi gas control and measurement station - Gulf Cogeneration Power Plant (Wang Noi - Kaeng Khoi Transmission Pipeline) | 73 | 36 | 2006 | Pipeline system from Wang Noi gas control and measurement station in Phra Nakhon Si Ayutthaya to Gulf Cogeneration Power Plant in Saraburi |
| Transmission pipeline from the pressure control station RA#6 - South Bangkok Power Plant (Sai Noi - South Bangkok Power Plant Transmission Pipeline) | 67 | 30 | 2007 | Transmission pipeline from the pressure control station RA#6 - South Bangkok Power Plant in Samut Prakan |

| Transmission Pipeline System | Length (km) | Pipe size (inch) | COD Year | Details |
|---|-------------|------------------|----------|--|
| Offshore pipeline - Chana Power Plant (Transmission pipeline to Chana Power Plant) | 8 | 20 | 2007 | Pipeline system off the coast of Chana district, Songkhla to Chana Power Plant in Songkhla |
| Transmission pipeline to North Bangkok Power Plant | 7 | 24 | 2009 | The pipeline system connects South Bangkok Power Plant with North Bangkok Power Plant in Nonthaburi |
| Onshore pipeline along the Thai-Myanmar border - BVW#1 (Western Transmission Pipeline) | 0.59 | 28 | 2014 | The project to accommodate supply from Zawtika in Myanmar to feed existing transmission pipelines operated by PTT at BVW#1 in Kanchanaburi |
| Rayong - Kaeng Khoi (4 th pipeline) | 299 | 42 | 2015 | Pipeline system from Rayong to the gas control station BV4.19 |
| Wang Noi gas control and measurement - Gas control station AN13 (Nakhon Sawan onshore regional Transmission Pipeline) | 193 | 28 | 2015 | The pipeline from Wang Noi gas control and measurement in Phra Nakhon Si Ayutthaya to Nakhon Sawan |
| Gas control station WK5 - Gas control station SN10 (Nakhon Ratchasima onshore regional Transmission Pipeline) | 145 | 28 | 2018 | The pipeline from Gas control station WK5 in Saraburi to Nakhon Ratchasima |
| Gas mixing station RA#6 (RA6MXS) - Gas mixing station 10 (BVW10MXS) (Transmission system from the 6 th gas compression station Ratchaburi - Wang Noi to Ratchaburi province: RRPP) | 119 | 30 | 2021 | Pipeline System from Gas mixing station RA#6 (RA6MXS) in Nonthaburi to Gas mixing station 10 (BVW10MXS) in Ratchaburi connecting the transmission pipeline network between the east and west |
| GDF4 - Gas control station 5.8 (5 th Onshore Transmission Pipeline phase 1) | 151 | 42 | 2022 | Pipeline System from Rayong to Gas control station 5.8 in Chon Buri (5 th Onshore Transmission Pipeline phase 1) |
| Gas control station 5.6 - Gas control station BP4 (5 th Onshore Transmission Pipeline phase 1) | 57 | 36 | 2022 | Pipeline System from Gas control station 5.6 in Chon Buri to Gas control station (BP4) in Chachoengsao (5 th Onshore Transmission Pipeline phase 1) |
| GDF5 - Gas mixing station TP5MX (5 th Onshore Transmission Pipeline phase 3) | 8 | 42 | 2022 | Pipeline System from Rayong to Gas mixing station (TP5MX) (5 th Onshore Transmission Pipeline phase 3) |

Natural Gas Transmission Pipeline System and Gas Separation Plants



Marketing and Competition of the Natural Gas Business

Currently, the natural gas business in Thailand is regulated by the Energy Regulatory Commission under the Energy Business Act B.E. 2550. In view of the government's policy to restructure the energy business to be appropriate by separating regulatory work from the energy business to ensure that the regulatory governance will cover both electricity and natural gas business for efficiency, prosperity, and adequate supply. Also, established the ERC as an independent regulator to responsible for the country's energy affairs including the prevention of monopoly and protection of energy users and those affected by the energy business. The Energy Industry Act B.E. 2550 was gazetted on December 10, 2007 which effective from December 11, 2007 onwards.

PTT is the sole fully integrated operator of natural gas business in Thailand. Currently, PTT and its affiliates engaging in the gas business adhere to the following marketing policies:

- **Supply Strategy:** Sourcing natural gas and LNG to ensure the country's energy security and commercial competitiveness, supporting policies that promote competition in the natural gas business.
- **Operating Strategy:** Maintaining operational excellence in meeting client's needs and laying the foundation for future growth.
- **Marketing Strategy:** Managing gas supply contracts with existing power producers to maintain market share while exploring new markets to boost natural gas or LNG sales in both Thailand and overseas.
- **Portfolio Expansion:** Pursuing investment opportunities in both Thailand and overseas, including Gas/ LNG Business and Non-Gas Business.

In 2024, PTT has continued to supply natural gas and LNG both in long-term contracts and in the spot market, primarily delivering gas through pipeline transmission systems for the country's energy security and energy cost management. Additionally, the EGAT, Hin Kong Power Holding Co., Ltd., and B.Grimm LNG Co., Ltd. import LNG in the spot market for

use in their power plants. This operation follows the policy of allowing third parties to access gas pipelines and LNG stations as well as promotes competition in the natural gas business under the framework of the Ministry of Energy.

For natural gas supply and trading business, the ERC granted Shipper License to the following 8 companies:

1. PTT Plc.
2. The Electricity Authority of Thailand (EGAT)
3. Gulf LNG Co., Ltd.
4. B.Grimm LNG Co., Ltd.
5. Hin Kong Power Holding Co., Ltd.
6. Electricity Generating Plc. (EGCO)
7. PTT Global LNG Co., Ltd.
8. SCG Chemicals Co., Ltd.

Additionally, PTT also engages in the buying and selling of LNG in tanks among shippers in the regulated market group to jointly manage LNG inventory levels. In 2024, PTT conducted LNG transactions with EGAT and Hin Kong Power Holding Co., Ltd., on a case-by-case basis.

In terms of the gas distribution pipeline system, most of the operations are currently handled by PTT. Apart from PTT, other companies operating gas distribution pipeline systems including PTTNGD and WHA which engaged in developing and constructing gas distribution pipeline systems to transport and distribute natural gas to customers in the industrial areas around Bangkok and perimeter.

Current Natural Gas Supply and Trading of PTT

In 2024, the natural gas supply averaged 4,361 MMSCFD (at a heating value of 1,000 BTU per cubic foot), (58% sourced domestically and 42% from abroad). The natural gas supply in 2024 decreased by 69 MMSCFD, or 1.6% compared to the previous year. The overall gas supply and trading of PTT decreased mainly due to the LNG imports of new shippers.

The volume of natural gas sales in 2024 to various customer groups is as follows:

- **Electricity**

The average sales volume was 2,651 MMSCFD accounted for 60% of total sales volume, a 3% decrease from 2023, which was at 2,743 MMSCFD. In this segment, supply to EGAT totaled 664 MMSCFD, along with 792 MMSCFD to IPPs and 1,195 MMSCFD to SPPs.

- **Industry**

The average sales volume was 807 MMSCFD, or 18% of total sales volume, a 3% increase from 2023 at 786 MMSCFD.

- **Transportation**

Natural gas sales in the transportation sector averaged at 113 MMSCFD, accounting for 3% of the total natural gas sales volume, a decrease of 17% from 2023, which was at 136 MMSCFD.

- **Gas Separation Plant**

The gas used on the gas separation plants to add value to natural gas had a total volume of 834 MMSCFD, representing 19% of total sales volume, an increase of 7% from 2023, which was at 783 MMSCFD.

Electricity Output by Fuel Type 2020 - 2024

Unit: Million Units

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---------------------------|----------------|----------------|----------------|----------------|----------------|
| 1. Hydropower | 4,540 | 4,540 | 6,599 | 6,588 | 6,415 |
| 2. Natural gas | 113,859 | 113,113 | 114,637 | 129,402 | 136,373 |
| 3. Fuel oil and diesel | 722 | 716 | 1,731 | 888 | 276 |
| 4. Coal | 36,823 | 36,065 | 35,523 | 30,433 | 33,260 |
| 5. Imported electricity | 29,551 | 33,356 | 35,472 | 32,805 | 35,985 |
| 6. Renewable Energy | 20,540 | 21,894 | 21,862 | 23,179 | 23,191 |
| Total | 206,035 | 209,684 | 215,824 | 223,295 | 235,500 |
| Expansion rate (%) | (2.8) | 1.8 | 2.9 | 3.5 | 5.5 |

Source: www.eppo.go.th

Policy to Promote Competition in Natural Gas Business

The government has a policy to promote competition in the entire natural gas sector, aiming to enhance the efficiency of supply and service provision, which enables consumers to receive quality services at reasonable and fair prices. The government has supported the increase in the number of players in LNG supply and trading and has assigned the ERC to grant shipper licenses and issue the third-party access regime (TPA regime) for the gas transmission pipeline and LNG terminal so that other shippers can use PTT's natural gas infrastructure. PTT Group complied with the policy, and on March 30, 2015, announced its first onshore natural gas pipeline third-party access code (the latest revision was announced on June 7, 2017). PTTLNG also announced its first LNG terminal third-party access code on March 30, 2015 (the latest amendment was announced on August 1, 2021).

The CEPA on August 30, 2019, approved the experimental guidelines for EGAT to import Spot LNG of up to 200,000 tons in 2 vessels, 65,000 tons each, in order to test the gas liberalization system. In which, PTTLNG coordinated with EGAT in the implementation of CEPA's resolution by receiving the first LNG shipment on December 28, 2019, and the second on April 21, 2020.

Following EGAT's trial in the gas liberalization Phase 1, the Energy Ministry reviewed and drew up a framework and blueprint for Phase 2 and on April 1, 2021, the NEPC approved the natural gas liberalization Phase 2 and assigned relevant agencies to work out the details. The NEPC assigned the CEPA to deliberate and act according to the guidelines. On August 4, 2021, the NEPC approved the natural gas pricing structure to promote competition in Phase 2, along with the timeframe to enforce the pricing structure. This would increase more natural gas operators for LNG supply. Currently, the ERC approved a total of 8 shipper licenses as mentioned.

On its part, PTT has been preparing for the imminent competition in the natural gas business. It has plans, structure, and investment capital in place to act on the government's policy of making Thailand a Regional LNG Hub for LNG import and export to countries in the region, concurrently promoting the Thai economy as a regional energy hub.

In addition, the ERC on March 29, 2022 announced the criteria for calculating natural gas prices under the supervision of the ERC (Energy Pool Price: EPP), which are weighted average prices of fuel costs. These include PTT's pool gas, New Shipper's LNG, diesel, fuel oil, LPG used in power plants, or other fuels as specified by the ERC to reflect the cost of energy management, which is the country's resource, to be fair to the people, conducive to competition and non-discrimination. PTT has supported and implemented the guidelines set by the ERC.

In addition, on February 13, 2023, the NEPC resolved to approve the review of guidelines to promote competition in natural gas liberalization Phase 2, divided into 2 groups:

- (1) The Regulated Market: The group under the supervision of the ERC in terms of volume, quality, and price consists of power generation users which are EGAT, IPPs, SPPs, and VSPPs, as well as industrial and NGV users who use natural gas from the country's pool gas.
- (2) The Partially Regulated Market: The group under the supervision of the ERC in terms of volume and quality consists of natural gas users who do not use natural gas from the country's pool gas.

All shippers in the Regulated Market shall sell natural gas and/or LNG supplied to the Pool Manager to be incorporated into the country's pool gas and purchase natural gas from the pool gas according to the volume supplied and input into the pool gas. PTT has been assigned to manage country's pool gas (Pool Manager) by establishing a separate department independent from PTT, with ring-fenced implementation. Moreover, the ERC has been assigned to consider the implementation to be aligned with the framework of gas liberalization Phase 2.

Natural Gas Demand Outlook

In June 2024, the Ministry of Energy launched a public hearing on the draft of National Energy Plan, which includes drafts of National Power Development Plan 2024 - 2037 (PDP 2024), National Natural Gas Management Plan 2024 - 2037 (Gas Plan 2024), Oil Management Plan 2024 - 2037 (Oil Plan 2024), Renewable and Alternative Energy Plan 2024 - 2037 (AEDP 2024) and Energy Conservation Plan 2024 - 2037 (EEP 2024). The EPPO would present the drafts to the CEPA and the NEPC before

submitting them to the Cabinet for approval. The main goal of the Gas Plan 2024 is to ensure sufficient natural gas supply to meet domestic demand, as well as to stably and efficiently manage natural gas infrastructure, thereby supporting the transition to sustainable energy. Hydrogen supply and demand will be introduced in 2030. The Gas Plan 2024 draft assumes a natural gas demand trend in the power sector based on PDP 2024, which increased the proportion of power generation from clean or new renewable energy by the end of the plan in 2037 to reduce carbon dioxide emissions. With rising demand for renewable and clean energy, PTT Group can expand its natural gas and LNG markets, whilst promoting the use of renewable and clean energy, alongside natural gas.

Upstream Business Invested through PTT Group

PTT is engaged in natural gas-related businesses through its affiliated companies, such as LNG business operating LNG vessels, storage, regasification, and delivery into the gas pipeline system to accommodate LNG imports sufficient for the country's natural gas demand. Additionally, it involves expanding investments and operating a comprehensive LNG business, as well as developing and constructing natural gas distribution pipeline systems for natural gas transportation services. This aims to promote PTT Group's comprehensive natural gas business. PTT invests through PTT LNG Co., Ltd. (PTTLNG), PTT Natural Gas Distribution Co., Ltd. (PTTNGD), Trans Thai-Malaysia (Thailand) Limited (TTM(T)), Trans Thai-Malaysia (Malaysia) Sdn. Bhd. (TTM(M)), and Map Ta Phut Air Products Co., Ltd. (MAP). PTT also invests in others upstream business through PTT Energy Resources Co., Ltd. (PTTER) and PTT Green Energy Pte. Ltd. (PTTGE).



More details on Nature of Business, Marketing, and Competition by individual company within the Group in which PTT invests are available at <https://investor.pttplc.com/en/downloads/yearly-reports>



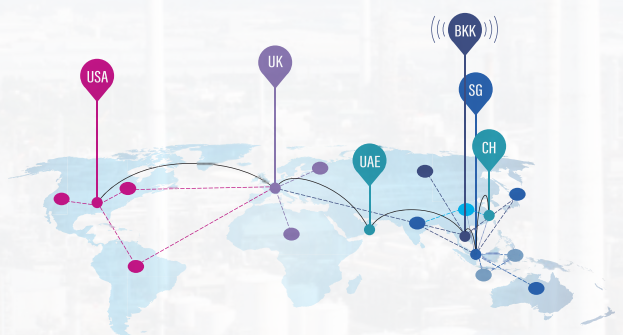
Downstream Petroleum Business



Owned
3 out of 6 Refineries



Total Trading Volume
108,061 MMLTR



Downstream Business Group

PTT's downstream business is divided into two business segments:

Downstream Business Group Structure

Downstream Business Group



International Trading Business

- Crude Oil and Condensate
 - Refined Oil Product and LPG
 - LNG and Alternative Products
 - Petrochemical Product, Chemical, and Solvent
 - Derivatives
 - International Chartering
- Operated through PTT Group
- PTT International Trading Pte. Ltd. (PTTT)
 - PTT International Trading London Ltd. (PTTT LDN)
 - PTT International Trading USA Inc. (PTTT USA)



Petrochemical and Refining, Oil and Retail Business

Operated through PTT Group

- Petrochemical and Refining Business
 - PTT Global Chemical Plc. (GC)
 - Thai Oil Plc. (TOP)
 - IRPC Plc. (IRPC)
 - PTT Tank Terminal Co., Ltd. (PTT TANK)
- Oil and Retail Business
 - PTT Oil and Retail Business Plc. (OR)

International Trading Business

International Trading Business Unit engages in fully integrated international trading ranging from supply procurement, import, and export to international trading of assorted products, namely crude oil, condensate, LNG, LPG, refined product, petrochemical, solvent, chemical, biofuels, and other alternative products, together with price risk management (hedging) services, carbon credit trading, and international chartering services. Its core objective is to enhance energy security while adding value to Thailand's surplus products in parallel with trading platform expansion to all regions around the world and raising international trading competitiveness for PTT Group.

The business unit's performance hinges on its pursuit of growth opportunities in out-out trading activities. It therefore formed affiliates and representative offices in trading hubs around the world, including Singapore, Abu Dhabi (the United Arab Emirates), Shanghai (China), London (the United Kingdom), and Houston (the United States of America). As a result, the business unit engages in trading transactions with various partners worldwide. Since international trading transactions carry high-value activities, the business unit has applied the risk control system employed by the world-class trading houses as its best practices. In addition, a committee is in place to set risk management policies, steer assorted risk management tasks, and clearly divide the work structure and roles in the system as Front-Mid-Back for checks and balances. Digital technology is also applied to develop systems for operation and transaction risk controls to enable quick, transparent transactions along with an efficient audit, and to support the continuous growth of trade with greater volume and diversity, as well as applying digital technology to enhance work efficiency throughout the process.

Nature of Merchandise and Products

International Trading Business deals in 5 categories of Merchandise and Products:

1) Crude Oil

Crude oil represents assorted hydrocarbon compounds. Its quality varies with the types of organic substances where a given crude oil originates from, along with associated impurities. This is a constraint facing refineries. Thailand has several crude oil fields, but since the amount of crude oil extracted and used domestically accounts for only less than 10% of the total demand for domestic refineries, it is necessary for Thailand to import crude oil. The crude suppliers are primarily from the Middle East, including Saudi Arabia, UAE, Qatar, and Oman, and the Far East, including Malaysia, Vietnam, Indonesia, and Australia along with other regions such as Africa and the Americas.

2) Condensate

Condensate is natural gas that remains in a gaseous state underground under pressure, but liquefies when brought to the surface. It is considered a byproduct of natural gas production. Over 60% of condensate used in Thailand is mainly from domestic gas production, with the rest imported. Refineries process condensate directly or blend with crude oil for refining. Products yielded have the same properties as those refined using light crude.

3) Gas

Natural gas is a mixture of hydrocarbons and various impurities in a gaseous state, with different conditions such as

- Liquefied natural gas (LNG) is Natural Gas that is converted into liquid at atmospheric pressure by reducing the temperature to -160 degrees Celsius for long-distance transportation by ship. The demand for LNG is currently increasing around the world in the energy transition era because natural gas is a low-carbon fuel compared to coal and other types of petroleum.
- Liquefied Petroleum Gas (LPG) is a product obtained from the separation of crude oil in oil refineries or the separation of natural gas in gas processing plants. It consists of a mixture of two types of hydrocarbons: propane and butane in any ratio, or it can be 100% pure propane or 100% pure butane. In Thailand, most LPG is obtained from natural gas processing plants and is used as fuel for cooking in households, industries, and vehicles.

4) Refined Oil Product

Refined Oil Products are obtained from the crude oil refining process or gas separation process, consisting of

- Refined oil products such as gasoline, kerosene, aviation fuel, gasoil, fuel oil, low sulfur waxy residue, etc.
- Natural Gasoline (NGL)

5) Petrochemical Products, Chemicals and Solvents

Petrochemical products, chemicals, and solvents are products obtained from processing by heat, pressure, and chemical reactions with the main feedstocks from oil or natural gas, consisting of

- Aromatics products such as Benzene, Toluene, Mixed Xylene, Paraxylene, Cyclohexane, Styrene Monomer, Cumene, Phenol, etc.
- Olefins products such as Ethylene, Propylene, Butadiene, C4 Raffinate, Butane, Mono-ethylene Glycol (MEG), Propylene Oxide (PO), etc.
- Feedstock & By-Product such as Naphtha, Pygas, etc.
- Chemicals such as Methyl Tertiary Butyl Ether (MTBE), Sulfuric Acid, Acetic Acid, Purified Terephthalic Acid (PTA), etc.
- Solvents such as Methanol, Acetone, etc.

Product Distribution of International Trading Business

PTT's international trading business is divided into 4 main aspects namely:

- 1) Crude Oil and Condensate Business
- 2) Refined Oil Products
- 3) Gas
- 4) Petrochemical Products, Chemicals and Solvents

1) Crude Oil and Condensate

The scope of operations includes international trading transactions, procurement, import, and export of crude oil and condensate from domestic and international sources to supply refineries in and outside Thailand, as well as seeking opportunities for the physical swap of crude oil and condensate for profit and balance of the system and ensuring that domestic crude oil and condensate are consumed effectively.

1.1) Domestic Crude Oil

Since Thailand has a limited amount of domestic crude oil and is a crude oil importer, domestic crude oil is a resource that must be used most efficiently. PTT currently procures domestic crude oil from onshore sources in various provinces, including Kamphaeng Phet, Suphan Buri, Sukhothai, Phetchabun, Nakhon Pathom, and in the Gulf of Thailand from various concessionaires and sells such crude oil to domestic refineries.

1.2) International Crude Oil

PTT procures and transports crude oil from outside Thailand for domestic refineries together with providing hedging management services. PTT fully supplies crude and condensate according to the refinery's demand from GC, TOP, and IRPC, whereas supplies part of crude and condensate to Bangchak Corporation Plc. (BCP), and Star Petroleum Refining Plc. (SPRC). The procured volume depends on the quality, prices, bidding, and trading terms offered by refineries.

PTT procures and imports feedstock to domestic refineries, accounting for over 70% of their throughput needs. PTT also serves as PTTEP's trading arm for the domestic and international crude oil trade.

Besides supplying imported crude oil for domestic refining, PTT also trades crude oil overseas for out-out trading, procured from producing countries worldwide, and supplies to other countries. This could generate revenue and profits from overseas, as well as build a reputation for the country in the international trading platform. A comprehensive global trade network will contribute to energy security in the event of unrest affecting some oil-exporting countries.

1.3) Condensate

PTT procures and transports condensate for domestic petrochemical plants and refineries, with GC, PTT Group's petrochemical flagship, serving as the principal buyer for feedstock purposes. PTT purchases condensate from domestic concessionaires, and operators of onshore gas fields namely Sinphuhorm and Gulf gas fields, namely G1/61, Pailin, G2/61, and Arthit. However, during the shortage of domestic condensate, PTT would import from overseas sources, for instance, Australia, Indonesia, the Philippines, and Malaysia.

Volume of PTT's Crude Oil and Condensate Supply

| | 2022 | | 2023 | | 2024 | |
|--|--------------------------------|--------------|--------------------------------|--------------|--------------------------------|--------------|
| | Volume (Million barrels) | % | Volume (Million barrels) | % | Volume (Million barrels) | % |
| Domestic crude oil | 23.4 | 6.1 | 22.2 | 5.0 | 21.8 | 5.0 |
| Domestic condensate | 22.8 | 5.9 | 23.2 | 5.2 | 26.7 | 6.2 |
| Imported crude oil | 230.9 | 60.0 | 247.4 | 55.5 | 238.2 | 55.2 |
| Imported condensate | 17.9 | 4.6 | 16.3 | 3.6 | 20.3 | 4.7 |
| Internationally traded crude oil and condensate | 90.0 | 23.4 | 136.8 | 30.7 | 124.6 | 28.9 |
| Total | 385.0 | 100.0 | 445.9 | 100.0 | 431.6 | 100.0 |

Source: PTT

2) Refined Oil Products

PTT procures, imports, exports, and trades refined oil products, and semi-refined products for energy security and balance under normal circumstances and emergencies. It sells to PTT Group and other corporate buyers, both domestically and internationally. PTT also seeks trading opportunities in the world market to generate income for the national economy and foster an energy-security network worldwide. These endeavors have established PTT's reputation in the world arena. PTT imported base gasoline for gasohol production to meet domestic demands and then exported natural gasoline, which is a by-product of gas separation plants, as well as surplus fuels from refineries. Currently, PTT is well-positioned to export refined oil products to all parts of the world, with trading prices in line with market mechanisms. In addition, in line with the global trend towards decarbonization, PTT recognizes the importance of increasing the proportion of trade in biofuels, such as Sustainable Aviation Fuel (SAF), Used Cooking Oil Methyl Ester (UCOME), and Hydrotreated Vegetable Oil (HVO).

3) Gas

PTT, by International Trading Business Unit, imports LPG and LNG from the Spot market and short-and-medium-term purchase contracts for Commercial and Marketing Management Business under the gas business unit and those with Shipper Licenses to create energy security for the country. Along with continuously expanding LPG and LNG trade in the international market, International Trading Business seeks opportunities for LNG Reloading Cargo to increase trade opportunities to other international markets.

4) Petrochemical Products, Chemicals and Solvents

PTT procures, imports, exports, and engages in out-out trading of both upstream and intermediate aromatics and olefins petrochemical products, as well as chemicals and solvents, covering feedstocks, main products, and by-products from refineries and petrochemical plants. PTT is the main exporter of petrochemical products that exceed GC's demand in the aromatics sector, such as benzene and paraxylene. In addition, PTT also increases trade opportunities by participating in bidding for various products from other petrochemical plants both domestically and internationally to generate income and profit from international trade covering all regions of the world.

International Trading Support

PTT has the following lines of support for international trading operations:

- 1) Price Risk Management
- 2) International Chartering

1) Price Risk Management

The Derivatives Trading Department is a support unit dealing with price risk management from trading transactions, refining, production, petroleum products, petrochemicals, and cargo vessels for PTT and PTT Group companies by trading derivatives in the derivatives market to efficiently hedge against transaction risk and product price volatility risk. Digital systems are introduced to capture the timing of buying and selling derivatives contracts for efficient price risk management. Additionally, in line with the global business trend towards achieving Net Zero Emissions, the Derivatives Trading Department is responsible for providing carbon credits that meet international standards and are globally recognized to companies in and outside PTT Group. These credits are used to offset greenhouse gas emissions from various activities, as well as to seek opportunities for buying and selling carbon credits in the international trading market.

2) International Chartering

The International Chartering Department is a support unit for international trading by securing cargo vessels and managing time charter for import, export, and trading products of PTT and PTT Group as well as external agencies both in Thailand and overseas. In addition, it seeks opportunities to manage the cost of vessels from co-loading products to enhance our competitiveness and end-to-end business operation.

Sales Revenue and Volume of International Trading

As of December 31, 2024, PTT's international trading business reported sales revenue of THB 1,940,904 million.

Sales Revenue and Volume of International Trading by Product

| Product | 2022 | | 2023 | | 2024 | |
|---------------------------------------|--------------------------------|-----------------------------|--------------------------------|-----------------------------|--------------------------------|-----------------------------|
| | Sales Revenue (THB million) | Volume (Million barrels) | Sales Revenue (THB million) | Volume (Million barrels) | Sales Revenue (THB million) | Volume (Million barrels) |
| International Trading | | | | | | |
| - Crude oil and condensate | 1,351,138 | 385 | 1,270,205 | 446 | 1,218,124 | 432 |
| - Refined oil products and LNG | 723,104 | 167 | 660,994 | 210 | 625,174 | 226 |
| - Petrochemical product | 97,973 | 22 | 99,395 | 27 | 96,389 | 22 |
| - Other products | 351 | - | 1,468 | - | 1,217 | - |
| Total of International Trading | 2,172,566 | 574 | 2,032,062 | 683 | 1,940,904 | 680 |

Source: PTT (including transactions operated through PTT Group)

Marketing of International Trading

Domestic markets feature main customers, including refineries with demand for crude oil and condensate through the supply of domestic producers and import from overseas producers, along with petrochemical plants needing feedstock from overseas producers, base gasoline import for gasohol production, LPG import for the industrial, transport, and household sectors, LNG import for power and industries, in line with domestic demand, which reflects the role of strengthening national energy security. In 2024, the share of revenue from the domestic market is 50.8% (6.8% from domestic supply and 44.0% from import).

Outside Thailand, main clients include refineries, petrochemical plants, national oil companies, multinational energy companies, and international trading houses through transactions of commodities such as crude oil, condensate, LNG, LPG, refined oil, petrochemicals, chemical and solvent, and export of refined oil products, petrochemicals, chemical and solvent exceeding domestic demand to generate income and profits from oversea. In 2024, the share of revenue from the international market is 49.2% (48.7% from out-out trading and 0.5% from export).

To foster business growth and trading opportunities, one needs to engage in worldwide trading. One of the key strategies is to penetrate oil trading hubs through offices in various countries, including the office in Singapore for Asian region, the representative office in China for Chinese market and neighboring countries, the office in the UAE for the Middle East



region, including Southern Africa and Eastern Africa, the office in the UK for Europe and Western Africa, and the office in the U.S. for both North and South America. This global presence enables PTT to closely monitor ongoing around the clock across time zones for demand-supply, effectively capturing arbitrage opportunities when an imbalance arises. These offices also facilitate relationships between PTT and clients and partners and explore value-added opportunities in those regions.

Competition of International Trading

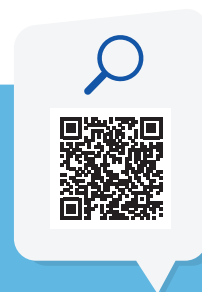
International trading has become more competitive as national oil companies in the Middle East and global energy companies holding various assets such as production wellheads, jetties, oil terminals, refineries, and petrochemical plants ventured into Asset-backed Trading. Asset-backed trading is a form of trade in which major multinational trading companies expand investment into their assets to add value and competitiveness to the playing field. In addition, technology and digitalization enable fast and well-rounded access to pricing and trading data, where speed can make or break trading and profitability opportunities. In 2024, the volume of International Trading Business and PTT Group total trade volumes of 1.86 million barrels per day, divided into imports of crude oil, LNG, LPG, petroleum products, and petrochemicals for domestic energy security 53% and exports 47%. This was done through a trading network with over 1,200 partners and customers located in more than 70 countries across all regions globally.

The competitive landscape of the industry in the future will remain at a high level and will face various challenges, including the global economy's low growth trend, particularly the Chinese economy and the stagnant European economy, as well as the economic polarization led by the United States and China. Prolonged geopolitical conflicts will directly damage the economies of the warring countries and indirectly impact global oil prices, resulting in limited growth in global energy demand. Additionally, Net Zero Emissions policies of various countries will lead to a greater focus on clean energy that has less environmental impact. The International Trading Business, therefore, realizes the importance of expanding LNG trade transactions, which is a crucial option during the transition to clean energy in the future. It is also seeking new business opportunities in line with the industry's trend towards Net Zero Emissions targets, such as entering the Carbon Credit Trading market and biofuel trade, including

Sustainable Aviation Fuel (SAF). Biodiesel from Used Cooking Oil Methyl Ester (UCOME), Hydrotreated Vegetable Oil (HVO), etc.

International Trading Business Invested through PTT Group Companies

PTT has invested in international trading business to conduct full-scale global transactions through the expansion of a strong overseas trade network. This aims to seek trade opportunities by sourcing raw materials and products at competitive prices and creating added value from international trade for PTT Group, as well as ensuring energy security for the country. This is carried out through three companies in the group: PTT International Trading Pte. Ltd. (PTTT), PTT International Trading London Ltd. (PTTT LDN), and PTT International Trading USA Inc. (PTTT USA).



More details on Nature of Business, Marketing, and Competition by individual company within the Group in which PTT invests are available at <https://investor.pttplc.com/en/downloads/yearly-reports>

Petrochemical and Refining Business

PTT invests in the oil refining business through 3 out of 6 oil refineries in Thailand, with a total refining capacity of 770,000 barrels per day, or approximately 62% of the country's production capacity (as of December 31, 2024). The fully integrated petrochemical business covers upstream to downstream, including the production and sale of fuel,

upstream, midstream and downstream petrochemical products, both olefins and aromatics, with a focus on adding value to the business. This also includes providing port and storage facility. PTT supplies crude oil and buys fuel, as well as some petrochemical products from affiliate to sell in both domestic and international markets. The performance of the oil, petrochemical, and refining businesses mainly depends on economic conditions, the price spread between crude oil and feedstocks, and the prices of fuel oil and petrochemical products in the global market, which fluctuate according to global supply and demand. This also includes the inventory value at year-end. In this regard, GC is PTT Group's Petrochemical Flagship Company; TOP is the Refinery Flagship; and IRPC is the Integrated Petrochemical and Refinery Flagship Company.

Marketing of the Refining Industry

Currently, Thailand has a total of 6 oil refineries with a combined refining capacity of 1,241,500 barrels per day (including GC's condensate splitter capacity of 135,000 barrels per day). As of December 31, 2024, these refineries yielded 1,113,676 barrels per day (including LPG production from gas separation and petrochemical plants).

Competition of the Refining Industry

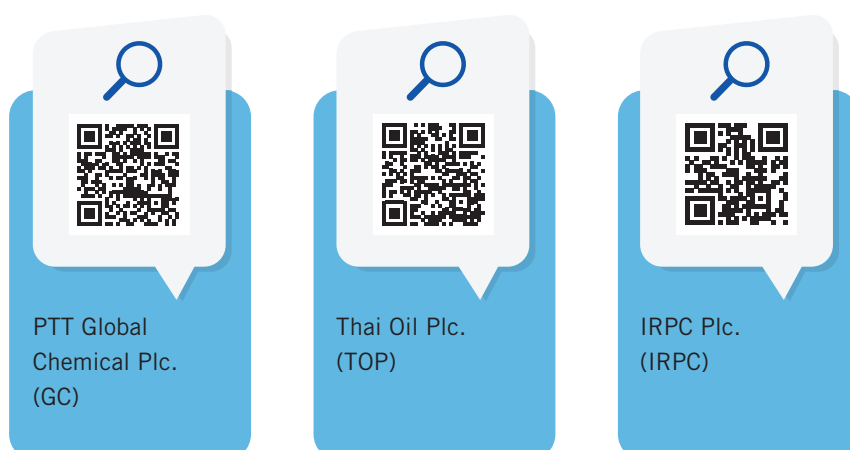
In 2024, Thailand's average daily demand for fuel products grew by 5.0% compared to 2023, with diesel demand increasing by 1.2% and aviation fuel increasing by 25.4%. Demand for fuel oil increased 7.2% and LPG (including petrochemical feedstock) increased 10.0%. Gasoline demand rose 1.0% and kerosene rose 7.0%. The increase in oil demand

is due to economic stimulus measures and the recovery of the tourism sector, with more foreign tourists travelling to Thailand. Additionally, Thai people are more travelling within the country as well as government measures to support diesel prices.

In 2024, refined product exports decreased to 186,035 barrels per day, with a total export value of THB 17,818 million per month.

Marketing of the Petrochemical Business

The overall petrochemical industry in Thailand in 2024 contracted slightly compared to the previous year, following the slowdown of both the domestic and global economies due to conflicts in various regions, including the Middle East and Russia-Ukraine. This led to a decrease in global energy supply, while energy prices, whether crude oil or natural gas fell resulting in higher inflation rates. Additionally, the increase in policy interest rates in several countries slowed economic growth. Coupled with the debt problems in China's real estate sector, although China began to relax its Zero-COVID measures at the end of 2023, the impact of this policy remains, particularly the disruption of economic activities affecting production, trade, and domestic consumption in the long term. This has led to a global supply chain crisis, reflecting the production sector of Thailand's petrochemical and plastic industries, which primarily target China as their main market. Furthermore, the commencement of new petrochemical plants in the region has increased overall supply and competition.



Competition of the Petrochemical Business

Olefins

In 2024, production volume decreased from 2023 due to global economic pressures on the manufacturing and export sectors, indicating a slowdown in the second half of 2024, as well as household debt remaining high. Thailand, on the other hand, continues to benefit from a reduced regional supply, owing primarily to manufacturer production cuts and the cessation of commercial production in olefins petrochemical plants, an adjustment to align with the slow recovery of demand for end products, particularly durable goods.

Aromatics

In 2024, production volume declined from 2023 due to export pressures similar to olefins products, as demand for downstream products such as clothing and electrical appliances continued to slow down. At the same time, the Western region's support factor from feedstock demand for the production of aromatics used in gasoline blending components has decreased from 2022 and 2023. Furthermore, Chinese refineries that commenced production in the late of year and subsequently released surplus aromatics feedstocks into the market have exerted downward pressure on regional prices.

Oil and Retail Business

PTT Oil and Retail Business Plc. (OR) is the Oil and Retail Flagship Company, operating the distribution of petroleum products and the retail of other goods and services



(Non-Oil) both domestically and internationally. This includes the distribution of petroleum products and other goods in the retail and commercial markets, coffee business, restaurants and other beverages, convenience stores, and area management.

As of December 31, 2024, Thailand has a total of 52 registered fuel traders in Article 7. In 2024, domestic oil demand totaled 51,835 million liters with the largest share being diesel, followed by gasoline, LPG, aviation fuel, and fuel oil, respectively.

OR is a lead player in the domestic fuel market across most product categories. According to the Department of Energy Business, in 2024, OR's market share was 39.2% of the overall oil sales volume.

Oil Price Structure

The oil price structure consists of 2 components: ex-refinery wholesale price and retail price. The ex-refinery wholesale price at the refinery gate incorporates refining costs, excise duty, municipal tax, contribution to Oil Fuel Fund, Energy Conservation Fund, and value-added tax (VAT). The retail price component consists of refineries' wholesale price, marketing margin, and VAT. The pricing of oil at refineries is based on the global market price of refined oil and currency exchange rates. The government determines the tax rates and various funds, which differ for each type of fuel. Therefore, changes in the global market price of refined oil and the differing tax rates are factors that affect the adjustment of retail oil prices.

LPG Price Structure

LPG price structure consists of two components: (1) ex-refinery wholesale price, consisting of the price at the refinery, excise duty, municipal tax, oil fund contribution, and VAT, and (2) retail price, consisting of the ex-refinery wholesale price, marketing margin, and VAT.

Additionally, PTT TANK provides storage and handling services for products to PTT Group companies. PTT oversees its subsidiaries both directly and indirectly through representatives who serve as company directors and operational representatives within the companies.

New Business and Sustainability Group

From the organizational restructuring on September 1, 2024, New Business and Sustainability Group focuses on developing new businesses alongside managing the sustainability of PTT Group, which emphasized on the decarbonization to achieve PTT Group's Net Zero Emission target by operating through Power Business, together with seeking business opportunities that related to Hydrogen, Carbon Capture and Storage (CCS), and the development of related technologies to create added value for the organization.

The business operations of the New Business and Sustainability are divided as follows:



New Business and Sustainability

Power Business

Currently, power business is a main business under New Business and Sustainability Group. PTT Group has engaged in the power business through Global Power Synergy Plc. (GPSC), PTT Group's Power Flagship company. GPSC conducts its business primarily in the production and distribution of electricity, steam, industrial water, and other public utilities, which operates by itself and by investing in other companies. As of year-end 2024, its total committed equity capacities were 14,076 megawatts (MW) of power generation including 4,524 MW from conventional energy and 9,552 MW from renewable energy, 3,294 tons per hour of steam, 7,472 cubic meters per hour of industrial water, 15,400 refrigerated tons of chilled water, and 555 megawatts-hour per year of energy storage unit.

Marketing of Power Business

As of November 2024, Thailand has an installed electricity generation capacity of 55,474 megawatts, an increase of 3.0% compared to 2023, and power consumption of 198,428 gigawatt-hours. Electricity usage has increased across all sectors, particularly in households and businesses. The peak electricity demand in 2024 is 36,792 megawatts, up 5.6% from 2023. In the long term, according to the national energy plan, the share of power generation from renewable energy is expected to increase to achieve the Net Zero Emissions target by 2065.



Competition of Power Business

Currently, the power business faces a growing market competition. However, PTT Group's power business remains strong and competitive among other operators due to its extensive expertise and experience in electricity and steam production. This strength is further supported by the stability and reliability of its production network of power plants and reinforced by a comprehensive linking system covering a wide area. The Group also prioritizes customer care, ensuring a stable supply of electricity and steam throughout the contract period, in alignment with sustainable growth policies that emphasized on innovation and renewable energy development both domestically and internationally, together with enhancing energy security in line with the organization's decarbonization strategy and driving PTT Group toward Net Zero Emissions target.

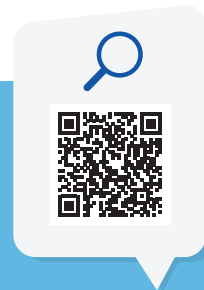


Global Power
Synergy Plc.
(GPSC)

Other New Business and Sustainability Operated through PTT Group

As of December 31, 2024, the following PTT Group are under New Business and Sustainability:

1. District Cooling System and Power Plant Co., Ltd. (DCAP)
2. PTT Energy Solutions Co., Ltd. (PTTES)



More details on Nature of Business, Marketing, and Competition by individual companies within the Group in which PTT invests are available at <https://investor.pttplc.com/en/downloads/yearly-reports>

Innovation and New Ventures

Non-Hydrocarbon Business

In the rapidly changing business environment, PTT Group has reviewed its strategic direction and investments in Non-Hydrocarbon businesses by evaluating them from two perspectives: (1) The business must be interesting and align with new global megatrends, and (2) PTT has strengths that can be leveraged in those businesses, with an appropriate management structure and strong partnerships to reduce business risks and create value for PTT Group.

Electric Vehicle Business

Thailand's automotive market over the past year has faced increasing challenges due to declining in demand and sales, driven by a weak economy. Additionally, rising competitive pressures, particularly from the increasing number of Chinese electric vehicles in the market, have further intensified the landscape. In response, PTT has been reviewing its EV business model to align with the evolving competitive environment. Following the review, PTT reduced its stake in Horizon Plus Co., Ltd. (HORIZON PLUS) from 60% to 40%, allowing the reallocation of capital to businesses where it has expertise and focus on developing EV charging through platform integration, promoting business partnerships within PTT Group, and capitalizing on the nationwide ecosystem of PTT's affiliates for optimal advantages.

Logistics Business

Focus only on related businesses that support PTT's core operations, adhering to an Asset-Light approach while leveraging captive demand within the PTT Group as well as seeking to enhance competitiveness and optimize value creation through synergy with PTT Group's existing infrastructure.

Life Science Business

Operated by Innobic (Asia) Co., Ltd. (INBA), with a direction for seeking partners with expertise to drive growth while also benefiting Thailand through a self-funding approach.

Corporate Sustainability

Implementing sustainability policies and management guidelines within PTT Group, including driving and overseeing the sustainability aspects of PTT Group to achieve the goals, as well as seeking opportunities for developing decarbonization technology and business throughout the value chain, including the pursuit of investment/joint venture project opportunities and expanding the decarbonization business of PTT Group to align with policies, directions, and strategies to create added value for PTT Group, such as businesses related to hydrogen and carbon capture and storage (CCS).

Innovation Institute

The Institute undertakes research and development (R&D) of products and innovations by focusing on strengthening technologies and evolving researcher's caliber to become specialists in individual aspects. All these are aimed at cost-optimization, productivity maximization, and commercialization of R&D and innovations to yield business outcomes.

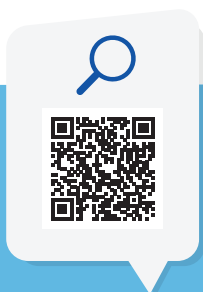
Other Businesses

PTT Treasury Center Co., Ltd. (PTT TCC) serves as a treasury center for PTT and PTT Group companies by securing Thai baht and foreign currency over the long and short term to be lent to PTT and/or affiliates. This includes debt management, liquidity management, short-term and medium-term investment services, financial risk management, etc., taking into account the interests of PTT and PTT Group companies.

PTT Global Management Co., Ltd. (PTTGM) acts as a holding company to support investment in PTT's businesses both domestically and internationally or operate new businesses according to PTT's vision and strategic direction.

PTT Digital Solutions Co., Ltd. (PTT DIGITAL) operates a comprehensive digital service business for companies both within and outside PTT Group. This includes consulting, design, development, installation, and maintenance of systems, as well as after-sales services that align with business needs.

Energy Complex Co., Ltd. (EnCo) provides comprehensive services in three main businesses: Property Management Business, Facility Management Business, and Property Development Business.



More details on Nature of Business, Marketing, and Competition by individual companies within the Group in which PTT invests are available at <https://investor.pttplc.com/en/downloads/yearly-reports>

PTT Group Collaborations

PTT Group has formed collaborations to create synergy value and enhance competitiveness in various areas including:

- 1. LNG Value Chain Optimization:** Review the roles and define business models of PTT Group's LNG operations with the aim of creating synergy value as follows:
 - PTTEP serves as the investment arm for overseas exploration and production projects.
 - Gas Business manages long-term LNG contracts and markets LNG domestically and in the CLMV countries.
 - PTT Global LNG Co., Ltd. (PTTGL) leverages its position as an LNG shipper for the partially regulated domestic market and seeks investment opportunities in LNG liquefaction abroad.
 - International Trading Business manages the LNG portfolio to optimize value while expanding international trading or out-out trading.
- 2. Centralized Supply Chain Management (D1):** Collaborate with PTT Group refineries to maximize operational efficiency.
- 3. Operational Excellence:** Strengthen internal capabilities, enhances operational efficiency, and boosts competitiveness in all aspects, including marketing and sales, production, maintenance, and procurement, with a common goal of EBITDA Uplift within PTT Group.



- 4. Digital Transformation:** Aim to enhance competitiveness through the effective application of digital technology and artificial intelligence (AI), focusing on sustainable business value creation by reducing costs and improving operational efficiency.
- 5. Asset Monetization:** Convert non-performing assets in order to maintain profit and cash flow stability.

1.2.3 Business Assets

PTT's core business assets consist of investment properties; property, plant, and equipment; right-of-use assets; goodwill; intangible assets; and exploration and evaluation assets. The net book values as of December 31, 2024 were as follows:

Unit: THB million

| | Investment Properties | Land | Buildings & Building Improvements | Machinery & Equipment | Exploration and Production Properties | Other Assets | Construction in Progress | Right-of Use Assets | Goodwill | Other Intangible Assets Excluded Goodwill | Exploration and Evaluation Assets | Total |
|-------------|-----------------------|--------|-----------------------------------|-----------------------|---------------------------------------|--------------|--------------------------|---------------------|----------|---|-----------------------------------|-----------|
| Net value | 11,618 | 58,664 | 148,028 | 605,871 | 478,749 | 7,698 | 235,647 | 116,478 | 178,907 | 124,538 | 90,384 | 2,056,582 |
| Obligations | None | 1,340 | 10,618 | 16,206 | None | 25,245 | 244 | None | None | 4 | None | 53,657 |

Besides the assets stated above, PTT's business assets include petroleum reserves, which are the core business assets of PTTEP, PTT's subsidiary. As of December 31, 2024, PTTEP and its subsidiaries have total Proved Reserves of 488 million barrels of crude oil, condensate, and LPG, as well as 6,999 billion cubic feet of natural gas, or equivalent to a total of 1,637 million barrels of crude oil equivalent. PTTEP's geologists and petroleum engineers audit and appraise these reserves every year to achieve standardized numbers. The details are as follows:



Proved Crude Oil, Condensate, and Natural Gas Reserves^{1/}

| | Crude Oil and Condensate ^{2/} | | | Natural Gas | | | Crude Oil Equivalent | | |
|---|--|------------|------------|----------------------|--------------|--------------|---|------------|--------------|
| | (Million Barrels) | | | (Billion Cubic Feet) | | | (Million Barrels of Crude Oil Equivalent) | | |
| | Indigenous | Overseas | Total | Indigenous | Overseas | Total | Indigenous | Overseas | Total |
| Proved Reserves of PTT and Subsidiaries | | | | | | | | | |
| As of December 31, 2022 ^{3/} | 133 | 232 | 365 | 3,542 | 2,981 | 6,523 | 712 | 730 | 1,442 |
| 1) Revision of previous estimates | 32 | 1 | 33 | 618 | (1) | 617 | 123 | 1 | 124 |
| 2) Improved recovery | 3 | - | 3 | 2 | - | 2 | 3 | - | 3 |
| 3) Additional development well drilling & new discoveries | 10 | 3 | 13 | 273 | 278 | 551 | 55 | 46 | 101 |
| 4) Purchase/ sale of reserves | - | (1) | (1) | - | - | - | - | (1) | (1) |
| 5) Production | (35) | (25) | (60) | (694) | (379) | (1,073) | (147) | (86) | (233) |
| Proved Reserves of PTT and Subsidiaries | | | | | | | | | |
| As of December 31, 2023 ^{3/} | 143 | 210 | 353 | 3,741 | 2,879 | 6,620 | 746 | 690 | 1,436 |
| 1) Revision of previous estimates | 33 | 30 | 63 | 444 | 64 | 508 | 105 | 43 | 148 |
| 2) Improved recovery | 3 | - | 3 | 3 | 3 | 6 | 4 | 1 | 5 |
| 3) Additional development well drilling & new discoveries | 16 | 10 | 26 | 353 | 117 | 470 | 72 | 29 | 101 |
| 4) Purchase/ sale of reserves | - | 104 | 104 | - | 604 | 604 | - | 202 | 202 |
| 5) Production | (37) | (24) | (61) | (819) | (390) | (1,209) | (169) | (86) | (255) |
| Total Proved Reserves as of December 31, 2024^{3/} | 158 | 330 | 488 | 3,722 | 3,277 | 6,999 | 758 | 879 | 1,637 |

Remarks:

1/ Proved reserves include PTTEP's net equity reserves and those of the countries that own oil and gas fields

2/ Including NGL

3/ Including reserves under the APICO joint-venture project

Long-Term Leases

PTT's major long-term property leases are the agreements for using Ratchaphatsadu land (royal land) subleased to the Ministry of Finance for PTT's business under an agreement between the Ministry and PTT dated June 3, 2008. Properties that PTT segregated to the Ministry under the verdict of the Supreme Administrative Court are land, right-of-use land, pipelines, equipment, and tools which together form transmission pipeline systems. The assets under the agreement were booked as right-of-use of such Ratchaphatsadu land for 30 years (January 1, 2008 to December 31, 2037). After the period expiration, the Ministry pledges to allow PTT to use this segregated land for another 30 years. Regarding compensation payment for land use, the agreement calls for annual payment at the rate derived from revenue sharing of the onshore gas transmission pipeline tariff of each calendar year. This tariff means the charge for the onshore transmission pipeline system (Area 3), which includes demand charge and commodity charge under the rule for setting natural gas prices and pipeline charges under the NEPC announcement No. 1 of 2001 or future amendments. The compensation is calculated by a sliding scale as detailed below:

Unit: THB million

| Revenue | Compensation Rate (% of Revenue) | | Annual Compensation |
|-----------------|----------------------------------|-----------|----------------------------|
| | Minimum | Increment | |
| 0 - 3,600 | 5% | | = Minimum Compensation 180 |
| > 3,600 - 3,700 | | 10% | > 180 - 190 |
| > 3,700 - 3,900 | | 15% | > 190 - 220 |
| > 3,900 - 4,100 | | 20% | > 220 - 260 |
| > 4,100 - 4,300 | | 25% | > 260 - 310 |
| > 4,300 - 4,500 | | 30% | > 310 - 370 |
| > 4,500 - 5,000 | | 36% | > 370 - 550 |
| > 5,000 | | | = Maximum Compensation 550 |

Investment Policy in Subsidiaries and Associates

PTT's investment policy, whether for new investments, expansion or capacity growth, share purchase or acquisition. PTT has taken many factors into consideration, namely, business growth trends, investment capable of adding value and economic viability, and enhanced competitiveness. PTT or its subsidiaries may carry out the investments, depending on each company's suitability and capability.

1.2.4 Outstanding of Undelivered Project

-None-

1.2.5 Environmental Impacts

Environmental Impacts of Gas Separation Plants (GSPs)

Throughout the operations of the Gas Separation Plants (GSPs), PTT pays great attention to the impacts on the environment, safety, and occupational health as well as the quality of life and health of people living nearby by continuously and strictly monitoring environmental quality following the relevant laws. Based on the environmental quality monitoring results of all GSPs since the start of operations, air quality, water quality, and waste management from the processes are all well below regulatory limits, as well as complying with environmental impact prevention and mitigation measures with continuous monitoring. If the results of the environmental impact monitoring measures do not conform to the environmental impact assessment, PTT would develop an implementation plan to improve and

comply with the established measures, including reporting information to relevant agencies within the guidelines and time frame specified by law. In addition, PTT improves the efficiency of processes as well as implementing energy conservation projects, for example, a waste heat recovery project at GSP Unit 5, power generation and cogeneration projects for the Ethane GSPs, and a waste gas recovery unit (Remaining Gas Recovery Unit: RGRU) for GSPs in Rayong province.

Additionally, PTT is committed to continuously controlling air pollution by installing a Regenerative Thermal Oxidizer (RTO) and an SO₂ Scrubber at the GSP Unit 5 as a hydrogen sulfide removal unit for gas contaminated with residual acidic gas from gas separation. Later, PTT expanded the installation to include GSP Unit 6 and the Ethane Separation Unit. PTT is also dedicated to controlling the quality of effluent and making it more stable by installing additional Advanced Oxidation Process (AOP) units within the central wastewater treatment system.



In addition to compliance with laws, PTT's GSPs in Rayong province achieved Integrated Management Systems (IMS) Certification, Environmental Management Systems Certification (ISO 14001), Occupational Health and Safety Management System (ISO 45001) Certification, Quality Management System (ISO 9001) Certification, Business Continuity Management System (ISO 22301) Certification, and Energy Management System (ISO 50001) Certification. Khanom GSP received the above management standard certifications as well.

Environmental Impacts of Gas Transmission Pipeline Operations

PTT has been developing the natural gas pipeline network since 1981. Originally, the natural gas pipeline system was not designated for environmental impact studies until the adoption of the National Environmental Quality Promotion and Preservation Act B.E. 2535 and the Ministry of Science, Technology, and Environment Announcement No. 3 in 1996 on determining the type and size of projects or businesses of government, state-owned or private sectors that require the preparation of the Environmental Impact Analysis Report, respectively. As a result, the Environmental Impact Assessment (EIA) of natural gas pipeline system projects must be studied and prepared. At the time, the network of natural gas pipeline systems under PTT's operations consisted of natural gas pipeline projects under the Natural Gas Pipeline Master Plan Project, Natural Gas Pipeline Project to Industrial Customers, Power Plants, and Natural Gas for Vehicles (NGV) Service Stations. Environmental impacts according to the requirements of the announcement have been studied since then. In addition, when additional environmental requirements are enacted. For example, the National Environmental Quality Promotion and Protection Act (No. 2) B.E. 2561, the Announcement of the Ministry of Natural Resources and Environment determining the project, business, or operation, which must prepare an environmental impact assessment report and criteria, procedures and conditions for the preparation of the Environmental Impact

Assessment B.E. 2562, including additional announcements and the latest version of the Announcement of the Ministry of Natural Resources and Environment Subject determining the project, business or operation, which must prepare an environmental impact assessment report and criteria, methods and conditions for the preparation of the Environmental Impact Assessment (No. 7) B.E. 2566 and the Notification of the Ministry of Energy determining the Type and Size of Natural Gas Transportation System by Pipeline and Procedure, Criteria Procedures and guidelines for Environmental Report (ER) B.E. 2556. PTT has studied and specified the types of projects that are deemed to be subject to a complete study of environmental impacts according to relevant requirements.

Therefore, before the construction preparation, construction and operation phases, all PTT natural gas pipeline projects must study and assess direct or indirect potential environmental impacts from project implementation to lead to the determination of preventive, corrective, and environmental impact monitoring measures, then compiling it as an EIA or ER and presented to the Office of Natural Resources and Environment Policy and Planning (ONEP) and related licensors such as the Department of Energy Business (DOEB), the Energy Regulatory Commission (ERC). After the EIA or ER is approved, PTT will direct, monitor, and present the results of compliance with the conditions specified in the report, including strict environmental measures both during the construction and after-construction phases. The project will deliver the project care to the natural gas transmission business throughout the period of gas transportation through the pipeline system. The results of EIA or ER compliance will be reported to the relevant licensors on a 6-month basis or according to the conditions specified by each agency. All PTT projects have fully implemented the measures proposed in the report until now.

1.2.6 Notable Research and Development (R&D) Works of PTT Innovation Institute

Clean Fuel and Applied Energy Innovation

Responsible for research, development, and innovation related to liquefied natural gas (LNG) technology, natural gas, clean fuels, and enhancing natural gas production efficiency in the natural gas industry, petroleum refineries, and petrochemicals to support business operations and create added value for PTT. This includes responsibility for researching and developing techniques, sourcing clean fuel technologies, and promoting efficient energy use to foster innovation in PTT's business, ensuring safety for society and the environment. Additionally, it serves as a Technical Center for Capture & Process and Clean Gas Energy Applications for PTT and external organizations to ensure safety and environmental friendliness. It also oversees research and development of clean and sustainable fuel products, alternative fuels, petroleum fuels, automotive lubricants, industrial lubricants, specialty chemicals, and petroleum by-products to create innovations and products that support the growth of PTT and PTT Group, ensuring competitiveness in the future. Furthermore, it acts as a Technical Center for clean and sustainable fuels, alternative fuels, petroleum products, and analytical testing laboratories, as well as conducting research to support government energy policies regarding fuels.

Life Science Innovation

Responsible for research and development in Life Science to support the Life Science businesses of PTT and its subsidiaries involved in Life Science sectors, including pharmaceuticals, food and nutrition, and medical devices and diagnostics through the research and development of biotechnology and bioprocess technology and products, as well as technical services, consulting, problem-solving, and related analysis and testing work, leading to the creation of innovations, products, or new businesses in Life Science for PTT and PTT Group companies.

Renewable Energy and Future Technology Innovation

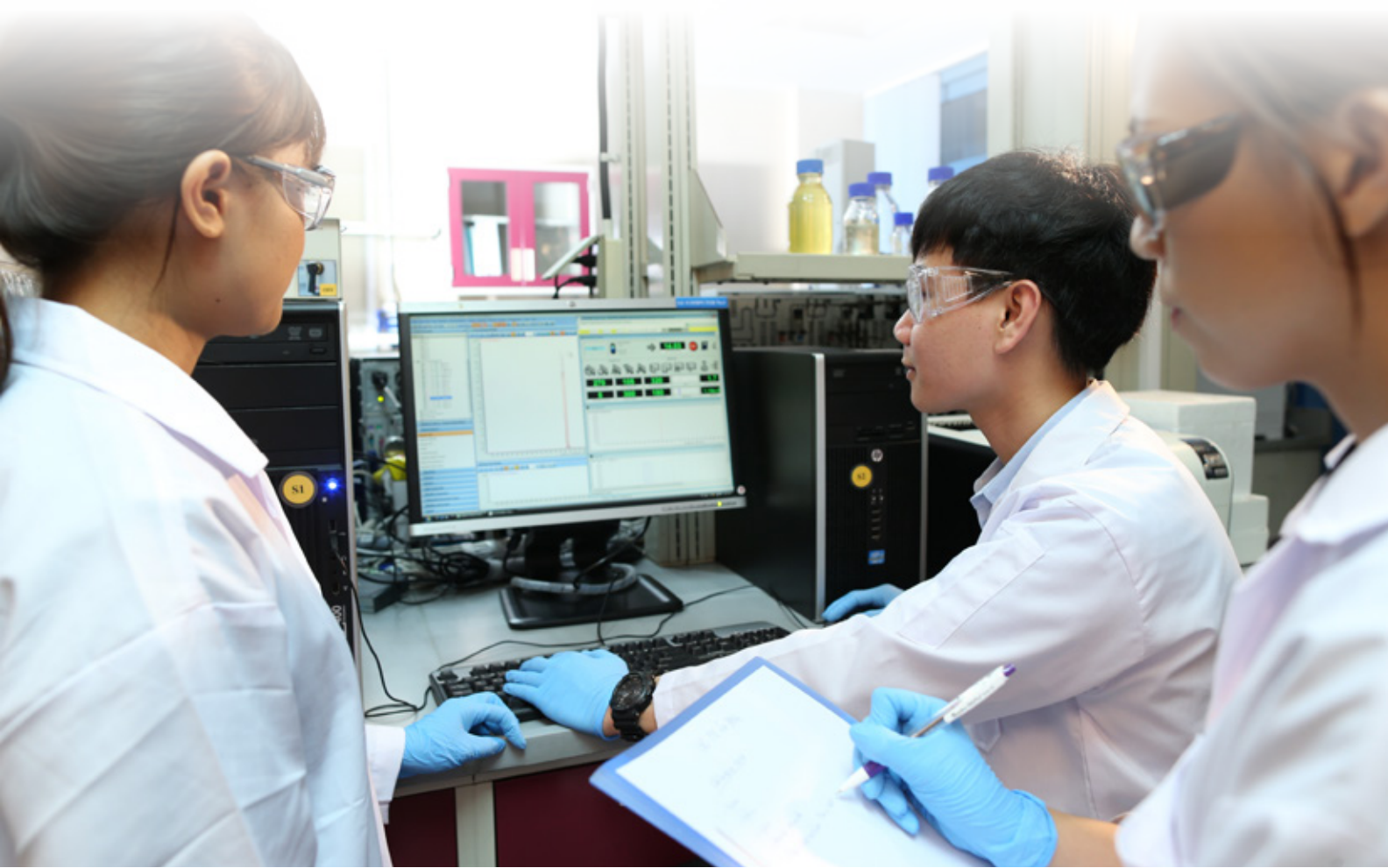
Responsible for research and development of technologies in the field of renewable energy and new energy technologies such as nuclear, hydrogen/ fuel cell, smart electronics and advanced materials for energy, and Artificial Intelligence (AI), to create innovative technology solutions that lead to new business opportunities, seek new markets, create competitive advantages, and support operational directions to generate new business opportunities for PTT Group and benefit the organization, society, and environment.

Electric Vehicle and Battery Innovation

Responsible for research, development, and technology in battery energy storage systems, EV technology, EV charging systems, and the development of smart instruments for prototyping, electromechanical products, Sensor, IoT, and automation to achieve innovations, technology, and new solutions that lead to business opportunities, explore new markets, and create innovations for PTT's business. This creates a competitive advantage, supports operational directions to generate new business opportunities for PTT Group, and serves as a Technical Center for research and testing of engines, vehicles, combustion, vehicle emissions, and Battery Packs to create innovations to support the business growth of PTT and PTT Group companies, enabling them to compete in the future while ensuring safety for society and the environment.

Environmental and Carbon Solutions Innovation

Responsible for research, development, and application of environmental technology, Carbon Capture, Utilization and Storage technology, processing and value-added technology, evaluating technology, and developing approaches to control, treat, and restore environmental issues to support the operations and development of new businesses for PTT Group to grow sustainably, leading to innovations for PTT Group's business. Promote the implementation of



technology towards Carbon Neutrality and Net Zero Emissions, encourage the creation of a Circular Economy and Smart Environment, as well as provide research, development, evaluation, and application services for environmental technologies and products to PTT Group and external agencies. Additionally, conduct research to support government environmental policies and international and national environmental commitments.

Strategic and Innovation Management Plan

Responsible for developing research and innovation strategic plans, managing research and innovation projects of the Institute and PTT, as well as serving as a central hub for academic knowledge management, research and innovation information, intellectual property operations, research and innovation benefits, international relations, and general administration to support and promote effective

research and innovation, including overseeing research and innovation strategic plan development and budgets for PTT Group. Manage the intellectual property related to PTT's patents and petty patents. Study the feasibility of research and innovation projects of the Institute and PTT Group's joint research and innovation projects. Evaluate and manage PTT Group's joint research and innovation projects and their related budgets, and oversee research and innovation curricula development. Promote the commercialization of PTT Group's joint research and innovation projects.

PTT Innovation Institute is certified ISO 14001 for its environmental management system, ISO 45001 for its occupational health and safety management system by the Management System Certification Institute (Thailand) (MASCI), and TISI 17025 by the Thai Industrial Standards Institute (General Requirement for the Competence of Testing and Calibration Laboratories).



1.3 Shareholding Structure of PTT Group

1.3.1 Shareholding Structure of PTT Group

PTT is a fully integrated national petroleum and petrochemical company with the mission to ensure national energy security, economic prosperity, and organization sustainability in parallel with socio-environmental stewardship.

Our operations cover the energy industry's entire business value chain from upstream to downstream activities with an emphasis on value added to its businesses as well as creating energy innovation. PTT has its own business operations and operates through subsidiaries. The following structure illustrates the integration of our operations.

Business Structure of PTT Group

Upstream Petroleum and Gas Business Group

Gas Business

- Supply and Trading
- Gas Separation Plant
- Distribution Pipeline
- NGV
- Commercial and Marketing Management

Gas Transmission Business

| | |
|---|---------|
| PTT LNG Co., Ltd. (PTTLNG) | 100.00% |
| PTT Energy Resources Co., Ltd. (PTTER) | 100.00% |
| PTT Green Energy Pte. Ltd. (PTTGE) | 100.00% |
| PTT Exploration and Production Plc. (PTTEP) ^{1/} | 63.79% |
| PTT Natural Gas Distribution Co., Ltd. (PTTNGD) | 58.00% |
| Trans Thai-Malaysia (Thailand) Co., Ltd. (TTM(T)) | 50.00% |
| Trans Thai-Malaysia (Malaysia) Sdn. Bhd. (TTM(M)) | 50.00% |
| Map Ta Phut Air Products Co., Ltd. (MAP) | 49.00% |

Downstream Petroleum Business Group

International Trading Business

- Crude oil and condensate
- Refined oil product and LPG
- LNG and alternative products
- Petrochemical product, chemical, and solvent
- Derivatives
- International Chartering

| | |
|--|---------|
| PTT International Trading Pte. Ltd. (PTTT) | 100.00% |
| PTT International Trading London Ltd. (PTTT LDN) | 100.00% |
| PTT International Trading USA Inc. (PTTT USA) | 100.00% |

Petrochemical and Refining Business

| | |
|---|---------|
| PTT Tank Terminal Co., Ltd. (PTT TANK) | 100.00% |
| PTT Global Chemical Plc. (GC) ^{1/} | 45.18% |
| IRPC Plc. (IRPC) ^{1/} | 45.05% |
| Thai Oil Plc. (TOP) ^{1/} | 45.03% |

Oil and Retail Business

| | |
|---|--------|
| PTT Oil and Retail Business Plc. (OR) ^{1/} | 75.00% |
|---|--------|

New Business and Sustainability Group

- New Business and Sustainability
- Innovation and New Ventures
- Corporate Sustainability
- Innovation Institute

| | |
|--|--------|
| CHCJ EQ LLC (CHCJ) | 49.95% |
| Global Power Synergy Plc. (GPSC) ^{1/} | 47.27% |
| Congruent Opportunity Fund A, LLC (CongruentOppFundA) | 42.17% |
| PTT Energy Solutions Co., Ltd. (PTTES) | 40.00% |
| District Cooling System and Power Plant Co., Ltd. (DCAP) | 35.00% |
| VISUP Co., Ltd. (VISUP) | 22.22% |
| InnoSpace (Thailand) Co., Ltd. (InnoSpace) | 13.61% |
| NTG Holdings Pte. Ltd. (NT) | 12.79% |
| Sunfolding, Inc. (Sunfolding) | 5.81% |
| Shenzhen Immotor Technology Co., Ltd. (Immotor) | 3.05% |
| Baania (Thailand) Co., Ltd. (Baania) | 2.63% |
| Ample, Inc. (Ample) | 1.13% |
| 6K, Inc. (6K) | 1.04% |
| HG Robotics Co., Ltd. (HG ROBOTICS) | 0.60% |
| Luminar Technologies, Inc. (Luminar) | 0.06% |

Other Businesses

| | |
|--|---------|
| PTT Treasury Center Co., Ltd. (PTT TCC) | 100.00% |
| PTT Global Management Co., Ltd. (PTTGM) | 100.00% |
| Energy Complex Co., Ltd. (EnCo) | 50.00% |
| Veolia Sustainable Solution (Thailand) Co., Ltd. (VSS) | 40.00% |
| Business Services Alliance Co., Ltd. (BSA) ^{2/} | 25.00% |
| Sarn Palung Social Enterprise Co., Ltd. (SPSE) | 20.00% |
| PTT Digital Solutions Co., Ltd. (PTT DIGITAL) | 20.00% |
| Dhipaya Group Holdings Plc. (TIPH) ^{1/} | 13.46% |



Own Operations



Investment in PTT Group

Remarks:

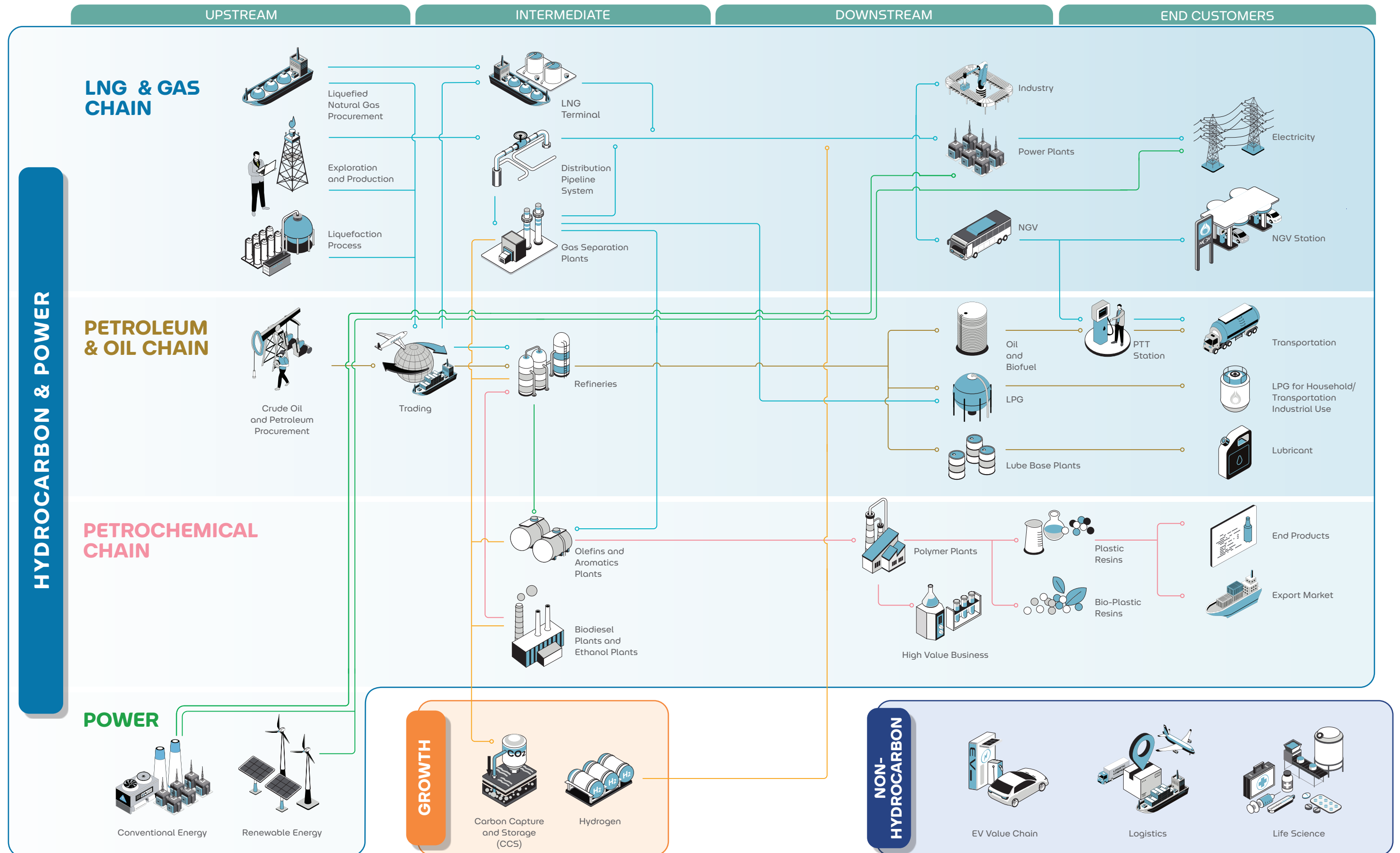
Information as of December 31, 2024. (All figures are presented by PTT's portion.)

1/ These 7 listed companies are registered in The Stock Exchange of Thailand.

2/ BSA is a wholly owned subsidiary as PTT holds all common shares of BSA.

Details are in Supplementary of 56-1 One Report for the year 2024.

Create Value through Business Chain



1.3.2 Parties with Conflict of Interest

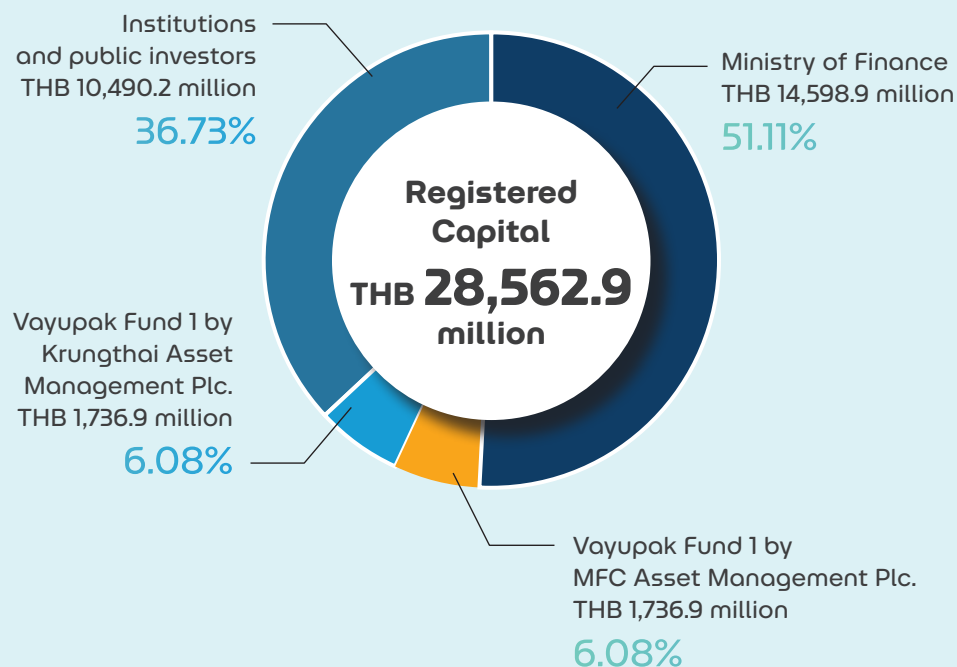
-None-

1.3.3 Relations with Major Shareholders' Business Group

PTT is a state enterprise, with the government through the Ministry of Finance as its major shareholder, under the supervision of the Ministry of Energy. Its business operations must also comply with the National Energy Policy Council Act B.E. 2535 (1992) with the supervision of the National Energy Policy Council (NEPC). As a state enterprise, the public sector can supervise its operations in compliance with national energy, economic, and social policies.

1.3.4 Shareholders

The following table illustrates PTT's shareholding structure as of August 29, 2024, the record date for the 2024 interim dividend payment.





The top 10 shareholders (as of August 29, 2024) are as follows:

| No. | Name | Shares | % |
|--------------|---|-----------------------|--------------|
| 1. | Ministry of Finance | 14,598,855,750 | 51.11 |
| 2. | Vayupak Fund 1 by MFC Asset Management Plc. | 1,736,895,500 | 6.08 |
| 3. | Vayupak Fund 1 by Krungthai Asset Management Plc. | 1,736,895,500 | 6.08 |
| 4. | Thai NVDR Co., Ltd. | 1,181,093,754 | 4.14 |
| 5. | Federation of Savings and Credit Cooperative of Thailand Ltd. | 588,811,600 | 2.06 |
| 6. | SOUTH EAST ASIA UK (TYPE C) NOMINEES LTD. | 537,530,553 | 1.88 |
| 7. | Social Security Office | 496,528,300 | 1.74 |
| 8. | STATE STREET EUROPE LTD. | 418,801,764 | 1.47 |
| 9. | THE BANK OF NEW YORK MELLON | 318,988,361 | 1.12 |
| 10. | Electricity Generating Authority of Thailand Saving and Credit Cooperative Ltd. | 309,691,700 | 1.08 |
| Total | | 21,924,092,782 | 76.76 |

Remarks:

- Shareholders of Thai NVDR Co., Ltd., who hold non-voting depository receipts (NVDR) in No. 4, are ineligible for voting at shareholders' meetings except when exercising their voting rights on delisting the shares from SET.
- Number 6 is a nominee account. PTT's investigation at Thailand Securities Depository Co., Ltd. (TSD) found that the ultimate shareholder's names could not be disclosed. However, the Ministry of Finance remained the sole majority shareholder on behalf of the State, which in part dictates PTT's management policy. The ministry nominated directors to the Board for approval by shareholders. Other substantial shareholders, including Number 6 exercise no influence over PTT's management policy formulation, including director nomination.

1.4 Registered and Paid-Up Capital

1.4.1 Common Shares

As of December 31, 2024, PTT's registered capital totaled THB 28,562,996,250, consisting of 28,562,996,250 common shares at THB 1 per share. These shares represented THB 28,562,996,250 in paid-up capital, or 28,562,996,250 common shares.

1.4.2 Other Shares with Different Terms or Rights from Common Shares

-None-

1.4.3 PTT's Shares or Convertible Securities as Underlying Securities for Issuing Mutual Funds for Foreign Investors

-None-

1.5 Issuance of Other Securities

1.5.1 Convertible Securities

-None-

1.5.2 Debt Securities

Bonds and Debentures

As of December 31, 2024, PTT had THB 104,500 million of Baht-denominated debentures and U.S. dollar-denominated debentures issued by PTT and PTT Treasury Center Co., Ltd. (PTT TCC), which are guaranteed by PTT, equivalent to THB 53,554 million. The detail is summarized as follows:

| Debentures | Amount (THB million) | Redemption Date | Guarantee |
|-------------------------------------|-------------------------|-----------------|-----------|
| Domestic debentures ^{1/} | 104,500 | 2025 - 2110 | None |
| Foreign debentures ^{2/ 3/} | 53,554 | 2035 - 2070 | None |
| Total | 158,054 | | |

Remarks:

1/ Fitch Rating's national rating of PTT long-term debentures at "AAA (tha)."

2/ Moody's rating of PTT and PTT TCC foreign debentures at "Baa1."

3/ S&P's international rating of PTT and PTT TCC foreign debentures at "BBB+."

Unsecured, Unsubordinated Domestic Debentures

| Symbol | Issuance Date | Maturity Date | Tenor | Amount (THB million) | Annual Coupon Rate (%) | Terms |
|--------------|---------------|---------------|-----------|----------------------|-------------------------|---|
| PTTC254A | Apr. 8, 2022 | Apr. 8, 2025 | 3 years | 8,000 | 1.79 (semi-annually) | - |
| PTTC255A | May 10, 2023 | May 10, 2025 | 2 years | 1,000 | 2.31 (semi-annually) | - |
| PTTC257A | Jul. 2, 2020 | Jul. 2, 2025 | 5 years | 3,000 | 2.05 (semi-annually) | - |
| PTTC259A | Sep. 23, 2024 | Sep. 23, 2025 | 1 year | 500 | 2.38 (semi-annually) | - |
| PTTC268A | Aug. 6, 2021 | Aug. 6, 2026 | 5 years | 15,000 | 1.31 (semi-annually) | - |
| PTTC277A | Jul. 24, 2020 | Jul. 24, 2027 | 7 years | 13,000 ^{1/} | 2.85 (semi-annually) | - |
| PTTC270A | Apr. 8, 2022 | Oct. 8, 2027 | 5.5 years | 3,000 | 2.45 (semi-annually) | - |
| PTTC288A | Aug. 6, 2021 | Aug. 6, 2028 | 7 years | 5,000 ^{2/} | 1.79 (semi-annually) | - |
| PTTC295A | May 27, 2022 | May 27, 2029 | 7 years | 20,000 | 3.25 (semi-annually) | - |
| PTTC307A | Jul. 2, 2020 | Jul. 2, 2030 | 10 years | 2,000 ^{3/} | 2.84 (semi-annually) | - |
| PTTC318A | Aug. 6, 2021 | Aug. 6, 2031 | 10 years | 8,000 | 2.37 (semi-annually) | - |
| PTTC344A | Apr. 8, 2022 | Apr. 8, 2034 | 12 years | 9,000 | 3.47 (semi-annually) | - |
| PTTC357A | Jul. 2, 2020 | Jul. 2, 2035 | 15 years | 6,000 | 3.20 (semi-annually) | - |
| PTTC457A | Jul. 2, 2020 | Jul. 2, 2045 | 25 years | 7,000 | 3.74 (semi-annually) | - |
| PTTC10DA | Dec. 2, 2010 | Dec. 2, 2110 | 100 years | 4,000 ^{4/} | 5.90 (semi-annually) | <ul style="list-style-type: none"> • Debenture holders can redeem at the end of 50th and 75th years, and other cases as defined in the Indentures. |
| Total | | | | 104,500 | | |

Unsecured, Unsubordinated Foreign Debentures

| Symbol | Issuance Date | Maturity Date | Tenor | Amount (THB million) | Annual Coupon Rate (%) | Terms |
|-----------------------------|---------------|---------------|----------|----------------------|------------------------|--|
| USD Bond 2005 ^{5/} | Aug. 3, 2005 | Aug. 3, 2035 | 30 years | 1,820 ^{8/} | 5.875 (semi-annually) | <ul style="list-style-type: none"> Debenture holders have right to exercise put option in the event that (i) the Thai Government, directly or indirectly, ceases to own and control at least 50% of PTT's issued and outstanding capital stock and (ii) within 180 days from the date of such decrease in ownership, PTT's Credit Rating is reduced below such Credit Rating immediately prior to the occurrence of such change of control as defined in debentures prospectus and related documents. |
| USD Bond 2012 ^{6/} | Oct. 25, 2012 | Oct. 25, 2042 | 30 years | 8,213 ^{9/} | 4.50 (semi-annually) | <ul style="list-style-type: none"> Debenture holders have right to exercise put option in the event that (i) the Thai Government, directly or indirectly, ceases to own and control at least 50% of PTT's issued and outstanding capital stock and (ii) within 180 days from the date of such decrease in ownership, PTT's Credit Rating is reduced below such Credit Rating immediately prior to the occurrence of such change of control as defined in debentures prospectus and related documents. PTT has right to exercise call option (Make-whole Redemption) as defined in debentures prospectus and related documents. |

| Symbol | Issuance Date | Maturity Date | Tenor | Amount (THB million) | Annual Coupon Rate (%) | Terms |
|-------------------------------|---------------|---------------|---------------------------------|-------------------------|--------------------------|--|
| USD Bond 2019 ^{5-7/} | Oct. 24, 2019 | Aug. 3, 2035 | 15 years 9 months 10 days | 8,364 ^{10-11/} | 5.875 (semi-annually) | <ul style="list-style-type: none"> Debtenture holders have right to exercise put option in the event that (i) the Thai Government, directly or indirectly, ceases to own and control at least 50% of PTT's issued and outstanding capital stock and (ii) within 180 days from the date of such decrease in ownership, PTT's Credit Rating is reduced below such Credit Rating immediately prior to the occurrence of such change of control as defined in debentures prospectus and related documents. |
| | Oct. 24, 2019 | Oct. 25, 2042 | 23 years 1 day | 11,255 ^{12/} | 4.50 (semi-annually) | <ul style="list-style-type: none"> Debtenture holders have right to exercise put option in the event that (i) the Thai Government, directly or indirectly, ceases to own and control at least 50% of PTT's issued and outstanding capital stock and (ii) within 180 days from the date of such decrease in ownership, PTT's Credit Rating is reduced below such Credit Rating immediately prior to the occurrence of such change of control as defined in debentures prospectus and related documents. PTT has right to exercise call option (Make-whole Redemption) as defined in debentures prospectus and related documents. |
| USD Bond 2020 ^{7/} | Jul. 16, 2020 | Jul. 16, 2070 | 50 years | 23,902 | 3.70 (semi-annually) | <ul style="list-style-type: none"> Debtenture holders have right to exercise put option in the event that <ol style="list-style-type: none"> (1) the Thai Government, directly or indirectly, ceases to own and control at least 50% of PTT's issued and outstanding capital stock or (2) PTT ceases to own and control, directly or indirectly, at least 99% of PTT TCC's issued and outstanding capital stock and within 180 days from the date of such decrease in ownership, PTT's Credit Ratings is reduced below such Credit Rating. PTT has right to exercise call option (Make-whole Redemption) as defined in debentures prospectus and related documents. |
| Total | | | | 53,554 | | |

Remarks:

- 1/ PTT engaged in an interest rate swap from Baht-denominated debentures worth THB 13 billion at a fixed rate to a floating rate of Compounded THOR + a fixed rate per year on the Baht-denominated principal. The swap will end on July 24, 2027.
- 2/ PTT engaged in an interest rate swap from Baht-denominated debentures worth THB 5 billion at a fixed rate to a floating rate of Compounded THOR + a fixed rate per year on the Baht-denominated principal. The swap will end on August 6, 2028.
- 3/ PTT engaged in an interest rate swap from Baht-denominated debentures worth THB 2 billion at a fixed rate to a lower fixed rate on the Baht-denominated principal. The swap will end on July 2, 2030.
- 4/ PTT engaged in an interest rate swap from Baht-denominated debentures worth THB 4 billion at a fixed rate to a floating rate of Compounded THOR + a fixed rate per year on the Baht-denominated principal. The swap will end on December 2, 2031.
- 5/ In 2019, PTT exercised liability management by repurchasing its USD bonds (USD Bond 2005) in the amount of USD 244.955 million, and PTT TCC reissued new USD bonds (USD Bond 2019), guaranteed by PTT in the same amount of USD 244.955 million. The current PTT's USD bonds 2005's outstanding is USD 53.297 million.
- 6/ In 2019, PTT exercised liability management by purchasing its USD bonds (USD Bond 2012) in the amount of USD 330.09 million, and PTT TCC reissued new bonds (USD Bond 2019) guaranteed by PTT. The current USD bond 2012's outstanding is USD 240.51 million. In 2023, PTT exercised liability management by purchasing PTT TCC's reissued debentures in the amount of USD 0.47 million. The current PTT's USD Bond 2019 outstanding is USD 329.62 million.
- 7/ PTT TCC issued the bonds guaranteed by PTT. The guarantee's maximum liability will be capped at an amount equal to 125% of the outstanding of PTT TCC's bond. The guarantee amount for USD Bond 2019 series maturity on August 3, 2035 and October 25, 2042 are USD 306 million and USD 412 million, respectively. Also, USD 875 million is the maximum guarantee for USD Bond 2020 with maturity on July 16, 2070.
- 8/ PTT engaged in a cross-currency swap from dollar-denominated debentures worth USD 53.297 million to Baht-denominated ones worth THB 1,749.21 million at a fixed rate to a lower fixed rate on the Baht-denominated principal. The swap will end on August 3, 2035.
- 9/ PTT engaged in an interest rate swap worth USD 240 million at a fixed rate to a floating rate based on the long-term USD reference rate. The swap will end on October 25, 2025.
- 10/ PTT entered into a cross-currency swap worth USD 144.955 million to Baht-denominated ones worth THB 4,486.50 million, with a fixed interest rate to a floating rate of Compounded THOR + a fixed rate per year on the Baht-denominated principal which will end on August 3, 2035.
- 11/ PTT entered into a cross-currency swap from dollar-denominated debentures worth USD 100 million to Baht-denominated ones worth THB 3,230 million from a fixed to a lower fixed rate on the Baht-denominated principal which will end on August 3, 2035.
- 12/ PTT engaged in an interest rate swap of USD 200 million from a fixed to a floating rate of Compounded SOFR + a fixed rate per year on USD principal and the long-term USD reference rate which will end on October 25, 2030.

Short-term Bills of Exchange

As of December 31, 2024, there was no outstanding of short-term bill of exchange.

1.6 Dividend Policy

PTT

PTT has a policy to pay dividend of not less than 25% of net income after deducting all provisional reserves required by law and PTT. While the net income is based on the consolidated financial statements, dividend payment is subject to future investment plans, necessities, and suitability. Once the Board has decided on the annual dividend payment, it must seek approval from the shareholders' meeting. An exception is for interim dividend payment, which the Board can approve and report to the next shareholders' meeting.

Subsidiaries

Each subsidiary may proceed with dividend payment by taking into account its remaining cash flow in comparison with the investment capital. If the cash flow is substantial enough after legal provisions, the subsidiary may consider proceeding with dividend payment on a case-by-case basis.

PTT Dividend Payment

| | 2022 | 2023 | 2024 |
|--------------------------------|------|------|------|
| Earnings per share (THB/share) | 3.20 | 3.92 | 3.15 |
| Dividend per share (THB/share) | 2.00 | 2.00 | 2.10 |
| Dividend payout ratio (%) | 63 | 51 | 67 |

2. Risk Management

2.1 Risk Management Policy and Plans

In recognition of the importance of risk management in the face of changes from both internal and external factors that may affect the business, PTT has adopted the International Standard Committee of Sponsoring Organizations of the Treadway Commission (COSO-ERM 2017) to continuously manage risks, a crucial part of all PTT's business processes that need to be thoroughly linked. PTT has integrated Governance, Risk, and Compliance (GRC) to support executives' decision-making and to add value or help safeguard the company against risk factors that it encounters on a systematic and efficient basis.

PTT systematically manages risks via multiple management committees and integrates risk management into business planning to ensure the effectiveness and efficiency of the risk management plan, aligning it with the organization's objectives and strategies.



2.1.1 Governance

Governance, Risk, and Compliance (GRC) framework of PTT, there are committees responsible for overseeing each aspect. These consist of the Corporate Governance and Sustainability Committee (CGSC) and the Governance Risk Compliance and Sustainability Management Committee (GRCMC), which are responsible for supervision. They oversee compliance with the principles of good governance, operational risk management, internal control, legal compliance, organizational rules, sustainability management, and operations concerning society, communities, and the environment, including the promotion of ethics and the prevention and suppression of corruption and misconduct in the operation of state enterprises to be effective, transparent, ethical, and in line with national strategies on preventing and suppressing corruption in the public sector. This includes the establishment of an Enterprise Risk Management Committee (ERMC) and a Corporate Plan and Risk Management Committee (CPRC) to oversee organizational risk management. Progress reports on governance, risk management, internal control, and compliance plans will be submitted to the relevant committees for periodic review of effectiveness and efficiency.

2.1.2 Enterprise Risk Management Policy

PTT has instituted a risk management policy and Risk Appetite Statements (RAS), which are regularly reviewed and revised in accordance with changing factors such as good standards, international practices, and the organization's vision, mission, and strategic goals. Once both announcements are signed by the Chairman of the Enterprise Risk Management Committee, they will be communicated to all employees, who are required to adhere to them.

2.1.3 Promotion of Risk Management Culture

PTT promotes an effective risk culture across the organization by fostering a Governance, Risk, and Compliance (GRC) culture rooted in good governance principles, ethical standards, and a code of conduct, integrated into risk management, internal controls, and compliance. To enhance GRC awareness and understanding, PTT uses multiple communication channels to cultivate consciousness and create a risk-aware organizational atmosphere. Resources are appropriately allocated to continually improve enterprise risk management efficiency, supported by GRC training programs and culture-building activities such as monthly GRC Talks during PTT Management Committee (PTTMC) meetings, regular agenda in departmental meetings, GRC Forums featuring insights from executives and external speakers, and RM&IC Knowledge Awareness activities. PTT promotes GRC policies and knowledge, while disseminating risk management policies, the enterprise risk management manual, and related documents through its Risk Management Dashboard (RMD) system. Additionally, platforms are provided for board committees, executives, and employees to suggest risk management improvements. Furthermore, annual surveys gather feedback and assess employees' understanding of GRC principles.

2.1.4 Risk Management Process

PTT implements a comprehensive risk management framework through various management committees and integrates it with business planning to ensure that risk management plans are not only effective and efficient but also aligned with the organization's objectives and strategies. The organization also categorizes its risk management into 3 levels, corporate level, business level and operational level, which are all connected. Thus, each department is tasked with managing operational risks under the supervision of management to maintain risk appetite, as clearly outlined in their job descriptions. PTT also developed a comprehensive organizational risk management process known as the "PTT Enterprise Risk Management Manual (ERM)" to serve as the standardized, written practice guideline throughout the organization. This manual encompasses integrated organizational risk management, definitions

and interpretations, the framework for enterprise-wide risk management at PTT, and the risk management process, among other key components.

Furthermore, PTT's risk management processes undergo regular reviews by internal units like the Corporate Management Systems Department and the Internal Audit Department, as well as scrutiny by PTT's Audit Committee, and the State Enterprise Policy Committee on an annual basis.

2.1.5 Risk Management Tool

PTT uses a range of risk management tools, including risk appetite assessment, risk map assessment and prioritization, risk management plan (control and mitigation plan) and key risk indicator (KRI) monitoring with its tolerance, and Monte Carlo simulation technique to identify impacts on operating results in the form of Value at Risk (VaR). To establish proactive risk management measures before having an impact on PTT's business operations, PTT also keeps an eye on changes in important external factors and emerging risks.

2.2 Risk Factors Facing PTT's Businesses

PTT identifies enterprise risk factors through an analysis of the Risk Universe, which covers both internal factors, such as concerns from the Board, sub-committee, and top executives, the organization's key goals and strategies, and external factors, such as the needs and expectations of stakeholders, a variety of other factors, including economic, social, political, technological, industrial, and competitor trends. This includes a comprehensive annual material assessment of the organization's sustainability issues using the Double Materiality principle. This principle involves considering risks and opportunities that impact the environmental, social, and governance, with a focus on human rights throughout the organization's business processes (Impact Materiality).

Additionally, PTT analyzes the influence of external factors on the organization's financial performance (Financial Materiality). ESG risks related to material topics that are prioritized at a high level serve as inputs to the enterprise risk management process annually and are managed according to the workflows of the responsible departments. Enterprise risk factors are as follows:

2.2.1 Current and Emerging Risks Facing Businesses of PTT or PTT Group

Strategic Risks

Business Competitiveness Risks

PTT has a strategy to implement a liquefied natural gas (LNG) business across the entire supply chain. However, economic situation, geopolitical conditions, and changes in consumer behavior trends have led to a highly uncertain demand for energy. Energy prices, especially for LNG on the international market, are erratic as this fuel becomes increasingly important for preserving energy security and driving the country's economy. As such, the government has a policy of natural gas liberalization. Thailand is now liberalizing the natural gas industry in its second phase. Licenses have been granted by the government to eight natural gas suppliers and distributors in total.

Mitigation Plan

- Boost competitiveness to grow LNG market share by expanding both domestically and internationally, while maintaining the current market share.
- Collaborate with PTT Group companies to establish committees and working groups related to commercial LNG business operations, and drive operations to achieve goals.

Risks of Pursuing Business Opportunities for Growth

PTT has identified hydrogen as one of its key strategies, aligned with PTT Group's greenhouse gas emissions reduction targets. Estimates suggest that hydrogen could reduce carbon emissions for PTT Group by more than 11 million tons annually by 2050. Additionally, the government's policy to blend hydrogen at a 5% proportion to reduce natural gas consumption in the power generation sector by 2030 directly impacts PTT, requiring the preparation of infrastructure for hydrogen blending in natural gas pipelines, transportation, and various operations throughout the supply chain, which can further evolve into business opportunities both within and outside PTT Group. However, the initial adoption of hydrogen, which is more expensive than fossil fuels, may pose a significant barrier despite its environmentally friendly properties. Furthermore, as PTT's natural gas pipelines vary in construction and service periods, careful assessment is necessary to determine which pipelines can support hydrogen blending.

Mitigation Plan

- Collaborate with the government sector to assess infrastructure readiness and develop an economic model to support the issuance or amendment of laws and regulations related to hydrogen operations, including various support measures during the initial phase.
- Discuss and negotiate with government agencies such as the BOI to seek support for the hydrogen business operations in Thailand, including investment subsidies, tax incentives, etc.
- Assess the gas pipeline's physical readiness for hydrogen blending by collaborating with government agencies to perceive problems, obstacles, and solutions simultaneously.

Investment Risks

PTT has sought new investments through its own operations and group companies. However, there is a risk that investment returns may not meet the targets due to project delays and budget overruns.

Mitigation Plan

- Establish regulations for investment criteria and budget management for PTT and the group companies, along with guidelines for overseeing investments in companies where PTT holds shares, to ensure proper decision-making, follow-up, and supervision of investments made by PTT and the group companies.
- Have a Strategic Investment Management (SIM) process by engaging a Strategic Investment Management Committee (SIMC), comprising executives with diverse expertise, to screen and evaluate investments before submitting them to PTT's Management Committee for approval, and then presenting them to PTT's Board of Directors for final investment approval. Investments with high value or significant risk must be reviewed by the Enterprise Risk Management Committee, which provides recommendations to support the PTT Board's investment decision-making.
- Follow up on investment approved by PTT Board by providing quarterly reports to the Investment Management Committee, PTT Management Committee, an PTT Board. This ensures that the investments are leveraged for maximum benefit and efficiency.
- Regularly monitor and analyze PTT Group's investment portfolio to enhance operational performance and review investment plans. Furthermore, prioritize critical path management to ensure project completion by mitigating risks and achieving scheduled timelines, budget adherence, required quality standards, and compliance with applicable laws and regulations.

Personnel Development to Sustain Business Growth

PTT expands its business both domestically and internationally by pursuing investment opportunities in new business and leverages new technology and innovation to drive growth. However, failing to prepare and develop personnel into experienced experts in a timely manner could adversely impact business operations and hinder the achievement of long-term goals. Moreover, digital and technological transformation are disrupting business operations across various industries.



Mitigation Plan

Specify the guidelines for PTT Group's personnel potential development and human resource management as follows:

- Promote knowledge and understanding of technology and digital trends by pushing employees to realize the importance of technology, digital trends, and cybersecurity, as well as supporting the application of technology in work to increase efficiency.
- Improve core competencies to align with the organization's vision and strategic direction change, such as efficient adaptability, prioritizing customer orientation by incorporating into decision-making, technology use, tools, and digital knowledge to enhance both individual and team efficiency (Digital Insight). PTT Leadership and Learning Institute (PLLI) leads employee capacity development, with the development of specialized in-depth skills through the Functional Academy, emphasizing practical on-the-job learning (Applied learning).
- Establish a corporate structure that facilitates efficient work, including allocating personnel that are appropriate and meet the needs of business units.
- Systematically manage career path, develop employee potential (Career Management) by setting individual employee development plans to strengthen employees' readiness for career advancement, through the collaboration of employees, supervisors, the Career Path Management Committee, and related human resources committees.
- Develop leadership and prepare future executives by promoting learning and developing leaders to be ready for both current and future business operations by rotating executives to gain opportunities to learn and gain experience in new jobs, preparing/ developing executives to be competent and knowledgeable in various work groups to support operations in case of vacancies, retirement positions, as well as supporting PTT's new business operations.
- Develop an external recruitment strategy by improving the recruitment process to attract personnel with knowledge and expertise in new businesses where PTT lacks experience. Establish cooperation with external organizations, both domestically and internationally, such as educational institutions and alumni associations, focusing on fields of study that align with PTT's business needs.
- Build relationships with target groups by organizing activities to build awareness and relationship with applicants, such as PTT Career Day, Career Ambassador, and Internship Program.
- Pass on knowledge within the organization by promoting knowledge management for mid-career employees entering new businesses to ensure knowledge is effectively transferred and retained.

Climate Change Risks

Climate change is one of the critical issues that has a significant impact on economic, social, and environmental aspects, encompassing both physical risks and risks from the transition to a low-carbon economy. In addition, Thailand announced its targets at the 26th Conference of the Parties (COP), leading to adjustments in government energy policies to align with the country's direction in reducing greenhouse gas emissions, such as a Carbon Tax and the Emission Trading System (ETS). PTT must therefore adapt its operational plans accordingly. Investors and financial institutions are also prioritizing the management of climate change-related risks and opportunities, which has become a key factor in investment decisions, especially in the energy sector, which still relies on petroleum production.

Mitigation Plan

- Assess risks and opportunities arising from climate change under various climate scenarios in alignment with the guidelines of the Task Force on Climate-related Financial Disclosures (TCFD). This includes evaluating potential impacts on business operations during the transition to a low-carbon society, such as the implementation of a Carbon Tax and the government's Emission Trading System (ETS), and formulating concrete climate management strategies. Additionally, ensure transparent disclosure of relevant information to investors.
- Establish C³ Approach to achieve PTT Group's Net Zero Emissions, as follows:
 - Climate-Resilience Business: Investing in clean energy, low-carbon business, and restructuring the business by adjusting the portfolio to align with global and Thailand's energy transition directions.
 - Carbon-Conscious Asset: Focusing on reducing greenhouse gas emissions from production processes and operational activities through various methods, including energy conservation, energy efficiency, utilizing clean and renewable energy, adopting advanced technologies such as Small Modular Reactors (SMR).
 - Coalition, Co-Creation, and Collective Efforts for All: Collaborating with stakeholders, as a national leader in developing infrastructure and technologies to reduce greenhouse gas emissions, such as Carbon Capture and Storage (CCS), hydrogen utilization

and reforestation in collaboration with various organizations to absorb carbon dioxide through nature-based solutions.

- Establish PTT Group Net Zero Task Force (G-NET) to formulate a well-defined framework for enhancing climate change solutions, setting goals, and implementing actions through various support mechanisms to effectively achieve Net Zero Emissions.
- Promote the application of carbon pricing mechanisms within the organization by integrating them into investment consideration criteria, ensuring continuous price reviews to be appropriate for the organization's context in order to support projects that reduce greenhouse gas emissions and control the implementation of projects that emit greenhouse gases.

Reputation Risks

Today's rapidly changing environment, driven by economic, political, and social factors, presents significant challenges for organizations in maintaining their reputation, achieving sustainable growth, and earning society's trust. Beyond generating profits, organizations must adapt to the changing environment and respond appropriately and promptly to the needs and expectations of all stakeholder groups. This approach is essential to ensuring the organization's operations succeed as planned and foster growth.

Mitigation Plan

- Appropriately care for all stakeholder groups by continuously enhancing stakeholder management practices in accordance with the principles outlined in the AA1000 Stakeholder Engagement Standard 2015 (AA1000 SES) and the criteria for evaluating stakeholders and customers detailed in the State Enterprise Assessment Model (SE-AM) performance evaluation manual.
- Analyze and review the needs, expectations, and concerns gathered from stakeholder opinion surveys regarding PTT's business operations, alongside input from line representatives and departments responsible for stakeholder engagement. Incorporate comments and suggestions from quarterly reports presented to the Enterprise Risk Management Committee. Summarize key issues between stakeholders and PTT, and provide the findings to the department responsible for creating and revising relationship-building plans. This will ensure

timely responses to stakeholder concerns, minimize risks that could impact PTT's reputation, enhance its public image, and demonstrate a strong commitment to societal support through various projects. These include the Strong Community Development Project, the Product and Community Potential Development Project, the Green Globe Institute, and Disaster Management Programs.

Business and Operational Risks

Diminishing Natural Gas Outputs and Continuity of Gas Production

After more than 30 years of production, reserves of natural gas from production fields in Thailand and Myanmar have been depleted. Some fields have gradually entered the "Post-Plateau" period, the period stipulated in the Gas Sales Agreements where producers are permitted to slash the daily contract quantity or the daily amount of natural gas to be delivered. Under these circumstances, the chance of getting the same delivery volume as written in the agreements is getting slim. In addition, the unrest in Myanmar may result in the risk of natural gas delivery disruption from fields in Myanmar to Thailand.

Mitigation Plan

- Establish a team to work with relevant agencies to monitor the situation and set operational guidelines, including continuously reporting the situation to the Ministry of Energy. This will ensure that the procurement and delivery of natural gas remain uninterrupted, with no intermittent or reduced delivery volumes.
- Create a Business Continuity Management (BCM) plan to establish operational guidelines for situations where the continuous delivery of natural gas is disrupted. This includes preparing for additional LNG procurement to support and supplement the supply, compensating for any potential reduction in natural gas availability.
- Seek new natural gas sources and procure additional natural gas from the Gulf of Thailand and the Malaysia-Thailand Joint Development Area to maintain supply and delivery without affecting the electricity sector and the country's energy security.

Risks of Significant Changes in Prices and Volume of Petroleum and Petrochemical Sales

Domestic and international factors influencing the demand for petroleum and petrochemical products, such as economic conditions, geopolitical unrest, trade wars, natural disasters, and epidemics, directly impact prices and sales volumes. Furthermore, fluctuations in the production volumes of natural gas, crude oil, condensate, petroleum, and petrochemical products affect feedstock and distribution prices. Moreover, the volatility of product spreads, both domestically and internationally, may impact PTT Group's operating results and return on investment in the future.

Mitigation Plan

- Implement price risk management tools to manage cost prices and/or selling prices in order to reduce or limit price risks that may affect PTT Group's performance due to market volatility. The risk management policy will be considered by the Company's Risk Management Committee as appropriate.
- Formulate and approve various processes for policy-making and price risk management within the group companies by the Enterprise Risk Management Committee, PTT Management Committee, and Hedging Committee. Monitor PTT Group companies to ensure regular reporting of PTT Group's price risk management results to PTT Management Committee, Enterprise Risk Management Committee, and PTT's Board of Directors.
- Supervise the risk management process to ensure alignment with PTT Group policy, with PTT executives serving as representatives on the risk management committees of each company.
- Formulate business plans to support various scenarios (Scenario Planning) under situations of different oil price levels and various product prices, ensuring timely adaptation to potential changes and uncertainties in the future.
- Appoint the Price Strategy and Risk Management team under the Petrochemical and Refining Integrated Synergy Management (PRISM) project to analyze global oil price movements and manage hedging price risks in coordination with PTT Group.

- Establish a structure and process for supervising risk management and implementing checks and balances in accordance with international standards. This includes setting limits on Value at Risk (VaR) in trade transactions and preparing regular reports summarizing the risk status for presentation to executives and relevant agencies.
- Monitor the market situation to adjust strategies in response to market conditions, along with enhancing measures to control risks related to trading partners and preventing potential defaults caused by insufficient liquidity in their business operations.
- Apply technology to exchange market information, enabling faster and more comprehensive monitoring of market situations. This ensures effective control and oversight of PTT and PTT Group, preventing price risks from exceeding appropriate levels.

Compliance with Relevant Laws, and Regulations

PTT's business operations are intricate and subject to numerous legal requirements, including those pertaining to energy-related business operations, trade competition laws, the Public Procurement and Supplies Management Act, State Fiscal Discipline Act, Anti-Corruption Act, Personal Data Protection Act, Cybersecurity Act, and changes to relevant laws. These legal requirements may have an impact on PTT's legal liability, reputation, and corporate image.

Mitigation Plan

- Announce The PTT Compliance Policy and Compliance Framework to ensure that directors, executives, and employees adhere to principles aligned with relevant laws and regulations. Regularly review the policy and framework to maintain consistency with the evolving business context, operations, and legal aspects.
- Create a Risk Appetite Statement to define the level of risk the organization is willing to accept. Compliance risk is a type of risk that the organization focuses on, with goals set to monitor and prevent risks related to illegal actions or violations of regulations connected to PTT's business operations.
- Establish a process for overseeing compliance with laws and regulations. The Compliance Department monitors and collects new laws announced through various channels, such as the Government Gazette website, Decree website,

and other government agency websites, and evaluates their relevance to PTT's business operations.

- Assess risks under new laws related to PTT based on Compliance Risk Criteria and defined the details of the organization's legal impact criteria. This is based on penalties under laws related to PTT's business operations, including fines, imprisonment, license revocation, and cessation of work, and consideration of limits according to the authority approved to perform financial work according to PTT Public Company Limited's regulations on Financial Operations B.E. 2563 (2020) and its amendments, as well as defining the risk level of new laws that affect PTT's business operations.
- Communicate new laws to employees across the organization to ensure they are consistently informed about regulations relevant to their operations. This includes methods such as circulating updates on new laws and sharing legal messages in the form of infographics via the E-Mail address: compliance@pttplc.com.
- Communicate important legal information through various methods, such as electronic learning media, including E-Learning, video clips, online learning, podcasts, and training programs offered by the GRC Academy: Compliance, etc.
- Implement a Compliance Monitoring System (CMS) for informing laws to specialized legal and regulatory compliance departments (2nd Line) and relevant operational units (1st Line), ensuring that these units are aware of the law and can assess their consistency or ability to comply with the law.
- Conduct random reviews of legal compliance across specialized legal and regulatory compliance departments (2nd Line) and operational units (1st Line).
- Establish a process for managing incidents of non-compliance with laws and regulations to review and implement measures that prevent and reduce the likelihood of recurrence in the future.
- Integrate the Governance, Risk, and Compliance (GRC) system guidelines to ensure that PTT's business operations uphold good governance, maintain adequate internal control, thoroughly consider risks, and comply with applicable laws and regulations. This integration also aims to prevent and mitigate risks arising from non-compliance with relevant laws and regulations. Performance results are reported to various meetings, including the Governance, Risk Compliance and Sustainability Management Committee (GRCSMC), PTT Management Committee

(PTTMC), Corporate Governance and Sustainability Committee (CGSC), Audit Committee (AC), and PTT's Board of Directors (BOD), respectively.

- Drive management in accordance with PTT Group Way of Conduct, focusing on governance and risk management in compliance with relevant laws and regulations, to ensure that companies within PTT Group adhere to consistent standards and aligned management guidelines.

Risks Arising from Public and Applicable Government Agencies' Policies

On July 31, 2017, the National Energy Policy Council (NEPC) approved a strategy to increase competition in the natural gas industry. The goal is to provide better service to natural gas users, foster more competitive bidding for gas supply contracts, and enhance procurement efficiency. Furthermore, natural gas prices, which are a key factor in the country's energy costs, may decrease in line with fuel prices. The Ministry of Energy has divided this competition-promotion policy into 3 phases. Currently, the NEPC has approved the strategy for Phase 2, which involves numerous natural gas operators competing in LNG supply. The government has also granted shipper licenses to 8 natural gas suppliers and wholesalers, which could lead to a decline in PTT's share of the domestic gas market.

As energy prices soared due to international political conflicts, which have affected fuel costs for domestic power generation, the government, therefore, implemented a policy to manage natural gas to reduce the burden on electricity costs during the energy crisis. The policy allows PTT to allocate natural gas from the Gulf of Thailand after natural gas separation plants, primarily for residential electricity users. This has impacted PTT's Performance in areas where it is unable to pass on increased costs.

The Cabinet meeting on December 19, 2023 approved the natural gas management guidelines proposed by the Ministry of Energy by adjusting the natural gas price entering and exiting the gas separation plant to the Pool Gas price, which is the combined price of natural gas from other sources, except for that used in the production of LPG as fuel, which uses the price equal to that from the Gulf of Thailand. This is effective from January 2024 until the criteria for determining the Gulf Gas price structure entering and exiting the gas separation plant, according to the resolution of the National Energy Policy Council (NEPC) on November 25, 2022, is completed and approved by the NEPC. The Ministry of Energy by the Energy Policy and Planning Office (EPPO) is undertaking a study on the optimal cost structure for the entire value chain to ensure fairness to all parties and maximum benefits to the country.

Mitigation Plan

- Restructure the internal organization to support new roles and responsibilities, ensuring agility in business operations to compete with new business operators. Also, expand the business to meet regional needs by broadening the LNG portfolio, with the goal of becoming an LNG Regional Hub.
- Manage natural gas and procure Spot LNG during low-price periods to reduce natural gas costs.
- Prepare demand-supply data to efficiently manage energy demand and ensure the procurement of sufficient LNG to meet the country's needs. Work collaboratively with relevant agencies through the Execution Operation Team, a subcommittee for situation management during the energy price crises.
- Assess the impact on PTT to establish operational guidelines that will minimize the financial impacts without violating government resolutions, while continuously clarifying and negotiating with the government to provide necessary information and discuss guidelines that will benefit the country sustainably.

Disruption of Production and Business Operations

Operations both domestically and internationally may be affected by interruptions in production and business operations, which could result from employee error, mechanical equipment failures, natural disasters, political unrest, terrorism, epidemics, and other factors. These interruptions could have severe consequences and potentially damage critical infrastructure.

Mitigation Plan

- Emphasize the systematic management and control of operational risks by applying advanced technology in line with engineering principles, international standards, and appropriate management tools and systems.
- Prepare for emergencies and post-emergency management by activating PTT Group Security, Safety, Health, and Environmental Management Standard and PTT Group Business Continuity Management System (BCMS). These serve as guidelines for all business units and PTT Group to develop and integrate their systems.
- Review, improve, and develop the BCMS system to establish connections between business units and conduct rehearsals, including the Business Continuity Management Plan, human resource preparation plan (key personnel follow-up process), alternate work location plan, measures for working from various locations (Work from Anywhere), and information system preparation plan. These efforts aim to maintain the PTT's BCMS certification in accordance with the international standard ISO 22301.
- Purchase insurance to cover risks associated with core business assets used in operations, following good practices of leading companies in the petroleum and petrochemical industries. Additionally, acquire insurance to cover potential losses from operational cessation. However, such insurance may not fully cover all types of potential damages, as no insurer offers comprehensive coverage for all risks, and the premiums for extensive coverage can be prohibitively expensive, making it economically unfeasible. Although PTT trusts that group companies maintain insurance in line with industry standards, PTT cannot control the insurance limits for PTT Group's assets to ensure sufficient coverage for all possible damages. Significant uninsured losses, financial difficulties of insurers, or their inability to continue operations could severely impact PTT's financial position, operating results, or business opportunities.



Risks from Work-Related Accidents

PTT's operations carry the potential for accidents that could occur during operations, which may result in injuries, illness, death, or property damage, as well as potential impact on society, the community, and stakeholders.

Mitigation Plan

- Establish policies, goals, and plans to prevent and control losses from accidents that could impact life, property, and environment.
- Establish a risk control management process that includes hazard indication and risk assessment.
- Establish risk control and impact reduction measures, including work standards that align with international standards and PTT Life Saving Rules. Foster a safety culture among employees and contractors by providing knowledge, organizing awareness activities, and ensuring adherence to safety rules through control and monitoring.
- Apply engineering principles and tools in accordance with international standards by implementing the Process Safety Management (PSM) system in PTT's operating areas to prevent serious safety accidents in the production process. Establish transportation safety standards (5 Pillars) to prevent and reduce the risk of accidents that may occur with product transport vehicles.
- Assess safety management for continuous improvement and development, including actively identifying risk and hazard points and taking corrective actions before accidents occur.

Cybersecurity Risks

An organization faces risks in various areas, including data breaches, ransomware and cyber extortion, damage to its image and reputation, and business interruptions, etc.

Mitigation Plan

- PTT, as a Critical Information Infrastructure (CII) agency in the energy and utilities sector under the Cyber Security Act B.E. 2562 (2019), is required to operate strictly in accordance with the Code of Practice and the Cyber Security Standard Framework for government agencies and critical information infrastructure agencies, as outlined below:
 1. Implementing the Cyber Security Standard Framework
 - Governance
 - Risk identification (Identify)
 - Measures to prevent potential risks (Protect)
 - Cyber threat monitoring and surveillance measures (Detect)
 - Response measures when a cyber threat is detected (Response)
 - Measures to heal and recover the damage caused by cyber threats (Recovery)
 2. Implementing the Cybersecurity Audit Plan
 3. Conducting a Cybersecurity Risk Assessment
 4. Developing a Cyber Threat Response Plan
- In 2024, PTT enhanced operational efficiency by investing in technology, enhancing process efficiency, and raising awareness of cyber threats among employees within the organization, aligning with international standards such as ISO 27001, ISO 27701, and ISO 38500, including initiatives such as:
 - Implement Security Anywhere (SSE) and upgrade VPN usage for corporate computers to increase the security of access to internal and external systems to ensure that every connection is properly protected, reduce the risk of cyber threats, and strengthen system reliability.
 - Develop and integrate a linkage strategy between Information Technology (IT) and Operation Technology (OT), resulting in comprehensive monitoring and management of work processes and quick response to threats. This modern technology reduces risks and supports continuous operations.

- Vulnerability Assessment to regularly identify and close system vulnerabilities, as well as perform Red Team Assessment by experts to identify vulnerabilities and measure the effectiveness of internal protection systems, covering both Information Technology (IT) and Operation Technology (OT).
- Regularly provide knowledge through various channels, such as E-Mail, PR, and training courses, to raise awareness of cyber threats among employees. Additionally, employees' knowledge and understanding are continuously assessed through phishing test campaigns. Furthermore, cyber awareness has been expanded to address risks associated with the use of artificial intelligence (AI) and Generative AI technology within the organization, etc.
- Assign PTT Digital Solutions Co., Ltd. to provide cybersecurity services to PTT Group, with the Cyber Security Operation Center (CSOC) responsible for monitoring anomalies from cyber-attacks. The CSOC provides 24-hour service using advanced technologies such as AI and Machine Learning, supported by personnel with international certifications, and implements a comprehensive Cyber Security Incident Response Plan in various formats.
- PTT has joined the Energy Computer Emergency Response Team (Energy CERT) in collaboration with the Ministry of Energy and other relevant agencies to coordinate, assist, support, or operate alongside the Thailand Computer Emergency Response Team (ThaiCERT). This includes participating in the Energy Sector Cyber Exercise with the Ministry of Energy and Thailand's National Cyber Exercise (NCX) with the National Cyber Security Agency (NCSA) to train the team annually, ensuring readiness to respond to cyber threats.

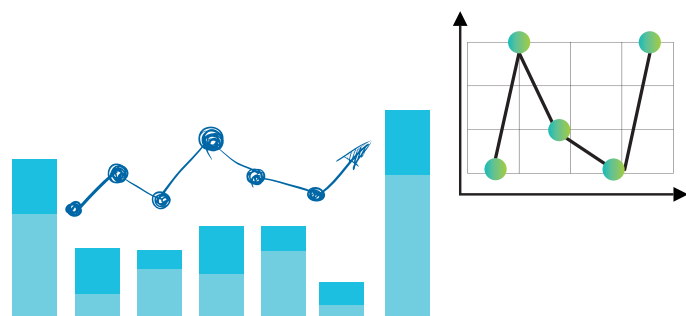
Financial Risks

Volatility of the Baht

Changes in the exchange rate between the baht and the U.S. dollar directly and indirectly affect the majority of PTT's revenue, as the prices of natural gas, petroleum, and petrochemical products are tied to the world market prices, which are set in U.S. dollars. This means PTT's revenue (USD-linked) fluctuates with the value of the baht. Additionally, fluctuations in the baht's value also impact PTT's accounting net profit, as PTT and its subsidiaries have outstanding foreign loans debt.

Mitigation Plan

- Proceed with structuring foreign currency loans in a balanced proportion to foreign currency income, creating a natural hedge.
- Manage funds in foreign currency deposit accounts and engage in foreign currency transactions in advance (Forward) to prepare for the repayment of loans in various currencies and commercial transactions. These include imports such as natural gas and crude oil, domestic transactions where products are paid in baht but valued according to foreign currency exchange rates, and ensuring appropriate product exports.
- In the case of yen-denominated loans, PTT hedges against yen exposure using financial derivatives (Participating Swap) to convert the debt into U.S. dollars, aligning with its income, which is also based on U.S. dollars. This strategy helps PTT significantly mitigate the risk of fluctuations in the value of the yen against the U.S. dollar.
- Establish a financial policy as a guideline for financial management within PTT Group to ensure efficiency and alignment in the same direction, including regulations for managing various risks that could affect PTT's financial position.



Financial Support to Affiliated Companies

PTT invests in new projects, expands its business, or improves operations for continued growth through newly established companies and/or joint ventures with strategic partners and/or within PTT Group. If the project is in the initial stages or the financial position is not strong enough, shareholders, including PTT, must provide financial support during the project's construction (Cost Overrun Support). If the company encounters liquidity challenges during commercial operations due to force majeure or a business downturn and necessitates financial assistance from shareholders, financial support for each case may be extended through a Sponsor Support Agreement, and/or subordinated debt, and/or equity, and/or extending the credit limit, and/or trade credit period, and/or granting loans from shareholders, and other available options. PTT will consider providing financial support if it is necessary and beneficial to both PTT and PTT Group in the long term. PTT believes that implementing such policies and actions will foster sustainable strength for the companies within PTT Group.

When providing financial support to its affiliates in various forms as mentioned above, PTT cannot guarantee their ability to repay loans or credit, nor can it ensure they won't encounter financial difficulties or require further support from PTT, potentially impacting PTT's performance and financial position. If either PTT or a company within PTT group defaults under a shareholder support agreement, it may prompt creditors to demand immediate repayment (Acceleration), further affecting PTT's financial position. Moreover, PTT cannot confirm that it won't increase its investment proportion beyond 50% or take control of management in these group companies if it deems such actions more beneficial. In the event PTT decides to assume management control, it must prepare consolidated financial statements by combining the financials of these group companies with PTT's own financials from the date of gaining control, potentially impacting PTT's overall financial position as it must adhere to Thai financial reporting standards.

Mitigation Plan

- Maintain a process for screening and approving PTT's investments while closely monitoring the performance of PTT group companies through various committees, including the Investment Committee and the Finance & Accounting Group Alignment & Coordination Management Committee (FAAC), etc.
- Disseminate PTT Group Way of Conduct throughout PTT Group companies to ensure consistent management aligned in the same direction, in accordance with international standards and guidelines, capable of managing risks promptly, and minimizing impacts on PTT Group.

Securing of Funds

The businesses of PTT and PTT Group require substantial pre-paid capital investment. While PTT closely monitors and manages business risks, there may be deviations between the actual capital investment required and the projected plans.

Mitigation Plan

- The business operations of PTT and PTT Group focus on achieving stable long-term growth and upholding a good corporate governance. Accordingly, PTT emphasizes a prudent investment plan for business expansion, carefully considering various funding sources. Particular attention is given to capital structuring, which is approved by PTT's Board of Directors during the annual business planning round. This approach ensures alignment with the company's risk appetite and the maintenance of key financial ratios at appropriate levels, comparable to peer companies.
- Continuously monitor changes in factors related to financing. PTT believes it will be able to secure sufficient funds for future business expansion at an appropriate financial cost.

2.2.2 Investment Risks for Shareholders

Risks from the Major Shareholder's Management

As of December 31, 2024, the Ministry of Finance was PTT's major shareholder with 14,598,855,750 shares, or 51.11%

of all issued and paid-up capital, which entitles it to vote at the Annual General Meeting (AGM). Yet, most significant agenda items are required by PTT's Articles of Association to pass with three-quarters of the AGM votes, including amendments to the memorandum of association and the articles of association, capital increase or decrease, debenture issuance, company mergers, company liquidation, company sale or transfer (whole or partial), acquisition or transfer of other companies (public or private), engagement in, amendment, or termination of lease agreements for entire or partial company business, delegation of other parties to manage the business, or mergers with other parties to share profits or losses, and voting to dismiss any director ahead of term completion.

Mitigation Plan

- The Ministry of Finance is prohibited from voting on agenda items where it has a vested interest, such as transactions involving the acquisition or disposal of assets to or from the Ministry of Finance.
- PTT has required independent directors to comprise at least half of the Board, (Currently, 12 out of 15 Board members are independent) all of whom must possess expertise and relevant experience beneficial to PTT, while having no conflicts of interest with PTT.
- PTT has appointed an Audit Committee, consisting of 3 independent directors with no vested interests in company, to oversee its operations and safeguard shareholder interests. This ensures business transparency in alignment with PTT's principles of good corporate governance.

Risks of Uncertain Returns on Investment for Shareholders

The Company's stock price may fluctuate due to various factors beyond its control, such as changes in petroleum and petrochemical prices, or the prices of other related reference products. Additional influences include shifts in policies, rules, regulations, or conditions impacting the industry and/or PTT, as well as economic conditions, exchange rates, interest rates, and crises or unusual situations such as geopolitical tensions or oil price wars. These factors could cause the stock price to rise or fall, potentially resulting in investors facing the risk of not receiving returns as expected.

Mitigation Plan

- PTT monitors and forecasts economic conditions, energy price trends, and various policies to develop business strategies and management guidelines. Additionally, studies and applies price risk management tools to stabilize business operations and enhance competitiveness.
- PTT operates throughout the supply chain from upstream to downstream, including investing in non-hydrocarbon businesses, which can help diversify risks from various fluctuations.
- PTT conducts its business with the interests of all stakeholders, including investors, by communicating important events that may affect the stock price and investment decisions to the public through various channels such as the Stock Exchange of Thailand, various media and online channels, etc.

Risks from Dividend Affordability Below Investors' Expectation

The ability to pay annual and/or interim dividends depends on various factors, including the investment budget, capital reserves for business expansion, loan repayment obligations, and cash inflows from operations. If any adverse impacts occur, the company may face the risk of paying dividends at a lower rate than investors expect.

Mitigation Plan

- The company has a policy to pay dividends of no less than 25% of the remaining net profit after deducting all types of reserves required by law and company regulations.

2.2.3 Risks Facing Investing in Foreign Securities (If the Issuer is a Foreign Company)

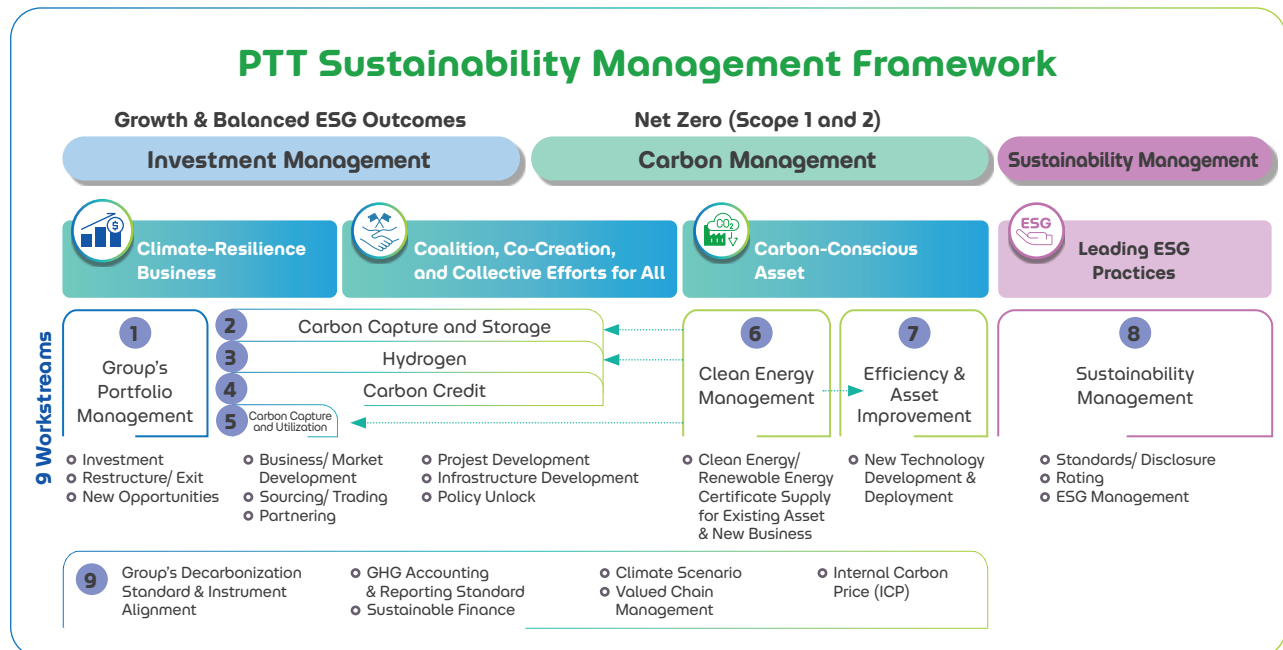
-None-

3. Driving Business towards Sustainability

Responsibility to Vision and Strategy for Driving Business towards Sustainability

PTT recognizes that its operations and production processes across across PTT Group's value chain contributes to contribute to greenhouse gas emissions, which have a negative impact on climate change, the environment, and various stakeholders. These are also a driving force behind the energy transition, creating both risks and opportunities that may affect the company's long-term value creation. In 2024, PTT undertook a comprehensive review of its vision and established strategic directions to address these impacts, risks, and opportunities. PTT's goal is to foster business growth while ensuring energy security for the country with reducing greenhouse gas emissions, to achieve strong financial performance, and sustaining global growth, as its vision of **"Together for Sustainable Thailand, Sustainable World"**. The company has clearly defined 5 strategic directions. For further details, please refer to the topic 1.1.1 Vision, Strategy and Business Direction of PTT Group.

PTT Sustainability Management Framework



Under this vision and strategic direction, PTT has developed **PTT Sustainability Management Framework** to integrate Investment Management, Carbon Management, and Sustainability Management. This framework emphasizes managing the investment portfolio while also reducing greenhouse gas emissions in line with established targets. The approach uses appropriate instruments to maintain

competitiveness and ensure continuous business growth. For other key sustainability topics, PTT has process owner and a management system for continues to strengthen and elevate the processes already in place to effectively manage. The goal is to maximize long-term organizational value. PTT aims to achieve top-tier ESG Ratings, positioning itself within the top 5% of its industry group.

To implement the vision, strategic directions, and objectives across the organization, these have been translated into the 2025 - 2029 Business Plan, action plans, key performance indicators, and specific sub-targets. These plans are reflected in various operational processes, from investment decisions, business model design, and product/ service development to operating procedures. Additionally, sustainability management is integrated into all aspects of the organization. Detailed information is available in each section, as well as on PTT Website in the Sustainability section.

3.1 Policy Commitments and Targets for Responsible Business Conducts

PTT has developed a comprehensive set of sustainability management principles, alongside related statements and policies, to reflect its strong commitment to addressing sustainability material topics. These include:

Sustainability Management Principle

PTT upgraded its sustainability management policy to **Sustainability Management Principle**, aligning with its vision, strategic directions, and business objectives. This move signifies PTT's unwavering dedication to managing the organization towards sustainability at every stages of our business operations across PTT Group's value chain. The principles encompass commitments that address key sustainability issues within the 3 core dimensions: Environmental, Social, and Governance (ESG). These principles have been thoroughly reviewed, approved, and signed by Chairman, and the CEO and President.

Human Rights Statement

PTT is steadfast in its commitment to respecting and upholding the human rights of all stakeholders. This commitment is clearly outlined in **"PTT Human Rights Statement"**, signed by

Chairman, and CEO & President. In 2024, the content of this statement was reviewed and updated to ensure its alignment with International Bill of human rights as well as relevant international and local legislations and standards. The updated statement reflects our ongoing dedication to effectively managing the impact and risks related to human rights issues that are crucial to the organization.

PTT's management of human rights impacts and risks is systematically integrated into the organization's sustainability management framework. This approach includes ongoing monitoring, assessment, and regular reviews to ensure both effectiveness and efficiency.

Corporate Governance Policy

To demonstrate its commitment to conducting business with strong corporate governance, excellent management, and delivering value to all stakeholders equitably, PTT's Board of Directors has announced **"PTT's Corporate Governance Policy"**, signed by Chairman. This policy sets out 6 core principles for good corporate governance at PTT: Accountability, Responsibility, Equitable Treatment, Transparency, Vision to Create Long-term Value, and Ethics. These principles are meant to be followed and implemented with integrity by PTT's Board of Directors, executives, and employees. The policy is reviewed annually by PTT's Board of Directors to ensure its relevance and effectiveness, and it has been confirmed to remain appropriate and current.

Additionally, PTT demonstrates its commitment to managing key issues through various specialized policies, such as the Risk Management Policy, Internal Control Policy, Corporate Governance Policy, Anti-Fraud and Corruption Policy and Quality, Security, Safety, Occupational Health and Environment Policy. For more information on PTT Website. Beyond internal implementation, PTT also communicates these policies to its group companies and value chain partners, promoting and monitoring their application through various instruments. Further information is available under the Sustainability section on PTT Website.

Driving Policy into Action

To effectively translate the sustainability management framework and principles into practice across the organization and value chain, PTT has established a comprehensive and systematic approach to sustainability. In 2024, the following key initiatives were undertaken:

1. Integrating Sustainability into Strategy, Business Plans, Risk Management, and Key Performance Indicators

The strategic direction and sustainability management framework underscore PTT's commitment to seamlessly integrating sustainability into its business operations. This approach balances the management of business portfolios and performance with efforts to reduce greenhouse gas emissions, aligning with the goals. These principles have been translated into the 2025 - 2029 Business Plans, with key performance indicators (KPIs) set within the State Enterprise Assessment Model (SE-AM). These KPIs form part of the performance evaluation for the CEO and President of PTT, as well as the corporate KPIs for senior executive vice president. Key indicators are such as Eco-efficiency, which is calculated as the amount of greenhouse gas emissions per unit of product, Safety Management Effectiveness, which is measured through indicators, e.g., the Lost Time Accident (LTA), Total Recordable Injuries Rate (TRIR) for employees and contractors, and Process Safety Events (PSE) related to process safety. Furthermore, decarbonization risk is assessed as one of the corporate risk profile.

2. Incorporating PTT's Sustainability Management Master Plan for Social and Environmental Responsibility 2021 - 2025, 3rd Edition 2024

PTT has defined its sustainability strategy, including short-term, medium-term, and long-term targets, KPIs, strategies, and action plans to address critical sustainability topics within **PTT's Sustainability Management Master Plan for Social and Environmental Responsibility 2021 - 2025, 3rd Edition 2024**. Each year, the Sustainability Management Master Plan is integrated into the business planning process of each related department, ensuring alignment with the overall business plan and securing the necessary budget. All plans are subject to approval by PTT's Board of Directors.

3. Management by Process Owners in Accordance with Organizational Structure

Based on the results of the Materiality Assessment, PTT has established a systematic approach to manage the impacts and risks associated with each material sustainability topic. Each process owner is responsible for defining management approaches including the mechanisms, methods, processes, or guidelines to effectively implement the policies. Key actions include:

- Establishing governance structures and processes at both PTT's Board of Directors and management level, alongside internal controls for each policy.
- Defining regulations and operational guidelines, such as procedures for whistleblowing, fraud reporting, and addressing non-compliance with laws, rules, organizational regulations, as well as issuing the Corporate Governance, Ethical Standards and Code of Business Ethics Handbook.
- Setting relevant corporate or functional KPIs to monitor performance.
- Developing specific projects or initiatives with clear action plans.
- Organizing training sessions and creating diverse communication materials to raise awareness, understanding, and engagement among employees and related parties.
- Continuously monitoring and reporting progress against plans, KPIs and targets to the relevant committees.



















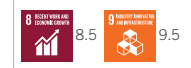





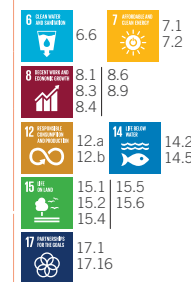











PTT's Sustainability Management Master Plan for Social and Environmental Responsibility 2021 - 2025 (3rd Edition 2024)

In 2024, the relevant departments reviewed and updated the master plan to ensure its alignment with key factors such as government policies, industry standards, evolving practices, and changes in business plans. The revised version, approved by the Corporate Governance and Sustainability Committee, was officially adopted as the 3rd Edition in 2024. This plan serves as the strategic direction for defining and implementing sustainability initiatives in 2024, with the following details:



PTT has established a systematic process for reviewing and evaluating the performance and effectiveness of its sustainability management efforts. This covers the communication of policies and the management of sustainability issues, with the goal of identifying opportunities for continuous improvement in both processes and outcomes. The results are presented quarterly to the assigned committees according to the governance structure. Detailed information on policy communication and the management of materiality topics as well as the implementation of sustainability strategies, can be found in section 3.4 Overview of Sustainability Material Topics Management and Performance and on PTT Website.

Progress Summary of the Sustainability Strategic Direction

| Sustainability Strategic Direction | Targets | | | Performance results compared to the target for 2024 | Support for the 20-Year National Strategy | Support for the SDGs | | More Information |
|--|---|--|--|--|---|--|---|---|
| | Indicators | Short-term Target within 2024 | Long-term Target | | | Integrated into Core Business | Collaborate with Other Stakeholders | |
|  Environmental | Reducing greenhouse gas emissions to achieve a Net Zero Emissions target | PTT: ≤ 11.5 million tons of CO ₂ equivalent PTT Group: ≤ 51.0 million tons of CO ₂ equivalent | PTT: Achieving Carbon Neutrality by 2040 and Net Zero Emissions by 2050*. for PTT's owned operations and PTT's wholly owned subsidiaries PTT Group: Reducing greenhouse gas emissions by 15% by 2030 compared to the emissions in 2020* | PTT: 11.06 million tons of CO ₂ equivalent PTT Group: 41.45 million tons of CO ₂ equivalent |  | Strategy 5: Improving quality of life based on green growth. |  |  Page 160  More information on PTT Website. |
| | Optimizing resource with a strong commitment to the principle of circular economy | Implement circular economy practices across PTT Group's operations, aiming to achieve circular economy maturity level according to the British Standards Institution: Framework for implementing circular economy principles in organizations – Guide (BS 8001: 2017). | PTT Group: level 2.00 | PTT Group: level 3.00 within 2030 |  | Strategy 5: Improving quality of life based on green growth. |  |  More information on PTT Website. |
| | Waste management based on circular economy principles by PTT Group. | PTT Group: ≥ 42% | PTT Group: ≥ 50% within 2030 | PTT Group: 45% |  |  | | |
|  Social | Fostering a safe working environment with a focus on human rights | Lost Time Accident (LTA) | | | | Strategy 3: Promoting multi-dimensional human capital development for righteous, skillful, and quality citizens. |  |  Page 173  More information on PTT Website. |
| | | Employees | 0 | 0 within 2030 |  | | | |
| | | Contractors | 0 | 0 within 2030 |  | | | |
| | | Total Recordable Injuries Rate (TRIR) per 200,000 working hours | | | | | | |
| | | Employees | ≤ 0.040 | 0 within 2030 |  | | | |
| | | Contractors | ≤ 0.048 | 0 within 2030 |  | | | |
| | Enhancing employees' readiness to support future sustainable business growth | Process Safety Event (PSE) according to API RP 754 standards | | | | Strategy 4: Broadening opportunities and promoting equality in society. |  |  More information on PTT Website. |
| | | Tier 1 | 0 | 0 within 2030 |  | | | |
| | | Tier 1 and Tier 2 | ≤ 1 | 0 within 2030 |  | | | |
| | | Human Rights Violation | 0 | 0 within 2030 |  | | | |
| | Creating shared value and enhancing the quality of life for communities and society | Human Capital Index (HCI) score | ≥ 76% | 83% within 2030 |  | |  |  Page 183  More information on PTT Website. |
| | | The proportion of the public donation budget to the total social investment budget. | ≤ 30% of the total social investment budget | ≤ 30% of the total social investment budget by 2030 |  | | | |
|  Governance | Upholding principles of good corporate governance and ethical conduct | Zero non-compliance with the law | PTT: 0 | GRC Culture First | No non-compliance with significant impact |  | Strategy 6: Performing government administration with a focus on public interest. |   Page 238  More information on PTT Website. |
| | Strengthening sustainable supply chain management | Assessment of critical/ strategic supplier as planned. | 100% | Critical/ Strategic vendors (up to 80%) demonstrate the ability for self-development and sustainable business practices. | 100% |  | Strategy 5: Improving quality of life based on green growth. |   More information on PTT Website. |

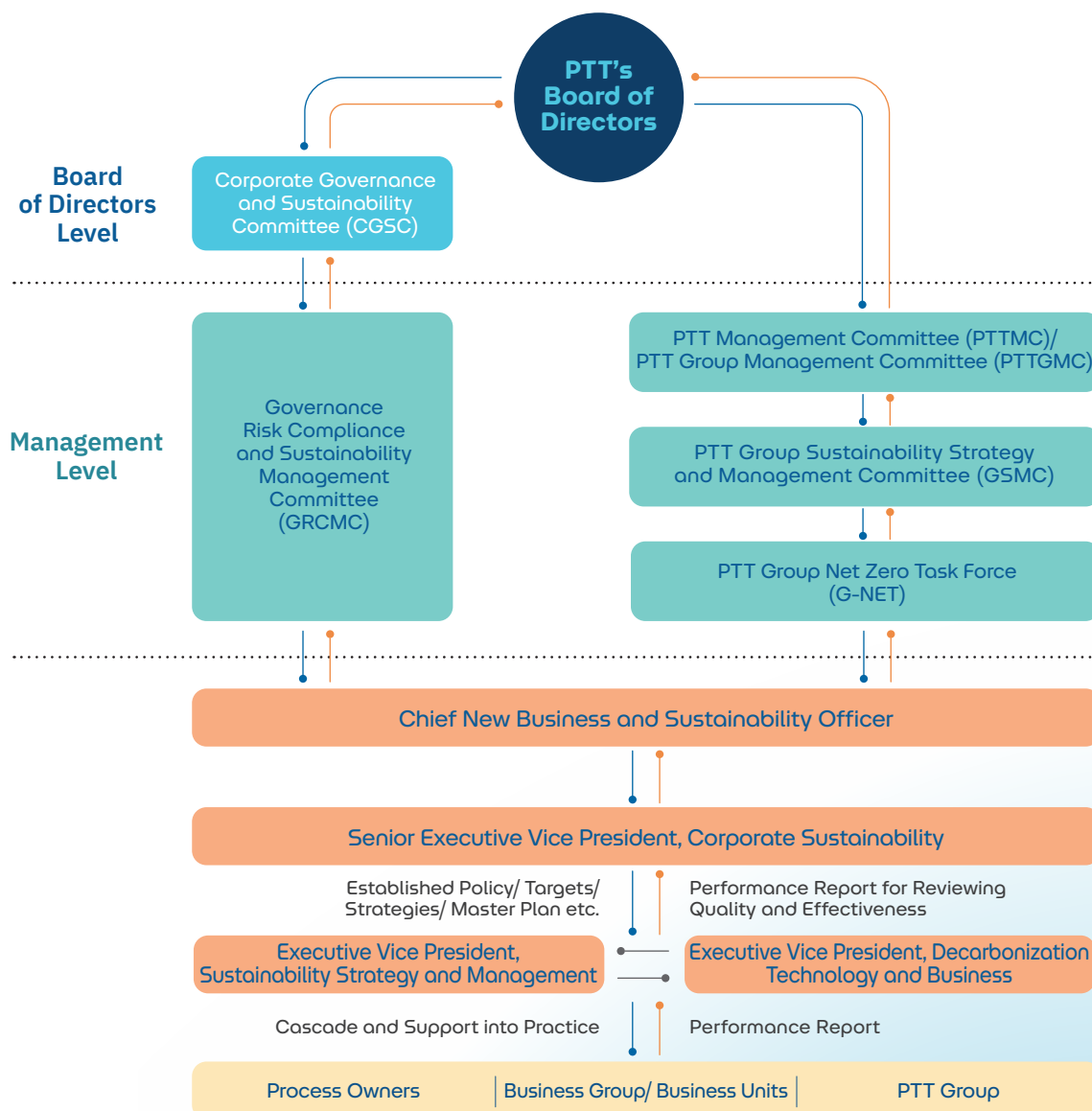
Remarks: * Long-term goals are subject to change to align with PTT Group Decarbonization Master Plan, which has been developing.

Sustainability Governance Structure

PTT's Board of Directors has assigned the **Corporate Governance and Sustainability Committee (CGSC)** to oversee the management of sustainability, ensuring alignment with the company's commitment to business responsibility as outlined in various policies. At the management level, the **Governance Risk Compliance and Sustainability Management Committee (GRCMC)** and **PTT Group Sustainability Strategy and Management Committee (GSMC)** are tasked with reviewing and refining key initiatives and strategies. To ensure that PTT's Board of Directors, composed of experts with extensive knowledge and experience in sustainability, fully understands the overall sustainability management processes, PTT conducts regular orientation and training programs, both internally and

externally. Furthermore, sustainability performance metrics are incorporated into the performance of PTT's Board of Directors evaluation criteria, directly influencing remuneration. This ensures that PTT's Board of Directors can effectively guide the company's operations towards achieving long-term sustainability. In 2024, both committees held quarterly reviews of sustainability performance, providing valuable feedback on areas such as evaluating and approving materiality assessments, setting strategic directions, and reviewing short, medium, and long-term targets and action plans. They also monitored progress and offered recommendations for continuous improvement, ensuring tangible results. Additional details can be found in Section 2 Corporate Governance, Pages 238 - 375 and more information on PTT Website under Sustainability section.

In 2024, PTT undertook an organizational restructuring to enhance the effectiveness of driving its operations in line with



For detailed information on the committees responsible for overseeing key sustainability issues, both at the management level and the Board of Directors level, please refer to the table of Double and Dynamic Materiality and Management of Material Topics of PTT in 2024 on pages 144 - 157, with further details available on PTT Website.

the new vision, strategic direction, and sustainability framework. The role of Senior Executive Vice President for Corporate Sustainability was established under the Chief New Business and Sustainability Officer. This position comprises 2 key units: the Executive Vice President of Sustainability Strategy and Management, tasked with setting and driving policies, strategic directions, master plans, and initiatives throughout the organization and PTT Group; and the Executive Vice President of Decarbonization Technology and Business, responsible for researching and developing Carbon Capture and Storage (CCS) and hydrogen-related businesses in collaboration with PTT Group and its external partners.

Sustainability Partnerships and Collaborative Networks

PTT understands that for business growth to reach a global scale, it must contribute to strengthening Thailand's economy. This is key to ensuring a high quality of life for the public in a sustainable manner, especially during the energy transition. Achieving this vision requires deep and committed collaboration from all sectors, both within the country and globally. PTT, therefore, places great emphasis on continuously building partnerships with sustainability networks and allies both internal and external. These include governmental agencies, international organizations, trade associations, academic institutions, and non-profit entities. PTT is committed to adhering to policies on good corporate governance, risk management, legal compliance, organizational rules and regulations, anti-corruption measures, the corporate governance manual, ethical standards, and business conduct guidelines. When deciding to support or collaborate with partners and networks, PTT ensures these decisions are made with careful consideration to promote transparency and accountability.

To align with its vision, strategic direction, and its goal of achieving Net Zero greenhouse gas emissions, PTT has defined its position in supporting and engaging with sustainability networks and partners. These partnerships span all relevant sustainability issues and areas where PTT operates, with a shared mission "to help drive Thailand towards a sustainable, low-carbon future." This collaborative approach addresses urgent climate change challenges and supports the country's commitment to carbon neutrality and reducing greenhouse gas emissions. PTT aims to support sustainability networks and alliances with the following objectives:

1. To develop and promote best practices in sustainability, human rights, and the management of security, safety, occupational health, and the environment (SSHE).

2. To align business operations with Thailand's national policies and the United Nations Sustainable Development Goals (SDGs), contributing to the vision of **"Together for Sustainable Thailand, Sustainable World"**, to achieve low-carbon society, and Carbon Neutrality and Net Zero Emissions targets.

PTT provides both financial and non-financial support, such as annual membership fees, funding for activities, capacity-building initiatives, knowledge exchange, and the provision of resources. Additionally, PTT places representatives in roles such as chairman or board member of a network's executive committee, or leading or participating in working groups that provide insights and recommendations on relevant standards, regulations, and best practices. These efforts are focused on advancing a low-carbon society and achieving carbon neutrality, as well as Net Zero greenhouse gas emissions, in line with the goals of the Paris Agreement. Additional details can be found on PTT Website under the Sustainability section, in the Sustainability Networks subsection.

Integration of Sustainable Development Goals into Corporate Operations

PTT recognizes the importance of sustainable business practices, with a strong commitment to creating value for society and the environment while driving business growth. The company has embedded the United Nations Sustainable Development Goals (SDGs) into its strategic framework and operational processes at all organizational levels. Through a comprehensive prioritization process, considering their relevance to sustainability material topics, products, services, business strategies, and investment plans, the SDGs have been categorized into 2 groups as follows: Integrated into Core Business, which includes 11 goals (3, 6, 7, 8, 9, 12, 13, 14, 15, 16, and 17). These goals are directly incorporated into the company's strategic direction, key performance indicators, targets, and operational plans across various business units. They are reflected in specific sub-goals, major initiatives, and projects that support the management of PTT's materiality topics, as detailed in the Double and Dynamic Materiality and Management of Material Topics of PTT in 2024, in PTT Website, Sustainability Section group, Collaborate with Other Stakeholders, encompasses 6 goals (1, 2, 4, 5, 10, and 11). These goals are considered in the development of stakeholder engagement plans, aiming to expand partnerships and collaboration with stakeholders. A detailed overview of the prioritization process and progress on advancing all 17 SDGs is available on PTT Website under the Sustainability section.

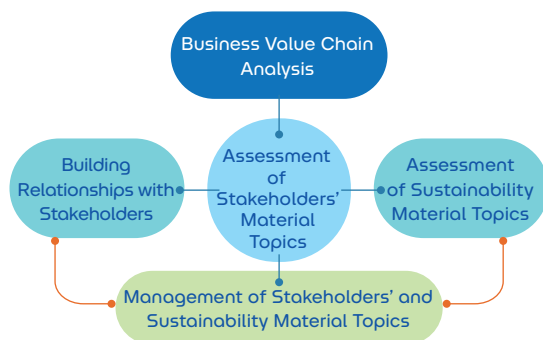
3.2 Stakeholder Analysis in the Business Value Chain

Objectives of Stakeholder Engagement

PTT is dedicated to managing its stakeholders in a balanced and fair manner, recognizing this as a key corporate responsibility. The company provides platforms for stakeholders to voice their opinions and engage in critical business decisions. This engagement allows PTT to promptly and appropriately address stakeholders' needs, expectations, and concerns. PTT manages its stakeholders based on the international AA1000 Stakeholder Engagement Standard 2015 (AA1000 SES:2015) and evaluation criteria that prioritize stakeholders and customers, as outlined in the State Enterprise Assessment Model (SE-AM). This approach ensures systematic, effective operations that support PTT's sustainable growth while building and maintaining trust across all stakeholder groups.

Managing Stakeholder Impacts in the Business Value Chain

PTT has developed a comprehensive approach for analyzing and managing both positive and negative impacts resulting from its business activities and operations, both directly and indirectly, throughout the business value chain. This includes considerations of environmental, social, and governance, including human rights, as outlined below:



The 6 Stakeholder Groups of PTT are:



Analysis of the Business Value Chain

In 2024, PTT conducted a comprehensive analysis of the value chain across its 3 core business groups and 15 supporting units, as structured within the organization. This analysis involved identifying both internal and external stakeholders and assessing the impacts of the company's operations, products, and/or services on these stakeholders. It also examined the effects of PTT's value chain on the economic, environmental, social, and human rights. In addition, the needs, expectations, and concerns of stakeholders were carefully evaluated to align key issues with unit priorities. This process is integrated into the business planning phase for each unit annually, ensuring that stakeholder engagement and sustainability management plans are incorporated into the business and budget plans. These plans are then presented to PTT's Board of Directors for approval before implementation in the following year.

The organizational-level issues consist of 9 key areas, which include:

Brand & Trust

- Efforts to enhance the reputation, understanding, and confidence in PTT brand across the company's operations, products, and services. This includes initiatives focused on enhancing the quality of life in communities, society, the environment, and the nation.

Climate Change

- Climate Change Policy and Management

Compliance/ Transparency

- Compliance: Adhering to relevant laws and regulations.
- Transparency: Committing to openness and clear communication, ensuring the business discloses both positive and negative information in accordance with governance principles.
- Information Security & Data Privacy: Safeguarding the security of data and ensuring the privacy of stakeholders' information, including data within digital systems.

Energy Transition

- Shifting from fossil fuels to clean energy sources through natural gas, including the NG (LNG/ Pipeline Natural Gas) Value Chain, Supply Marketing, Infrastructure (Transmission/ Distribution), and Gas Processing.

Financial Performance

- Delivering operations that inspire confidence in stakeholders, focusing on financial results, financial ratios, accounting practices, tax compliance, and ensuring long-term growth.

New Business

- Developing future business opportunities that drive organizational growth.

Organization & Employee

- Strengthening organizational capabilities by integrating innovation and digital technologies to streamline operations and transform business processes.

- Empowering employees by developing their knowledge, skills, and competencies through initiatives like upskilling, reskilling, and cultivating a culture of continuous learning to enhance learning organization.

Safety, Health & Environment

- Fostering a work environment that prioritizes safety, occupational health, and environmental sustainability.

Supplier & Customer Experience

- Building exceptional experiences with partners and customers by ensuring high-quality products and services, fair pricing, and timely delivery, thereby nurturing long-lasting business relationships.

Annual value chain analysis result of each business functions in 2024*

| | Upstream Petroleum and Gas Business Group • Gas Business Unit | Downstream Petroleum Business Group • Downstream Business Group Alignment Unit • International Trading Business Unit | New Business and Infrastructure Business Group** • Innovation and New Ventures Unit • Engineering and Infrastructure Unit | Financial Management Business Function | Corporate Strategy Business Function | Office of General Counsel | Office of Corporate Audit | Organizational Effectiveness and Corporate Governance Business Function | Corporate Reputation and Social Responsibility Business Function | Company Secretary and Corporate Relation Business Function |
|--------------------------------|--|--|---|--|--------------------------------------|---------------------------|---------------------------|---|--|--|
| Environmental | | | | | | | | | | |
| Brand & Trust | ● | ● | ● | | ● | | | | ● | ● |
| Climate Change | ● | | | | ● | | | | | |
| New Business | | | ● | | ● | | | | | |
| Safety, Health & Environment | ● | | ● | | | | | | | |
| Social | | | | | | | | | | |
| Brand & Trust | ● | ● | ● | | ● | | | | ● | ● |
| New Business | | | ● | | ● | | | | | |
| Organization & Employee | ● | | ● | | ● | | | ● | | ● |
| Safety, Health & Environment | ● | | ● | | | | | | | |
| Governance | | | | | | | | | | |
| Brand & Trust | ● | ● | ● | | ● | | | | ● | ● |
| Compliance/ Transparency | ● | ● | ● | ● | ● | ● | ● | | | |
| Energy Transition | ● | | ● | | | | | | | |
| Financial Performance | | ● | ● | | | | | | | |
| New Business | | | ● | | ● | | | | | |
| Organization & Employee | ● | | ● | | ● | | | ● | | ● |
| Supplier & Customer Experience | ● | ● | ● | ● | ● | | | | | |

Remarks:

* The issues and stakeholder engagement plans at the organizational level for 2024 were approved by PTT's Board of Directors on December 21, 2023, prior to the organizational restructuring, which is effective from September 1, 2024.

** The Organization structure has been revised to New Business and Sustainability business Group, which is effective from September 1, 2024.

Building Stakeholder Relationships

PTT systematically collects and analyzes the needs, expectations, and concerns of stakeholders through surveys regarding its business operations. This also includes feedback from employees who directly manage these stakeholders, along with global trends, to provide valuable insights for identifying key issues that arise between stakeholders and the organization.

Once the business units prioritize stakeholders and their concerns, aligning them with corporate-level issues, a comprehensive stakeholder relationship plan is developed. Progress is monitored quarterly through the top executives of each unit. The key issues at the corporate level are tracked and reported to Enterprise Risk Management Committee (ERMC) and Corporate Plan and Risk Management Committee (CPRC) each quarter. This allows the feedback of PTT's Board of Directors to inform operational improvements, while also utilizing the annual stakeholder engagement survey results to review and enhance performance for the following year.

In 2024, 4 key issues are being monitored at the corporate level:

- 1) Brand & Trust
- 2) Climate Change
- 3) Energy Transition
- 4) New Business

These issues are central to PTT's role as the national energy company, committed to ensuring energy security and stability for Thailand, driving economic growth while simultaneously caring for society, communities, and the environment. This approach aims to enhance the quality of life for the Thai people, contribute to national development, and balance the interests of all stakeholders. It also aligns with PTT Group Direction and Strategy, which focuses on energy security, sustainable business growth, and achieving Carbon Neutrality by 2040 and Net Zero Emissions by 2050.

Stakeholder Engagement Score

The target of stakeholder engagement score is set at "Very Good" (≥ 80 points). For 2024, the score reached 83 points, surpassing the target. This indicates that PTT is effectively meeting stakeholder needs and expectations at an exceptionally high level.

Target and Performance Results

| | 2021 | 2022 | 2023 | 2024 |
|--------------------|-----------|-----------|-----------|-----------|
| Target | ≥ 80 | ≥ 80 | ≥ 80 | ≥ 80 |
| Performance Result | 86 | 86 | 85 | 83 |



Stakeholder Engagement Result

Stakeholder Engagement Channel

- Monthly consultations with the public sector.
- Quarterly meetings to enhance understanding with the public sector.
- Information disclosure through PTT Website and other online platforms.



Public sector

Stakeholders' Needs/ Expectations

Brand & Trust

- Support government policies to ensure energy security and effectively manage business risks.
- Contribute to the development of society, the quality of life, and the environment.

Climate Change

- Assist the government in achieving Carbon Neutrality goals and lead efforts in Climate Change management in line with relevant laws and regulations.
- Carry out initiatives that prioritize environmental sustainability and mitigate negative impacts.

Compliance/ Transparency

- Adhere to policies, regulations, and corporate governance standards, ensuring transparency and accountability.
- Enhance IT systems in line with the Cybersecurity Act.
- Promote fair competition and free trade practices.

Energy Transition

- Provide insightful data and feedback to support LNG sourcing strategies.
- Collaborate in the business transition towards energy market liberalization.
- Work closely with shippers to ensure alignment on best practices

New Business

- Co-develop new business opportunities, offering guidance on emerging energy sectors, innovative business models, and practical regulatory frameworks.

Safety, Health & Environment

- Uphold rigorous safety, occupational health, hygiene, and environmental standards.
- Create societal value by considering environmental impacts and enhancing the well-being of local communities.

Examples of Key Performance

Brand & Trust

- Provide accurate, timely energy information to support government policies.
- Facilitate government activities, including organizing site visits to PTT operations.
- Explore joint ventures between state enterprises and foreign investments.

Climate Change

- PTT chairs the Thailand Carbon Neutral Network, promoting greenhouse gas reduction and offering policy recommendations to the public sector.
- Contribute to drafting the Climate Change law and participate in carbon neutrality and Net Zero Emissions initiatives.

Compliance/ Transparency

- Conduct business with transparency and integrity, ensuring complete, accurate, and timely disclosures in line with regulations and government policies.
- Collaborate with the government to provide energy-related data for new projects and help shape policies.
- Support government agency activities.

Energy Transition

- Foster understanding by providing essential information to regulatory bodies.

New Business

- Share product information with the government to build mutual understanding and jointly develop practical policies.

Safety, Health & Environment

- Evaluate environmental impacts and secure necessary construction permits.
- Ensure projects meet standards with minimal impact on communities and the environment.



| | Investors | Customers |
|---|--|---|
| | <ul style="list-style-type: none"> • PTT Group operations site visits • Annual General Meeting (AGM) • Opportunity Day • Online meetings • Digital roadshow with international investors via online channels | <ul style="list-style-type: none"> • Customer visit to support their business operations and ensure accurate understanding. • Meetings or discussions with customers via online platforms. • PTT NGV Station application • 1365 Contact Center • Online channels, including: Line: PTT Natural Gas and PTT NGR Website: Customer Service Center |
| Financial Performance <ul style="list-style-type: none"> • A financially stable company with strong governance, transparent disclosures, and legal compliance. • Foster communication and information exchange to collaboratively address challenges, define investment strategies, and drive long-term growth. • Invest in new ventures that strengthen and enhance societal value, promote environmental sustainability, and improve public well-being. | Brand & Trust <ul style="list-style-type: none"> • Effectively communicate accurate information about business operations and energy-related matters to ensure clear understanding. Compliance/ Transparency <ul style="list-style-type: none"> • Uphold governance practices, ensuring business operations are transparent and sustainable. • Commit to clear, full, and verifiable information disclosure. Energy Transition <ul style="list-style-type: none"> • Provide insightful, relevant data and perspectives to support LNG procurement. • Foster business collaboration during the energy market transition to liberalization. • Partner with Shippers to ensure an understanding of best practices. Supplier & Customer Experience <ul style="list-style-type: none"> • Offer high-quality, eco-friendly products at competitive prices, ensuring timely delivery. • Drive the development of future energy solutions, guaranteeing adequate supply while modernizing operational systems. | Brand & Trust <ul style="list-style-type: none"> • Effectively communicate and coordinate with customers, ensuring the delivery of high-quality products and a consistent, reliable natural gas supply. • Collaborate on CSR initiatives to strengthen relationships. Compliance/ Transparency <ul style="list-style-type: none"> • Support engineering investments, such as systems for gas reception, storage, and delivery, ensuring 24/7 operational readiness. • Manage contracts and clearly communicate the implementation to comply with government policies. Energy Transition <ul style="list-style-type: none"> • Hold strategic meetings to build relationships and ensure understanding of the TSO CODE. • Proactively coordinate, share information, and support customers in utilizing natural gas pipeline services efficiently and without delays. Supplier & Customer Experience <ul style="list-style-type: none"> • Deliver quality products and services that meet customer expectations and industry standards. • Engage with customers through executives and area managers to understand their needs and foster business development. • Actively listen to customer feedback, making improvements based on satisfaction surveys. • Provide transparent, clear information and ensure fair practices while developing IT systems that align with and support customer needs. |
| Financial Performance <ul style="list-style-type: none"> • Communicate strategic direction to instill investor confidence through shareholder meetings. • Disseminate information to shareholders, investors, analysts, and fund managers via Analyst Meetings and Roadshows, both locally and internationally. | | |



Society and Communities

- Community visits to build relationships with local communities.
- Public hearing feedback sessions as part of planned activities.
- 1365 Contact Center
- PTT Website or E-Mail: pttvoice@pttplc.com
- Reporting fraud via E-Mail: grchelpdesk@pttplc.com or pttvoice@pttplc.com
- Online channels such as:



PTT GROUP

PTT NEWS/
WE LOVE PTT/
GODJI@pttplc_
officialptt_
official_igPTT
Official
TikTokPTTPLC
YouTube

Brand & Trust

- Effectively communicate accurate information about business operations and energy-related matters to ensure clear understanding.
- Support initiatives that enhance quality of life, including community skill-building, education, renewable energy management, and elder care programs.

Climate Change

- Assist the government in achieving its Carbon Neutrality goals and take a leadership role in managing climate change in line with applicable laws and regulations.
- Implement activities that mitigate adverse environmental impacts.

Brand & Trust

- Continuously communicate and promote understanding of PTT's vision
- Support communities through initiatives that improve quality of life and environmental sustainability, including:
 - Community empowerment projects
 - Product and capacity-building programs for local communities
 - Green Globe Institute
 - Disaster preparedness and response efforts
- Address concerns and feedback by actively tracking community complaints and inquiries.

Climate Change

- Promote environmental stewardship through the care of green spaces and marine ecosystems.
- Reforestation while sharing knowledge on reducing carbon emissions.
- Actively participate in programs to achieve carbon neutrality and Net Zero Emissions.

Safety, Health & Environment

- Uphold safety standards, occupational health, hygiene, and environmental practices.
- Address community impacts arising from construction projects and collaborate on environmental restoration efforts.
- Champion equality and promote quality of life improvements for communities.
- Provide disaster relief and actively support affected areas.

Safety, Health & Environment

- Communicate construction projects and safety measures clearly with communities to ensure understanding and preparedness for emergencies while also addressing feedback and concerns.
- Consult with community leaders to provide project updates, address potential environmental impacts, and ensure ongoing engagement through feedback and community assurance.





Supplier and Partners

- Annual supplier seminars
- Communication channels with suppliers, such as the procurement website and E-Mail
- PTT's online procurement systems, including:
 - PTT e-purchase system
 - PTT e-bidding
 - ESG Self-Assessment system for PTT and PTT Group suppliers

Brand & Trust

- Effectively communicate accurate information about business operations and energy-related matters to ensure clear understanding.
- Foster long-term collaborative business growth, ensuring adaptability to changes, and promoting employment opportunities for SMEs.

Compliance/ Transparency

- Ensure compliance with laws, policies, and organizational regulations.
- Maintain transparency by disclosing complete and verifiable information.
- Uphold strong corporate governance practices that are transparent and verifiable.
- Communicate business processes clearly.
- Leverage technology to enhance IT systems in alignment with the Cybersecurity Act.

New Business

- Collaborate to create new business opportunities, offering expert guidance and accurate information on business development.
- Provide information on new energy, business insights for creating new ventures, and feasible regulations.

Supplier & Customer Experience

- Deliver valuable and user-friendly information through innovative technologies that enhance convenience and efficiency.

Brand & Trust

- Meet with stakeholders to provide timely, accurate information and guidance on government policies.
- Actively listen to feedback from partners.
- Organize workshops and activities to align on collaborative efforts and build strong relationships.

New Business

- Meet with partners to identify opportunities for product development and enhance business partnerships.
- Explore potential collaborations that offer mutual benefits and shared growth.

Supplier & Customer Experience

- Offer guidance, resolve issues, and address complaints through multiple communication channels.
- Strengthen partnerships by formalizing agreements, creating task forces, and conducting regular progress meetings.



Directors and Employees

- Monthly Relation Affairs Committee meetings
- Collaborative social responsibility activities between management and employees
- Business functions meetings
- PTT's Board of Directors

Brand & Trust

- Support the governance of operations in line with regulations to foster understanding and build trust in business activities.
- Clearly and promptly communicate accurate information about the company's operations and energy-related matters to ensure understanding.

Organization & Employee

- Foster knowledge of PTT's operations and PTT Group.
- Build and maintain trust in business operations.
- Prepare employees to meet the demands of business growth and increased competition.
- Adhere to good governance practices, maintain transparency, and ensure compliance with legal requirements.
- Operate in an environmentally responsible manner while supporting the well-being of surrounding communities.

Brand & Trust

- Collaborate closely with business units to align on key issues and drive shared objectives, ensuring effective teamwork and progress.
- Promote and support employee participation in CSR activities to cultivate a strong sense of social responsibility.

Organization & Employee

- Organize activities for PTT's Board of Directors to foster a deeper understanding of the company's operations through business visits and insightful presentations.
- Implement training programs to continuously enhance employees' skills, ensuring they stay aligned with the organization's evolving goals.

Remark: Additional details regarding the vision and strategic direction of stakeholders in PTT can be found on PTT Website.

3.3 Sustainability Materiality Assessment

PTT's sustainability materiality assessment process is applied in accordance with the Global Reporting Initiative (GRI) Universal Standards 2021 and the European Union's Corporate Sustainability Reporting Directive (CSRD), under the European Sustainability Reporting Standards (ESRS). This process identifies the sustainability-related impacts, risks, and opportunities across the environmental, social, and governance (ESG) dimensions, considering human rights throughout the business operations. It evaluates actual positive and negative impacts, as well as potential future impacts. The assessment considers the effects on stakeholders, society, and the environment (Impact Materiality) and the influence on external factors on the organization's performance (Financial Materiality). It covers all activities, operations, products, and services of the organization, as well as PTT Group's value chain. PTT follows the Double and Dynamic Materiality principles, ensuring a comprehensive evaluation of sustainability material topics. This is closely linked to the company's risk management process and is reviewed annually to review changes of impacts based on contexts, internal/ external factors, and evolving situations. The assessment process follows 4 key steps, as outlined below:



1

Understand the Organization's Context

This process involves evaluating internal factors (such as vision, strategic objectives, organizational risks, and operations/ activities) and external factors (such as standards, regulations, practices, global trends, and related risks). It also includes analyzing sustainability issues relevant to PTT, its subsidiaries, and companies within the same industry group. Additionally, it takes into account the needs and expectations of stakeholders throughout the value chain, based on organizational activities as well as feedback gathered from key internal and external stakeholders via surveys, consultations, and interviews. The goal is to collect, categorize, and identify sustainability topics.



2

Identify Actual and Potential Impacts

This step involves comprehensively identifying both positive and negative impacts that have occurred or could arise in the future, covering environmental, social, and governance dimensions. It emphasizes the consideration of human rights impacts throughout the organization's business activities. The process begins by identifying any negative impacts that have already occurred or could potentially occur, focusing on how the organization may contribute to, participate in, or directly be linked to such impacts within its value chain. Following this, the identification of positive impacts is conducted, highlighting how the organization can deliver value for sustainable development.



3

Assess the Significance of the Impacts

This process includes both quantitative and qualitative analyses of the positive and negative impacts, focusing on their significance to society and the environment (Impact Materiality), and the financial performance of the organization (Financial Materiality). Additionally, it considers the potential for these issues to evolve over time. Issues that may not have an immediate impact could still pose significant impacts on the business in the future.

Negative Impacts:

Evaluate the significance of actual negative impacts based on severity, scope, and irremediable character. This includes assessing the potential for future negative impacts, considering both their severity and likelihood of occurrence.

Positive Impacts:

Evaluate the significance of actual positive impacts, considering their scale and scope. Additionally, assess the potential for future positive impacts, taking into account the scale, scope, and likelihood of occurrence.

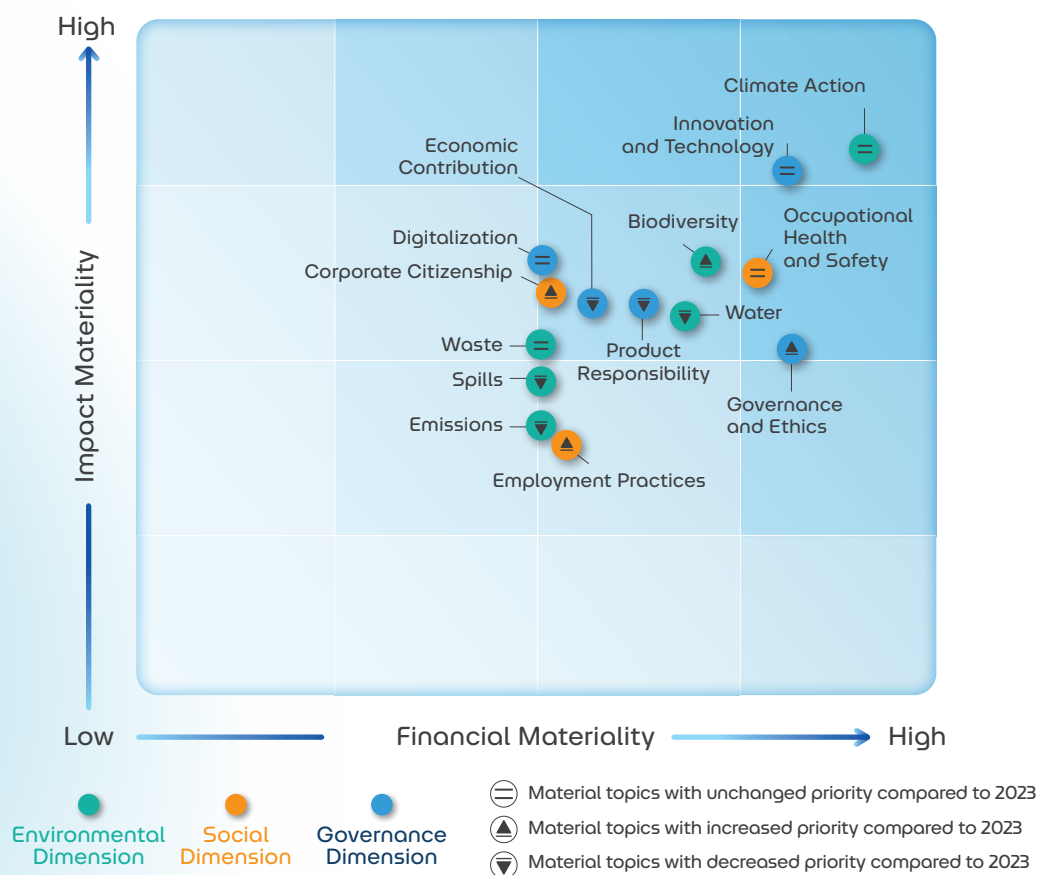


4

Prioritize the Most Significant Impacts for Reporting

The prioritization of impacts and identification of key sustainability topics is based on the comprehensive analysis of both societal and environmental impacts (Impact Materiality) as well as the financial implications for the organization (Financial Materiality). These identified topics are carefully managed and transparently disclosed in the 56-1 One Report and on PTT Website. The evaluation results undergo thorough review in collaboration with relevant departments and experts. All findings are subject to approval and oversight by Management Level and PTT's Board of Directors, including the Governance Risk Compliance and Sustainability Management Committee, and the Corporate Governance and Sustainability Committee, respectively. In addition, independent experts and external organizations are engaged to audit the process and the outcomes of the materiality assessment, ensuring accuracy, credibility, completeness, and transparency. PTT incorporates feedback from external experts and entities to continuously improve its processes and disclosures.

Materiality Assessment Result



The top three material topics from the materiality assessment in 2024, in terms of the impact on society and the environment (Impact Materiality) and the effect on the organization's financial performance (Financial Materiality), are: Climate Action, Innovation and Technology, and Occupational Health and Safety. Additionally, 2 topics that have become more prominent in 2024 and now ranked among the top 5 are Biodiversity and Governance and Ethics, respectively. Biodiversity is critical because it plays a key role in addressing climate change by acting as a carbon sink and enhancing ecosystem resilience, allowing systems to adapt to climate-related challenges. At the same time, climate change leads to ecosystem degradation, prompting oil and gas companies to focus on managing risks

and minimizing impacts on infrastructure and operations through sustainable ecosystem conservation and restoration efforts, providing an opportunity from carbon credits generated from removing carbon through forestation. In terms of Governance and Ethics, the duty of PTT's Board of Directors plays a crucial part in shaping the organization's direction, strategy, and risk management, particularly regarding sustainability and the handling of environmental, social, and governance (ESG) impacts. Failing to approach these responsibilities with due diligence can damage the organization's reputation, undermine its credibility, lead to legal challenges, and result in the loss of business opportunities, ultimately affecting its long-term competitiveness.

Climate Action remains the top priority for the organization due to its far-reaching impact on the environment, society, and the economy. The energy sector, as a major emitter of greenhouse gases, faces increasing pressure from stakeholders and the implementation of stricter regulations (e.g., Net Zero Guidelines, International Financial Reporting Standards (IFRS), GRI, and Draft Thailand's Climate Change Act) which will be effective in the future. From the financial materiality perspective, climate change risks impact the organization's cost structure, disrupt business operations, and pose increased financial risks. Moreover, stakeholders such as investors and customers expect the organization to play a pivotal role in reducing greenhouse gas emissions. Delayed actions in addressing climate change could damage the company's reputation. However, investments in clean energy and energy efficiency improvements present an opportunity to reduce operational costs, generate new revenue streams, and strengthen competitiveness. From the impact materiality perspective, the negative impacts include ecosystem degradation, biodiversity loss, and challenges to the quality of life in surrounding communities, such as food and water insecurity.

Innovation and Technology are vital drivers in transforming and expanding the business to support the energy transition and respond to the changing demands of consumers. Promoting creativity and innovation within the organization is key to improving operational efficiency, enhancing competitiveness, and opening up new revenue opportunities. In terms of financial materiality, innovation and technology can reduce operational costs, boost performance, and generate income from new business ventures. Furthermore, innovation supports business resilience by allowing the company to better navigate market fluctuations and environmental regulatory challenges. Failure to adapt to technological trends could lead to financial risks and a loss of competitive advantage. For impact materiality, innovation plays an essential role in developing products and services that reduce carbon emissions, support a low-carbon transition, and address stakeholder expectations, such as customers, investors, and communities. Operations focused on innovation, therefore, have the potential to create positive impacts on society and the environment in the long term.

Occupational Health and Safety workplace safety is a critical factor in preventing accidents and injuries that may occur to employees, contractors, and surrounding communities. Not only does it affect the quality of life of personnel, but it also has a direct impact on the efficiency and continuity of business operations within the organization. Therefore, in terms of financial materiality, strict occupational health and safety management helps reduce costs from accidents and illnesses, such as insurance premiums, medical expenses, and compensation, as well as minimize disruptions to production processes, which reflect income loss and increased costs. For impact materiality, stakeholders such as employees, contractors, and nearby communities may face irreversible health and safety risks, leading to uncertainty in the operational system and creating concerns within the community.



Double and Dynamic Materiality and Management of Material Topics of PTT in 2024



Impact of Topics Over Time

| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| High | High | High |

Page 160  Additional information

| Climate Action | Financial Materiality | | Impact Materiality | Governance Committee |
|--|---|--|--|---|
| | Risks | Opportunities | | |
| <ul style="list-style-type: none"> • Direct and indirect greenhouse gas emissions and reduction • Methane emission management • Energy efficiency • Financial risks and opportunities associated with climate change • Climate change mitigation and adaptation • Commitment to achieving Net Zero Emissions | <ul style="list-style-type: none"> - Increased operational costs due to disruptions in business operations, supply chain interruptions, damage to infrastructure, regulatory pressures, and legal challenges, etc. | <ul style="list-style-type: none"> + Cost savings through enhanced energy efficiency + Strengthened reputation and trust among stakeholders + New market access and expansion to untapped consumer segments + Opportunities for innovation that create new revenue streams | <ul style="list-style-type: none"> + Job creation driving the transition to a low-carbon society + Mitigation of environmental impacts and improvements in society's quality of life - Deteriorating ecosystems, loss of biodiversity - Decline in quality of life, including health challenges, food and water insecurity, displacement, etc. | <p>Board of Directors Level</p> <ul style="list-style-type: none"> • Corporate Governance and Sustainability Committee • Enterprise Risk Management Committee • PTT's Board of Directors <p>Management Level</p> <ul style="list-style-type: none"> • Governance Risk Compliance and Sustainability Management Committee • PTT Group Sustainability Strategy and Management Committee • Corporate Plan and Risk Management Committee • PTT Management Committee <p>Functional Level</p> <ul style="list-style-type: none"> • Corporate Strategy and Sustainability <p>Strategic/ Management Plans</p> <ul style="list-style-type: none"> • PTT's Sustainability Management Master Plan for Social and Environmental Responsibility |



Remarks:

Human Rights
Impact

Article 3: Right to Life
Article 4: Freedom from Slavery
Article 5: Freedom from Torture
Article 7: Right to Equality
Before the Law

- Article 8: Right to Remedy
- Article 12: Right to Privacy
- Article 17: Right to Own Property
- Article 18: Freedom of Religion or Belief
- Article 20: Freedom of Assembly and Association

Article 22: Right to Social Security
Article 23: Right to Work
Article 24: Right to Rest and Leisure
Article 25: Right to Adequate
Standard of Living
Ref: Universal Declaration of Human
Rights (UDHR), Amnesty International



Additional information is available within this report



Additional information
is available on
PTT Website

| Cause of Impact



→ Cause



Contributes



Directly linked to

| Stakeholders



Public Center



 Society and Communities



Investors



- Customers



Suppliers and Partners



Directors and Employees



Impact of Topics Over Time

| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| Medium | Medium | High |

Additional information



| Water | Financial Materiality | | Impact Materiality | Governance Committee |
|--|---|--|---|---|
| | Risks | Opportunities | | |
| <ul style="list-style-type: none"> Water withdrawal and consumption from shared sources Water resource conservation Wastewater impact management Circular economy for water management | <ul style="list-style-type: none"> - Increased operational costs due to disruptions in business operations, supply chain interruptions, damage to infrastructure, regulatory pressures, and legal challenges, etc. | <ul style="list-style-type: none"> + Cost reductions through the efficient use of water resources + Strengthened reputation and trust among stakeholders + Opportunities for innovation that create new revenue streams | <ul style="list-style-type: none"> + Conservation of natural resources and ecosystems + Ensuring public access to clean water and sanitation - Environmental degradation and scarcity of water resources - Social inequality in access to water resources | <p>Board of Directors Level</p> <ul style="list-style-type: none"> Corporate Governance and Sustainability Committee PTT's Board of Directors <p>Management Level</p> <ul style="list-style-type: none"> Governance Risk Compliance and Sustainability Management Committee PTT Group Sustainability Strategy and Management Committee PTT Management Committee <p>Functional Level</p> <ul style="list-style-type: none"> Downstream Business Group Alignment Policy and Operational Excellence Management <p>Strategic/ Management Plans</p> <ul style="list-style-type: none"> PTT's Sustainability Management Master Plan for Social and Environmental Responsibility |

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| | 6.4 | 6.6 | | 12.2 | 12.5 |

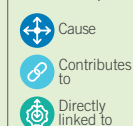
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Additional information is available within this report

Additional information is available on PTT Website

Cause of Impact



Stakeholders





Impact of Topics Over Time

| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| Medium | Medium | High |



| Biodiversity | Financial Materiality | | Impact Materiality | Governance Committee |
|---|---|--|---|--|
| | Risks | Opportunities | | |
| <ul style="list-style-type: none"> Biodiversity protection and ecosystem restoration Sustainable land use and natural resource management practices Identification of operational areas that caused or contributed to involuntary resettlement Development of urban and rural areas with a strong focus on environmental sustainability | <ul style="list-style-type: none"> Long-term financial and reputational damage | <ul style="list-style-type: none"> + Adaptation to climate change + Reputation and trust from stakeholders | <ul style="list-style-type: none"> + Restoring ecosystem services to enhance ecosystem resilience, support natural dependencies, and generate economic, cultural, and recreational benefits + Establishing conservation networks, preserving forests, and promoting learning and active community participation - Imbalance in ecosystems and the livelihoods of surrounding communities | <p>Board of Directors Level</p> <ul style="list-style-type: none"> Corporate Governance and Sustainability Committee PTT's Board of Directors <p>Management Level</p> <ul style="list-style-type: none"> Governance Risk Compliance and Sustainability Management Committee PTT Group Sustainability Strategy and Management Committee PTT Management Committee <p>Functional Level</p> <ul style="list-style-type: none"> Policy and Operational Excellence Management <p>Strategic/ Management Plans</p> <ul style="list-style-type: none"> PTT's Sustainability Management Master Plan for Social and Environmental Responsibility |

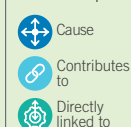


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|--|---|--|



Cause of Impact



Stakeholders





Impact of Topics Over Time

| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| Low | Low | Low |



| Spills | Financial Materiality | | Impact Materiality | Governance Committee |
|---|---|--|---|--|
| | Risks | Opportunities | | |
| <ul style="list-style-type: none"> Oil, gas, and chemical spills | <ul style="list-style-type: none"> - Long-term financial and reputational damage | <ul style="list-style-type: none"> + Reducing costs arising from fines and insurance premiums + Reputation and trust from stakeholders | <ul style="list-style-type: none"> + Conservation of ecosystems and safeguarding public health hygiene - Environmental contamination, economic losses, and health risks to the public | <p>Board of Directors Level</p> <ul style="list-style-type: none"> Corporate Governance and Sustainability Committee PTT's Board of Directors <p>Management Level</p> <ul style="list-style-type: none"> Governance Risk Compliance and Sustainability Management Committee PTT Group Sustainability Strategy and Management Committee PTT Management Committee <p>Functional Level</p> <ul style="list-style-type: none"> Policy and Operational Excellence Management <p>Strategic/ Management Plans</p> <ul style="list-style-type: none"> PTT's Sustainability Management Master Plan for Social and Environmental Responsibility |



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Cause of Impact

Cause
Contributes to
Directly linked to

Stakeholders

Public Sector
Society and Communities
Investors
Customers
Suppliers and Partners
Directors and Employees



Impact of Topics Over Time

| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| Low | Low | Low |

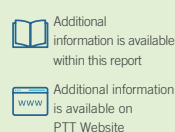


| Waste | Financial Materiality | | Impact Materiality | Governance Committee |
|---|---|---|--|---|
| | Risks | Opportunities | | |
| <ul style="list-style-type: none"> Efficient waste management for recycling, reuse, and proper disposal Circular economy for waste management | <ul style="list-style-type: none"> Financial and reputational damage | <ul style="list-style-type: none"> + Cost reduction through the efficient utilization of resources + Innovation driven by the adoption of circular economy principles across business operations and PTT Group's supply chain | <ul style="list-style-type: none"> + Ecosystem conservation and ensuring public health and hygiene - Environmental contamination and public health risks | <p>Board of Directors Level</p> <ul style="list-style-type: none"> Corporate Governance and Sustainability Committee PTT's Board of Directors <p>Management Level</p> <ul style="list-style-type: none"> Governance Risk Compliance and Sustainability Management Committee PTT Group Sustainability Strategy and Management Committee PTT Management Committee <p>Functional Level</p> <ul style="list-style-type: none"> Downstream Business Group Alignment Policy and Operational Excellence Management <p>Strategic/ Management Plans</p> <ul style="list-style-type: none"> PTT's Sustainability Management Master Plan for Social and Environmental Responsibility |

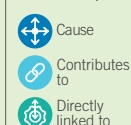


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|--|---|--|



Cause of Impact



Stakeholders





Impact of Topics Over Time

| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| Low | Low | Low |



| Emissions | Financial Materiality | | Impact Materiality | Governance Committee |
|--|---|---|--|--|
| | Risks | Opportunities | | |
| <ul style="list-style-type: none"> Air pollution management, including volatile organic compounds (VOCs), nitrogen oxides (NOx), and sulfur dioxide (SO₂) emissions Management of other environmental pollutants, such as light pollution, vibrations, electromagnetic radiation, and radiation emissions | <ul style="list-style-type: none"> Financial and reputational damage | <ul style="list-style-type: none"> The operational processes are efficient | <ul style="list-style-type: none"> Reducing environmental, social, and community impacts Environmental contamination and public health risks | <p>Board of Directors Level</p> <ul style="list-style-type: none"> Corporate Governance and Sustainability Committee PTT's Board of Directors <p>Management Level</p> <ul style="list-style-type: none"> Governance Risk Compliance and Sustainability Management Committee PTT Group Sustainability Strategy and Management Committee PTT Management Committee <p>Functional Level</p> <ul style="list-style-type: none"> Policy and Operational Excellence Management <p>Strategic/ Management Plans</p> <ul style="list-style-type: none"> PTT's Sustainability Management Master Plan for Social and Environmental Responsibility |



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Cause of Impact

Cause
Contributes to
Directly linked to

Stakeholders

Public Sector
Society and Communities
Investors
Customers
Suppliers and Partners
Directors and Employees



Impact of Topics Over Time

| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| High | High | High |

Page 173 Additional information



22, 25

| Occupational Health and Safety | Financial Materiality | | Impact Materiality | Governance Committee |
|---|--|---|---|--|
| | Risks | Opportunities | | |
| <ul style="list-style-type: none"> Occupational health and safety management system, risk assessment, and incident investigation Ensuring workplace safety, occupational health, and environment to prevent injuries and illnesses among employees and workers Providing health services, including counseling, training, health promotion, and clear communication with employees and workers Preventing and mitigating occupational health and safety risks linked directly to business operations and relationships Safeguarding safety throughout production processes Ensuring safe transportation via road and sea Promoting community safety Effective emergency response, crisis management, and business continuity planning to minimize any disruptions to business operations, society, communities, and the environment | <ul style="list-style-type: none"> - Reducing insurance and healthcare costs - Financial and reputational damage | <ul style="list-style-type: none"> + Enhancing work productivity and strengthen business competitiveness | <ul style="list-style-type: none"> + Reducing accident, illness, and injury rates in the workplace + Elevating the quality of life for employees, contractors, and the surrounding community - Health risks from work-related injuries and illnesses to employees, contractors, resulting from incidents/ accidents - Hazards and risks from accidents/ emergencies in construction projects/work impacting the surrounding community of the operation. | <p>Board of Directors Level</p> <ul style="list-style-type: none"> Corporate Governance and Sustainability Committee PTT's Board of Directors <p>Management Level</p> <ul style="list-style-type: none"> Governance Risk Compliance and Sustainability Management Committee PTT Group Sustainability Strategy and Management Committee PTT Management Committee <p>Functional Level</p> <ul style="list-style-type: none"> Policy and Operational Excellence Management <p>Strategic/ Management Plans</p> <ul style="list-style-type: none"> PTT's Sustainability Management Master Plan for Social and Environmental Responsibility |



Remarks:

| | | |
|--|--|---|
| <p> Human Rights Impact</p> <p>Article 3: Right to Life</p> <p>Article 4: Freedom from Slavery</p> <p>Article 5: Freedom from Torture</p> <p>Article 7: Right to Equality Before the Law</p> | <p>Article 8: Right to Remedy</p> <p>Article 12: Right to Privacy</p> <p>Article 17: Right to Own Property</p> <p>Article 18: Freedom of Religion or Belief</p> <p>Article 20: Freedom of Assembly and Association</p> | <p>Article 22: Right to Social Security</p> <p>Article 23: Right to Work</p> <p>Article 24: Right to Rest and Leisure</p> <p>Article 25: Right to Adequate Standard of Living</p> <p>Ref: Universal Declaration of Human Rights (UDHR), Amnesty International</p> |
|--|--|---|

Additional information is available within this report

Additional information is available on PTT Website

Cause of Impact

Cause

Contributes to

Directly linked to

Stakeholders

Public Sector

Society and Communities

Investors

Customers

Suppliers and Partners

Directors and Employees



Impact of Topics Over Time

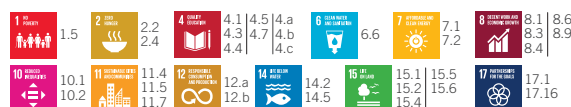
| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| Medium | Low | Low |

Page 183 Additional information

8, 22, 25



| Corporate Citizenship | Financial Materiality | | Impact Materiality | Governance Committee |
|--|---|---|--|--|
| | Risks | Opportunities | | |
| <ul style="list-style-type: none"> Indirect economic impacts on local communities Evaluation of social impacts on local communities Development and support for improving community access to technology Building relationships, fostering understanding, and encouraging community participation Preservation and promotion of local culture and education Job creation and skill development opportunities Promotion of health and public health awareness campaigns List of the operation areas at risk that impact on community relocation Human rights risks related to organizational security measures impacting communities Protection of indigenous peoples' rights | <ul style="list-style-type: none"> - Financial and reputational damage | <ul style="list-style-type: none"> + Fostering relationships and community engagement to build understanding and mitigate negative impacts on the company's reputation | <ul style="list-style-type: none"> + Enhancing the quality of life and promoting local employment, while aligning with government policies that encourage private sector and state-owned enterprises to support social enterprises + Supporting lifelong learning opportunities, including infrastructure development, education access, and skill-building to foster equality and reduce social disparities | <p>Board of Directors Level</p> <ul style="list-style-type: none"> Corporate Governance and Sustainability Committee PTT's Board of Directors <p>Management Level</p> <ul style="list-style-type: none"> Governance Risk Compliance and Sustainability Management Committee PTT Management Committee <p>Functional Level</p> <ul style="list-style-type: none"> Corporate Reputation and Social Responsibility <p>Strategic/ Management Plans</p> <ul style="list-style-type: none"> PTT's Sustainability Management Master Plan for Social and Environmental Responsibility |



Remarks:

Human Rights Impact

Article 3: Right to Life

Article 4: Freedom from Slavery

Article 5: Freedom from Torture

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Cause of Impact

Cause

Contributes to

Directly linked to

Stakeholders

Public Sector

Society and Communities

Customers

Suppliers and Partners

Directors and Employees

Investors



Impact of Topics Over Time

| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| Medium | Low | Low |

Additional information

4, 5, 7, 8, 18,
20, 23, 24

Employment Practices

Financial Materiality

Risks

Opportunities

Impact Materiality

Governance Committee

- Labor relations management
- Non-discrimination and harassment
- Freedom of association and the right to collective bargaining
- Fair compensation
- Employee engagement
- Employee development, performance evaluation, and career management
- Motivation and retention of talented individuals
- Child labor
- Forced labor and labor conscription
- Modern slavery
- Supply chain management and risk assessment from partner operations

- Ineffective and unjust human resource management can lead to employee dissatisfaction, negatively affecting work performance and reducing organizational commitment
- Failure to develop employee potential can result in difficulties in replacing staff who leave or retire, leading to workforce gaps
- Risks stemming from inefficient procurement processes and operations by partners and collaborators can cause business disruptions, such as increased operating costs, supply chain interruptions, delays in product and service delivery, and complaints from stakeholders

- + Skilled, knowledgeable, and experienced human resources with expertise in the clean energy sector and emerging industries
- + Fair compensation that enhances employee well-being and strengthens organizational loyalty and engagement
- + Promoting diversity within the workforce (across race, religion, gender, age, etc.) to foster cross-cultural learning, diverse perspectives, and experiences

- + Managing the supply chain with transparency and ethical practices across upstream, midstream, and downstream operations, focusing on economic returns while minimizing social and environmental impacts and creating shared value with partners and collaborators
- Unfair labor practices or human rights violations against employees and contractors

Board of Directors Level

- Corporate Governance and Sustainability Committee
- PTT's Board of Directors

Management Level

- Human Resources Management Committee
- Human Resources Management Committee of PTT Public Company Limited
- Job Structure and Staffing Committee
- Employee Management Committee, Talent and Scholarship Group
- Human Resources Cooperation Committee
- Strategic Planning and Procurement Management Committee
- Vendor Selection Committee
- Procurement Oversight and Audit Committee

Functional Level

- Corporate Human Resources Strategic/ Management Plans
- Human Capital Management and Development Strategy
- Organizational Learning Master Plan
- PTT's Sustainability Management Master Plan for Social and Environmental Responsibility



Remarks:

- Human Rights Impact
- Article 3: Right to Life
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- Article 25: Right to Adequate Standard of Living
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Cause of Impact

- Cause
- Contributes to
- Directly linked to

Stakeholders

- Public Sector
- Society and Communities
- Investors
- Customers
- Suppliers and Partners
- Directors and Employees



Impact of Topics Over Time

| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| High | High | High |

Page 194 [Additional information](#)

22



| Innovation and Technology | Financial Materiality | | Impact Materiality | Governance Committee |
|--|---|---|--|--|
| | Risks | Opportunities | | |
| <ul style="list-style-type: none"> Research and development of technology, innovation processes, and business development Fostering innovation and applying technology to improve production processes, products, and services | <ul style="list-style-type: none"> Rapidly changing innovation and technology may impact business operations in various areas such as innovation funding, personnel skills, and profits that do not align with plans | <ul style="list-style-type: none"> Fostering innovation and applying technology in business operations (production processes, products, services, etc.) to drive new business ventures, meeting customer and partner needs, creating competition, and generating returns for investors | <ul style="list-style-type: none"> Reducing environmental impact by developing products and services that lower greenhouse gas emissions, supporting the transition to a low-carbon society, and meeting stakeholder expectations | <p>Board of Directors Level</p> <ul style="list-style-type: none"> Enterprise Risk Management Committee PTT's Board of Directors <p>Management Level</p> <ul style="list-style-type: none"> PTT Research and Innovation Screening Committee PTT Innovation Management Committee PTT Group Technology Committee PTT Group Digital Committee PTT Management Committee <p>Functional Level</p> <ul style="list-style-type: none"> Innovation Institute Planning and New Venture Development <p>Strategic/ Management Plans</p> <ul style="list-style-type: none"> PTT Innovation Management Master Plan |



Remarks:

Human Rights Impact
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Additional information is available on PTT Website

Cause of Impact

Cause
Contributes to
Directly linked to

Stakeholders

Public Sector
Society and Communities
Investors
Customers
Suppliers and Partners
Directors and Employees



Impact of Topics Over Time

| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| Medium | Medium | High |



| Digitalization | Financial Materiality | | Impact Materiality | Governance Committee |
|---|---|--|---|---|
| | Risks | Opportunities | | |
| <ul style="list-style-type: none"> Information management, cybersecurity, and privacy protection Leveraging digital technology to transform business processes and activities within the organization | <ul style="list-style-type: none"> Potential disruptions to business operations, including increased costs, failure to deliver products and services, and a loss of stakeholder trust Leakage of sensitive data | <ul style="list-style-type: none"> + Safeguarding information, mitigating cybersecurity threats, and enhancing privacy protections, while also fostering greater trust with stakeholders + Leveraging digital technology to streamline and optimize business processes, driving greater operational efficiency | <ul style="list-style-type: none"> - Leakage of sensitive information from the organization and its stakeholders to external parties | <p>Board of Directors Level</p> <ul style="list-style-type: none"> Enterprise Risk Management Committee PTT's Board of Directors <p>Management Level</p> <ul style="list-style-type: none"> PTT Group Digital Steering Committee PTT Management Committee <p>Functional Level</p> <ul style="list-style-type: none"> Strategy & Portfolio Management <p>Strategic/ Management Plans</p> <ul style="list-style-type: none"> Digital Technology Master Plan |

9.4
9.c

Remarks:

Human Rights
Impact

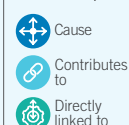
Article 3: Right to Life
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Additional
information is available
within this reportAdditional information
is available on
PTT Website

Cause of Impact



Stakeholders





Impact of Topics Over Time

| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| Medium | Medium | Medium |



| Economic Contribution | Financial Materiality | | Impact Materiality | Governance Committee |
|--|---|--|--|---|
| | Risks | Opportunities | | |
| <ul style="list-style-type: none"> Creation and distribution of economic value, including operational costs, revenues, employee compensation and benefits, annual dividends, taxes paid to the government, and investments in social initiatives The company's ability to generate returns from its business operations Support from the government in terms of policy and political backing Financial assistance provided by the government for business operations | <ul style="list-style-type: none"> Lack of transparency in tax payments and government financial assistance could lead to corruption, bribery, or the organization receiving unjust benefits Supporting opaque government policies could lead to corruption, bribery, or the organization receiving unjust benefits | <ul style="list-style-type: none"> Strengthened reputation and trust among stakeholders | <ul style="list-style-type: none"> Driving business success that generates value for all stakeholders Contributing to the economy through revenue, employee compensation and benefits, annual dividends, taxes paid to the government, and investments in social causes Actively supporting government policies that focus on social development, enhancing quality of life, and promoting environmental sustainability | <p>Board of Directors Level</p> <ul style="list-style-type: none"> PTT's Board of Directors <p>Management Level</p> <ul style="list-style-type: none"> PTT Management Committee <p>Functional Level</p> <ul style="list-style-type: none"> Group Corporate Finance and Strategy Corporate Human Resources Corporate Reputation and Social Responsibility <p>Strategic/ Management Plans</p> <ul style="list-style-type: none"> Action plans of the relevant divisions |



Remarks:

Human Rights Impact
 Article 3: Right to Life
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Additional information is available within this report
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Cause of Impact
 Cause
 Contributes to
 Directly linked to

Stakeholders
 Public Sector
 Society and Communities
 Investors
 Customers
 Suppliers and Partners
 Directors and Employees



Impact of Topics Over Time

| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| Medium | Medium | Medium |

Additional information

 8, 12, 17

| Product Responsibility | Financial Materiality | | Impact Materiality | Governance Committee |
|--|---|--|---|---|
| | Risks | Opportunities | | |
| <ul style="list-style-type: none"> Fair marketing, accurate information, and compliance with fair agreements Addressing customer needs effectively Providing quality customer service, support, and resolving complaints and disputes Evaluating and safeguarding the health and safety impacts of products and services Ensuring the protection of customer and consumer privacy | <ul style="list-style-type: none"> Financial and reputational damage from complaints and lawsuits arising from products and services not meeting standards, as well as privacy violations and customer data loss, etc. | <ul style="list-style-type: none"> Innovating and developing environmentally friendly, high-quality products and services that align with customer needs and expectations | <ul style="list-style-type: none"> Providing clear, transparent information to consumers, empowering them to make well-informed purchasing decisions Minimizing environmental impacts by creating products and services that reduce greenhouse gas emissions, facilitating the shift towards a low-carbon economy, and meeting the expectations of stakeholders Products and services that do not meet health and safety standards or requirements, as well as misleading marketing information, may impact the health and safety of customers | <p>Board of Directors Level</p> <ul style="list-style-type: none"> PTT's Board of Directors <p>Management Level</p> <ul style="list-style-type: none"> PTT Customer Excellence Committee <p>Functional Level</p> <ul style="list-style-type: none"> Gas Business Unit International Trading Business Unit <p>Strategic/ Management Plans</p> <ul style="list-style-type: none"> PTT Customer and Market Strategic Plan |

3 HUMAN RIGHTS 3.9
 12 ECONOMIC, ENVIRONMENTAL AND SOCIAL 12.6 12.8
 16 GOVERNANCE 16.5 16.6

Remarks:

| | | |
|--|---|--|
| Human Rights Impact Article 3: Right to Life Article 4: Freedom from Slavery Article 5: Freedom from Torture Article 7: Right to Equality Before the Law | Article 8: Right to Remedy Article 12: Right to Privacy Article 17: Right to Own Property Article 18: Freedom of Religion or Belief Article 20: Freedom of Assembly and Association | Article 22: Right to Social Security Article 23: Right to Work Article 24: Right to Rest and Leisure Article 25: Right to Adequate Standard of Living Ref: Universal Declaration of Human Rights (UDHR), Amnesty International |
|--|---|--|

Additional information is available within this report
 Additional information is available on PTT Website

Cause of Impact
 Cause
 Contributes to
 Directly linked to

Stakeholders
 Public Sector
 Society and Communities
 Investors
 Customers
 Suppliers and Partners
 Directors and Employees



Impact of Topics Over Time

| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| High | Medium | Medium |

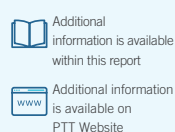


| Governance and Ethics | Financial Materiality | | Impact Materiality | Governance Committee |
|---|--|---|--|--|
| | Risks | Opportunities | | |
| <ul style="list-style-type: none"> Organizational structure and governance processes that promote good governance and ethics Commitment to fair practices Strong anti-corruption measures and transparency Enterprise risk management processes aligned with international standards Strategic approach to tax policies and compliance Adherence to laws and regulations Organizational stance on supporting the development of new regulations and policies Guidelines for determining the compensation of PTT's Board of Directors and executives | <ul style="list-style-type: none"> Increased costs due to fines Damage to the organization's image and reputation, leading to an inability to conduct business | <ul style="list-style-type: none"> Operating with strong governance, ethics, and transparency, while enforcing anticorruption practices and complying with laws and regulations, resulting in improved performance, reduced fines, and enhanced corporate reputation Fostering fair practices and throughout PTT Group's supply chain Ensuring fair and equitable compensation for PTT's Board of Directors, executives, and employees | <ul style="list-style-type: none"> Encouraging fair competition and supporting free trade initiatives Non-transparent governance structure and corruption negatively impact employees and various stakeholders, such as shareholders and the public in Thai society. | <p>Board of Directors Level</p> <ul style="list-style-type: none"> Corporate Governance and Sustainability Committee PTT's Board of Directors <p>Management Level</p> <ul style="list-style-type: none"> Governance Risk Compliance and Sustainability Management Committee PTT Management Committee <p>Functional Level</p> <ul style="list-style-type: none"> Corporate Governance <p>Strategic/ Management Plans</p> <ul style="list-style-type: none"> PTT's Sustainability Management Master Plan for Social and Environmental Responsibility |

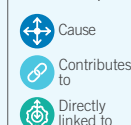


Remarks:

| | | |
|--|---|--|
| Human Rights Impact Article 3: Right to Life Article 4: Freedom from Slavery Article 5: Freedom from Torture Article 7: Right to Equality Before the Law | Article 8: Right to Remedy Article 12: Right to Privacy Article 17: Right to Own Property Article 18: Freedom of Religion or Belief Article 20: Freedom of Assembly and Association | Article 22: Right to Social Security Article 23: Right to Work Article 24: Right to Rest and Leisure Article 25: Right to Adequate Standard of Living Ref: Universal Declaration of Human Rights (UDHR), Amnesty International |
|--|---|--|



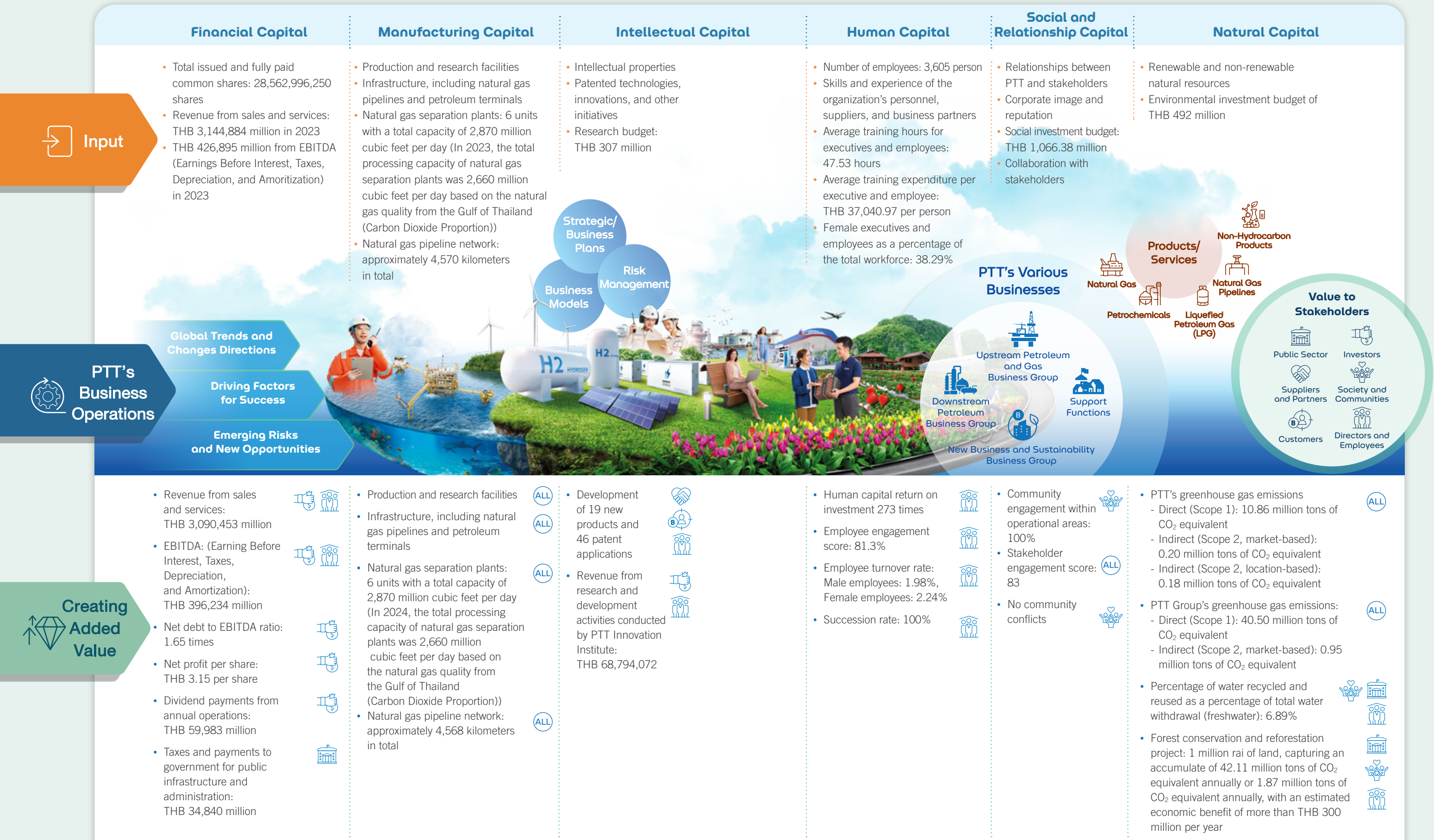
Cause of Impact



Stakeholders



Creating Value for Sustainability



3.4 Overview of Sustainability Material Topics Management and Performance

Aligned with PTT's vision, strategic direction, sustainability management framework, and policy commitments for responsible business conducts, the company has translated these into actionable steps through the management of key sustainability topics as detailed in sections 3.1 to 3.3. In this section, PTT presents an overview of the goals, plans, performance, and progress of key sustainability projects for 2024, highlighting the top three priority areas and those that stakeholders have been interested in. These are outlined in the 56-1 One Report, which includes: **Climate Action**, **Occupational Health and Safety**, **Corporate Citizenship**, and **Innovation and Technology**. Additional key topics are further elaborated on PTT Website under the Sustainability section.



Climate Action



| Financial Materiality | | Impact Materiality |
|---|--|---|
| Risks | Opportunities | |
| <ul style="list-style-type: none"> - Increased operational costs due to disruptions in business operations, supply chain interruptions, damage to infrastructure, regulatory pressures, and legal challenges, etc. | <ul style="list-style-type: none"> + Cost savings through enhanced energy efficiency + Strengthened reputation and trust among stakeholders + New market access and expansion to untapped consumer segments + Opportunities for innovation that create new revenue streams | <ul style="list-style-type: none"> + Job creation driving the transition to a low-carbon society + Mitigation of environmental impacts and improvements in societal quality of life - Deteriorating ecosystems, loss of biodiversity - Decline in quality of life, including health challenges, food and water insecurity, displacement, etc. |

Impact of Topics Over Time

| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| High | High | High |

Material Topic Management

| Indicators | Performance | | Performance against 2024 Targets |
|--|---|--|--|
| | Short-term Targets 2024 | Long-term Targets | |
| <ul style="list-style-type: none"> Corporate KPI/ SE-AM KPI* Functional KPIs KPIs according to PTT's Sustainability Management Master Plan for Social and Environmental Responsibility (2021 - 2025) Quality, Safety, Health, and Environment (QSHE) KPIs 2024 related to the operations of PTT and subsidiaries | <p>PTT:</p> <p>Direct and indirect greenhouse gas emissions not exceeding 11.5 million tons of CO₂ equivalent.</p> <p>PTT Group:</p> <p>Total direct and indirect greenhouse gas emissions not exceeding 51.0 million tons of CO₂ equivalent.</p> | <p>PTT:</p> <p>Achieve Carbon Neutrality by 2040 and Net Zero Emissions by 2050.**</p> <p>PTT Group:</p> <p>15% reduction by 2030, compared to 2020 emissions.**</p> | <p>PTT:</p> <p>11.06 million tons of CO₂ equivalent</p> <p>PTT Group:</p> <p>41.45 million tons of CO₂ equivalent.</p> |

Remark:

* SE-AM KPIs and Corporate KPIs measures performance through Eco-efficiency, calculated as PTT's Emission intensity.

** Long-term goals are subject to change to align with the Decarbonization Master Plan, which has been developing.

Contribution to the United Nations Sustainable Development Goals (UN SDGs)



Key Action Plans for 2024

- Projects under the C³ Approaches for greenhouse gas emissions reduction
 - C1 - Climate-Resilience Business
 - C2 - Carbon-Conscious Asset
 - C3 - Coalition, Co-Creation, and Collective Efforts for All

Management Overview

In defining the strategic direction for 2024, the organization has integrated the financial impacts, risks, and opportunities associated with climate change into its strategy and **Sustainability Management Framework**. This integration ensures alignment with the company's overarching vision, enabling it to fulfill its mission of enhancing energy security while achieving Carbon Neutrality by 2040 and Net Zero Emissions by 2050, in a sustainable and balanced manner across all dimensions.

Under **PTT Sustainability Management Framework**, PTT focuses on managing its investment portfolio while actively working to reduce greenhouse gas emissions in accordance with established targets. To guide these efforts, the **"C³ Approaches"** have been developed, which include: C1 - Climate-resilience Business, C2 - Carbon-conscious Asset, C3 - Coalition, Co-creation, and Collective Efforts for All. These approaches are embedded within the organization's business plans and operational strategies at the corporate, business unit, and support department levels, including subsidiaries. Furthermore, performance indicators (SE-AM KPIs/ Corporate KPIs) at the corporate and functional levels have been established to drive actionable, results-oriented efforts in alignment with the company's strategic goals, ensuring cohesive action across the organization. Additionally, these sustainability objectives have been integrated into Corporate Risk Profile, with a robust risk management framework designed to mitigate potential impacts. In line with this, PTT has restructured the organization to establish a Senior Executive Vice President (SEVP) Corporate Sustainability, as detailed in the Sustainability Governance Structure section. Besides, a dedicated committee and working groups have been established to develop a comprehensive master plan and action plan for reducing greenhouse gas emissions within PTT Group, ensuring alignment with the set targets and objectives.

PTT actively tracks and monitors the progress of its business plans and targets, providing regular updates to the committee at the business unit level. Additionally, comprehensive reports are presented to PTT Management Committee and Board of Directors, which are tasked with reviewing, providing strategic guidance, and driving the successful implementation of actions on a quarterly basis.

"C³ Approaches"



C1

Climate-Resilience Business

Investing in clean energy, low-carbon business, and restructuring the business by adjusting the portfolio to align with global and Thailand's energy transition directions.

Key Activities:

- The hydrocarbon business prioritizes natural gas and LNG. Investments are made in infrastructure while driving growth through investments in the LNG value chain.
- Complete exit from the coal business.
- Continually expanding investments in renewable energy, both in Thailand and abroad.
- Focusing on exploring and producing natural gas, expanding investments in Clean Hydrogen production, along with renewable energy project.
- Redirecting investments towards low-carbon businesses.



Climate-Resilience Business



Carbon-Conscious Asset



Coalition, Co-Creation, and Collective Efforts for All

C2

Carbon-Conscious Asset

Focusing on reducing greenhouse gas emissions from production processes and operational activities through various methods.

Key Activities:

- Enhancing energy conservation and energy efficiency
- Utilizing clean and renewable energy
- Adopting advanced technologies such as Small Modular Reactors (SMR), etc.

C3

Coalition, Co-Creation, and Collective Efforts for All

Collaborating with stakeholders as national leader in developing infrastructure and technologies to reduce greenhouse gas emissions such as Carbon Capture and Storage (CCS), hydrogen utilization, and reforestation in collaboration with various organizations to absorb carbon dioxide through nature-based solutions.

Key Activities:

- CCS Project at the Arthit/ Eastern Thailand CCS Hub
- Expanding forest of an additional 2 million rai (3.2 billion square meters).

Budget and Resource Allocation

From 2024 to 2028, PTT Group has allocated a 5-year investment plan with a total budget of approximately THB 1.094 trillion. This plan is designed to ensure energy security, maintain competitiveness, and drive business growth for the Group. It also aims to capitalize on emerging opportunities in new energy sectors, particularly those related to Carbon Capture and Storage (CCS) and hydrogen. The Group plans to accelerate investments in infrastructure to support carbon capture across its production processes and those of its subsidiaries. Furthermore, it is committed to achieving balanced, long-term growth while pursuing its goal of Net Zero Emissions, in alignment with the global energy sector's evolving trends. By 2024, a total of THB 281.582 billion has already been invested.

Performance Aligned with C³ Approaches



CI Climate-Resilience Business

Natural Gas and LNG

The hydrocarbon business is prioritizing natural gas and LNG as clean energy sources during the energy transition. Natural gas is sourced from both domestic and international locations, while LNG imports are tailored to meet Thailand's energy demands. Strategic investments are being made in infrastructure and growth opportunities through LNG Value Chain. Long-term LNG purchase agreements are secured for 6.2 million tons.

Exit from Coal Investments

PTT has fully exited the coal sector, completed in 2023.

Renewable Energy

PTT continues to expand its investments in renewable energy through GPSC, both domestically and internationally. This includes the provision of stable and clean electricity to PTT Group, significantly contributing to the reduction of Scope 2 greenhouse gas emissions. In 2024, the renewable energy capacity reached from 4.9 GW. to 9.9 GW.

Exploration and Production of Petroleum

PTT Exploration and Production Public Company Limited (PTTEP) is focusing on natural gas exploration and production, while also expanding investments in Clean Hydrogen production in Oman. Additionally, PTTEP is further advancing renewable energy projects, such as offshore wind farms.

Low-Carbon Business

PTT is increasingly shifting its investments towards low-carbon sectors. Notably, OR is emphasizing mobility and lifestyle, with a growing focus on EV Charger infrastructure. Moreover, PTT is diversifying into high-value chemicals and environmentally sustainable bio-based and circular economy businesses through GC.

New Product from Carbon Capture and Utilization (CCU) Technology

PTT is exploring the development of technologies or projects that capture carbon dioxide emissions from its natural gas separation plants, and use as raw material to convert to new product such as methanol, a critical feedstock for the chemical industry and fuel production, which Thailand currently imports in large quantities. Another key product under consideration is calcium carbonate, which is increasingly in demand across Southeast Asia for use in plastics, adhesives, and synthetic rubber. These projects are in the feasibility study phase, with future potential for expansion and partnerships that will help create new business opportunities while enhancing Thailand's global competitiveness.

C2

Carbon-Conscious Asset

In 2024, the Rayong Gas Separation Plant will also implement a project to install Regenerative Thermal Oxidizers (RTO) at Units 5, 6, and Ethane Separation Plant (ESP). This initiative is projected to reduce greenhouse gas emissions by approximately 190,000 tons of carbon dioxide equivalent per annum.

Renewable Energy Integration in Operational Areas

In 2024, PTT installed solar panels at the Khao Bo Ya LPG Terminal and Sriracha Oil Terminal, replacing grid electricity with 100 kW of floating solar capacity. This project is expected to decrease greenhouse gas emissions by around 63 tons of carbon dioxide equivalent per annum.

C3

Coalition, Co-Creation,
and Collective Efforts for All

Enhancing Production Processes and Energy Efficiency Initiatives

PTT is investing in the construction of Natural Gas Separation Plant Unit 7, which will replace Unit 1, with a budget of over THB 18 billion. The plant is expected to begin commercial operations in 2025. The new facility will feature an optimized cooling system that improves production efficiency while reducing operational risks. By utilizing the cooling effect of liquefied natural gas (LNG), this upgrade will reduce greenhouse gas emissions by 112,000 tons of carbon dioxide equivalent per annum, compared to Unit 1.



Carbon Capture and Storage (CCS) Projects

PTT is advancing its efforts to capture and store carbon dioxide (CO₂) from production processes in the Gulf of Thailand, while exploring the potential for carbon dioxide storage in nearshore areas along the eastern coast. This initiative forms part of a broader collaborative effort within PTT Group to develop PTT Group CCS Hub Model. Below are the latest updates on the project's progress:

- **Offshore:** PTT Group actively working on a CCS project at the Arthit Gas Field in the Gulf of Thailand. After completing the Front-End Engineering Design (FEED) phase, the project is now in the process of negotiating agreements ahead of the Final Investment Decision (FID), which is anticipated for early 2025. Following the FID, the project will take approximately three more years to fully develop before initiating carbon injection operations. Once operational, the offshore CCS project will have the capacity to store approximately 0.7 to 1 million tons of carbon dioxide equivalent per annum.

- **Nearshore:** PTT Group's nearshore CCS project along Thailand's Eastern Seaboard is designed to capture and store between 6 to 10 million tons of carbon dioxide per annum. This project is slated to begin in 2034. As part of its planning process, the Group has completed a comprehensive study on CCS in the region, titled The Eastern Thailand Carbon Capture and Storage Hub: CCS Hub (White Paper). This report has been submitted to the government through the Climate Change Subcommittee on Greenhouse Gas Emissions Reduction Technologies under the National Climate Change Policy Committee. Additionally, the Group has conducted detailed studies on carbon dioxide capture costs, the feasibility of carbon dioxide gathering and transportation, and various business models for CCS, all of which will guide future investment decisions. In 2024, PTT will partner with government agencies to incorporate CCS-related technologies and research into the National Energy Plan (NEP).

Furthermore, PTT Group has become a member of the Thailand Carbon Capture, Utilization, and Storage (CCUS) Alliance (TCCA), partnering with leading academic institutions, private companies, government agencies, and public organizations. The aim is to build a robust collaborative platform to drive the development and implementation of CCUS technologies across all dimensions. This collaboration will help push forward CCS projects and contribute to the country's goal of reducing greenhouse gas emissions.

Hydrogen Fuel Energy Projects

The use of hydrogen gas as a fuel source in the industrial sector, or in fuel cells through an electrochemical process to generate electricity, offers the significant advantage of being a clean energy source that produces no pollution. In 2019, PTT initiated the establishment of the Hydrogen Thailand Club (now known as the Hydrogen Thailand Association) to drive the adoption of hydrogen technology as a new alternative energy for Thailand's future.

PTT has strategically identified hydrogen as a key initiative to reduce greenhouse gas emissions and to align with the government's policies outlined in the draft PDP 2024, which includes plans to blend hydrogen with natural gas at a 5% ratio in the power generation sector by 2030. To support this, PTT is preparing the necessary infrastructure and implementing

initiatives throughout PTT Group's supply chain. In addition, PTT has partnered with PTT Oil and Retail Business Public Company Limited (OR), Bangkok Industrial Gas Co., Ltd. (BIG), Toyota Daihatsu Engineering and Manufacturing Co., Ltd. (TDEM), and Toyota Motor Thailand Co., Ltd. (TMT) to conduct tests on hydrogen fuel use for fuel cell electric vehicles. This testing took place at Thailand's first hydrogen refueling station in Bang Lamung District, Chonburi Province, using Toyota's Mirai model. The project has been successfully completed.



In 2024, PTT, in collaboration with the Hydrogen Thailand Club, submitted nine hydrogen pilot projects to the government. These projects, which span both hydrogen production and utilization in the energy sector, have now been included in the national energy action plans, projects, and key activities.

Collaboration with the Government to Expand Green Spaces

As part of the "Permanent Forest Planting Project in Honor of His Majesty King Bhumibol Adulyadej the Great's 50th Anniversary of His Accession to the throne," PTT has been actively involved in planting and rehabilitating degraded forest areas since 1994. The project has successfully covered 1 million rai across all regions of Thailand. In addition, PTT has built a strong conservation network, including forest protection volunteers and partnerships with environmental organizations to ensure the sustainability of forest preservation efforts, such as conserving soil, water, and forests. Looking ahead to 2024 and beyond, PTT remains committed to expanding green areas for natural greenhouse gas absorption. The company has set a goal to plant an additional 1 million rai of

forests – both terrestrial and mangrove – by 2030. Along with this, PTT will continue to monitor and maintain these areas while tracking the carbon dioxide absorption performance across regions.

In 2024, PTT has received support for land and successfully carried out reforestation efforts covering over 62,696.3 rai across 17 provinces. This is alongside the registration of reforestation plots under Thailand's Voluntary Greenhouse Gas Reduction Program (T-VER). The program aims to enhance the standard of forest restoration based on scientific principles and includes carbon credit certification (T-VER) for 8 projects completed in 2023, covering a total area of 84,791.70 rai.



PTT works closely with local communities by encouraging the establishment of community enterprises to oversee planting and maintenance, as well as providing education to foster local involvement in forest and environmental conservation. This approach helps build social capital and enhances the economic value of the communities, enabling them to live sustainably with the forests.

Moreover, PTT has partnered with AI and Robotics Ventures (ARV), a subsidiary of PTTEP, and Varuna (Thailand) Co., Ltd., to apply innovative technologies for assessing carbon dioxide absorption in forests through remote sensing. This initiative aims to optimize the management of forest data.



Collaboration with the Government and Various Networks

PTT, in partnership with the Ministry of Natural Resources and Environment, the Department of Climate Change and Environment (DCCE), and the Thailand Greenhouse Gas Management Organization (Public Organization) (TGO), organized the Thailand Climate Action Conference (TCAC) 2024. This annual conference serves as a platform to unite all sectors and levels of society in advancing climate action, with the goal of achieving Thailand's Nationally Determined Contributions (NDC) by 2030. Additionally, PTT actively participates in the 3rd Climate Action Leader Forum, hosted by TGO and DCCE, to engage with leaders from all sectors in discussions about ideas, experiences, and strategies for addressing climate change and driving sustainable development. At the 29th Conference of the Parties (COP29) to the United Nations Framework Convention on Climate Change (UNFCCC), held from 16 - 22 November 2024, in Baku, Azerbaijan, PTT contributed to the Thailand Pavilion by presenting a special exhibition and side events under the theme "Sustainable Growth: Key to Thailand's Net Zero Success." This opportunity allowed PTT to exchange insights and collaborate with DCCE and TGO on the global stage.

As the Chair of the Thailand Climate Neutral Network (TCNN), established by TGO, PTT works alongside over 700 organizations from across public and private sectors, academic institutions, international organizations, foundations, and non-profits. Through three specialized subcommittees – focused on climate change policy, carbon markets, and implementation and engagement – PTT leads efforts to enhance greenhouse gas reduction, promote sustainable growth, and build a climate-friendly society. PTT has formulated a comprehensive plan to drive policy initiatives aimed at raising greenhouse gas reduction standards to global levels. The company is committed to becoming "Thailand's leading network for achieving Carbon Neutrality and Net Zero Emissions." As part of this ambition, PTT has joined the United Nations Framework Convention on Climate Change's (UNFCCC) Climate Neutral Now program, and actively participates as both a "Climate Action Innovator" and a "Climate Action Leading Organization" (CALO). In 2024, PTT was honored as one of only 23 organizations in Thailand to receive the prestigious CALO award for exceptional leadership in greenhouse gas management. This recognition was based on PTT's outstanding performance in emissions

measurement and reduction, achieving a Gold level rating (from 125 CALO-certified organizations). Furthermore, PTT works closely with the DCCE to present policy recommendations to the government, driving the country's efforts towards carbon neutrality and contributing to the overall climate action strategy.

Development and Application of Tools and Mechanisms for Greenhouse Gas Management

Task Force on Climate-related Financial Disclosures (TCFD)

PTT has integrated climate-related risk and opportunity analysis into its strategic planning and enterprise risk management processes. The company utilizes Climate Scenario Analysis, following the Task Force on Climate-related Financial Disclosures (TCFD) recommendations, to assess and understand both physical risks and transition risks associated with climate change. These assessments focus on the potential impacts of climate change on business operations over time as we transition to a low-carbon society. The evaluation of these risks spans across several business sectors, including upstream petroleum, natural gas, downstream petroleum, and emerging sustainable businesses. Furthermore, PTT adheres to the International Financial Reporting Standards (IFRS) Sustainability Disclosure Standards: S2 Climate-related Disclosures, ensuring alignment with TCFD for the disclosure of climate-related opportunities and risks. For more information, please refer to PTT Website, under the Sustainability section, specifically the Climate Action subsection.

Internal Carbon Price Mechanism

The internal carbon price mechanism is a key tool employed by PTT to guide investment decisions in projects aimed at reducing greenhouse gas emissions and addressing the impacts of climate change. It also plays a crucial role in PTT's transition towards a low-carbon economy. This mechanism is assessed by Strategic Investment Management Committee (SIMC) and PTT Management Committee. PTT uses a shadow price model for its carbon pricing, set at USD 20

per ton of carbon dioxide equivalent. This price applies to all greenhouse gas emissions reduction projects or initiatives, which must undergo evaluation by the Strategic Investment Management Committee. Examples include projects focused on utilizing renewable energy in operational areas and selecting initiatives for carbon dioxide utilization. Moreover, PTT actively promotes and supports its subsidiaries in adopting the internal carbon pricing principle when evaluating or selecting projects. This ensures that all initiatives aimed at reducing greenhouse gas emissions align with PTT Group's broader emissions reduction goals.

Enhancement of Greenhouse Gas Accounting and Reporting

PTT has established a comprehensive framework for accounting and reporting greenhouse gas (GHG) emissions, absorption, and sequestration, which includes direct emissions (Scope 1), indirect emissions from energy consumption (Scope 2), other indirect emissions (Scope 3), and GHG absorption through PTT's reforestation activities. In 2024, PTT revised its GHG accounting and reporting manual for PTT Group, incorporating methodologies for calculating significant Scope 3 emissions, such as those arising from the combustion of fuels sold by PTT, waste disposal from production processes, disposal of products sold by the group, and business-related travel. Additionally, PTT has explored frameworks for setting Scope 3 emissions reduction targets for key activities with potential to significantly lower GHG emissions. A notable initiative is to reduce emissions from waste disposal in the production process by 5% by 2030, compared to the 2020 baseline. This commitment also aligns with PTT's broader circular economy efforts.

PTT has developed GHG calculation tools in accordance with international standards, including the Intergovernmental Panel on Climate Change (IPCC) guidelines, and national standards set by the Thailand Greenhouse Gas Management Organization (Public Organization) (TGO). These tools are utilized for reporting GHG absorption data. The GHG accounting and reporting manual has been updated to provide a unified approach across PTT Group.

Carbon Footprint for Organization (CFO)

PTT has compiled and reported its greenhouse gas (GHG) emissions and removal data for 2023 and 2024, following the guidelines established by the Thailand Greenhouse Gas Management Organization (Public Organization) (TGO). This includes greenhouse gas emissions both direct and indirect emissions, and removal from the Royal Forest Plantation Project on the auspicious occasion of the 50th anniversary of His Majesty the late King Bhumibol Adulyadej the great's accession to the throne, which has been ongoing since 1994. For further details, visit PTT Website under the Sustainability section.

Net Zero Pathway Certification

PTT has taken an active role as a pilot organization in seeking certification for its Net Zero Pathway commitment from the Thailand Greenhouse Gas Management Organization (Public Organization) (TGO). This certification ensures that PTT's Net Zero GHG emissions target and reduction strategies align with international best practices and comply with Thailand's national standards. PTT received the official certification from TGO for its Net Zero GHG emissions pathway on November 27, 2024.



Key Performance:

PTT's Direct and Indirect Greenhouse Gas Emissions

Unit: Million tons of CO₂ equivalent

| Scope 1, 2 and 3 | 2021 | 2022 | 2023 | 2024 |
|--|--------|--------|--------|--------|
| Direct Greenhouse Gas Emissions (Scope 1) | 9.83 | 9.61 | 9.83 | 10.86 |
| Indirect Greenhouse Gas Emissions (Scope 2) - Location-based | 0.23 | 0.22 | 0.18 | 0.18 |
| Indirect Greenhouse Gas Emissions (Scope 2) - Market-based | 0.28 | 0.28 | 0.19 | 0.20 |
| Other Indirect Greenhouse Gas Emissions (Scope 3) | | | | |
| - Combustion of fuel products sold by PTT | 74.02 | 70.73 | 73.66 | 71.54 |
| - Waste disposal from production processes | N/A | N/A | 0.0036 | 0.0056 |
| - Business travel | 0.0002 | 0.0036 | 0.0032 | 0.0029 |

Remarks:

- PTT's direct and indirect greenhouse gas emissions cover only the activities conducted solely by PTT.
- From 2020 to 2022, the indirect greenhouse gas emissions (Scope 3) only accounted for emissions from the combustion of fuel products sold by PTT. In 2023, the Scope 3 emissions of PTT expanded to include not only the combustion of fuel products sold by PTT (Use of Sold Product) but also waste generated from production processes (Waste Generated in Operations) and business travel (Business Travel).
- The indirect greenhouse gas emissions (Scope 2) of PTT are derived from electricity purchased and electricity generated from solar panels installed and used at the Innovation Institute, the Kanom Natural Gas Separation Plant, the Wangchan Valley project area, the natural gas pipeline system operations, and the operations of the natural gas for vehicles division.
- The market-based indirect greenhouse gas emissions data is sourced from activities including electricity usage from the transmission system and electricity purchased from private power plants, GPSC and GC.
- The emission factors and global warming potential (GWP) values used are referenced from IPCC AR6 for GWP calculations.
- The standards, methodologies, assumptions, and/or calculation tools applied are based on the GHG Protocol and the API Compendium.
- PTT's greenhouse gas emissions targets are focused on managing direct emissions (Scope 1) and market-based indirect emissions (Scope 2).

PTT Group's Direct and Indirect Greenhouse Gas Emissions^{1, 8}Unit: Million tons of CO₂ equivalent

| Scope 1 and 2 | 2021 | 2022 | 2023 | 2024 |
|--|--------|--------|--------|--------|
| Direct Greenhouse Gas Emissions (Scope 1) ^{2, 3} | 47.18 | 45.29 | 40.32 | 40.50 |
| Biogenic CO ₂ Emissions ⁷ | N/A | 0.004 | 0.007 | 0.011 |
| Indirect Greenhouse Gas Emissions (Scope 2) (Location-based) | 1.12 | 0.65 | 0.86 | 0.95 |
| Indirect Greenhouse Gas Emissions (Scope 2) (Market-based) ^{2, 3} | 1.46 | 0.86 | 0.87 | 0.95 |
| Scope 3^{2, 3} | | | | |
| Greenhouse Gas Emissions from the Combustion of Fuel Products Sold by PTT and PTT Group (Scope 3) ^{4, 5, 6} | 113.48 | 132.13 | 134.26 | 132.16 |
| Activities Related to Fuel and Energy ⁹ | N/A | N/A | 0.05 | 0.06 |
| Waste Disposal from Production Processes ¹⁰ | N/A | 0.04 | 0.01 | 0.03 |
| Business Travel ¹¹ | N/A | 0.004 | 0.01 | 0.01 |
| Disposal of Products Sold by PTT Group ¹² | N/A | N/A | 0.90 | 0.93 |

Remarks:

- The data scope under operational control includes companies in which PTT directly owns more than 20% and is the majority shareholder or holds 100% indirect ownership. This also covers joint ventures with an equivalent proportion of major shareholders. The greenhouse gas emissions for these companies are calculated based on those entities where PTT directly owns more than 20% or is the majority shareholder, or holds 100% indirect ownership, including joint ventures with an equivalent shareholding structure.
- Reporting on direct and indirect greenhouse gas emissions includes GC's operations abroad, with estimated emissions of approximately 0.31 million tons of CO₂ equivalent for direct emissions and 0.01 million tons of CO₂ equivalent for indirect emissions (estimated based on 2020 operational data).
- Data for PTT Group from 2019 - 2024 has been revised due to:
 - The expansion of the organizational boundary due to PTTEP's operation in the G2 area in 2022, as well as the expansion of reporting boundaries to include companies within the TOP group (TLB, TOPSPP, TPX, LABIX) and GC (BPE, EOEG, GCL, GCME, GCMP, GCO, GCP, BPA, Phenol, GCS, ME I&II, NPS S&E, TPRC, TTT). This also includes the merger between TOP and TP (Thai Oil Power) in 2021, and the acquisition of the GLOW Group's power and steam plants by GPSC in 2019.
 - The expansion of the operational boundary due to increased reporting from ORP, HGP, office spaces of EnCo and Rayong, laboratories, Innovation 2, workshops by GC, as well as IRPC's warehouse and tank yards, LPG cylinder storage in Songkhla, and OR's lubricants distribution center in Bangkok.
 - The addition of new activities, such as the operation of power generators at PTT LNG in 2020.
 - In 2024, the operational boundary was expanded due to increased reporting for the GC Campus of PTT Global Chemical Public Company Limited, The EnCony and Enco Terminal buildings of Energy Complex Co., Ltd., and LNG Map Ta Phut Terminal 2 (LMP2) by PTT LNG Co., Ltd. Additionally, the greenhouse gas accounting method for PTT's natural gas pipeline system was adjusted, specifically in the "Fugitive" category, to calculate emissions per piece of equipment.
- Data on other indirect greenhouse gas emissions (Scope 3) covers the combustion of fuel products sold by PTT and OR (including natural gas, gasoline, diesel, jet fuel, fuel oil, liquefied petroleum gas, and kerosene). PTT manages other indirect greenhouse gas emissions (Scope 3) by setting reduction targets for both direct and indirect emissions (Scope 1 and 2) in alignment with the sales of PTT's products, as part of State Enterprise Assessment Model (SE-AM).
- The scope of other indirect greenhouse gas emissions (Scope 3) for 2019 - 2021 includes PTT and OR.
- Data on other indirect greenhouse gas emissions (Scope 3) from 2022 - 2023 includes emissions from the combustion of fuel sold by PTT, GC, TOP, IRPC, and OR. These emissions are calculated based on fuel sales data provided by the Department of Energy Business, with fuel used for customer manufacturing processes accounting for approximately 42% of the total Scope 3 emissions. This is considered direct greenhouse gas emissions (Scope 1) within the greenhouse gas accounting boundary of the entity or organization. Most of these emissions are controlled through the establishment of carbon neutrality and zero-emission targets for those legal entities and organizations.
- Reporting on biogenic CO₂ emissions has now been initiated.
- The organization's greenhouse gas emissions reporting is expanding to cover all operations. Once this process is complete, data will be updated for future disclosures in subsequent reports.
- Data on other indirect greenhouse gas emissions (Scope 3) also includes energy loss from purchasing electricity from external producers and using it within PTT Group.
- Data on other indirect greenhouse gas emissions (Scope 3) covers waste disposal from PTT, PTTEP, GC, IRPC, GPSC, OR, and TTM production processes.
- Data on other indirect greenhouse gas emissions (Scope 3) from 2023 - 2024 covers business travel by airplane for PTT, PTTEP, IRPC, GPSC, PTT LNG, PTT TANK, and TTM.
- Data on other indirect greenhouse gas emissions (Scope 3) from 2023 - 2024 covers the disposal of petrochemical products sold by PTT Group, particularly by GC and IRPC.

Greenhouse Gas Intensity^{1, 5}

Unit: Kg of CO₂ equivalent per barrel of crude oil equivalent

| Greenhouse Gas Emission Intensity | 2021 | 2022 | 2023 | 2024 |
|---|--------|--------------------|--------|--------|
| Greenhouse gas emissions from PTT's Group Operations Both direct and Indirect (Scope 1 and 2) ² | 92.72 | 82.86 ³ | 84.35 | 91.15 |
| Greenhouse gas emissions from PTT's Operations Both direct and Indirect (Scope 1 and 2) | 43.37 | 38.37 | 36.18 | 40.71 |
| Greenhouse gas emissions from PTT's Group operations Including both direct, indirect emissions, and emissions from the combustion of fuel products sold by PTT (Scope 1, 2, and 3) ⁴ | 398.97 | 398.38 | 336.81 | 330.25 |
| Greenhouse gas emissions from PTT's operations Including both direct, indirect emissions, and emissions from the combustion of fuel products sold by PTT (Scope 1, 2, and 3) | 317.31 | 310.05 | 304.53 | 304.09 |

Remarks:

- The data scope under operational control includes companies in which PTT directly owns more than 20% and is the majority shareholder or holds 100% indirect ownership. This also covers joint ventures with an equivalent proportion of major shareholders. The greenhouse gas emissions for these companies are calculated based on those entities where PTT directly owns more than 20% or is the majority shareholder, or holds 100% indirect ownership, including joint ventures with an equivalent shareholding structure.
- Calculations are based on greenhouse gas emissions from PTT Group and fuel sales by PTT and OR.
- The data is calculated from greenhouse gas emissions according to the organizational boundary disclosed in PTT's 2021 annual report.
- The calculation includes direct and indirect greenhouse gas emissions from PTT Group, as well as other indirect emissions and fuel sales from PTT and OR, based on the organizational boundary for 2020 to 2023.
- The determination of targets and reporting of greenhouse gas intensity is under review for potential adjustments. This is due to ongoing efforts to expand greenhouse gas data collection across the organization to encompass additional operations. Once completed, the data will be revised and updated for future disclosures.

Stakeholders' Feedback

PTT has been recognized by the Thailand Greenhouse Gas Management Organization (Public Organization) as a "Climate Action Leading Organization (CALO)" at the Gold level for two consecutive years. This achievement underscores PTT's strong vision and dedication to creating a sustainable future for Thailand, while actively working towards reducing greenhouse gas emissions with the goal of reaching Net Zero Emissions by 2050. PTT's efforts serve as a model of excellence for other organizations in Thailand, and its continued initiatives will play a vital role in helping the country achieve its Net Zero Emissions target, as part of its declared commitment.

Dr. Natarika Wayuparb Nitiphon
Deputy Executive Director,
Acting Executive Director of Thailand Greenhouse Gas Management Organization
Thailand Greenhouse Gas Management Organization (Public Organization)



Future Plans

To advance PTT Group's sustainability strategy in line with its objectives and targets, PTT Group has established a dedicated steering committee to develop PTT Group Decarbonization Master Plan and Execution Roadmap (G-Decarbon Steering Committee), along with a specialized working team to execute the plan (G-Decarbon Working Team). These teams are tasked with conducting studies and creating a PTT Group Decarbonization Master Plan and Execution Roadmap, which will cover the full spectrum of PTT Group's operations, from upstream to downstream. The plan includes key initiatives such as Carbon Capture, Utilization, and Storage (CCUS) and hydrogen technology, both of which are essential components of PTT Group's strategy to reduce greenhouse gas emissions. In addition, PTT Group is planning to sign memorandums of understanding for feasibility studies on the application of CCUS technology and the development of low-carbon hydrogen technologies. These agreements will facilitate collaboration in evaluating optimal cost structures, economic viability, and the competitiveness of these technologies.

Looking ahead, PTT is prioritizing improvements in production efficiency. This includes the installation of advanced air pollution control systems to manage VOCs and hydrogen sulfide (H₂S) emissions at the Ethane Separation Plant (ESP) and Natural Gas Separation Plant Unit 6, which are scheduled to begin operations in 2025. These systems are expected to reduce greenhouse gas emissions by approximately 200,000 tons of CO₂ equivalent per year. Additionally, PTT is planning to enhance the methodology for calculating methane leakage from natural gas pipeline transportation, with the goal of better managing methane emissions across the pipeline system. This initiative is projected to reduce greenhouse gas emissions by around 120,000 tons of CO₂ equivalent per year.

For further details, please visit PTT Website.



Occupational Health and Safety



| Financial Materiality | | Impact Materiality |
|---|---|--|
| Risks | Opportunities | |
| <ul style="list-style-type: none">- Reducing insurance and healthcare costs- Financial and reputational damage | <ul style="list-style-type: none">+ Enhancing work productivity and strengthen business competitiveness | <ul style="list-style-type: none">+ Reducing accident, illness, and injury rates in the workplace+ Elevating the quality of life for employees, contractors, and the surrounding community- Health risks from work-related injuries and illnesses to employees, contractors, resulting from incidents/ accidents, and to the surrounding community around the workplace area- Hazards and risks from accidents/ emergencies in construction projects/ work impacting the surrounding community of the operation |

Impact of Topics Over Time

| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| High | High | High |

Material Topic Management

| Indicators | Performance Targets | | Performance against 2024 Targets |
|---|--|--|---|
| | Short-Term Targets 2024 | Long-Term Targets | |
| <ul style="list-style-type: none"> Corporate KPI/ SE-AM KPI: Safety Management Effectiveness <ul style="list-style-type: none"> LTA • TRIR • PSE KPIs according to PTT's Sustainability Management Master Plan for Social and Environmental 2021 - 2025 (3rd Edition) <ul style="list-style-type: none"> LTA • TRIR • PSE QSHE KPIs: <ul style="list-style-type: none"> LTA • TRIR • PSE TROIR Major Vehicle Accidents Major Truck Accident Rate Major Product Transport Ship Accident Rate | <ul style="list-style-type: none"> LTA: <ul style="list-style-type: none"> Employees = 0 Contractors = 0 TRIR: <ul style="list-style-type: none"> Employees ≤ 0.040 Contractors ≤ 0.048 PSE: <ul style="list-style-type: none"> Tier 1 = 0 Total Tier 1 and 2 ≤ 1 TROIR: <ul style="list-style-type: none"> Employees = 0 Major Vehicle Accidents = 0 Major Truck Accident Rate = 0 Major Vessel Accident Rate = 0 | <ul style="list-style-type: none"> 2030 Target: <ul style="list-style-type: none"> All indicators have a value of zero. | <ul style="list-style-type: none"> LTA: <ul style="list-style-type: none"> Employees = 0 Contractors = 0 TRIR: <ul style="list-style-type: none"> Employees = 0.031 Contractors = 0 PSE: <ul style="list-style-type: none"> Tier 1 = 0 Tier 1 and Tier 2 = 1 TROIR: <ul style="list-style-type: none"> Employees = 0 Major Vehicle Accidents = 2 Major Truck Accident Rate = 0 Major Vessel Accident Rate = 0 |

Remarks:

- Lost Time Accident (LTA) of employees and contractors, Unit: person
- Total Recordable Injuries Rate (TRIR), Unit per 200,000 hours worked of employees and contractors
- Process Safety Event (PSE), Unit: case
- Total Recordable Occupational Illness Rate (TROIR), Unit per 200,000 hours worked of employees
- Major Vehicle Accidents, Unit: case
- Major Truck Accident Rate, Unit: case per 1,000,000 kilometers
- Major Product Transport Ship Accident Rate, Unit: case per 1,000 vessels voyage number in port

Contribution to the United Nations Sustainable Development Goals (UN SDGs)



Key Action Plans for 2024

- Enhancing safety awareness and cultivating behaviors - based safety culture.
- Promoting and supporting compliance with PTT's Life Saving Rules.
- Health surveillance and fitness to work assessments.
- Expanding the application of Bow Tie Analysis and Barrier Validation across PTT and PTT group.
- Conducting comprehensive risk and safety assessments at PTT's operational sites.
- Elevating safety management practices for vehicle use and petroleum product transportation.
- Testing and strengthening integrated business continuity management plans.
- Developing an incident and non-conformance reporting web application.

Management Overview

PTT has established a **PTT Group Quality, Security, Safety, Health, and Environment (QSHE) policy**, which was last reviewed and updated in 2024. This policy underscores the company's commitment to systematically managing potential QSHE impacts and risks throughout all stages of its operations. It prioritizes compliance with applicable laws, regulations, organizational standards, international standards, and relevant commitments as fundamental principles. The policy focuses on continuously improving the management system's performance and meeting established objectives. A detailed action plan has been developed, and the policy is communicated to all employees and contractors across PTT's value chain to ensure consistent application and alignment. For further details, the policy can be accessed on PTT Website under the Sustainability section.

To effectively deploy the policy into action, PTT has established both annual and long-term goals to reach by 2030, with a clear roadmap and action plan outlined in the PTT's Sustainability Management Master Plan for Social and Environmental Responsibility 2021 - 2025 (3rd Edition). Additionally, safety management effectiveness is assigned as corporate key performance indicator (KPI), to evaluate the performance of top executives (C level and senior executive vice president) down to vice president. Corporate KPIs include Lost Time Accidents (LTA), Total Recordable Injuries Rate (TRIR), and Process Safety Events (PSE). The progress of performances against targets and KPIs are reported quarterly to the committees of governance structure both management and board levels. Furthermore, performances and progresses are communicated transparently to stakeholders to ensure clear understanding and awareness, while also addressing their needs and expectations. Opportunities are provided for employees and contractors to contribute suggestions for improvement, which are then reviewed and incorporated to continuously enhance management practices.

Safety, Occupational Health, and Working Environment Management System

PTT has established a comprehensive management framework for QSHE management as a fundamental element of its PTT Integrated Management System (PIMS). This framework is aligned with international standards and applies to all of PTT's operational areas, including natural gas separation plants, natural gas transmission system, natural gas for vehicle (NGV) mother, daughter and refueling stations, PTT's Head Office, and PTT Innovation Institute. The system is systematically implemented across these operations, with regular internal audits conducted annually. Additionally, PTT pursues certifications by 3rd party certification body in Quality Management System (ISO 9001), Environmental Management System (ISO 14001), Energy Management System (ISO 50001), Occupational Health and Safety Management System (ISO 45001), and Business Continuity Management System (ISO 22301).

In parallel, PTT has developed **PTT Group's Operational Excellence Management System (OEMS)** since 2011, which consists of 11 key elements. This system is primarily applied to PTT's high-risk operational areas, such as gas separation plant and transmission systems. It is also adopted by PTT Group, including PTTEP, GC, IRPC, TOP, GPSC, OR, PTT LNG, and PTT TANK. The goal of the OEMS is to drive operational excellence by benchmarking against global and regional industry standards, developing best practices, and sharing knowledge for further application. The system undergoes continuous assessments to measure the effectiveness of its implementation across PTT Group. This ensures excellent performance in six core operational areas: process and personal safety, reliability, energy efficiency, greenhouse gas emission reduction, cash cost management, and Return on Invested Capital (ROIC).

Furthermore, PTT regularly reviews and updates the OEMS to ensure its alignment with PTT Group's strategic direction and international standards. The system integrates Process Safety Management and ensures a seamless collaboration with other operational systems.

PTT Group's Operational Excellence Management System (OEMS) Framework



The application of the management system described above has ensured that all PTT operational areas effectively and comprehensively manage safety, occupational health, and environmental risks in a systematic manner. This includes protecting both internal workers, such as employees and contractors, as well as external stakeholders, including surrounding communities, society, and other interested parties. As a result, PTT has consistently achieved outstanding performance in safety, occupational health, and environmental management. Key performance indicators, such as accident rates, align with set targets and are in the top quartile of industry benchmarks. Furthermore, PTT's production facilities have demonstrated greater operational stability, with a significant reduction in opportunity loss costs due to unplanned shutdowns. The company continues to improve energy efficiency, reduce greenhouse gas emissions, and lower production costs. These efforts have resulted in PTT continuously receiving **Awards for Outstanding Workplace in Safety, Occupational Health, and Working Environment** at the national level.

Safety, Occupational Health, and Environmental Management System for Large-Scale Construction Projects

For large-scale construction projects, such as natural gas pipeline transmission and natural gas separation plants, a comprehensive Environmental Impact Assessment (EIA) is conducted to evaluate the potential direct and indirect environmental and social impacts of the project. Based on the assessment, a detailed environmental action plan is developed in accordance with all relevant legal requirements. PTT oversees, monitors, and ensures that project contractors fully adhere to environmental protection and mitigation measures, as well as environmental monitoring protocols outlined in the approved EIA report. EIA monitoring reports are submitted to the relevant regulatory authorities every six months, as required by each agency. Additionally, PTT enforces stringent safety, occupational health, and environmental management standards that contractors must follow. KPIs are established, including the percentage of environmental compliance monitoring, LTA, and the TRIR. These metrics are continuously tracked and assessed to ensure consistent and effective performance.

Communication, Engagement, and Consultation

PTT ensures transparent communication of its policies, management approaches, and operational performance to both internal and external stakeholders. The company actively fosters an environment where employees and contractors are encouraged to participate by sharing feedback, suggestions, seeking advice, and voicing concerns regarding safety, occupational health, and environmental management practices. This is facilitated through a variety of communication channels, including daily pre-operation safety meetings, PTT's grievance system, complaints through supervisors, or human resources departments across business units, grievance system of Human Resources Services Department and the State Enterprise Employees Union, Corporate Affairs Committee meetings, chaired by the CEO and the Managing Director, where senior management and employee representatives engage in discussions. Moreover, each operational site of PTT has established a Safety, Occupational Health, and working Environmental Committee in compliance with legal requirements. This committee is composed of both employer and employee representatives who are responsible for reviewing policies, planning initiatives, promoting safety measures, and providing recommendations for continuous improvement in safety, health, and environmental standards. Its meetings are convened regularly every month.

4.49 out of 5, with zero reported major accidents. Furthermore, safety training sessions were conducted for employees at nine mother Natural Gas for Vehicle stations, with 180 participants in total, aimed at enhancing safety knowledge and practices. PTT is committed to further strengthening and embedding the safety culture in our organization.



Promoting and Supporting Compliance with PTT's Life Saving Rules

PTT has developed video materials and brochures outlining **PTT Life Saving Rules** and has reviewed the corresponding operating procedures to communicate and raise awareness among employees and contractors working on-site. In addition, training sessions are organized to promote safe work practices, minimize risks, and prevent accidents and injuries. Special focus is given to controlling on-site operations across all work areas, including work permit systems, energy isolation, confined space, working at heights, the use of working in Personal Protective Equipment (PPE), lifting and moving materials, and chemical management, etc.



Health Surveillance and Fitness to Work Assessment

PTT has enlisted occupational health physicians to conduct a comprehensive review of the **Health Risk Assessment (HRA)**, addressing all potential health hazards that could impact employees. Annual occupational health check-ups are carried out to assess work readiness and monitor employee well-being. Additionally, control measures are implemented to mitigate health risks. In 2024, PTT organized training programs on occupational health and safety, including a Hearing Conservation course to educate employees on preventing noise-induced harm in the workplace, as well as Ergonomics Fundamentals and Advanced Principles for office-based and manual material handling tasks. These training sessions empower employees to identify and resolve ergonomic issues, improving workplace ergonomics in alignment with international standards. Furthermore, PTT continues to promote employee health through ongoing wellness initiatives, such as the Fight Fat Fun exercise program and the Anti-Office Syndrome campaign at the natural gas separation plant. Health-related information and resources are regularly shared with employees and contractors via internal of E-Mail, newsletters, fostering a culture of health and well-being across the organization.

Progress on Key Programs/ Projects

Safety, Occupational Health, and Working Environment in Workplace



Enhancing Safety Awareness and Cultivating Behavior-Based Safety Culture

PTT is continuously committed to fostering a culture of safety. A key initiative is the implementation of the **Incident and Injury Free (IIF) program**, which was launched at the Rayong and Khanom Gas Separation Plants. This program follows a five-step IIF process Planning, Assessment, Engagement, Skill Development, and Sustainability to ensure comprehensive problem-solving and safety improvements. It has since been expanded to the Natural Gas transmission system. PTT continuously fosters safety awareness and behavior by requiring all operational areas to improve safety through Small Group Activities (SGA). This initiative led to an increase in the safety culture assessment score for the natural gas transmission system, rising from 4.36 to

Process Safety Management in Production Processes

PTT and PTT Group utilize Bow Tie Analysis technique and Barrier Validation (evaluating the effectiveness and readiness of control measures) to assess and manage safety risks in production processes, specifically targeting the prevention of major accidents events (MAE) across operational sites. In 2024, the application of Bow Tie Analysis was extended to two additional operational areas: the Wangnoi Compressor Station (WCS) and the Sriracha Oil Depot. As a result, all high-risk operational areas are now fully implementing Bow Tie Analysis. The next phase will involve reviewing and updating the risk data and ensuring that control measures remain effective and ready for deployment. In addition, Barrier Validation

was expanded to the Ratchaburi Compressor Station (RCS), a critical process that assesses both equipment and personnel control measures. This expansion reinforces PTT's commitment to continuously enhancing safety standards in its production operations, minimizing the impact of major accidents such as fires, explosions, and hazardous chemical leaks, etc.

Moreover, in 2024 PTT has extended its asset integrity assessments, focused on machinery and equipment availability, in its operational areas under PTT Safety Risk Assessment and Assurance program, to more nine operational sites. This will enhance the safety standards in operation areas continuously.

Lessons Learned from Major Accident in 2024

Incident Details

The incident occurred when Benfield solution leaked from the Line Drain at the natural gas separation plant during the drainage process inside the turbine. This caused leakage of the solution from the production process, resulting in injuries of employees who required medical treatment (Medical Treatment Case).

Corrective and Preventive Measures

After conducting a root cause analysis, corrective and preventive actions were implemented to prevent recurrence. These actions focused on conducting a thorough risk review of work activities to identify all potential hazards, ensuring the readiness of equipment, and reviewing work procedures. Engineering controls were put in place, and efforts were made to raise awareness of the potential hazards present in the work processes.

Safety Management in Vehicle Use and Petroleum Product Transportation

PTT is dedicated to improving the safety management of vehicle use and petroleum product transportation to ensure effectiveness and work towards the goal of zero major accidents as follows:

Use of PTT's Fleet Vehicles

Stakeholders involved: Executives, employees, and contractors, including drivers.

- PTT has developed the **Defensive Driving Auto-Assessment System (DAS)**, an automated system and device designed to evaluate driving behavior in real-world conditions (On-Road Driving Test - Commentary Driving) based on defensive driving principles. This system is used to assess the practical performance of employees in the Defensive Driving course required for obtaining or renewing a PTT fleet

vehicle driver's license. By replacing human assessors, DAS enhances evaluation efficiency and accuracy. Additionally, the system generates individual driving assessments and personalized recommendations, helping employees improve their driving skills for greater safety.

- PTT has also introduced a motorcycle safety training course aimed at fostering a culture of safe riding to minimize the risk of motorcycle-related accidents. The course incorporates participatory learning through theoretical lessons on safe riding principles, simulations of impaired driving scenarios, and shared lessons learned from real-life incidents. The training target groups are both PTT employees and contractors. In 2024, the first session was conducted for 50 participants who use large motorcycles (big bikes) at the Rayong Gas Separation Plant. PTT plans to expand training to other operational sites in the next year.

Lessons Learned from Major Accident in 2024

Incident Details

An employee driving a PTT fleet vehicle collided with a streetlight pole, causing critical damage to the vehicle.

Corrective and Preventive Measures

After conducting a root cause analysis, corrective and preventive actions were implemented to avoid recurrence. These measures included refresher training on defensive driving for all employees who drive PTT vehicles, ensuring strict adherence to established driving protocols. Additionally, a Lesson Learned document was created and shared to raise awareness among all employees who operate PTT vehicles.

Product Transportation by Road

Stakeholders involved: Transport contractors

- In collaboration with PTT Group Transportation Safety Taskforce, PTT organized campaigns to promote and instill a safety culture in road transportation, as well as to support the Net Zero Emissions policy for road transport contractors. The initiatives included two key activities:
 - **Risk in Road Safety:** This initiative focused on identifying and assessing potential hazards along transportation routes. It aimed to raise safety awareness by encouraging drivers to proactively identify and report hazards encountered during product transportation to PTT. These identified risks were reviewed and selected for corrective, preventive, or risk-reducing measures, and the data was compiled into a database for dissemination within the contractor network. In 2024, 532 participants were involved, resulting in 1,163 reported risk points.
 - **Eco Driving:** This initiative aimed to reduce fuel consumption in road transportation by encouraging contractors to drive more efficiently, thereby minimizing unnecessary fuel use and reducing

greenhouse gas emissions. In 2024, this led to a reduction of 1.4 million liters of fuel per year, equivalent to a decrease of 4.8 tons of carbon dioxide equivalent.

- Additionally, in partnership with the **Oil Industry Environmental Safety Group Association (IESG)** and the **Department of Disaster Prevention and Mitigation (DDPM)**, PTT conducted training sessions on petroleum products, tankers, and road transportation, including emergency response drills. In 2024, these sessions were held in two provinces, including Chanthaburi and Surin.

Product Transportation by Rail

Stakeholders Involved: State Railway of Thailand (SRT)

- In collaboration with OR, PTT organized training sessions for officers of SRT on Liquefied Petroleum Gas (LPG), storage tanks, and the rail transportation of LPG. This also included basic firefighting training to equip employees with the essential knowledge and skills needed to manage emergency situations and understand the properties of LPG.
- PTT, together with SRT and the Bang Lamung District Municipality in Chon Buri, conducted a comprehensive emergency response and crisis management drill. This exercise simulated a scenario where an LPG transport train derailed at the Bang Lamung railway station in Chon Buri. The drill aimed to improve the emergency response capabilities of employees, contractors, and government agencies. It also enhanced the confidence of local communities and agencies in the ability to manage and respond effectively to emergencies. The exercise concluded with an evaluation of its effectiveness, and suggestions were gathered to continuously improve the emergency response procedures for the future.



Marine Product Transportation

Stakeholders Involved: Marine Transportation Contractors

- In partnership with PTT Group, comprising PTTEP, TOP, IRPC, GC, OR, PTT TANK, and PTTLNG, the initiative has raised safety standards and operational protocols by launching **PTT Group Marine Safety Award program**. This program is focused on achieving the ambitious goal of zero accidents in waterborne product transportation. The program is based on three key evaluation criteria: Maintain, which is to continuously improve and sustain high safety standards in waterborne product transportation operations; Collaboration, which is to encourage active cooperation and synergy; Promotion, which is to advance participation and engagement to instill a safety culture.

Incident and Non-conformance Management

PTT requires all employees to report incidents, including accidents, near misses, substandard actions, substandard conditions, and any non-compliance with legal requirements, regulations, or operational procedures. Reporting is facilitated through a dedicated web application system. Every reported incident undergoes thorough review and root-cause analysis to determine appropriate corrective and preventive actions to avoid recurrence. In addition, the insights gained from each incident are compiled into Lessons Learned and circulated across departments to foster knowledge sharing and continuous improvement across PTT Group. In 2024, a total of 4,972 reports were submitted, demonstrating a high level of safety awareness, responsibility, and a positive safety culture among employees.

Emergency and Crisis Management

Each operational site is equipped with a emergency response plan, and local communities are actively informed about the procedures, including evacuation plans. Annually, all operational areas conduct emergency drills and evacuation exercises, encouraging community participation and observation. At the organizational level, in 2024, PTT strengthened its emergency and crisis management framework with the implementation of PTT Group Emergency & Crisis Management Guideline. This includes integrating the Incident Command System (ICS) to align response efforts with the National Disaster Prevention and Mitigation Plan (2021 - 2027). This strategic integration ensures seamless, coordinated action with relevant government agencies and stakeholders. In 2024, PTT also organized a provincial-level emergency and crisis management exercise in collaboration with the Department of Disaster Prevention and Mitigation (DDPM), local government agencies in Nakhon Nayok, and

PTT Group. This exercise aimed to ensure that management and staff were fully aware of their roles and responsibilities, fostering effective collaboration in emergency situations. It also focused on ensuring business continuity while addressing practical, real-world scenarios. The drill simulated a medium-level disaster response (Level 2) along a section of the natural gas pipeline in Nakhon Nayok, specifically the 4th Rayong-Kaeng Khoi pipeline (42-inch diameter) in Phrommani Subdistrict, Mueang District, Nakhon Nayok Province. The exercise included participation of the Governor of Nakhon Nayok, DDPM Nakhon Nayok, provincial health department, labor protection and welfare office, energy office, provincial natural resources and environmental office, public relations office, Provincial Electricity Authority of Mueang Nakhon Nayok District, Nakhon Nayok Hospital, local police, Phrommani Subdistrict Administrative Organization, local community representatives, and PTT.

Business Continuity Management

PTT consistently reviews, updates, and enhances its business continuity management system, including comprehensive plans for securing backup resources in case of emergencies. The company also conducts regular business continuity drills. In 2024, a simulated exercise was held to test the response to a scenario where the LNG Map Ta Phut Terminal 1 (LMPT1) of PTTLNG was intentionally set on fire, and a natural gas pipeline was sabotaged. This situation required managing the disruption of multiple natural gas sources in the eastern region. The exercise was presided by CEO & President, with key executives from the Crisis Management Center (CMC) and the Business Continuity Management team actively participating. Coordination with the business group's emergency management center was conducted via video conferencing. Furthermore, PTT continues to maintain certification for its business continuity management system in accordance with ISO 22301, which includes the management of the company's critical utility systems. This certification is consistently renewed by the ISO certification body, ensuring continuous adherence to international standards.



Key Performance against Key Indicators and Targets

| Indicators | | 2021 | 2022 | 2023 | 2024 |
|---|-------------|---|---|---|---|
| Lost Time Accident (LTA) (Persons) | | | | | |
| Target | Employees | 0 | 0 | 0 | 0 |
| | Contractors | 0 | 0 | 0 | 0 |
| Performance | Employees | 0 | 0 | 0 | 0 |
| | Contractors | 0 | 0 | 3 | 0 |
| Total Recordable Injuries Rate (TRIR) per 200,000 Working Hours | | | | | |
| Target | Employees | ≤ 0.066 | ≤ 0.053 | ≤ 0.046 | ≤ 0.040 |
| | Contractors | ≤ 0.080 | ≤ 0.064 | ≤ 0.056 | ≤ 0.048 |
| Performance | Employees | 0, or 0 per 1,000,000 working hours. | 0.063, or 0.315 per 1,000,000 working hours. | 0.033, or 0.163 per 1,000,000 working hours. | 0.031, or 0.156 per 1,000,000 working hours. |
| | Contractors | 0.038, or 0.210 per 1,000,000 working hours. | 0.038, or 0.190 per 1,000,000 working hours. | 0.028, or 0.138 per 1,000,000 working hours. | 0, or 0 per 1,000,000 working hours. |
| Total Recordable Occupational Illness Rate (TROIR) per 200,000 Working Hours | | | | | |
| Target | Employees | ≤ 0.108 | ≤ 0.096 | ≤ 0.084 | ≤ 0.072 |
| Performance | Employees | 0, or 0 per 1,000,000 working hours. | 0, or 0 per 1,000,000 working hours. | 0, or 0 per 1,000,000 working hours. | 0, or 0 per 1,000,000 working hours. |
| Process Safety Event (Tier 1)* (Incidents) | | | | | |
| Target | | 0 | 0 | 0 | 0 |
| Performance | | 1 | 0 | 0 | 0 |
| Process Safety Event (Tier 1 and Tier 2)* (Incidents) | | | | | |
| Target | | ≤ 1** | ≤ 1 | ≤ 1 | ≤ 1 |
| Performance | | 0 | 1 | 1 | 1 |
| Major Truck Accident Rate*** (Incidents Per 1,000,000 Kilometers) | | | | | |
| Target | | 0.014 | 0 | 0 | 0 |
| Performance | | 0 | 0 | 0 | 0 |

Remarks:

* Process Safety Event (Tier 1 and Tier 2) at PTT is based on standards from the American Petroleum Institute (API), specifically API RP 754. This includes the reporting of catastrophic and major safety incidents that impact the natural gas pipeline system outside the operational area.

** In 2021, target of PSE included only tier 2 event.

*** Major or catastrophic accidents involving the transportation of products refer to incidents caused by drivers of transport vehicles operating under PTT's contracts or business activities, where they are at fault. These accidents result in losses, affecting individuals, property, the environment, and the surrounding community, as defined by PTT.

Collaboration with Partners and Networks

Road Safety Partnership Program with Public and Private Sectors

To reduce road accidents in Thailand, PTT has joined forces with key public and private sector organizations, including the Department of Disaster Prevention and Mitigation (DDPM), the Department of Land Transport, the Highway Department, Central Insurance Company, the Provincial Health Office, and PTT Group. Together, they have driven the Drive Safe, Live Well initiative in Rayong Province. The primary goal is to foster awareness and promote safe driving practices among individuals, road users, and the local community. In 2024, PTT continued its collaboration with both government and private entities in Rayong to organize impactful activities for local schools and communities, as follows:

- **“New Generation Students: Driving Licenses”**
In partnership with the Department of Land Transport and NPC Safety & Environmental Services Co., Ltd., this initiative offered motorcycle safety training. It aimed to educate participants on safe riding principles while facilitating the issuance of motorcycle licenses to those who completed the course. In 2024, the program trained students from two schools, with 306 participants received their motorcycle licenses after successful completion.
- **“Good Drive Challenge Clip Contest”**: In collaboration with its partners, this competition encouraged youth and local residents of Rayong to participate in creating innovative concepts and raising awareness on road safety to reduce accidents. The contest, with the theme “Drive Safe, Live Well – Safe Roads If We All Help,” sought to instill positive driving behaviors and engage the community. In 2024, 47 teams from 11 educational institutions in Rayong, ranging from elementary and secondary schools to vocational and university levels, participated. The five winning entries were used to promote safe driving practices and raise awareness about accident reduction through the project’s social media platforms.



Security Network

In 2024, PTT, in collaboration with the National Security Council Office, the National Intelligence Agency, the Special Branch Bureau, Chulalongkorn University, and the Mass Rapid Transit Authority of Thailand, co-hosted the “CI-SEC 2024: Crisis Management in Security Affairs Conference” from August 28 - 29, 2024, at the Impact Exhibition and Convention Center, Muang Thong Thani. The conference aimed to establish a network for sharing information and experiences in security management, promoting integration among government security agencies, state enterprises, research and development institutions, and educational bodies. The event drew participants from PTT Group, state enterprises, educational institutions, international organizations, and key national security agencies, including intelligence units and policy-making bodies in the country’s security sector.

Additionally, between 2023 and 2024, unrest occurred in multiple areas, prompting PTT to establish an internal security intelligence network within PTT Group. This network provides an additional channel for exchanging vital information with relevant security agencies, facilitating collaboration on intelligence gathering and establishing joint operational procedures to prevent and manage incidents of unrest. Recognizing the growing threat posed by the rise of autonomous vehicles, PTT has proactively developed guidelines for managing the risks associated with driverless vehicles. This initiative was carried out in cooperation with experts from the public sector, state enterprises, and the private sector, fostering knowledge exchange and discussions on how to address the challenges posed by autonomous vehicle threats. This collaborative effort ensures that PTT is well-prepared to effectively manage and mitigate these emerging risks.

Future Plans

PTT is dedicated to enhancing safety, occupational health, and work environment management, with the ultimate goal of achieving zero accidents. This initiative aims to build trust and confidence among all stakeholders. Emphasizing active participation from employees and contractors in safety initiatives, PTT has outlined several key initiatives for 2025, including expanding safety culture development within its innovation institutes, implementing Bow Tie Analysis and Barrier Validation principles to enhance safety management in operational areas, developing a web-based Health Risk Assessment system, and introducing an automated Defensive Driving Auto-Assessment System.

For more information, please visit PTT Website.

Stakeholders' Feedback

We've received excellent cooperation from the PTT team. They demonstrated high professionalism and played a crucial role in strengthening the country's security network.



Mr. Sinchai Karawut
Director
Information Technology
and Communication Center

Stakeholders' Feedback

"PTT places a high priority on managing security, safety, occupational health, and the environment (SSHE) by setting annual policies, goals, and action plans. The company actively promotes SSHE awareness across all levels of staff to minimize risks and impacts associated with operations. PTT is committed to achieving operational excellence and continuously improving its practices to enhance competitiveness and drive greater efficiency within the organization. This approach supports the company's business objectives, aligns with its vision, and fosters trust among all stakeholders."



Mrs. Sucheela Suwan
Executive Vice President,
Policy and Operational Excellence Management
PTT Public Company Limited



Corporate Citizenship



| Financial Materiality | | Impact Materiality |
|-------------------------------------|---|---|
| Risks | Opportunities | |
| - Financial and reputational damage | + Fostering relationships and communities engagement to build understanding and mitigate negative impacts on the company's reputation | + Enhance the quality of life and promote local employment while aligning with government policies that encourage private sectors and state-owned enterprises to support social enterprises. + Support lifelong learning opportunities, including infrastructure development, education access, and skill-building to foster equality and reduce social disparities. |

Impact of Topics Over Time

Short Term
Medium

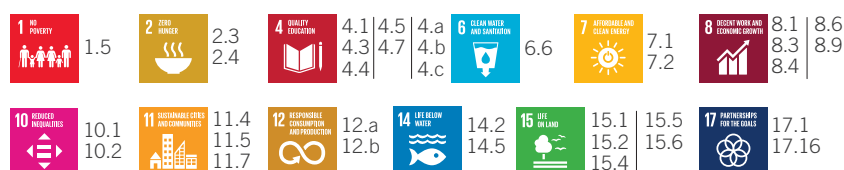
Medium Term
Low

Long Term
Low

Material Topic Management

| Indicators | Performance Targets | | Performance against 2024 Targets |
|--|--|---|---|
| | Short-term Targets 2024 | Long-term Targets | |
| SE-AM KPIs and Corporate KPIs <ul style="list-style-type: none"> Number of graduates from KVIS and VISTEC Number of research outputs from VISTEC | <ul style="list-style-type: none"> KVIS: 72 individuals (total accumulated: 494 individuals) VISTEC: 46 individuals (total accumulated: 169 individuals) Research output has consistently increased in each academic year | | <ul style="list-style-type: none"> KVIS: 72 individuals (total accumulated: 494 individuals) VISTEC: 46 individuals (total accumulated: 169 individuals) 269 entries (total accumulated: 1,790 entries) |
| Functional KPIs <ul style="list-style-type: none"> Number of areas developed through the Community Empowerment Project Net income per household/group participating in the Community Empowerment Project (that has begun generating income) Net income (after deducting purchases from PTT) from supporting community product sales via the "Community Happiness by PTT Group" Number of disadvantaged individuals benefiting from quality-of-life improvements through the operations of Sarn Palung Social Enterprise Company Limited (SPSE). | <ul style="list-style-type: none"> 7 key areas Community income has increased by at least 10% compared to their previous income Revenue greater than or equal to THB 1,500,000 500 individuals | <ul style="list-style-type: none"> 20 areas 701 individuals within 2027 | <ul style="list-style-type: none"> 7 key areas with 143 households Average income has increased by at least 10% compared to their previous income THB 3,090,000 461 individuals from 96 households |
| Indicators as per the Sustainability Management Master Plan to demonstrate PTT's responsibility to society and the environment for 2021 - 2025 <ul style="list-style-type: none"> Social investment budget Proportion of charitable donations relative to the total social investment budget Social Impact Assessment (SIA) or Social Return on Investment (SROI) | <ul style="list-style-type: none"> At least 1 - 3% of PTT's operating profit Not exceeding 30% of the total social investment Average SROI for all projects is greater than or equal to 1.3 times, exceeding the financial cost of WACC (excluding pilot projects carried out under PTT SE Sandbox) | | <ul style="list-style-type: none"> 1.23% of PTT's operating profit 19.07% of the total overall budget Average SROI for all projects is equal to 1.55 times (excluding pilot projects carried out under PTT SE Sandbox) |

Contribution to the United Nations Sustainable Development Goals (UN SDGs)



Key Action Plans for 2024

- Support the long-term development of scientific and technological education through Kamnoetvidya Science Academy (KVIS) and Vidyasirimedhi Institute of Science and Technology (VISTEC).
- Foster sustainable agricultural production and cultivation processes within the Community Empowerment Project, while promoting community skills in maintaining agricultural and energy equipment for local use.
- Enhance knowledge and skills in developing community product quality standards to build a sustainable local economy.
- Improve the quality of life for disadvantaged groups and create economic opportunities through the operations of Sarn Palung Social Enterprise Company Limited (SPSE).
- Conserve and restore natural resources through reforestation initiatives and share knowledge from the forest learning centers.

Management Overview

PTT is committed to creating shared value for society, communities, and the nation by implementing corporate social responsibility (CSR) strategies aimed at enhancing citizens' quality of life and promoting community and environmental development. This is achieved through key operational approaches as follows:

- Leveraging the knowledge, expertise, and energy management capabilities of PTT Group to drive societal and community development.
- Fostering participatory processes and the transfer of knowledge to promote sustainable development within communities and society.
- Empowering social enterprises and community-based businesses, enabling them to operate independently and sustainably over the long term.

PTT's social initiatives are focused on two key areas:

1. Human Capital, Community, and Social Development: Emphasizing education promotion, skill development for communities, improving the quality of life for unprivileged individuals, and creating economic opportunities. The goal is to empower communities to become self-sufficient and resilient sustainably.
2. Conservation and Restoration of Natural Resources and Environment: Actively supporting the conservation and effective restoration of natural resources, with a particular focus on engaging communities to raise awareness of the importance of resources and ecosystems. Additionally, PTT ensures the provision of platforms for sharing knowledge on sustainable resource management.

To achieve comprehensive and impactful social outcomes, PTT employs the following key management strategies:

- A dedicated department is in place for managing community, social, and environmental affairs. This includes a position of EVP, Corporate Reputation and Social Responsibility, responsible for corporate reputation and CSR, and overseeing Sarn Palung Social Enterprise Company Limited (SPSE) and the Power For Sustainable Future Foundation. Both of which are responsible for executing social initiatives across various dimensions. This department works in tandem with efforts to enhance the organization's reputation and public image.
- Social initiatives are carried out through various methods, including donations, social responsibility projects, and social enterprise operations, all with the aim of generating the highest positive impact on society.

Progress on Key Plans/ Projects

In 2024, PTT allocated a total budget of THB 1,066.38 million for social investments, which represents 1.23% of PTT's operating profit (in line with the policy of allocating at least 1 - 3% of operating profit for social investments). This allocation was divided as follows: 19.07% for donations, 80.07% for social responsibility projects, and 0.86% for social enterprise operations.

The outcomes of these social investments in 2024 encompassed operations across all dimensions and achieved the set objectives. However, PTT continues to move forward with unwavering determination to expand its initiatives and maintain its commitment to ongoing social responsibility. This includes skill development to create job opportunities for farmers and communities through the Community Empowerment Project, as well as enhancing the knowledge and skills necessary to develop quality standards for community products, which are sold through the Community Happiness by PTT. These efforts have contributed to PTT achieving an organizational reputation score of 84 points in 2024, based on a survey of stakeholders' perceptions of PTT's business operations.

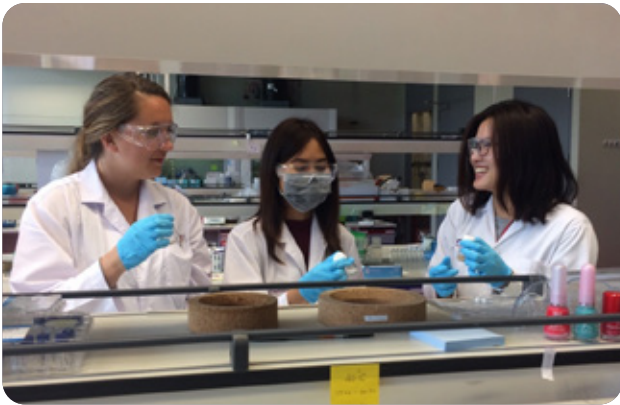
Furthermore, PTT Group has actively supported the reduction of energy-related living expenses for the public. This includes alleviating the burden of electricity costs, maintaining the retail price of natural gas for vehicles (NGV), and postponing increases in retail fuel prices. The total value of these initiatives in 2024 amounts to over THB 23 billion.

Progress in Human Capital, Community, and Social Development

Advancing Long-Term Science and Technology Education through KVIS and VISTEC

Operations

PTT Group has consistently supported the development of long-term science and technology education through Kamnoetvidya Science Academy (KVIS) and the Vidyasirimedhi Institute of Science and Technology (VISTEC) since their establishment in 2015. The goal is to lay a strong foundation for the future of the country by advancing scientific research and developing world-class professionals in science and technology.



Benefits to Stakeholders

- KVIS has graduated 72 students in 2024, bringing the total number of graduates across 7 cohorts to 494 students. Of these, 68% pursued further studies in Science, Technology, Engineering, and Mathematics (STEM), while 31% continued in health sciences. Notably, 53% of graduates received scholarships to study STEM at prestigious institutions both in Thailand and abroad. KVIS students have also made significant contributions to research, earning numerous awards in national and international competitions, securing petty patents, publishing in renowned academic journals, and presenting their work on global platforms. Beyond academics, KVIS students actively engage in volunteer work and a diverse range of personal development activities. These accomplishments highlight their commitment to innovation and their roles in shaping a brighter future for the nation.
- VISTEC has graduated 46 students with Master's and Doctoral degrees in 2024 (bringing the total number of graduates to 169).

Benefits to PTT

- VISTEC's research and innovations have led to over 1,790 published works in international academic journals.
- Since 2017, 43 VISTEC graduates have joined PTT Group, while 40 have contributed to VISTEC and VISUP Co., Ltd.

Community Empowerment Project

Operations

Building on the success of PTT Group's Innovation for Community Project, this initiative strengthens community resilience by enhancing agricultural skills. The project integrates innovation and technology through a joint venture model, giving communities a shared sense of ownership. It also emphasizes cost-effectiveness from an economic

perspective while contributing to the overall community economic value chain. Through Bio-Circular-Green Economy Model (BCG Model), the project boosts modern agricultural capabilities, promotes the efficient use of resources, and develops community technicians capable of maintaining equipment independently, creating sustainable job opportunities.



Benefits to Stakeholders

- The project has supported the development of communities in seven key areas based on the sustainability principles, impacting 143 households. Each household has successfully reduced expenses and increased income by 10%.
- It has trained 33 community technicians, enabling them to install and maintain community technology independently.

Benefits to PTT

- It enhances PTT's image as an organization that utilizes knowledge in technology and innovation to improve agricultural skills and empower communities and society. By maintaining quality control and product standards, the project helps communities become self-reliant and sustainable.
- The project strengthens relationships with over 7 community networks, including 143 households.
- It supports PTT's social license to operate in areas where PTT operates business units.

Community Product and Capability Development

Community-Based Product and Marketing Development Project

Operations

This initiative focuses on enhancing the development of the development of community product whole process from production and value-addition through technology or techniques to quality control and product standardization. This also includes creating or expanding modern marketing channels to help communities build a sustainable local economy and generate income from their resources.

Benefits to Stakeholders

- It has improved branding and packaging capabilities for four communities.

Benefits to PTT

- The project enhances the organization's image by promoting community products and strengthening community capabilities to ensure the long-term sustainability and success of community-based businesses.
- It supports the Social License to Operate within PTT's business areas.

Community Happiness by PTT Group

Operations

This project focuses on promoting community products through various sales and marketing activities. By expanding distribution channels via both online and offline platforms, it raises awareness and creates market opportunities for community products within their networks. The project aims to boost income for these communities and collaborates with the younger generation through the Spark the Local 2024 by PTT initiative. This program empowers youth to apply their creativity and innovation to enhance community products and generate added value.



Benefits to Stakeholders

- The project has supported the sale of 1,595 SKUs from 483 communities nationwide, resulting in a THB 3.09 million increase in revenue.

- It expanded sales opportunities through innovative channels such as ready-to-eat food, pop-up stores, and Community Happiness Fresh Markets.
- It provided a platform for over 360 young entrepreneurs to showcase their marketing talents and promote community products.

Benefits to PTT

- It enhances PTT's image as an organization that builds new networks and creates broader business opportunities for communities.
- It supports the Social License to Operate in areas where PTT operates its business units.

Support for Sports Development

Operations

PTT Group partners with sports associations to support comprehensive, long-term initiatives aimed at developing both sports and athletes. The Group has committed to providing support to 20 sports associations under the supervision of the Sports Authority of Thailand (SAT) during a period of 4 years (2024 - 2027), with an annual budget of THB 200 million. This program offers opportunities for youth and disadvantaged individuals across the country to develop their athletic skills and participate in high-level competitions, laying a crucial foundation for the development of Thai athletes. Notably, in the 33rd Olympic Games in Paris, two associations supported by PTT Group achieved outstanding results, winning medals: the Taekwondo Association of Thailand (1 gold) and the Thailand Boxing Association (1 bronze). In addition, PTT, in collaboration with the Thailand Swimming Association, launched the "Swimming for Life" program to teach swimming to youth in remote areas, aiming to reduce drowning incidents. PTT also partnered with the Thailand Equestrian Association to provide food, hay, medicine, and veterinary supplies, as well as assist in relocating animals and supporting victims of flooding in Mae Tang District, Chiang Mai.



Benefits to Stakeholders

- This project strengthens the country's sports infrastructure by supporting associations and developing sports personnel and youth athletes. It nurtures the growth of future international-level athletes, thereby enhancing Thailand's reputation in both national and global arenas through continuous, impactful projects.

Benefits to PTT

- It enhances PTT's image as a key supporter of Thailand's sports sector, contributing to the development of skilled athletes and sports personnel on the international stage while also boosting Thailand's profile globally.

Natural Disaster Relief

Operations

PTT Group actively supports communities affected by natural disasters in the areas surrounding its facilities and across other regions nationwide. The Group has provided funding for relief efforts, distributing 49,200 survival kits, 107,576 bottles of drinking water, and other essential supplies to alleviate the impact of disasters, including medicines, blankets, meals, boats, and more-valued at over THB 10 million. In addition, PTT has deployed its trained PTT Group SEALs team, composed of personnel with expertise in disaster relief, to assist in inaccessible areas. They collaborate with government teams to deliver survival kits, evacuate residents, repair flood barriers in affected communities, and restore homes, helping people quickly recover and return to normal life.



Benefits to Stakeholders

- Over 49,200 disaster-affected individuals received support from PTT in 2024.

Benefits to PTT

- The project strengthens PTT's image as a socially responsible organization committed to helping communities and ensuring their well-being during times of crisis.
- It engages PTT executives and employees, allowing them to contribute to the relief efforts by packing survival kits through PTT Volunteers and participating in field operations led by PTT Group SEALs, who are specially trained for such missions.

Enhancing the Quality of Life and Creating Opportunities for Disadvantaged Individuals

PTT Group Flagship, comprising PTT, PTTEP, GC, TOP, IRPC, GPSC, and OR, established Sarn Palung Social Enterprise Company Limited (SPSE) in 2017 to manage and centralize the sale of products and services for social causes, enhancing efficiency. This initiative is designed to continuously and sustainably support society, communities, and the environment. In 2024, Sarn Palung Social Enterprise Company Limited (SPSE) became the only company from Thailand to win the ASEAN Business Awards 2024 in the Sustainable Social Enterprise category, organized by the ASEAN Business Advisory Council (ASEAN-BAC). The award recognizes organizations that prioritize social, community, and environmental impact alongside sustainable business practices. The company also achieved key milestones in 2024, including:

Café Amazon for Chance Project

Operations

Café Amazon for Chance initiative was designed to create job opportunities for individuals requiring special assistance, such as those with hearing impairments or learning disabilities. The program not only ensures stable employment with reliable income but also builds skills in the coffee business. Currently, there are 6 Café Amazon for Chance branches operating by SPSE, while another 354 branches operating by OR.

Benefits to Stakeholders

- The project provided stable jobs for 21 disadvantaged individuals.
- It equipped these individuals with essential skills through barista training at the Amazon Inspiring Campus (AICA) under Café Amazon (OR), and gave them the chance to gain practical experience through internships at Café Amazon for Chance locations.
- It fostered a deeper understanding of how to coexist with disadvantaged groups, encouraging positive interactions at Café Amazon for Chance stores.

Benefits to PTT

- It strengthened PTT Group's reputation as an organization committed to enhancing the well-being of disadvantaged communities.

Community Coffee Sourcing Project**Operations**

Promoting the cultivation and production of coffee under a sustainable natural resource conservation system, this initiative focuses on developing and enhancing farmers' skills in coffee cultivation and production to meet quality standards. It also fosters strong community groups, providing reliable sales channels for farmers and ensuring fair prices for their coffee beans. Currently, farmers from Huai Chomphu Subdistrict in Mueang District, Chiang Rai, Mae Salong Nai Subdistrict in Mae Fa Luang District, Chiang Rai, and Rom Yen Subdistrict in Chiang Kham District, Phayao, are participating in the project, covering a total of approximately 4,585 rai of coffee plantations. In 2024, the company purchased a total of 426 tons of coffee beans from these farmers.

**Benefits to Stakeholders**

- 327 individuals benefited from increased income.
- Training sessions on the Honey Process technique for enhancing coffee bean quality were provided to farmers in the project areas.

Benefits to PTT

- The project enhances the company's image through support for community economic development.
- It supplied high-quality raw materials to Café Amazon, helping to meet the demand for over 320 tons of coffee beans, thus improving the company's procurement operations.

PTT Day Care Center Project**Operations**

The initiative was established to create stable employment and income for women from the State Railway of Thailand, who are disadvantaged due to limited education. It also serves as a model early childhood care center for both public and private sectors, addressing the government's policy on the aging population in Thailand. The center began operations on September 1, 2019, and currently serves 27 children.

**Benefits to Stakeholders**

- The project provided stable employment for 3 women from the State Railway of Thailand.

Benefits to PTT

- It enhances the company's image by promoting community welfare and improving the quality of life for disadvantaged individuals.

Promoting Natural Resource and Environmental Conservation**PTT Reforestation and Ecology Institute****Reforestation of 1 Million Rai and Restoration of Existing Forests****Operations**

PTT has launched the "72,000 Rai Forest Planting in Honor of His Majesty the King on the Occasion of His 72nd Birthday Anniversary, July 28, 2024," as part of the "PTT Forest Restoration Project" (one Million Rai Reforestation). This initiative is a key component of the company's strategy to achieve Net Zero Emissions by 2050. The project aims to restore ecosystems, protect headwater sources, and enhance biodiversity across Thailand's forests. It is implemented in collaboration with the Department of Forestry, the Department of National Parks, Wildlife and Plant Conservation, and the Department of Marine

and Coastal Resources. The goal is to restore and plant a total of two million rai of forests nationwide, with PTT committing to one million rai and its subsidiaries contributing an additional one million rai. The project is also aligned with the T-VER (Thailand Voluntary Emission Reduction) certification program, ensuring that the forest restoration follows scientifically standards.



In 2024, PTT secured approval to plant an additional 62,696.3 rai across 17 provinces. The project encourages local community engagement in forest conservation efforts, which not only preserves the environment but also generates significant economic value for the communities, amounting to millions of baht. Additionally, eight carbon credit certification projects (T-VER) covering a total of 84,792 rai have been approved. PTT continues to manage and preserve the PTT forest plantations under the Permanent Forest Plantation for Royal Commemoration Project (1994 - 2002), ensuring they remain in excellent condition. These plantations serve as centers for sharing knowledge on forest planting and restoration, while promoting sustainable economic, social, and environmental development through the conservation of forest resources.

Benefits to Stakeholders

- Promote community involvement in forest planting and care, providing local communities with steady income.
- Enhance biodiversity and help mitigate the effects of climate change through carbon sequestration.

Benefits to PTT

- Reinforce the company's commitment to environmental conservation and natural resource restoration, contributing to the overall ecological balance.
- Support PTT's goal of fostering a low-carbon society.

4 Ecology Learning Centers

Operations

PTT has established the PTT's Reforestation and Ecology Institute to extend the work initiated by the Permanent Forest Planting Project (one Million Rai) in 1994. The institute focuses on forest conservation, restoration, and the development of knowledge to share with the public. The aim is to raise awareness about the importance of preserving natural resources and protecting the environment. PTT operates 4 Ecology Learning Centers, which act as educational hubs and sources of inspiration for local communities and the public to embrace sustainable resource management:

1. Metro Forest Learning Center, Bangkok
2. Sirinart Rajini Mangrove Ecosystem Learning Center, Prachuap Khiri Khan
3. Wangchan Forest Learning Center, Rayong
4. The King's 80th Anniversary Commemorative Garden, Samut Prakan



In 2024, the Wangchan Forest Learning Center and Sirinart Rajini Mangrove Ecosystem Learning Center were honored for their participations in the Low Emission Support Scheme (LESS) by the Thailand Greenhouse Gas Management Organization (Public Organization). This recognition acknowledges their efforts in waste reduction, segregation, and proper waste management, showcasing their commitments to sustainable environmental practices. Additionally, Sirinart Rajini Mangrove Ecosystem Learning Center received the Thai Tourism Standard: Excellent Activity Tourism Certification from the Ministry of Tourism and Sports, as well as a 5-Star Sustainable Tourism Rating under the STAR (Sustainable Tourism Acceleration Rating) program from the Tourism Authority of Thailand.

Benefits to Stakeholders

- The forest learning centers serve as key resources for gathering and sharing knowledge on forest planting, ecosystems, greenhouse gas reduction, and carbon sequestration measurement. They also work to continuously raise environmental awareness within society. Furthermore, the centers focus on empowering surrounding communities and network schools, helping them apply this knowledge in their own organizations to foster sustainable development.
- In 2024, a total of 71,342 visitors attended the four centers.

Benefits to PTT

- It enhances collaboration and understanding between PTT, the government, and local communities, promoting environmental conservation and restoration for a more sustainable future.

Community Collaboration in Restoring Green Spaces in Khung BangKachao

Operations

PTT, in collaboration with the Chaipattana Foundation, has launched the OUR Khung BangKachao Project to enhance both the environmental and economic aspects of Khung BangKachao area. In 2024, the following initiatives are archived.

- Through the continuous implementation of the Community Network Capacity Development project, the community has successfully managed its groups in a systematic manner. This has led to increased participation in activities, collaborative processes among stakeholders, and effective budget management within the group.
- The green space in the Khung BangKachao:
 - The green space in the Khung BangKachao area has increased, as evidenced by satellite and drone images. The green area now spans over 6,045 rai*, up from 4,705 rai in 2019 – an increase of 28%. The surrounding communities benefit from this development, with 305 households receiving a total income distribution of THB 2,823,955.
 - The King's 80th Anniversary Commemorative Garden has been transformed into a center for studying the ecosystems of the lower Chao Phraya River basin in the Khung BangKachao area. By incorporating the unique identity of Khung BangKachao, this space serves as both an educational resource and a platform to raise environmental awareness. The garden also hosts activities that generate income for the Khung BangKachao community while sharing valuable knowledge through the learning points within the garden. This initiative helps preserve and develop natural resources in the area, ultimately benefiting the community.



Benefits to Stakeholders

- The project strengthens community capacity in managing groups systematically.
- 305 households from the surrounding community have benefited, resulting in income distribution of THB 2,823,955.

Benefits to PTT

- It establishes positive relationships with government, private sectors, and the public to promote environmental conservation and restoration in collaboration with 113 organizations under the Social Collaboration initiative for the sustainable development of Khung BangKachao.

Remark:

* The team, in collaboration with AI and Robotics Ventures (ARV), analyzed Sentinel-2 satellite images to scientifically assess and compare green space over time.

Prem Pracha Vana Rak Park

Operations

On the occasion of the auspicious ceremony celebrating the 72nd birthday of His Majesty the King on July 28, 2024, PTT, in collaboration with royal agencies, the government, state enterprises, the private sector, and local communities, has undertaken the development of the Khlong Prem Prachakon project. The initiative aims to enhance the quality of life and well-being of local residents, as well as to transform a 10-rai area along Kamphaeng Phet 6 Road, adjacent to the Prem Prachakon canal in the Lak Si District of Bangkok. This area has been developed into a public park, designed with the concept of "Preserve, Protect, and Develop," in accordance with His Majesty the King's vision. His Majesty graciously bestowed the name "Prem Pracha Vana Rak" upon the park. On December 10, 2024, His Majesty the King, accompanied by Her Majesty the Queen, visited the park for its grand opening. During the visit, His Majesty planted a wild padauk tree grown



from the seed of the 100 million wild padauk tree planted at the FPT 49 Forest Planting Site in the Permanent Forest Planting Project (one Million Rai) in Pak Thong Chai District, Nakhon Ratchasima. Her Majesty the Queen also planted a Spanish Cherry tree, symbolizing blessings and the serenity of the area. This park is set to become a new green oasis in the heart of Bangkok for the public to enjoy and appreciate.

Benefits to Stakeholders

- The public will benefit by gaining access to a new green space where they can learn about His Majesty the King's royal projects that are related to nationwide water resource development.

Benefits to PTT

- This initiative bolsters PTT's reputation as an organization committed to driving social, community, and environmental progress, playing a key role in enhancing the quality of life for Thai people.

Green Globe Institute

Operations

The "Green Globe" project was launched in 1999, following PTT's involvement in the Permanent Forest Plantation in Honor of His Majesty initiative, which aimed to plant one million rai of forest. Sustainable forest planting requires not only physical efforts but also the need to "plant the forest in people's hearts." As a result, the "Green Globe Awards" was established to honor individuals, communities, and youth who have made outstanding contributions to forest and environmental conservation. The award aims to recognize, honor, and encourage those working towards sustainable environmental stewardship.

Over time, the project evolved into the "Green Globe Institute", which continues its mission of recognizing "green individuals" and expanding its role in developing

research networks and managing knowledge derived from the Green Globe Awards. The institute aspires to be a model for successful natural resource conservation and management, providing practices that can be applied and expanded to other communities. This enables them to adapt to and manage changes in various areas more effectively. In 2024, the **22nd Green Globe Awards ceremony** was held under the theme **"Small People Change the World"** to honor and encourage individuals and communities with exceptional, ongoing conservation efforts. A total of 38 awards were presented in five categories: (1) Community, (2) Individual, (3) Youth Groups, (4) The Sippanonda Ketudat Sustainability Award, and (5) Written Works. To date, 842 projects have been recognized across 22 award ceremonies, and the network has expanded to include over 4,035 individuals nationwide. In addition to the award ceremony, the project also expands its impact and disseminates knowledge to the public through the "Model Communities and Sustainable Resource Management" forum. This platform serves as a space for exchanging experiences on various natural resource management practices from the 22nd Green Globe Awards winners. It focuses on sharing sustainable resource management strategies from model communities to others, inspiring them to apply these practices in their own areas. The aim is to foster the growth of a strong network of communities that promote environmental conservation at a national level.



Benefits to Stakeholders

- The project strengthens the morale of the network of environmental and natural resource caretakers.
- It expands knowledge on conservation, restoration, and sustainable natural resource management from community to community, while connecting the nationwide network of efforts.

Benefits to PTT

- It enhances the company's image by promoting a nationwide environmental conservation network.
- It supports PTT Group's goal of achieving a low-carbon society.

Additionally, PTT promotes the conservation and restoration of natural resources and the environment through the Vetiver Grass Network.

Operations

In 2024, the **13th Annual Vetiver Grass Development and Advocacy Award Ceremony** took place, recognizing 32 winners across two categories: 22 awards for promoting vetiver grass planting and expansion, and 10 awards for promoting handicrafts made from vetiver grass leaves. Since the inception of the award in 2006 - 2024, a total of 522 awards have been granted, and the Vetiver Grass Network now consists of 2,798 members. In addition to the awards, efforts were made to expand the knowledge and application of vetiver grass for soil and water conservation, as well as for utilizing vetiver grass leaves for community benefit. In 2024, the knowledge was integrated between the Green Globe Award Network and the Vetiver Grass Network in one area: the Pa Faek Subdistrict Sufficiency Economy Learning Center (Ban Chakong Learning Center), Sukhothai. As a result, the area of vetiver grass planting has expanded to 3,850 rai.

Benefits to Stakeholders

- The project boosts the morale of those engaged in the preservation of environmental and natural resources.
- It expands the knowledge on conservation, restoration, and sustainable resource management, while connecting the nationwide network of efforts.

Benefits to PTT

- It strengthens the company's image by developing and continuously expanding the Vetiver Grass Network.
- It supports PTT Group's commitment to becoming a low-carbon society.



Future Plans

The preservation of the environmental conservation network through the Green Globe Institute is focused on driving sustainable development by consolidating and expanding the knowledge of the network. This includes raising the standards of environmental awards, and expanding knowledge from model areas to the network. Additionally, knowledge from award-winning projects is being integrated into PTT's internal operations.

For more information, please visit PTT Website.

Stakeholders' Feedback

"PTT has played a pivotal role in sharing knowledge for area development alongside local communities, helping to strengthen them through the efficient use of resources. For instance, they have empowered communities by transforming agricultural waste into valuable products that generate income. Additionally, they have developed high-temperature furnaces and biogas production systems to reduce costs and encourage the use of alternative energy. This collaborative effort addresses social and environmental challenges sustainably, harnessing innovation and community engagement to create the highest possible impact."

Mr. Panya Uppatham
Chairman, Porinkhamkhaen
Social Enterprise, Khon Kaen





Innovation and Technology



| Financial Materiality | | Impact Materiality |
|--|--|--|
| Risks | Opportunities | |
| <ul style="list-style-type: none"> - Rapid advancements in innovation and technology can impact various aspects of business operations, including innovation funding, employee skills, and profitability not aligning with plans. | <ul style="list-style-type: none"> + Foster innovation and the adoption of technology across business operations (e.g., production processes, products, services) to drive new business growth, meet customer and partner demands, enhance competitiveness, and deliver sustainable returns to investors. | <ul style="list-style-type: none"> + Develop innovations and technologies that result in low-carbon, environmentally friendly products and services, helping to reduce greenhouse gas emissions, support the transition to a low-carbon society, and align with the expectations of stakeholders. |

Impact of Topics Over Time

| Short Term | Medium Term | Long Term |
|------------|-------------|-----------|
| High | High | High |

Material Topic Management

| Indicators | Performance Targets | | Performance against 2024 Targets |
|---|---|--|--|
| | Short-term Targets 2024 | Long-term Targets | |
| SE-AM KPIs and Corporate KPIs <ul style="list-style-type: none"> Net income from innovation Innovation-related expenses as a percentage of net income | <ul style="list-style-type: none"> Innovation-related expenses should account for at least 10% of net income | <ul style="list-style-type: none"> Innovation-related operational expenses should be no less than 10% of net income At least 20% of net income should come from innovation by 2030 | <ul style="list-style-type: none"> Innovation-related expenses equal 12% of net income |
| Functional KPIs <ul style="list-style-type: none"> Results from Research & Development (R&D) on operational expenses (OPEX) Number of patent and petty patent applications | <ul style="list-style-type: none"> Research & Development (R&D) impact value per operational expense (OPEX) ≥ 1.18 File at least 25 patents | <ul style="list-style-type: none"> Innovations, both internal and external, should contribute at least 7% of net income by 2030 | <ul style="list-style-type: none"> Research & Development (R&D) impact value per operational expense (OPEX) 1.19 46 patents filing |

Contribution to the United Nations Sustainable Development Goals (UN SDGs)



Key Action Plans for 2024

- Organizing activities to foster creativity
- Innovations developed internally
- Innovations sourced from external partners
- Building innovation networks and collaborations to leverage both internal and external innovations, creating opportunities for the development and expansion of new business ventures

Management Overview

To systematically develop, manage, and promote innovation, PTT has demonstrated its commitment through **PTT Innovation Management Policy**, which focuses on the advancement of innovation in two key areas:

- Innovations and technologies developed, researched, and created internally by PTT Innovation Institute, as well as through idea submission contests and various creative initiatives.
- Innovations adapted from external sources through investments with partners and collaborators, particularly technologies in which PTT has yet to gain expertise, especially those aimed at entering new business sectors.

All executives and employees are responsible for supporting, driving, and ensuring alignment with these policies, while also setting a positive example in fostering continuous innovation management.

For policy implementation, PTT has established **PTT Innovation Management System (PTT IMS)** and developed **PTT Innovation Management Master Plan for 2025 - 2029**, which includes clearly defined goals, innovation strategies, internal and external factor analysis, and measurable action plans. These elements are aligned with the company's vision and operational direction and are linked to other master plans within the organization.

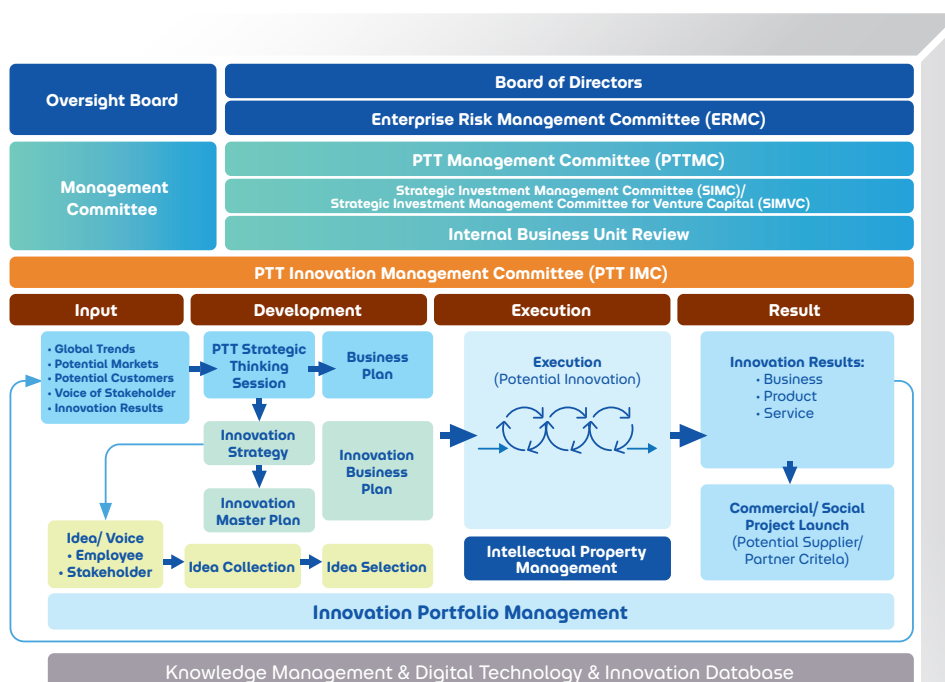
PTT Innovation Management Process, consists of two essential components: the governance structure for innovation management and the innovation management process, from concept to execution. The governance structure spans across various levels, from PTT's Board of Directors to management and operational levels, which includes the following:

- PTT's Board of Directors has delegated responsibility for overseeing PTT's innovation management to the **Enterprise Risk Management Committee (ERMC)**. The ERMC is responsible for defining and reviewing innovation management policies, providing recommendations, and supporting the implementation of initiatives. It reports progress to PTT's Board of Directors on a quarterly basis.
- **PTT Innovation Management Committee (PTT IMC)** reviews and refines the innovation management master plan, drives innovation at all levels, and provides quarterly reports on progress to the ERMC.
- **PTT Innovation Management Working Team** is responsible for executing the strategy and reporting its progress to PTT IMC on a quarterly basis.

The comprehensive innovation management process, which spans from initial input to final outcomes, includes the following key steps:

1. **Input:** This phase involves incorporating both internal and external factors that have changed, including feedback, suggestions, and creative ideas from all relevant stakeholders, both within and outside the organization. These factors are used as inputs for formulating strategies and the innovation master plan.

PTT Innovation Management System



PTT VISION & MISSION

TOGETHER FOR
SUSTAINABLE THAILAND,
SUSTAINABLE WORLD

✓ LT Adj EBITDA & Net Profit
✓ Sustainability: Net Zero by 2050

2. **Development:** This stage focuses on planning and defining the direction for PTT's innovation initiatives. It includes the creation of the innovation master plan, setting roadmaps, and categorizing innovations to create a clear framework for managing innovation projects moving forward.
3. **Execution:** At this stage, the planned strategies and action plans are put into practice, with a focus on rapid execution. The process involves trialing innovations and continuously improving operations based on feedback. Additionally, when an innovation or invention with commercial potential is identified, an intellectual property (IP) management process is activated, e.g., patent and petty patent applications to safeguard intellectual property rights, appropriately tailored to the innovation's nature.
4. **Result:** After completing the steps 1 - 3 above, the outcomes of the innovation process will take shape in the form of, for example, new products or services, new business models, and/or new operational processes. The results will be evaluated to determine whether they should be advanced into a full-scale business or commercialized product, or remain within PTT group for further development. This feedback loop contributes to the input used for further analysis, strategy formulation, and business planning across PTT's business groups or subsidiaries.

For additional details on PTT's innovation management policy and master plan, please visit PTT Website.

Progress of Key Plans/ Projects

Promoting Creativity and Innovation Activities

One of the key strategies in innovation management is Nurturing People, which focuses on enhancing

employees' knowledge and abilities to create innovations, preparing them to develop the awareness, skills, and creativity needed to integrate innovation into their daily work, making it an integral part of the organization's culture. PTT has established continuous initiatives to foster innovation values and has organized a variety of activities to encourage idea sharing, creativity, and innovation in various forms as follows:

- Innovation is incorporated as one of the core values (SPIRIT) of the organization, which is deeply embedded, communicated, and integrated into PTT's Core Competency framework. Plans and activities have been developed to enhance competencies related to innovation, with continuous follow-up on progress, such as expertise in Digital Acumen, Digital Insight, Driving Innovation, and Technology Savvy.
- Activities to foster an innovation-friendly environment and build an innovation network have been organized through PTT INNO Influencer project. This initiative aims to cultivate a creative atmosphere and organizational culture that supports innovation. It also builds a network of Change Agents and innovators, who play a vital role in driving PTT's innovation. This includes subsidiary programs as follows: PTT INNO Club, which is a platform for employees who have previously participated in PTT Innovation Award. Here, employees exchange experiences and learn from internal team members as well as external innovation experts; PTT INNO Learning, which is a program that targets SPIRIT-Learning Organization (LO) Agents to deepen knowledge, develop potential, and equip them with the tools to act as influencers and drive innovation within their respective departments; PTT INNO Award, which is a competition platform for innovation ideas, aimed at developing products and services that align with the organization's strategic goals; Held annually since 2014, the competition has evolved from the PTT Innovation Boost Camp to PTT INNO Award, reflecting a more modern and dynamic approach. In 2024, a total of 158 employees participated in the competition, submitting 30 innovative ideas. Out of these, three concepts were successfully developed into commercialized products, including Real-Time Assessment Monitoring (RAM), which uses Vibration Sensors to monitor and assess vibrations in industrial plants; I-Smell, an advanced device that detects and analyzes foreign odors and volatile compounds, replacing the need for human odor testing; and Miniature Heat Exchanger.

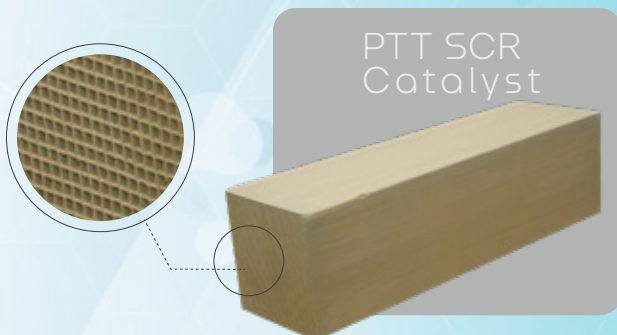


Innovations and Technologies Developed by PTT Innovation Institute

In 2024, PTT Innovation Institute successfully invented, researched, and developed innovations that delivered substantial value to the business. These innovations generated direct revenue of THB 79.1 million and indirect revenue of THB 484.36 million, with a total investment of THB 317.23 million in innovation and technology development.

Selective Catalytic Reduction (SCR) Catalyst

PTT SCR Catalyst, developed by PTT Innovation Institute, is a breakthrough technology designed to reduce nitrogen oxides (NOx) from exhaust gases produced during fuel combustion. This innovation is a significant step towards minimizing environmental impact on communities, society, and the nation while also reducing dependency on foreign technologies/ innovations. Since 2021, PTT SCR Catalyst has been successfully implemented at the Rayong Gas Separation Plant. The catalyst has shown outstanding performance, surpassing the required standards for NOx reduction with no operational issues. This achievement earned the innovation the SET Awards of Honor 2023 in the Best Innovative Company category.



PTT Microchannel Heat Exchanger (MicroHX)

PTT Microchannel Heat Exchanger (PTT MicroHX) is an innovative technology that optimizes industrial processes for greater energy efficiency. By recovering waste energy in the form of heat or cold and recycling it back into the process (Energy Recovery), this solution significantly reduces energy costs and carbon dioxide emissions. In addition to its environmental benefits, it helps decrease import reliance, minimize trade deficits, and boosts national competitiveness. PTT MicroHX has been applied in industries both within and outside PTT Group, including PTT LNG, where it has reduced carbon dioxide emissions at PTT LNG Terminal 1 by more than 190 tons annually. PTT aims to increase sales and generate over THB 2,070 million in revenue by 2033. The innovation also received recognition with the SET Awards of Honor 2024 in the Best Innovative Company category.



PTT EV Charger and Charging Platform

The Electric Vehicle (EV) Charger and Charging Platform developed by PTT Innovation Institute has been continuously researched and refined. It is now available in the commercial market and stands as a comprehensive solution for PTT's entry into the electric vehicle business. The product is designed to support EV charging stations across various locations, following the OCPP1.6J communication standard. It offers functionality through a mobile application, enabling energy management and enhancing convenience for electric vehicle users and service providers. This system allows easy integration with platforms for those in the EV charging business, promoting rapid and widespread deployment of charging stations. It strengthens the use of electric vehicles within the country. The EV Charger has already been granted a patent and has passed safety tests for leakage and overvoltage protection according to the EV Charger IEC 61851 standard. Additionally, both the Normal and Smart versions of the EV Charger have been registered in the Thai Innovation Register and were awarded the SET Awards 2022 in the Best Innovative Company category. Recently, PTT Innovation Institute has developed the 22 kW PTT EV Charger, designed to work with three-phase alternating current (AC), to accommodate the increasing number of electric vehicles in the future. The charger's casing has been upgraded from metal to polymer material, improving fire resistance. Furthermore, a cloud platform (OCPP Cloud Platform) has been developed for real-time usage data communication, and a Mobile Application has been introduced to facilitate commercial use.



Innaqua Wound Dressing

PTT Innovation Institute has developed a bio-cellulose wound dressing material, which has successfully passed the safety testing standards set by the Food and Drug Administration (FDA). This innovation is now commercially available under the brand name "Innaqua". Innaqua is effective for treating a wide range of wounds, including sterilized and infected wounds. It is a cutting-edge innovation in both material development and medical applications, recognized globally. The product is protected under intellectual property rights with patent application number 1601001745. This innovation supports the government's strategy to establish a comprehensive medical hub (New S-Curve) and helps improve access to healthcare by providing high-quality equipment at a more affordable price compared to imported alternatives, ultimately enhancing the quality of life for the Thai public. Innaqua has also received the prestigious SET Awards 2021 in the Best Innovative Company category.

Furthermore, in 2024, PTT Innovation Institute expanded its portfolio with new commercial products, such as the "Innisorb" wound dressing line. Innisorb includes foam-based materials and superabsorbent polymers, designed for highly fluid-exuding wounds, such as pressure ulcers or burns. With the growth of its wound care product range, PTT now offers comprehensive solutions for all types of wounds, providing the public with access to high-quality wound care materials at a lower cost than imported alternatives. This initiative not only contributes to enhancing the quality of life for the people but also helps build a sustainable healthcare system in Thailand.



Hydrocarbon Value Chain Collaboration Tower – P1

The Hydrocarbon Value Chain Collaboration Tower project utilizes advanced digital technologies, including Robotic Process Automation (RPA), Generative Forecast Models, Scenario Analysis, Optimization, and Data Visualization. These technologies are integrated into a system that enhances the efficiency of tracking, decision-making, planning, strategy adjustment for the procurement, distribution and operations of petroleum products. This innovative approach enables PTT Group to respond effectively to rapidly changing market dynamics and improves collaboration through a unified digital platform. The project is considered a leading-edge tool in the region, providing a competitive advantage in the petroleum sector. Strategic planning and adjustments have been in place since 2022, driving annual revenue growth of over THB 600 million from petroleum-related product operations.

External Innovation Application

Anti-Aging Innovation

PTT, in collaboration with Innobic (Asia), has entered into a memorandum of understanding and technology transfer agreements with Chulalongkorn University to develop the RED-GEMs molecule. Following successful pre-clinical animal trials were done. Next, Clinical trials for humans (Phase I) will be scheduled.

Investment in Nutrition Technologies for High Protein & Fertilizer: Dietary Supplements and Medical Foods



Innobic (Asia) Co., Ltd. (INBA) has developed and launched dietary supplements and medical foods through its subsidiary, Innobic Nutrition Co., Ltd. (INNT). The company focuses on building a strong brand image to enhance consumer awareness and drive rapid sales growth. Currently, the emphasis is on general wellness products, with future plans to expand into more specialized health solutions. These include Silver Age products and personalized products.

The product lineup currently includes the Probiotics Series, Pro Beta-Glucan+, Daily Nutrigen, Gummy Triphala & Cola Flavours and Stevia Syrup. In 2024, the company introduced five new products in the Vitamins & Minerals category: Vitamin B, Vitamin C, Calcium, Zinc+ Biotin and Lutein. These products are available through pharmacies (OTC), modern retail channels (Modern Trade) and online platforms.

Innovation Networks and Collaborations

Hydrogen Thailand Network

Hydrogen Thailand is a collaborative network of government agencies, private sector entities, and related partners, initiated by PTT in 2020. In 2024, the network was upgraded to become the Hydrogen Association of Thailand, co-founded by PTT, Toyota Motor (Thailand) Co., Ltd., and Bangkok Industrial Gas Co., Ltd. The association aims to promote the use of hydrogen energy to reduce greenhouse gas emissions, supporting Thailand's transition towards Carbon Neutrality and Net Zero Emissions. It serves as a central hub for the exchange of information, research and development related to hydrogen energy, as well as its diverse applications. The center seeks collaboration to drive development, disseminate knowledge, enhance understanding and promote the transfer of hydrogen technology from both domestic and international experts. It manages various aspects to support research and development, training and the promotion of hydrogen energy use across government and private sectors. Additionally, the center contributes to setting standards and building infrastructure to support the hydrogen industry and related technologies in Thailand, while also providing policy recommendations and implementation frameworks to relevant public and private organizations.

Stakeholders' Feedback

"PTT is committed to leveraging innovation and technology to drive the development of the country's economy, society, and environment. This approach creates new opportunities for trade and business, while serving as a critical tool to minimize environmental impacts. Key initiatives include Carbon Capture, Utilization, and Storage (CCUS), research on hydrogen as a fuel blend for power generation and industrial use, and investments in green energy. These efforts will be crucial in helping the country achieve its Carbon Neutrality in the future. Additionally, PTT is advancing innovations in biological sciences and biotechnology to enhance the quality of life for the public and create added value for the Thai economy.

The creation of innovative solutions requires diverse development tools, collaboration, and a strong commitment to fostering innovation across the organization."

Dr. Buranin Rattanasombat
Chief New Business
and Sustainability Officer
PTT Public Company Limited



Future Plans

PTT is dedicated to executing the strategies outlined in its innovation management master plan. In 2025, the company will focus on key initiatives, including the creation of an innovation roadmap that will guide PTT's innovation activities. This roadmap will align with the company's vision and new strategic direction, ensuring that it integrates with relevant business units to ensure thoroughness and effectiveness. The roadmap will be used as the foundation for operations starting in 2025. Furthermore, PTT is committed to participating in prestigious innovation awards, such as the National Innovation Award from the National Innovation Agency and the SET Awards for Best Innovative Company, to enhance its corporate image and elevate its innovation capabilities.

For more information, please visit PTT Website.



4. Management Discussion and Analysis (MD&A)

In reading Management Discussion and Analysis (MD&A), investors are advised to study the supporting documents, including the consolidated financial statements, revised financial information, and overall past or revised performance, together with notes to financial statements and this document.

4.1 Management Discussion and Analysis (MD&A) and Operating Results for the Year 2024

Overall Performance of PTT and Its Subsidiaries

Unit: THB million

| | 2023 | 2024 | % Inc. (Dec.) |
|---------------------------------|----------------|---------------|---------------|
| Sales Revenue | 3,144,884 | 3,090,453 | (1.7) |
| EBITDA | 426,895 | 396,234 | (7.2) |
| Net Profit | 112,024 | 90,072 | (19.6) |
| Earnings per share (Baht/share) | 3.92 | 3.15 | (19.6) |

In 2024, sales revenue of PTT and its subsidiaries were reported at THB 3,090,453 million, decreased from 2023 by THB 54,431 million or 1.7%. This decrease was mainly from sales revenue of International Trading business decreased from lower product selling price following reference price, despite higher sales volume mainly from higher volume of international trading of refined products and Liquefied Natural Gas (LNG). Gas business's sales revenue declined mainly from Natural Gas Supply and Trading (S&T) business, which resulting from the decrease in average selling price, according to pool gas price, together with lower average sales volume. While sales revenue of Gas Separation Plant (GSP) business increased from higher sales volume and average selling price. Moreover, Transmission Pipeline (TM) business's sales revenue increased following higher pipeline reserved volume of GSP and power plant customers. Oil and Retail business's sales revenue decreased from both lower average selling price and sales volume. However, sales revenue of Exploration and Production business increased, as a result of higher average sales volume despite lower average selling price.

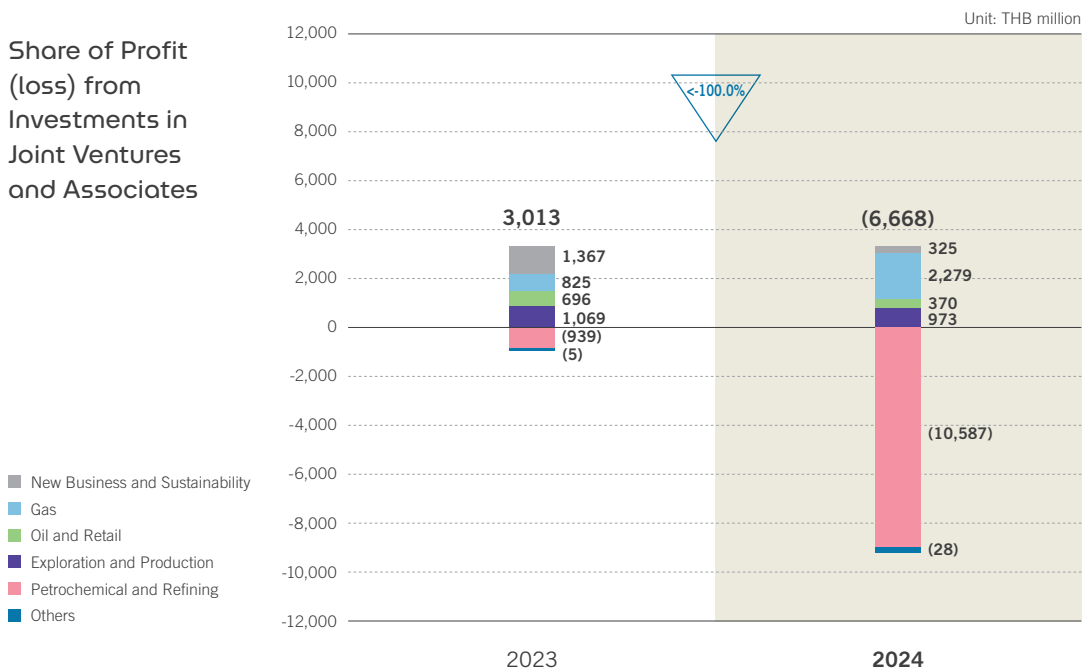
EBITDA in 2024 was THB 396,234 million, decreased from 2023 by THB 30,661 million or 7.2%. The decrease was mainly from Petrochemical and Refining business's performance. Refining business had lower performance from lower Market Gross Refining Margin (GRM) as well as higher stock loss adjusted to Net Realizable Value (NRV), which PTT and its subsidiaries' recognized loss adjusted to NRV in 2024 approximately THB 13,000 million, whereas in 2023, there was a loss of approximately THB 2,000 million. However, Petrochemical business' performance improved from higher product spreads and sales volume. Moreover, Gas business's performance decreased mainly from GSP business due to higher cost according to the implementation of Single Pool Gas policy, in spite of higher average selling price and sales volume. While S&T business's and Natural Gas for Vehicle (NGV) business's performance increased due to lower gas cost

following pool gas price. Moreover, TM business's performance increased following higher pipeline reserved volume from higher demand. Additionally, Oil and Retail business experienced a decline in performance from both lower average gross margin per liter and sales volume, mostly in diesel and gasoline. Nevertheless, Exploration and Production business's performance increased from higher sales revenue as aforementioned despite higher operating expenses which resulting from higher maintenance activities.

The depreciation and amortization expenses in 2024 were THB 185,918 million, increased by THB 12,853 million or 7.4% mainly from PTTEP from G1/61 Project following higher sales volume, as well as, Zawtika, and S1 Projects from additional completed assets.

Figure 1

Share of Profit
(loss) from
Investments in
Joint Ventures
and Associates



In 2024, the share of loss from investments in joint ventures and associates was THB 6,668 million, loss increased by THB 9,681 million or more than 100.0%. This was mainly from higher loss of joint ventures in Petrochemical and Refining business from PTT Asahi Chemical Co., Ltd. (PTTAC) impairment loss of THB 8,937 million.

In 2024, loss on derivatives was THB 6,933 million, decreased by THB 6,261 million or 47.5%, mainly due to increasing gain on commodity derivatives of TOP and increasing gain on financial derivatives of PTTEP.

In 2024, gain on foreign exchange was THB 15,235 million, decreased by THB 7,050 million or 31.6%, from lower realized gain on foreign exchange (Thai Baht appreciation in 2024 was THB 0.24 per USD, Thai Baht appreciation in 2023 was THB 0.34 per USD).

In 2024, finance costs was THB 46,821 million in 2024 increased by THB 1,438 million or 3.2% from 2023 mainly from PTTEP.

In 2024, there was loss on recognition of non-recurring items (PTT's portion) after tax, approximately THB 4,500 million, while in 2023, there were gain recognition approximately THB 300 million (Details as per non-recurring items table).

The Majority of Non-recurring Items after Tax (PTT's Portion)

Unit: THB million

| Business | Item | 2023 | 2024 |
|--|--|-----------|-----------|
| Gas Business | Gain on disposal of assets to PE LNG of PTTLNG | | ~ 4,300 |
| Exploration and Production Business | Write off asset from the end of concession of Bongkot Project | ~ (500) | |
| | Impairment loss on Mozambique Area One Project | ~ (2,800) | |
| | Write-off from the divestment of Mexico Block 29 (2.4) | | ~ (600) |
| | Write-off project AC/RL12 (Oliver) | ~ (1,200) | ~ (700) |
| | Gain on divestment of AC/RL7 (Cash-Maple) | ~ 1,700 | |
| | Gain on repurchase of debentures of PTTEP | ~ 100 | |
| Petrochemical and Refining Business | Impairment loss on asset of Vencorex (GC) | | ~ (3,800) |
| | The provision and other expenses for business restructuring of Vencorex and PTTAC (GC) | | ~ (2,500) |
| | Share of loss from PTTAC's Impairment (GC) | | ~ (4,300) |
| | Gain on repurchase of debentures of GC | ~ 900 | ~ 1,400 |
| | Gain on change in status of investment of GC | ~1,400 | |
| | Gain on disposal of subsidiary of GC | ~ 600 | |
| | Gain on repurchase of debentures of TOP | | ~ 500 |
| | Impairment loss on investment in IRPC's subsidiary | | ~ (200) |
| Oil and Retail Business | Loss on disposal of investment in Imsub Global Cuisine Co., Ltd. | | ~ (100) |
| | Loss on ceasing operation of Texas Chicken | | ~ (300) |
| | Impairment loss on investment in K-NEX (OR) | | ~ (300) |
| New Business and Sustainability | Gain on disposal of AMOLH | | ~ 4,500 |
| | Profit-sharing compensation of PTTGM | | ~ (2,200) |
| | Impairment loss on asset under PTTGM | ~ (100) | ~ (200) |
| | Impairment loss on investment in Thai Solar of GPSC | | ~ (100) |
| | Impairment loss on asset under GPSC | ~ (200) | |

In 2024, the corporate income taxes were THB 67,210 million, decreased by THB 14,103 million or 17.3% mainly from PTTEP's projects in Thailand and Malaysia, and from GC's, TOP's, and PTT's lower performance.

This was resulted in PTT and its subsidiaries' net profit in 2024 amounting to THB 90,072 million, which decreased by THB 21,952 million or 19.6% from the net profit of THB 112,024 million in 2023.

Financial Performance of PTT Group by Business

| Unit: THB Million | 2023 | 2024 | % Inc. (Dec.) |
|---|------------------|------------------|---------------|
| Sales revenue | 3,144,884 | 3,090,453 | (1.7) |
| Exploration & Production | 300,694 | 312,310 | 3.9 |
| Natural Gas | 655,759 | 579,590 | (11.6) |
| Oil & Retail | 771,415 | 727,033 | (5.8) |
| International Trading | 2,032,063 | 1,940,904 | (4.5) |
| Petrochemical & Refining | 1,343,550 | 1,352,324 | 0.7 |
| New Business & Sustainability | 113,640 | 114,202 | 0.5 |
| Others | 13,455 | 12,874 | (4.3) |
| EBITDA | 426,895 | 396,234 | (7.2) |
| Exploration & Production | 231,301 | 234,368 | 1.3 |
| Natural Gas | 66,024 | 62,844 | (4.8) |
| Oil & Retail | 21,403 | 18,240 | (14.8) |
| International Trading | | | |
| - Excluding effect of FX and derivatives | 4,325 | 3,095 | (28.4) |
| - Including effect of FX and derivatives | 9,544 | 5,852 | (38.7) |
| Petrochemical & Refining | 80,640 | 53,499 | (33.7) |
| New Business & Sustainability | 23,336 | 25,248 | 8.2 |
| Others | (362) | (949) | < (100.0) |
| Depreciation and amortization expenses | 173,065 | 185,918 | 7.4 |

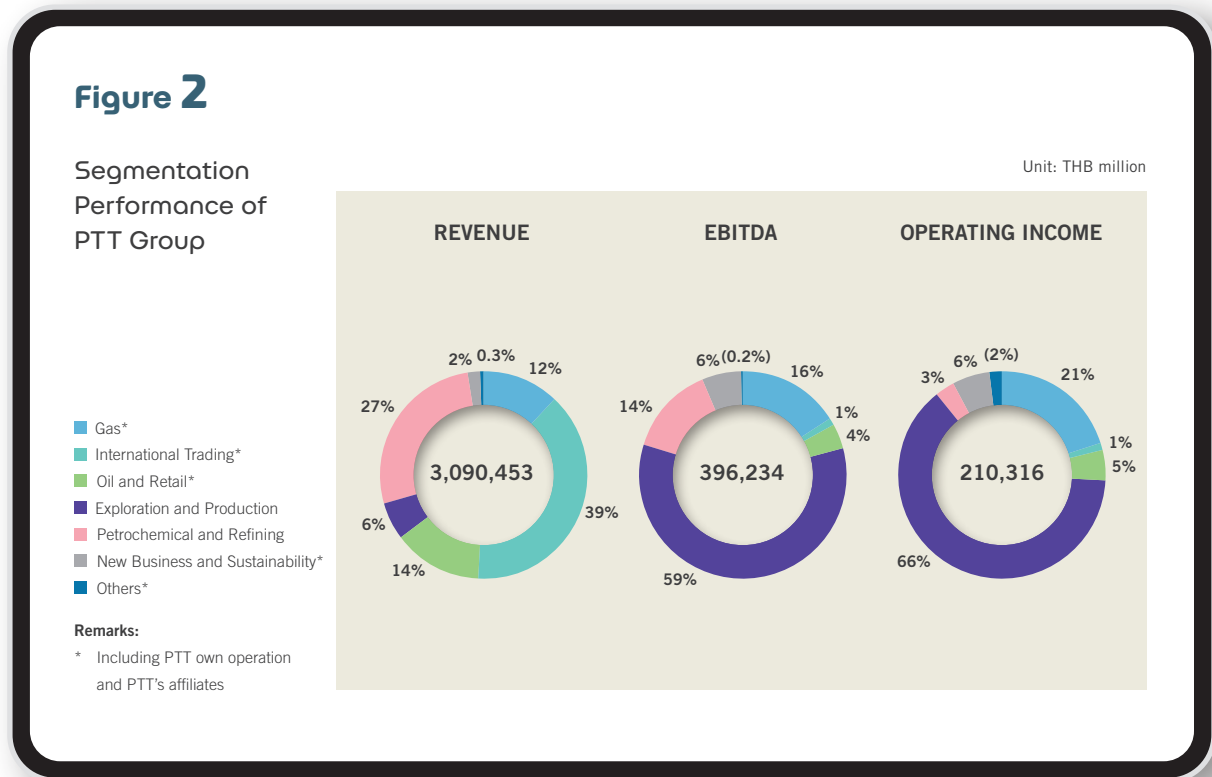
| Unit: THB Million | 2023 | 2024 | % Inc. (Dec.) |
|---|-----------------|----------------|---------------------|
| Operating income (loss) | 253,830 | 210,316 | (17.1) |
| Exploration & Production | 146,572 | 139,546 | (4.8) |
| Natural Gas | 45,880 | 43,189 | (5.9) |
| Oil & Retail | 14,882 | 10,998 | (26.1) |
| International Trading | | | |
| - Excluding effect of FX and derivatives | 3,043 | 1,695 | (44.3) |
| - Including effect of FX and derivatives | 8,262 | 4,452 | (46.1) |
| Petrochemical & Refining | 35,463 | 6,511 | (81.6) |
| New Business & Sustainability | 9,919 | 11,766 | 18.6 |
| Others | (2,157) | (3,278) | (52.0) |
| Share of net income (loss) from investments in joint ventures and associates | 3,013 | (6,668) | < (100.0) |
| Loss on impairment of assets | 4,942 | 9,487 | 92.0 |
| Gain (loss) on derivatives | (13,194) | (6,933) | 47.5 |
| Gain (loss) on foreign exchange | 22,285 | 15,235 | (31.6) |
| EBIT | 281,977 | 227,498 | (19.3) |
| Finance costs | 45,383 | 46,821 | 3.2 |
| Income taxes | 81,313 | 67,210 | (17.3) |
| Net income | 112,024 | 90,072 | (19.6) |
| Earnings per share (Baht/share) | 3.92 | 3.15 | (19.6) |

Remark:

There are adjustments in Sales revenue, EBITDA, Depreciation and Amortization and Operating income (loss) from the previous period due to the Company restructured the corporate governance within the Group of New Business and Sustainability Group as well as reclassification disclosed in the financial statements.

Segmentation Performance of PTT Group

The details of Revenue, EBITDA and Operating Income by segmentation of 2024 are as follows:



Upstream Petroleum and Gas Business Group

Petroleum Exploration and Production Business: PTT Exploration and Production Plc. (PTTEP)

| | 2023 | 2024 | % Inc. (Dec.) |
|--|---------|---------|---------------|
| Average selling price (USD/BOE ^{1/}) | 48.2 | 46.8 | (2.9) |
| Average sales volume (BOED ^{2/}) | 462,007 | 488,794 | 5.8 |

Remarks:

1/ BOE: Barrels of Oil Equivalent

2/ BOED: Barrels of Oil Equivalent per Day

In 2024, sales revenue of PTTEP was THB 312,310 million, increased by THB 11,616 million or 3.9% from 2023 as the overall average sales volume increased by 5.8% from 462,007 BOED in 2023 to 488,794 BOED in 2024, primarily from G1/61 Project ramped up the natural gas production to 800 MMSCFD in March 2024, together with the increase in participating interest in Yadana Project following the partner's withdrawal, effective in April 2024. Meanwhile, the overall average selling price decreased by 2.9% from USD 48.2 per BOE in 2023 to USD 46.8 per BOE in 2024, due to a decline in crude oil selling price following global market price, and lower gas price, primarily from G1/61 and G2/61 Projects.

EBITDA in 2024 was THB 234,368 million, increased by THB 3,067 million or 1.3% from 2023 mainly due to an increase in sales revenue as aforementioned. Although, operating expenses increased, primarily due to higher maintenance activities from G1/61, Arthit and Malaysia Projects. However, the operating income in 2024 was THB 139,546 million, decreased by THB 7,026 million or 4.8% from 2023 due to depreciation, depletion, and amortization increased primarily from G1/61 Project due to higher sales volume, along with Zawtika and S1 Projects that had additional completed assets.

The overall performance of Exploration and Production business increased despite the decrease in operating income as aforementioned. As of 2023, there was a loss recognition of non-recurring items after tax of approximately THB 4,100 million. While in 2024, there was a loss of approximately THB 2,000 million (Details as per non-recurring items table). Moreover, income taxes decreased mainly from projects in Thailand and Malaysia.

Gas Business Group

The details of all product sales volume from GSPs are as follows:

| Unit: Ton | 2023 | 2024 | % Inc. (Dec.) |
|----------------------|------------------|------------------|---------------|
| LPG | 3,288,262 | 3,440,783 | 4.6 |
| Ethane | 1,786,823 | 1,773,799 | (0.7) |
| Propane | 1,028,237 | 996,633 | (3.1) |
| NGL | 500,264 | 571,801 | 14.3 |
| Pentane | 50,965 | 45,056 | (11.6) |
| Total | 6,654,551 | 6,828,072 | 2.6 |
| Utilization Rate (%) | 75.8% | 83.6% | 7.8 |

The details of reference product prices of GSPs are as follows:

| Unit: USD per Ton | 2023 | 2024 | % Inc. (Dec.) |
|-----------------------|-------|-------|---------------|
| LPG ^{1/} | 572 | 609 | 6.5 |
| LDPE ^{2/} | 1,041 | 1,182 | 13.5 |
| LLDPE ^{2/} | 1,014 | 1,026 | 1.2 |
| HDPE ^{2/} | 1,044 | 1,014 | (2.9) |
| Propane ^{1/} | 575 | 610 | 6.1 |

Remarks:

1/ Global Gas Price (Contract Price Saudi Aramco) as a reference for selling price of petrochemical customers, LPG calculated from the proportion of Propane and Butane by 50 : 50

2/ Southeast Asia – Spot Price

In 2024, Gas business reported sales revenue of THB 579,509 million, a decreased of THB 76,169 million or 11.6%. This decline was primarily driven by a reduction in sales revenue from S&T business, as the average selling price decreased in line with the pool gas price which was effective since January 1, 2024 and the adjustment of natural gas supply margin rate in accordance with the resolution of ERC which effective since March 1, 2024. Furthermore, the average selling price to industrial customers declined in accordance with the reference price. Additionally, the average gas sales volume (calculated at heating value of 1,000 BTU per cubic feet) decreased by 43 MMSCFD from 4,448 MMSCFD in 2023 to 4,405 MMSCFD in 2024 or 1.0%. The decline was mainly attributed to the LNG import by new shippers and higher electricity imported from hydropower plants by power plant customers compared to previous year.

While GSP business experienced an increase in sales revenue due to a rise in average selling price following most petrochemical reference prices. Moreover, the overall sales volume of GSP products (including NGL derived from Dew Point Control units) increased from 6,654,551 tons in 2023 to 6,828,072 tons in 2024 or 2.6%. This increase was mainly driven by higher supply of gulf gas, from G1/61 Project, along with higher demand for LPG. Furthermore, TM business has generated an increase in revenue due to higher pipeline reserved volume from GSP and power plant customers.

In 2024, EBITDA of Gas business was reported at THB 62,844 million, decreased by THB 3,180 million or 4.8%. The operating profit was reported at THB 43,189 million, decreased by THB 2,691 million or 5.9%. This reduction was mainly due to GSP business experiencing a decline in gross profit as a result of higher costs from the implementation of the Single Pool Gas policy for gas price calculation in this year. Although the average selling price and sales volume increased as aforementioned.

Meanwhile, NGV and S&T businesses recorded an increase in gross profit from lower gas costs following a decrease in pool gas price. Moreover, TM business has generated higher gross profit due to an increase in pipeline reserved volume, driven by customer demand as aforementioned. Furthermore, the performance of subsidiaries in gas business group increased mainly from PTT Natural Gas Distribution Co., Ltd. (PTTNGD) due to lower gas cost following pool gas price and higher average selling price following reference price.

Downstream Petroleum Business Group

Oil and Retail Business Group

| | 2023 | 2024 | % Inc. (Dec.) |
|---|---------------|---------------|---------------|
| Average Sales Volume* (Unit: Million liters) | 27,642 | 26,415 | (4.4) |
| Average selling price (Unit: USD per barrel) | | | |
| Gasoline | 98.8 | 93.0 | (5.9) |
| Jet | 104.6 | 95.2 | (9.0) |
| Diesel | 106.4 | 96.3 | (9.5) |

Remark:

* The average sales volume of domestic oil segment only

In 2024, sales revenue of Oil and Retail business group was THB 727,033 million, decreasing by THB 44,382 million or 5.8% from 2023 mostly from lower average selling price following global oil price. In addition, the overall sales volume decreased by 1,227 million liters or 4.4% from 27,642 million liters or equivalent to 476,347 barrels per day in 2023 to 26,415 million liters or equivalent to 453,958 barrels per day in 2024, mainly from diesel and gasoline. However, Non-Oil business' revenue increased from an increase in sales volume following the branch expansion.

EBITDA in 2024 was THB 18,240 million, decreased from 2023 by THB 3,163 million or 14.8% and the operating income in 2024 was THB 10,998 million, decreased by THB 3,884 million or 26.1% from 2023, from Oil business's lower average gross margin per liter and average sales volume, mostly from diesel and gasoline. However, Non-Oil business's EBITDA increased following increasing gross margin.

The overall performance of Oil and Retail business group decreased from lower operating income as aforementioned. Moreover, there was loss on recognition of non-recurring items after tax of approximately THB 900 million in 2024 (Details as per non-recurring items table), while there was no such transaction in 2023.

International Trading Business Group

| Unit: Million liters | 2023 | 2024 | % Inc. (Dec.) |
|----------------------|---------|---------|---------------|
| Average sales volume | 105,091 | 108,061 | 2.8 |

Sales revenue of International Trading business in 2024 was THB 1,940,904 million, decreased by THB 91,159 million or 4.5% from 2023. This decline was driven by lower product selling prices in line with reference oil prices, despite sales volume has increased by 2,970 million liters or 2.8%, from 105,091 million liters or equivalent to 1,811,003 barrels per day in 2023 to 108,061 million liters or equivalent to 1,857,097 barrels per day in 2024. This growth was driven by an increase in the volume of international trading (out-out trading) of refined products and LNG, supported by the continuous expansion of the customer base in the Asian region. Meanwhile, LNG and crude oil imports declined.

EBITDA, adjusted by the impact from foreign exchange rate and derivatives, in 2024 was THB 5,852 million, decreased by THB 3,692 million or 38.7%. Additionally, the operating profit, including the adjustments in 2024 was THB 4,452 million, decreased by THB 3,810 million or 46.1%. This decline was mainly due to a lower margin per unit, driven by a reduction in product spreads, especially LPG and petrochemical products, as well as a decrease in sales volume and lower hedging gains according to market conditions.

Petrochemical and Refining Business Group

| Unit: USD per barrel | 2023 | 2024 | % Inc. (Dec.) |
|---------------------------------|--------|--------|---------------|
| Market GRM | 7.5 | 4.5 | (40.0) |
| Inventory Gain (Loss) excl. NRV | (0.6) | (1.0) | (66.7) |
| Hedging Gain (Loss) | (0.4) | 0.3 | > 100.0 |
| Accounting GRM | 6.5 | 3.8 | (41.5) |
| Refinery Utilization Rate* (%) | 102.4% | 102.0% | (0.4) |

Remark:

* From 3 Refineries: TOP, GC, and IRPC

| Unit: USD per Ton | 2023 | 2024 | % Inc. (Dec.) |
|----------------------|-------|-------|---------------|
| Olefins | | | |
| Naphtha (MOPJ) | 649 | 674 | 3.9 |
| HDPE | 1,044 | 1,014 | (2.9) |
| LDPE | 1,041 | 1,182 | 13.5 |
| LLDPE | 1,014 | 1,026 | 1.2 |
| PP | 1,007 | 1,033 | 2.6 |
| Aromatics | | | |
| Condensate | 679 | 660 | (2.8) |
| PX (TW) | 1,038 | 962 | (7.3) |
| PX (TW) – Condensate | 359 | 302 | (15.9) |
| BZ | 897 | 984 | 9.7 |
| BZ – Condensate | 218 | 324 | 48.6 |

In 2024, sales revenue of Petrochemical and Refining business was THB 1,352,324 million, increased by THB 8,774 million or 0.7% primarily due to Petrochemical business. Sales revenue of Olefins business increased due to the increase in average selling price of most PE and PP as well as sales volume increased as result of higher utilization rate. Conversely, sales revenue of Aromatics business decreased due to lower average selling price of PX while sales volume increased from higher utilization rates to align with market conditions. In addition, there was a maintenance shutdown of GC's Aromatic plants in 2023.

However, Refining business's sales revenue decreased from lower average selling price of refined product and sales volume. PTT Group refineries' utilization rates decreased from 102.4% in 2023 to 102.0% in 2024 mainly due to TOP's unplanned shutdown of Crude Distillation Unit 3 (CDU-3) and planned maintenance shutdown of CDU-1 together with preventive maintenance shutdown of GC's refinery.

EBITDA of Petrochemical and Refining business in 2024 was THB 53,499 million, decreased by THB 27,141 million or 33.7% from THB 80,640 million in 2023. There was operating income of THB 6,511 million in 2024, decreased by THB 28,952 million or 81.6% from THB 35,463 million in 2023, details are as follows:

- **Refinery performance** decreased due to Market GRM decreased from USD 7.5 per barrel in 2023 to USD 4.5 per barrel in 2024 following the decrease in product spreads of diesel, jet fuel and gasoline over crude oil, as well as higher stock loss (there was a stock loss of USD 1.0 per barrel in 2024 versus loss of USD 0.6 per barrel in 2023) despite the decrease in Crude Premium.
- **Petrochemical performance** increased from both Olefins and Aromatics business due to higher product spreads of Ethylene and BZ.

The overall performance of Petrochemical and Refining business in 2024 decreased compared with 2023 due to the decrease in operating income as aforementioned. In addition, there was a loss on recognition of non-recurring items after tax of approximately THB 18,300 million in 2024, while there was a gain of THB 6,100 million in 2023 (Details as per non-recurring items table). However, gain on derivatives increased.

New Business and Sustainability Group

| | 2023 | 2024 | % Inc. (Dec.) |
|------------------------------------|--------|--------|---------------|
| Power sales volume (GWh) | 15,089 | 19,223 | 27.4 |
| Steam sales volume (Thousand tons) | 13,162 | 13,626 | 3.5 |

In 2024, sales revenue of New Business and Sustainability was THB 114,202 million, increased by THB 562 million or 0.5% mainly from GPSC's Independent Power Producer (IPP) power plants of which Energy Payment (EP) revenue increased from higher dispatch volume to EGAT, despite the decrease in total revenue of Small Power Producer (SPP) power plants from lower average electricity and steam selling prices following the decreases in fuel adjustment charge (Ft) and natural gas prices.

EBITDA in 2024 was THB 25,248 million, increased by THB 1,912 million or 8.2% and the operating income in 2024 was THB 11,766 million, increased by THB 1,847 million or 18.6% mainly from higher gross profit of GPSC's SPP power plants due to increases in electricity and steam sales volume, together with Ft that has better reflected the energy cost.

The overall performance of New Business and Sustainability in 2024 increased compared with 2023, mainly from the recognition of gain on PTTGM's non-recurring items after tax approximately THB 3,400 million in 2024, while there was loss of THB 500 million in 2023 (Details as per non-recurring items table). Also, the operating income increased as aforementioned.

Assets

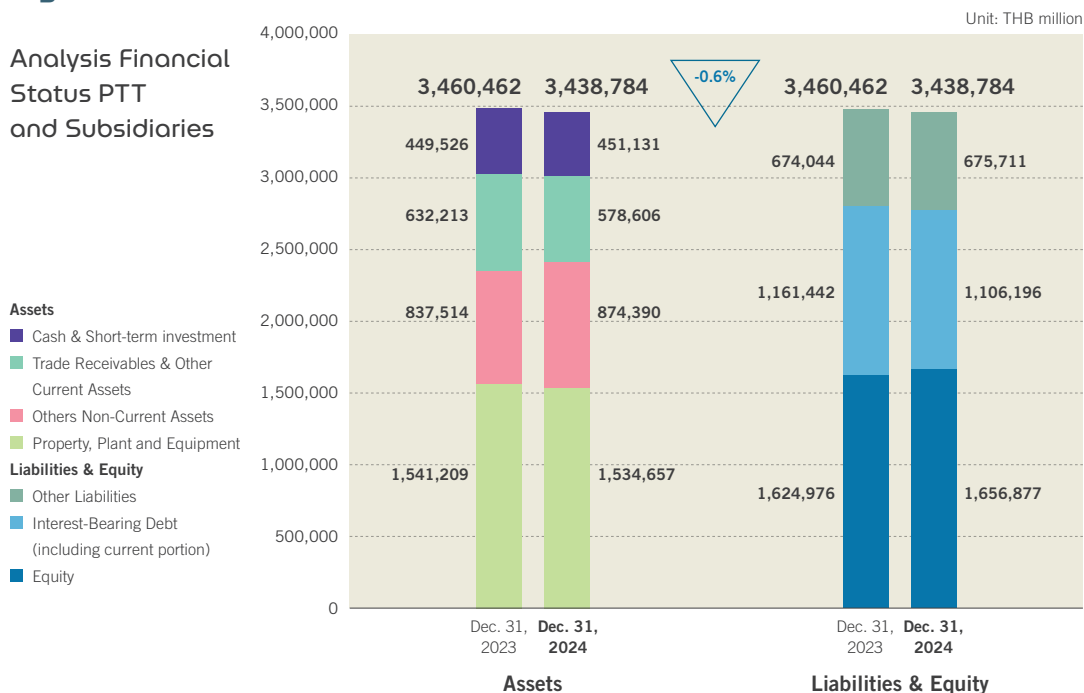
As of December 31, 2024, total assets of PTT Group were THB 3,438,784 million, decreased by THB 21,678 million or 0.6% compared with December 31, 2023 from the followings;

- Cash and short-term investments increased by THB 1,605 million or 0.4% primarily from short-term investment in financial assets of PTT Group.
- Trade receivables and other current assets decreased by THB 53,607 million or 8.5% mainly from the followings;
 - Inventories decreased by THB 23,666 million due to lower sales volume and selling prices, mainly from TOP, GPSC, and GC.
 - Other current receivables decreased by THB 14,657 million mainly from PTTEP, PTT, and GC.
 - Trade receivables decreased by THB 8,422 million due to decrease in sales volume and selling prices mainly from PTTT and PTTT LDN.
 - Assets held for sale decreased by THB 5,931 million mainly from the divestment of AMOLH of PTTGM.
- Other non-current assets increased by THB 36,876 million or 4.4% mainly from;
 - Long-term lending increased by THB 36,724 million mainly from an increase in long-term loans from Renewable Energy Seagreen Holdco Limited (RESH) of PTTEP and PE LNG of PTT TCC.
 - Long-term investments increased by THB 5,514 million mainly from other long-term investments of PTTGM and GPSC as its fair value increased.
 - Deferred tax assets increased by THB 4,346 million primarily from deferred tax on prepayments for decommissioning costs of PTTEP's G1/61 Project.
 - Goodwill decreased by THB 4,823 million mainly from currency translation differences of GC.
- Property, Plant, and Equipment (PPE) decreased by THB 6,552 million or 0.4% mainly from the disposal of LMPT2 assets of PTTLNG to PE LNG whose investment status had changed from subsidiary to joint venture and impairment loss on assets of Vencorex of GC offset with additional investments in G1/61, G2/61 and Ghasha Projects of PTTEP.

The Analysis of PTT Group Consolidated Financial Position As of December 31, 2024, compared with December 31, 2023

Figure 3

Analysis Financial Status PTT and Subsidiaries



Liabilities

As of December 31, 2024, PTT Group had total liabilities of THB 1,781,907 million, decreased by THB 53,579 million or 2.9% from December 31, 2023, mainly from the followings;

- Interest-bearing debt decreased by THB 55,246 million or 4.8% mainly from decreases in long-term borrowings by THB 68,702 million mainly from repayments of borrowings and debentures of GC, PTT, and TOP including currency translation difference. Meanwhile, long-term borrowings increased from issuances of debentures and additional borrowings taken of GPSC, GC, IRPC, and TOP. Short-term borrowings also increased by THB 7,910 million mainly from PTTT, TOP and IRPC. Lease liabilities increased by THB 5,546 million primarily from GC, and PTTEP.
- Other liabilities increased by THB 1,667 million or 0.2% mainly from;
 - Long-term provision for decommissioning costs increased by THB 14,363 million mainly from PTTEP.
 - Liabilities classified as held for sale decreased by THB 2,865 million from the divestment of AMOLH of PTTGM.
 - Trade payables decreased by THB 3,192 million due to lower purchase volume and prices.
 - Deferred tax liabilities decreased by THB 6,276 million mainly from transferring to deferred tax assets of PTTEP's G1/61 Project.

Equity

As of December 31, 2024, PTT Group had total shareholders' equity of THB 1,656,877 million increased by THB 31,901 million or 2.0% from December 31, 2023 primarily from net income for the year 2024 amounting to THB 90,072 million, offset with dividend payment from the operating results of the second half of 2023 amounting to 1.20 baht per share and dividend payment from the operating results of the first half of 2024 amounting to 0.80 baht per share which total amount is approximately THB 57,125 million. While other components of shareholders' equity decreased by 5,367 million mainly from exchange differences on translation of PTTEP and GC. Non-controlling interests increased by THB 3,447 million mainly from performances of subsidiaries, offset with dividend payments during the period.

Liquidity

For the year-ended December 31, 2024, PTT Group had net decrease in cash and cash equivalents amounting to THB 11,995 million. There was cash and cash equivalents at the beginning of the period of THB 417,134 million. As a result, cash and cash equivalents at the end of the period was THB 405,139 million. Details of cash flow by activities are as follows:

Unit: THB million

| | Consolidated Financial Statement |
|---|--|
| Net cash provided by operating activities | 373,240 |
| Net cash used in investing activities | (188,764) |
| Net cash used in financing activities | (186,410) |
| Effects of exchange rates on cash and cash equivalents | (636) |
| Exchange differences on translation | (9,425) |
| Net decrease in cash and cash equivalents during the period | (11,995) |
| Cash and cash equivalents at the beginning of the period | 417,134 |
| Cash and cash equivalents at the end of the period | 405,139 |

Net cash provided by operating activities of THB 373,240 million was derived from THB 180,678 million of profit before income taxes, adjusted to net cash provided by operating activities of THB 223,865 million. The increase in cash flow from operating activities resulted mainly from THB 185,918 million of depreciation and amortization expenses, THB 46,821 million of finance costs, THB 8,470 million of loss on impairment of assets, THB 7,406 million of loss on derivatives and THB 6,668 million of share of loss from investments in joint ventures and associates. The decrease in cash flow from operating activities mainly resulted from THB 18,172 million of interest income, THB 5,723 million of gain on disposal of investments, THB 4,661 million of gain on disposal of assets and THB 4,487 million of unrealized gain on fair value of commodity contracts and the change in net operating assets resulted in the increase in cash flow of THB 42,491 million while there were income taxes paid of THB 73,794 million.

Net cash used in investing activities was THB 188,764 million mainly resulted from the followings;

- The cash outflow of investments in property, plant and equipment, investment property, intangible assets, and exploration and evaluation assets amounting to THB 174,053 million mainly from the investment in exploration and production assets in G1/61, G2/61, S1, Zawtika, Seagreen Offshore Wind Farm and Ghasha Projects of PTTEP, as well as the investment in GSP#7, Bang Pakong-South Bangkok power plant transmission pipeline, the 5th transmission pipeline and ERP system projects of PTT, investment projects of GC, and CFP of TOP.
- The cash outflow from short-term and long-term lending amounting to 20,076 million mainly from PTTEP.
- The increase in short-term investments in financial assets amounting to THB 18,194 million mainly from bank deposit and short-term investment in debt instruments of PTT, TOP and PTTEP.
- Interests and dividends received amounting to THB 21,807 million mainly from PTTEP, GC, and PTT.

Net cash used in financing activities was THB 186,410 million mainly from the followings;

- Dividend payment amounting to THB 82,234 million mainly from PTT, PTTEP, and TOP.
- The net cash outflow of short-term and long-term borrowings amounting to THB 57,494 million mainly from PTT, GC, and PTTEP.
- Finance costs paid amounting to THB 42,851 million mainly from GC, PTT, and TOP.
- Payment for treasury share of subsidiaries amounting to THB 3,869 million mainly from treasury shares of Innobio Hong Kong Holdingco Ltd. of PTTGM.

4.2 Factors That May Impact Future Operations

4.2.1 Factors on Environmental and Social Trends and Impact

PTT identifies impacts, including risks and opportunities arising from the organization's activities, operations, products, and services across the value chain, which may have both positive and negative effects on stakeholders in three dimensions: environmental, social, and governance. This includes not only human rights issues, but also internal and external factors such as trends, directions, and changes in relevant standards and practices. Every year, PTT conducts a comprehensive Materiality Assessment based on the Double Materiality principle to strategically prioritize Material Topics for systematic integrated management within the organization. Previously, PTT has integrated key sustainability issues into its strategic planning and risk assessment procedures. In 2024, one of the sustainability Material Topics is climate change, which has involved risk and opportunity analysis as well as impact assessment in various areas, including finance. This was done through the Climate Scenario Analysis process according to the Recommendation of the Task Force on Climate-related Financial Disclosure (TCFD). The risk analysis during the transition to a low-carbon society period found that, in the medium term by 2030, PTT may be affected by carbon tax imposition and the government's Emission Trading System (ETS). At the same time, there may be positive factors from opportunities to invest in alternative energy or renewable energy businesses and low-carbon businesses. This information has been incorporated into the review of the organization's vision and strategy, clearly reflected in the latest strategic direction, which focuses on enhancing clarity in sustainability across all dimensions by integrating sustainability into every step of business operations. This is combined with managing the investment portfolio

and business performance, aligning with the reduction of greenhouse gas emissions to achieve the Group's Net Zero target. In this regard, PTT has established PTT Sustainability Framework and C³ approach (Climate Resilience Business, Carbon-Conscious Asset, Coalition, Co-Creation, and Collective Efforts for All) as a framework for developing business plans for business groups and PTT Group to ensure direction alignment. This framework aims to reduce and mitigate the impacts of risks while also increasing business opportunities arising from climate change tangibly. For more details on the assessment of risks and opportunities from climate change, please visit PTT Website in the Sustainability section, topic Climate Change Management.

As for other Sustainability Material Topics such as biodiversity management, water management, pollution management, occupational health and safety, labor practices, innovation and technology, governance, and ethics, PTT has conducted a comprehensive analysis of risks and opportunities and assessed potential impacts in the short, medium, and long term. This information is used to review strategies, business directions, methods, and management mechanisms systematically. For more details, please refer to the subsection Driving Business towards Sustainability and PTT Website in the Sustainability section.

4.2.2 Financial Support to Affiliated Companies

As of December 31, 2024, PTT provided the following financial support to affiliated companies.

Unit: THB million

| Company | Currency | Amount | Outstanding Balance | | Available Balance |
|---|----------|--------|---------------------|--------|-------------------|
| | | | Shareholder Loan | Others | |
| PTT Treasury Center Co., Ltd. (PTT TCC) | THB | 91,964 | 36,455 | - | 53,309 |

Remark:

According to the Shareholder Loan Agreements between PTT and PTT TCC dated November 23, 2021, October 18, 2022, April 29, 2024, May 21, 2024, and July 18, 2024, the total amount is THB 91,964 million to support the investment of PTT Group.

PTT will consider providing financial support in the form of loan, capital, and/or trade credit as necessary with conditions comparable to the market, and for long-term benefits of PTT and PTT Group. Such a policy and practice are believed to strengthen PTT Group.

Inter-Company Borrowing and Lending (ICBL)

Unit: THB million

| Company | Credit lines PTT can lend to affiliated companies | Credit lines PTT can borrow from affiliated companies | Supported | |
|-------------------------------------|--|---|------------------------------------|----------------------------------|
| | | | Outstanding balance from PTT | Outstanding balance to PTT |
| PTT Exploration and Production Plc. | 5,000 | 5,000 | - | - |
| PTT Global Chemical Plc. | 10,000 | 2,000 | - | - |
| Thai Oil Plc. | 2,100 | 2,100 | - | - |
| IRPC Plc. | 10,000 | 200 | - | - |
| PTT Oil and Retail Business Plc. | 2,500 | 1,500 | - | - |
| Global Power Synergy Plc. | 1,500 | 500 | - | - |
| Total | 31,100 | 11,300 | - | - |

As for affiliated companies in which PTT has less than 100% stakeholding, PTT has managed short-term liquidity in the form of Inter-Company Borrowing and Lending (ICBL) in THB and/or USD currency under Uncommitted & Unsecured Short-Term Loan.

PTT and 6 affiliates, namely PTT Exploration and Production Plc., PTT Global Chemical Plc., Thai Oil Plc., IRPC Plc., PTT Oil and Retail Business Plc., and Global Power Synergy Plc., extended ICBL contracts after the contracts expired on December 19, 2024 for another period of 1 year starting from December 20, 2024 to December 19, 2025.

4.2.3 Policy and Term of Trade Credit (Credit Term)

PTT's Credit management policy is stipulated with credit criteria and procedures of each business unit that are competitive and comparable to competitors with compatible collection and payment periods and no impact on financial liquidity. Cost and financial risks from foreign exchange are also taken into account.

Financial ratios related to the trade credit period during the past 3 years are as follows:

Unit: Day

| Financial Ratio | 2022 | 2023 | 2024 | 3-year Average |
|-----------------|-------|-------|-------|----------------|
| AR days | 22.79 | 28.14 | 30.56 | 27.16 |
| AP days | 27.90 | 31.25 | 32.03 | 30.39 |

4.2.4 Future Investment Plans

The 5-year (Year 2025 - 2029) investment plan of PTT and its wholly owned subsidiaries in an aggregate amount of THB 54,463 million, details are as follows:

Unit: THB million

| Business | 2025 | 2026 | 2027 | 2028 | 2029 | Total | % |
|---|---------------|---------------|--------------|--------------|--------------|---------------|------------|
| Gas | 6,771 | 2,069 | 921 | 423 | 355 | 10,539 | 19 |
| Transmission | 8,730 | 3,827 | 1,841 | 1,272 | 1,112 | 16,782 | 31 |
| International Trading and Downstream | 1,659 | 2,051 | 1,359 | 690 | 1,920 | 7,679 | 14 |
| New Business and Sustainability and Head Office | 3,355 | 2,322 | 740 | 232 | 164 | 6,813 | 13 |
| Investment in wholly-owned Subsidiaries | 5,112 | 2,367 | 2,463 | 1,420 | 1,288 | 12,650 | 23 |
| Total | 25,627 | 12,636 | 7,324 | 4,037 | 4,839 | 54,463 | 100 |

PTT has invested in the core business to ensure national energy security while driving sustainable growth, in alignment with PTT's vision "Together for Sustainable Thailand, Sustainable World" which includes an investment in Gas, Transmission Pipeline, International Trading and Downstream business that are accounted for 64% of PTT's total five-year investment plan with the key projects comprised of Bang Pakong - South Bangkok Power Plant Transmission Pipeline project, Gas Separation Plant (GSP) Unit 7, and also the investment to explore opportunities for expanding international trade activities to enhance competitiveness. Furthermore, PTT has invested through its wholly owned subsidiaries such as an investment in International Trading and Downstream business including Laem Chabang Port Phase 3 and Map Ta Phut Industrial Port Development Phase 3, etc.

Additionally, PTT continues to explore and seek opportunities for future investment to strengthen and enhance competitiveness in accordance with PTT Group's vision and strategies.

4.2.5 PTT's Future Major Projects

Transmission Pipeline

- **The 5th Transmission Pipeline (Rayong - Sai Noi, Nonthaburi)**
 - Total Project Progress as of December 2024: 99.11%
- **Natural Gas Pipeline System Project (Bang Pakong - South Bangkok Power Plant)**
 - Total Project Progress as of December 2024: 65.46%

Gas Separation Plant Unit 7 (GSP#7)

PTT is constructing the Gas Separation Plant Unit 7 (GSP#7) in Map Ta Phut Industrial Estate, Rayong Province to replace Gas Separation Plant Unit 1 (GSP#1) and to increase the efficiency of GSP's production process. The GSP#7 is designed to have a maximum capacity of 460 MMSCFD. Total project progress as of December 2024 is 93.12%.

LNG Receiving Facilities for LNG Procurement/ Import

Currently, PTT has a total of 5 long-term LNG purchase agreements, with a total volume of 6.2 MTA, namely 2 MTA from Qatar Liquefied Gas Co., Ltd., 1 MTA from Shell Eastern Trading (Pte) Ltd., 1 MTA from BP Singapore Pte. Ltd.; 1.2 MTA from Petronas LNG Ltd., and another 1 MTA from PTTGL, which will start delivering in 2026.

- **Other LNG Receiving Terminal Project (LNG Receiving Terminal 3):**

- LNG Receiving Terminal 3 Project: Gulf MTP LNG Terminal Co., Ltd. (GMTP) (a joint venture company between PTT Tank Terminal Co., Ltd. (PTT TANK) which holds a 30% stake and Gulf Energy Development Public Co., Ltd. (GED) which holds a 70% stake) is the operator of the sea reclamation project for the Map Ta Phut Industrial Port Development Phase 3 (Part 1). The project is divided into (1) the design and construction of infrastructure is approximately THB 12,900 billion, and (2) the design, construction, and operation of the LNG receiving and regasification terminal (Superstructure) on the approximately 200-rai reclaimed area to support LNG transport volume of no less than 5 MTA (for the first gas terminal) and an extension up to 10.8 MTA, with THB 28,000 million investment, bringing the total investment to THB 40,900 million. The project is expected to be commercialized operation around 2028. Currently, the project is in the sea reclamation phase for infrastructure construction. Project progress as of December 31, 2024, is at 99.02%.

Summary Planned Shutdown for Gas Separation Plants in 2024

| Plant | 1Q2024 | 2Q2024 | 3Q2024 | 4Q2024 |
|-------|--|--|---|--------|
| GSP#1 | | | SD (Aug. 21 - 30: 10 days) | |
| GSP#5 | TD 50% (Mar. 22 - 31: 10 days) | TD 50% (Apr. 1 - 30/ May 1 - 31/ Jun. 1 - 30: 91 days) | TD 50% (Aug. 6 - 15: 10 days) | |
| GSP#6 | | TD 50% (Jun. 29 - 30: 2 days) | TD 50% (Jul. 1 - Aug. 3: 34 days) | |

Summary Planned Shutdown for Gas Separation Plants in 2025

| Plant | 1Q2025 | 2Q2025 | 3Q2025 | 4Q2025 |
|-------|---|--|--|---------------------------------------|
| GSP#1 | | SD (1 - 20 Jun.: 20 days) | | |
| GSP#3 | | SD (20 Apr. - 5 May: 16 days) | | |
| GSP#5 | TD 9% (20 Jan. - 1 Feb.: 13 days) | | SD (1 - 22 Sep.: 22 days) TD 50% (23 - 30 Sep.: 8 days) | TD 50% (1 - 5 Oct.: 5 days) |

Remarks:

*** TD: Turndown*

*** SD: Shutdown*

Container Terminal

The Cabinet meeting on November 9, 2021 approved the private entity selection, negotiation results, and the draft of the Public Private Partnership (PPP) contract with the Port Authority of Thailand (PAT) for a period of 35 years for the development project of Laem Chabang Port, Phase 3 in the part of Terminal F as proposed by the Eastern Economic Corridor Office (EEC) by allowing GPC International Terminal Co., Ltd. (GPC), a joint venture of PTT Tank Terminal Co., Ltd. (PTT TANK), Gulf Energy Development (GED), and CHEC OVERSEA INFRASTRUCTURE HOLDING PTE. LTD. (CHEC OVERSEA) with 30%, 40% and 30% shareholding, respectively, to be the operator. The joint venture's purpose is to operate the port business, mooring, docking, loading, and unloading services for marine vessels, including a warehouse for container transportation of at least 4,000,000 TEUs per year (TEU is equivalent to a 20-foot container). The joint investment value in the development of the port structure amounts to THB 30,871 million. Construction of the F1 Terminal is expected to commence in 2025 and commercial operation in 2027. Construction of the F2 Terminal is expected to begin in 2029 and commercial operation in 2031.

4.3 Important Financial Information

Presented financial position and performance consist of financial performance for the year ended December 31, 2024 audited by certified public accountant, EY Office Limited, compared with financial position and performance from financial statements for the year ended December 31, 2023 and December 31, 2022.

4.3.1 Statement of Financial Position

Unit: THB million

| Statement of Financial Position | 2022 (Audited) | 2023 (Audited) | 2024 (Audited) |
|--|-------------------|-------------------|-------------------|
| <u>Assets</u> | | | |
| Current assets | | | |
| Cash and cash equivalents | 340,054 | 417,134 | 405,139 |
| Short-term investments in financial assets | 12,600 | 32,392 | 45,992 |
| Trade receivables | 219,054 | 259,813 | 251,391 |
| Other current receivables | 142,266 | 77,425 | 62,769 |
| Short-term lending | 2,174 | 2,216 | 2,207 |
| Inventories | 222,348 | 210,999 | 187,333 |
| Supplies | 49,507 | 52,500 | 54,206 |
| Current derivative assets | 14,764 | 8,789 | 8,952 |
| Other current financial assets | 1,924 | 878 | 728 |
| Other current assets | 13,592 | 12,556 | 9,914 |
| Assets held for sale | 22,580 | 7,037 | 1,106 |
| Total current assets | 1,040,863 | 1,081,739 | 1,029,737 |

Unit: THB million

| Statement of Financial Position (continued) | 2022 (Audited) | 2023 (Audited) | 2024 (Audited) |
|---|-------------------|-------------------|-------------------|
| Non-current assets | | | |
| Other long-term investments in financial assets | 54,093 | 45,731 | 52,293 |
| Investments in joint ventures | 60,357 | 62,258 | 62,638 |
| Investments in associates | 104,658 | 110,065 | 108,638 |
| Long-term lending | 8,046 | 6,943 | 43,666 |
| Investment properties | 10,736 | 11,234 | 11,618 |
| Property, plant and equipment | 1,499,330 | 1,541,209 | 1,534,657 |
| Right-of-use assets | 124,053 | 116,099 | 116,478 |
| Goodwill | 188,964 | 183,731 | 178,907 |
| Other intangible assets other than goodwill | 137,051 | 130,312 | 124,538 |
| Exploration and evaluation assets | 106,161 | 94,331 | 90,384 |
| Deferred tax assets | 50,760 | 42,478 | 46,823 |
| Non-current derivative assets | 1,633 | 813 | 1,768 |
| Other non-current financial assets | 11,424 | 15,632 | 17,156 |
| Other non-current assets | 17,503 | 17,887 | 19,483 |
| Total non-current assets | 2,374,769 | 2,378,723 | 2,409,047 |
| Total assets | 3,415,632 | 3,460,462 | 3,438,784 |

Unit: THB million

| Statement of Financial Position (continued) | 2022 (Audited) | 2023 (Audited) | 2024 (Audited) |
|--|-------------------|-------------------|-------------------|
| Liabilities and shareholders' equity | | | |
| Current liabilities | | | |
| Bank overdrafts and short-term loans from financial institutions | 90,757 | 96,511 | 102,774 |
| Trade payables | 230,366 | 243,385 | 240,193 |
| Other current payables | 88,322 | 80,097 | 67,466 |
| Current portion of long-term borrowings | 73,237 | 97,399 | 77,281 |
| Current portion of lease liabilities | 16,191 | 16,077 | 20,601 |
| Short-term borrowings | 784 | 6,500 | 8,147 |
| Income tax payable | 30,846 | 26,264 | 27,172 |
| Short-term provision for decommissioning costs | 10,889 | 2,107 | 3,458 |
| Current derivative liabilities | 23,013 | 5,732 | 6,435 |
| Other current financial liabilities | 6,070 | 524 | 1,721 |
| Other current liabilities | 16,714 | 11,226 | 13,817 |
| Liabilities directly associated with assets held for sale | 5,351 | 2,888 | 23 |
| Total current liabilities | 592,540 | 588,710 | 569,088 |
| Non-current liabilities | | | |
| Long-term borrowings | 924,943 | 863,303 | 814,719 |
| Lease liabilities | 87,681 | 81,652 | 82,674 |
| Deferred tax liabilities | 90,972 | 82,695 | 76,419 |
| Provision for employee benefits | 32,356 | 33,815 | 36,450 |
| Long-term provision for decommissioning costs | 99,162 | 134,278 | 148,641 |
| Deposits on LPG cylinders | 12,684 | 12,952 | 13,187 |
| Non-current derivative liabilities | 7,643 | 4,229 | 6,180 |
| Other non-current financial liabilities | 4,662 | 4,992 | 4,468 |
| Other non-current liabilities | 29,296 | 28,860 | 30,081 |
| Total non-current liabilities | 1,289,399 | 1,246,776 | 1,212,819 |
| Total liabilities | 1,881,939 | 1,835,486 | 1,781,907 |

Unit: THB million

| Statement of Financial Position (continued) | 2022 (Audited) | 2023 (Audited) | 2024 (Audited) |
|---|-------------------|-------------------|-------------------|
| Shareholders' equity | | | |
| Registered share capital | 28,563 | 28,563 | 28,563 |
| Issued and fully paid-up share capital | 28,563 | 28,563 | 28,563 |
| Share premium | 29,211 | 29,211 | 29,211 |
| Surplus from the change in the ownership interests in subsidiaries | 10,068 | 39,461 | 41,010 |
| Retained earnings | | | |
| Appropriated - legal reserve | 2,857 | 2,857 | 2,857 |
| Appropriated - self-insurance fund reserve | 1,294 | 1,330 | 1,370 |
| Unappropriated | 957,167 | 1,003,379 | 1,035,611 |
| Other components of shareholders' equity | 23,431 | 16,397 | 11,030 |
| Equity attributable to owners of the Company | 1,052,591 | 1,121,198 | 1,149,652 |
| Non-controlling interests of the subsidiaries | 481,102 | 503,778 | 507,225 |
| Total shareholders' equity | 1,533,693 | 1,624,976 | 1,656,877 |
| Total liabilities and shareholders' equity | 3,415,632 | 3,460,462 | 3,438,784 |

4.3.2 Statement of Income

Unit: THB million

| Statement of Income | 2022 (Audited) | 2023 (Audited) | 2024 (Audited) |
|--|-------------------|-------------------|-------------------|
| Sales and service income | 3,367,203 | 3,144,884 | 3,090,453 |
| Cost of sales and services | 2,906,726 | 2,769,497 | 2,755,319 |
| Gross profit | 460,477 | 375,387 | 335,134 |
| Other income | 24,420 | 38,636 | 47,925 |
| Loss on derivatives | (74,914) | (13,194) | (6,933) |
| Gain on foreign exchange rates | 5,552 | 22,285 | 15,235 |
| Profit before expenses | 415,535 | 423,114 | 391,361 |
| Selling and distribution expenses | 46,212 | 46,119 | 46,398 |
| Administrative expenses | 98,015 | 82,045 | 96,783 |
| Petroleum royalties | 27,504 | 15,987 | 14,013 |
| Operating profit | 243,804 | 278,963 | 234,167 |
| Share of profit (loss) from investments in joint ventures and associates | 5,849 | 3,013 | (6,668) |
| Profit before finance costs and income taxes | 249,653 | 281,976 | 227,499 |
| Finance costs | 37,091 | 45,383 | 46,821 |
| Profit before income taxes | 212,562 | 236,593 | 180,678 |
| Income tax expenses | 90,462 | 81,313 | 67,210 |
| Profit for the year | 122,100 | 155,280 | 113,468 |
| Profit attributable to | | | |
| Equity holders of the Company | 91,175 | 112,024 | 90,072 |
| Non-controlling interests of the subsidiaries | 30,925 | 43,256 | 23,396 |
| | 122,100 | 155,280 | 113,468 |
| Basic earnings per share (THB/share) | 3.20 | 3.92 | 3.15 |

4.3.3 Statement of Comprehensive Income

Unit: THB million

| Statement of Comprehensive Income | 2022 (Audited) | 2023 (Audited) | 2024 (Audited) |
|--|-------------------|-------------------|-------------------|
| Profit for the year | 122,100 | 155,280 | 113,468 |
| Other comprehensive income (loss) | | | |
| Other comprehensive income to be reclassified to profit or loss in subsequent periods | | | |
| Exchange differences on translation of financial statements in foreign currency | 9,952 | (6,393) | (14,146) |
| Gain (loss) on debt investments measured at fair value through other comprehensive income | (27) | (1) | 17 |
| Income taxes related to debt investments measured at fair value through other comprehensive income | 5 | (2) | (3) |
| Gain (loss) on cash flow hedges | (38) | 137 | (600) |
| Income taxes related to cash flow hedges | 62 | 43 | 226 |
| Share of other comprehensive loss from joint ventures and associates | (1,512) | (471) | (1,781) |
| Other comprehensive income not to be reclassified to profit or loss in subsequent periods | | | |
| Gain (loss) on remeasurements of defined benefits plans | 5,800 | (492) | (1,608) |
| Income taxes related to remeasurements of defined benefits plans | (1,332) | 157 | 293 |
| Gain (loss) on equity investments designated at fair value through other comprehensive income | (4,393) | (2,625) | 2,880 |
| Income taxes related to equity investments designated at fair value through other comprehensive income | 1,038 | 3,375 | 1,605 |
| Share of other comprehensive income (loss) from joint ventures and associates | 503 | (1,032) | (393) |
| Other comprehensive income (loss) for the year, net of income taxes | 10,058 | (7,304) | (13,510) |
| Total comprehensive income for the year | 132,158 | 147,976 | 99,958 |
| Total comprehensive income attributable to | | | |
| Equity holders of the Company | 97,178 | 103,986 | 83,744 |
| Non-controlling interests of the subsidiaries | 34,980 | 43,990 | 16,214 |
| | 132,158 | 147,976 | 99,958 |

4.3.4 Statement of Cash Flows

Unit: THB million

| Statement of Cash Flows | 2022 (Audited) | 2023 (Audited) | 2024 (Audited) |
|--|-------------------|-------------------|-------------------|
| Cash flows from operating activities | | | |
| Profit before income taxes | 212,562 | 236,593 | 180,678 |
| Adjustment of profit before income taxes to net cash provided by (used in) operating activities: | | | |
| Depreciation and amortization expenses | 167,330 | 173,065 | 185,918 |
| Gain on disposal of assets | (1,085) | (4,614) | (4,661) |
| Gain on disposal of investments | (801) | (1,496) | (5,723) |
| Gain on change in status of investments | (848) | (2,443) | - |
| Gain on repurchase of debentures | - | (2,160) | (3,959) |
| Loss on impairment of assets | 12,304 | 4,942 | 8,470 |
| Loss on impairment of investment | 305 | - | 1,016 |
| Share of (profit) loss from investments in joint ventures and associates | (5,849) | (3,013) | 6,668 |
| Provision for employee benefits | 2,931 | 3,172 | 3,460 |
| (Gain) loss on exchange rates | 11,649 | (1,320) | 2,733 |
| (Gain) loss on derivatives | 10,243 | (5,479) | 7,406 |
| Unrealized (gain) loss on fair value of commodity contracts | 7,920 | (7,015) | (4,487) |
| Gain on investments measured at fair value though profit and loss | (277) | (355) | (544) |
| Expected credit loss of accounts receivable and other assets | 298 | 401 | 24 |
| Write-off exploration assets | 1,178 | 2,070 | 3,362 |
| (Reversal of) allowance for changes in value of inventories | 5,886 | (2,381) | (2,867) |
| (Reversal of) allowance for obsolete supplies | (361) | (2,076) | 191 |
| Dividend income | (467) | (2,190) | (1,864) |
| Interest income | (3,920) | (12,219) | (18,172) |
| Finance costs | 37,091 | 45,383 | 46,821 |
| Others | 63 | 134 | 72 |
| Profit from operating activities before changes in operating assets and liabilities | 456,152 | 418,999 | 404,542 |
| Net operating assets (increase) decrease | (178,970) | 46,247 | 42,492 |
| Cash received from operating activities | 277,182 | 465,246 | 447,034 |
| Income taxes paid | (85,482) | (83,201) | (73,794) |
| Net cash provided by operating activities | 191,700 | 382,045 | 373,240 |

Unit: THB million

| Statement of Cash Flows (continued) | 2022 (Audited) | 2023 (Audited) | 2024 (Audited) |
|---|-------------------|-------------------|-------------------|
| Cash flows from investing activities | | | |
| Cash payment of property, plant and equipment and investment properties | (161,874) | (163,734) | (160,460) |
| Cash payment of other intangible assets other than goodwill | (7,469) | (7,881) | (5,607) |
| Cash payment of exploration and evaluation assets | (3,336) | (5,514) | (3,957) |
| Cash payment of right-of-use assets | (566) | (429) | (306) |
| Net cash payment for acquisition of assets | - | - | (18,728) |
| Cash payment for other long-term investments in financial assets | (15,013) | (2,534) | (8,951) |
| Net cash payment for business acquisitions | (14,508) | - | (1,331) |
| Cash payment for contingent considerations from business acquisition | (33) | (25) | - |
| Decrease in cash from loss of control in a subsidiary | (537) | (334) | - |
| Cash payment of investments in joint ventures and associates | (35,299) | (8,864) | (4,471) |
| Cash payment of long-term lending | (2,126) | (2,436) | (22,837) |
| Cash payment for derivatives | (190) | (1,076) | (437) |
| Cash proceeds from disposals of property, plant and equipment, investment properties, other intangible assets other than goodwill and right-of-use assets | 1,433 | 4,670 | 15,005 |
| Net cash received from disposal of participating interests | - | 7,244 | - |
| Cash proceeds from disposals of other long-term investments in financial assets | 3,269 | 3,916 | 9,268 |
| Cash proceeds from disposals of investments in subsidiaries | 1,407 | 10,301 | 7,591 |
| Cash proceeds from devaluing of an investment in a joint venture | - | - | 47 |
| Cash proceeds from disposals of investments in associates | - | - | 5 |
| Cash proceeds from long-term lending | 903 | 932 | 2,661 |
| Cash proceeds from lease installments | - | - | 2 |
| Cash proceeds from derivatives | - | - | 32 |
| (Increase) decrease in short-term lending | (44) | (229) | 98 |
| (Increase) decrease in short-term investments in financial assets | 37,031 | (14,556) | (18,194) |
| Interests received | 2,826 | 10,093 | 14,692 |
| Dividends received | 7,436 | 9,211 | 7,115 |
| Net cash used in investing activities | (186,690) | (161,245) | (188,763) |

Unit: THB million

| Statement of Cash Flows (continued) | 2022 (Audited) | 2023 (Audited) | 2024 (Audited) |
|--|-------------------|-------------------|-------------------|
| Cash flows from financing activities | | | |
| Cash proceeds from issuance of ordinary shares of subsidiaries | 9,034 | 246 | 172 |
| Cash proceeds from long-term borrowings | 289,780 | 99,624 | 72,135 |
| Cash proceeds from derivatives | 85 | 177 | - |
| Net cash proceeds from issuance of subordinated perpetual debentures | - | - | 16,927 |
| Cash proceeds from change in ownership in subsidiaries | - | 8,477 | - |
| Cash payment for decrease in ordinary shares of subsidiaries | (258) | (39) | (3,885) |
| Cash repayment of long-term borrowings | (181,105) | (130,293) | (133,635) |
| Cash payment for lease installments | (15,022) | (18,220) | (21,241) |
| Cash payment for derivatives | (1,668) | (96) | (119) |
| Cash payment for redemption of subordinated capital debentures | (4,988) | - | - |
| Cash payment for change in ownership in subsidiaries | (554) | (3,431) | - |
| Increase in short-term borrowings | 718 | 6,273 | 1,620 |
| Increase in bank overdrafts and short-term loans from financial institutions | 76,767 | 5,985 | 6,700 |
| Finance costs paid | (36,198) | (48,494) | (42,851) |
| Dividends paid | (85,923) | (62,368) | (82,234) |
| Net cash provided by (used in) financing activities | 50,668 | (142,159) | (186,411) |
| Effects of exchange rates on cash and cash equivalents | 697 | (3,279) | (636) |
| Exchange differences on translation | (20,287) | 2,019 | (9,425) |
| Cash and cash equivalents classified as held for sale | (8,764) | (301) | - |
| Net increase (decrease) in cash and cash equivalents | 27,324 | 77,080 | (11,995) |
| Cash and cash equivalents at the beginning of year | 312,730 | 340,054 | 417,134 |
| Cash and cash equivalents at the end of year | 340,054 | 417,134 | 405,139 |

4.3.5 Financial Result by Business Group: EBITDA and Operating Profit by Segment

Unit: THB million

| Earnings before Interest Expenses, Tax, Depreciation and Amortization Expenses, and Operating Profit (Loss) by Segment | 2022 (Audited) | 2023 (Audited) ^{2/} | 2024 (Audited) |
|--|-------------------|---------------------------------|-------------------|
| Petroleum exploration and production business group | | | |
| Sales and service income | 331,350 | 300,694 | 312,310 |
| Cost of sales and services | 40,464 | 41,008 | 50,359 |
| Gross profit | 290,886 | 259,686 | 261,951 |
| Selling and administrative expenses | 17,152 | 17,771 | 19,654 |
| Petroleum royalties | 24,139 | 15,632 | 14,012 |
| Other operating income | 4,378 | 5,018 | 6,083 |
| Earnings before depreciation and amortization expenses, finance costs and tax expenses (EBITDA) | 253,973 | 231,301 | 234,368 |
| Depreciation and amortization expenses | 82,942 | 84,729 | 94,822 |
| Total segment operating profit | 171,031 | 146,572 | 139,546 |
| Gas business group | | | |
| Natural gas procurement, gas transmission and distribution, and gas separation businesses | | | |
| Sales and service income | 708,852 | 655,759 | 579,590 |
| Cost of sales and services | 639,484 | 579,963 | 507,694 |
| Gross profit | 69,368 | 75,796 | 71,896 |
| Selling and administrative expenses | 10,826 | 11,736 | 11,574 |
| Other operating income | 2,665 | 1,964 | 2,522 |
| Earnings before depreciation and amortization expenses, finance costs and tax expenses (EBITDA) | 61,207 | 66,024 | 62,844 |
| Depreciation and amortization expenses | 18,302 | 20,144 | 19,655 |
| Total segment operating profit | 42,905 | 45,880 | 43,189 |
| Total segment operating profit of upstream petroleum and gas business group | 213,936 | 192,452 | 182,735 |

Unit: THB million

| Earnings before Interest Expenses, Tax, Depreciation and Amortization Expenses, and Operating Profit (Loss) by Segment (continued) | 2022 (Audited) | 2023 (Audited) ^{2/} | 2024 (Audited) |
|--|-------------------|---------------------------------|-------------------|
| <u>Oil and retail business group</u> | | | |
| Sales and service income | 791,745 | 771,415 | 727,033 |
| Cost of sales and services | 750,740 | 730,720 | 691,997 |
| Gross profit | 41,005 | 40,695 | 35,036 |
| Selling and administrative expenses | 22,748 | 20,800 | 18,246 |
| Other operating income | 2,705 | 1,508 | 1,450 |
| Earnings before depreciation and amortization expenses, finance costs and tax expenses (EBITDA) | 20,962 | 21,403 | 18,240 |
| Depreciation and amortization expenses | 6,348 | 6,521 | 7,242 |
| Total segment operating profit | 14,614 | 14,882 | 10,998 |
| <u>International trading business group</u> | | | |
| Sales and service income | 2,172,566 | 2,032,063 | 1,940,904 |
| Cost of sales and services | 2,155,382 | 2,023,227 | 1,932,415 |
| Gross profit | 17,184 | 8,836 | 8,489 |
| Selling and administrative expenses | 10,500 | 12,108 | 12,701 |
| Other operating income | 7,213 | 7,597 | 7,307 |
| Earnings before depreciation and amortization expenses, finance costs and tax expenses (EBITDA) | 13,897 | 4,325 | 3,095 |
| Depreciation and amortization expenses | 954 | 1,282 | 1,400 |
| Total segment operating profit | 12,943 | 3,043 | 1,695 |
| <u>Petrochemicals and refining business group</u> | | | |
| Sales and service income | 1,473,678 | 1,343,550 | 1,352,324 |
| Cost of sales and services | 1,324,979 | 1,230,801 | 1,260,750 |
| Gross profit | 148,699 | 112,749 | 91,574 |
| Selling and administrative expenses | 41,876 | 37,608 | 40,825 |
| Other operating income | 2,896 | 5,499 | 2,750 |
| Earnings before depreciation and amortization expenses, finance costs and tax expenses (EBITDA) | 109,719 | 80,640 | 53,499 |
| Depreciation and amortization expenses | 43,538 | 45,177 | 46,988 |
| Total segment operating profit | 66,181 | 35,463 | 6,511 |
| Total segment operating profit of downstream petroleum business group | 93,738 | 53,388 | 19,204 |

Unit: THB million

| Earnings before Interest Expenses, Tax, Depreciation and Amortization Expenses, and Operating Profit (Loss) by Segment (continued) | 2022 (Audited) | 2023 (Audited) ^{2/} | 2024 (Audited) |
|--|-------------------|---------------------------------|-------------------|
| <u>New business and sustainability group</u> | | | |
| Sales and service income | 148,424 | 113,640 | 114,202 |
| Cost of sales and services | 124,080 | 84,111 | 80,535 |
| Gross profit | 24,344 | 29,529 | 33,667 |
| Selling and administrative expenses | 9,655 | 8,086 | 9,549 |
| Other operating income | 1,703 | 1,893 | 1,130 |
| Earnings before depreciation and amortization expenses, finance costs and tax expenses (EBITDA) | 16,392 | 23,336 | 25,248 |
| Depreciation and amortization expenses | 12,952 | 13,417 | 13,482 |
| Total segment operating profit | 3,440 | 9,919 | 11,766 |
| <u>Other businesses group</u>^{1/} | | | |
| Sales and service income | 37,662 | 13,455 | 12,874 |
| Cost of sales and services | 15,969 | 9,223 | 11,795 |
| Gross profit | 21,693 | 4,232 | 1,079 |
| Selling and administrative expenses | 5,484 | 6,259 | 3,498 |
| Petroleum royalties | 3,367 | 355 | - |
| Other operating income | 2,242 | 2,020 | 1,470 |
| Earnings (Loss) before depreciation and amortization expenses, finance costs and tax expenses (EBITDA) | 15,084 | (362) | (949) |
| Depreciation and amortization expenses | 2,294 | 1,795 | 2,329 |
| Total segment operating profit (loss) | 12,790 | (2,157) | (3,278) |
| Total segment operating profit before unallocated income (expenses) and intercompany elimination | 323,904 | 253,602 | 210,427 |
| Add(Deduct) intercompany elimination | 54 | 228 | (111) |
| Total operating profit by segment | 323,958 | 253,830 | 210,316 |

Remarks:

1/ Including the coal segment that was sold during 1Q2023

2/ There are adjustments from the previous period due to the Company restructured the corporate governance within the Group of New Business and Sustainability Business Group as well as reclassification disclosed in the financial statements.

4.3.6 Financial Ratios

| Financial Ratios and Earnings per Share | Unit | 2022 (Audited) | 2023 (Audited) | 2024 (Audited) |
|---|-----------|-------------------|-------------------|-------------------|
| <u>Liquidity Ratios</u> | | | | |
| Current ratio | Times | 1.76 | 1.84 | 1.81 |
| Quick ratio | Times | 0.96 | 1.20 | 1.23 |
| Trade receivables turnover | Times | 16.01 | 12.97 | 11.94 |
| Average collection period | Days | 22.79 | 28.14 | 30.56 |
| Inventory turnover | Times | 14.79 | 12.77 | 13.83 |
| Average inventory period | Days | 24.69 | 28.58 | 26.38 |
| Trade payables turnover | Times | 13.08 | 11.68 | 11.40 |
| Average payment period | Days | 27.90 | 31.25 | 32.03 |
| Cash cycle | Days | 19.58 | 25.47 | 24.91 |
| <u>Profitability Ratios</u> | | | | |
| Gross profit margin | % | 13.68 | 11.94 | 10.84 |
| Net profit margin | % | 3.63 | 4.94 | 3.67 |
| Return on equity | % | 8.85 | 10.31 | 7.93 |
| <u>Activity Ratios</u> | | | | |
| Return on asset | % | 3.76 | 4.52 | 3.29 |
| Return on fixed assets | % | 8.32 | 10.21 | 7.38 |
| Total asset turnover | Times | 1.04 | 0.91 | 0.90 |
| <u>Solvency Ratios</u> | | | | |
| Debt to equity ^{1/} | Times | 0.78 | 0.71 | 0.67 |
| Interest coverage | Times | 13.25 | 9.41 | 8.46 |
| <u>Earnings per share</u> | | | | |
| Earnings per share ^{2/} | THB/Share | 3.20 | 3.92 | 3.15 |

Remarks:

1/ Debt to equity = Interest bearing debt divided by Total shareholder's equity

2/ Calculated by the weighted average number of ordinary shares as of December 31, 2022, December 31, 2023 and December 31, 2024 amounting to 28,563.00 million shares

5. General Information and Other Important Information

5.1 Other Important Information

Juristic persons/ Legal entities in which the company holds shares: Details as per Section 1.3, Shareholding Structure of PTT Group.

5.2 Legal Disputes

As of December 31, 2024, the legal disputes, in which PTT is a party or involved as litigant that are still ongoing and may significantly impact PTT's business operations, and not arising from ordinary business activities, are detailed as follows:



5.2.1 NACAP Asia Pacific (Thailand) Co., Ltd. exercised its rights under the Sai Noi - North/ South Bangkok Power Plant Gas Transmission Pipeline Contract by submitting a statement of claim in the arbitration process.

NACAP Asia Pacific (Thailand) Co., Ltd. filed claims with the Arbitration Institute demanding damages from PTT on the grounds of changes in work, additional work, and other matters under the Sai Noi - North/ South Bangkok Power Plant Gas Transmission Pipeline Contract. PTT contended that such claims were incompliant with the contract and there was a transfer of claim that had not been settled. Subsequently, after filing this dispute, NACAP Asia Pacific (Thailand) Co., Ltd. was placed under absolute receivership and was declared bankrupt by the Central Bankruptcy Court. Then, the official receiver had taken over the arbitration proceedings on behalf of NACAP Asia Pacific (Thailand) Co., Ltd.

Regarding the arbitration dispute, PTT filed a statement of defense to completely reject all claims made by NACAP Asia Pacific (Thailand) Co., Ltd. and filed a counterclaim for damages against NACAP Asia Pacific (Thailand) Co., Ltd. Subsequently, the arbitration tribunal rendered an award that PTT must pay partial payment of damages to NACAP Asia Pacific (Thailand) Co., Ltd. However, PTT believed that this arbitral award contained significant errors in both fact and law. Therefore, PTT filed a petition to set aside the arbitration award. NACAP Asia Pacific (Thailand) Co., Ltd. then filed a petition to enforce the arbitration award with the Civil Court. On October 17, 2017, the Civil Court ordered the enforcement of the arbitration award, with a reduction of the amount of payment. Nevertheless, PTT appealed the Civil Court's order to the Supreme Court. On December 18, 2019, the Supreme Court dismissed PTT's appeal. As a result, the case became final, and PTT was required to pay the damages ordered by the Civil Court. On January 8, 2020,

PTT deposited approximately THB 4,543.5 million with the Civil Court to settle the debt as per the judgment. However, NACAP Asia Pacific (Thailand) Co., Ltd. objected that PTT incorrectly deducted withholding tax from the payment. On September 6, 2023, the Supreme Court dismissed NACAP Asia Pacific (Thailand) Co., Ltd.'s petition for permission to appeal, accordingly the case was final and confirming that PTT has made full payment in accordance with the judgment.

In the bankruptcy case of NACAP Asia Pacific (Thailand) Co., Ltd., PTT has filed a creditor's claim. Currently, the bankruptcy case has not yet concluded, as the official receiver is still in the process of summarizing the debts in the bankruptcy case to facilitate the distribution of assets to the creditors of NACAP Asia Pacific (Thailand) Co., Ltd.

5.2.2 Punj Lloyd Ltd. filed a lawsuit against PTT with the Civil Court on the grounds of termination of the Contract of the 4th Gas Transmission Pipeline Project and PTT counterclaimed Punj Lloyd Ltd. at the court for compensation in the 4th Gas Transmission Pipeline Project.

On February 25, 2014, Punj Lloyd Ltd., the construction contractor of the 4th Gas Transmission Pipeline Project, as a plaintiff, filed a lawsuit against PTT as a defendant with the Civil Court, alleging that PTT had wrongfully terminated the contract and breached the agreement, and demanding PTT to pay outstanding wages and damages. PTT contended its actions had been in full compliance with the contract and referred the matter to the Office of The Attorney General for consideration to argue the case for PTT. The Attorney General's office subsequently filed a defense on behalf of PTT. The Civil Court later ordered the case to be transferred to the Central Administrative Court for adjudication.

On June 20, 2018, PTT, represented by the public prosecutor, filed another lawsuit with the Central Administrative Court, seeking damages from Punj Lloyd Ltd. for breach of contract and abandonment of work under the 4th Gas Transmission Pipeline contract. Subsequently, on October 15, 2020, the Central Administrative Court ordered the consolidation of both cases together for joint consideration.

During the Central Administrative Court's proceedings on September 25, 2019, Punj Lloyd Ltd. presented facts to the court stating that on March 8, 2019, The National Company Law Tribunal of India ordered Punj Lloyd Ltd. to enter into a corporate insolvency resolution process. Subsequently, the company entered into liquidation under Indian law. PTT has filed a creditor's claim in accordance with Indian law. Currently, the liquidation process is ongoing to settle debts with the creditors.

On December 27, 2023, the Central Administrative Court rendered a judgment in the case filed by Punj Lloyd Ltd. dismissing the case. In the case filed by PTT, the court ordered Punj Lloyd Ltd. to pay damages of approximately THB 6,400 million, plus legal interest, to PTT. The case is final as Punj Lloyd Ltd. did not appeal the judgment. However, Punj Lloyd Ltd. did not comply with the payment order. Consequently, the Central Administrative Court issued an enforcement order on May 14, 2024, to appoint a court execution officer for the seizure of assets to settle the debt owed to PTT as per the judgment.



5.3 Secondary Market

-None-

5.4 Regularly Contacted Financial Institutions

Bangkok Bank Public Company Limited

333 Silom Road, Silom, Bang Rak, Bangkok 10500

Krungthai Bank Public Company Limited

35 Sukhumvit Road, Klong Toei Nuea, Watthana, Bangkok 10110

Bank of Ayudhya Public Company Limited

1222 Rama III Road, Bang Phongphang, Yan Nawa, Bangkok 10120

Kasikornbank Public Company Limited

400/22 Phahon Yothin Road, Sam Sen Nai, Phaya Thai, Bangkok 10400

Siam Commercial Bank Public Company Limited

9 Ratchadaphisek Road, Chatuchak, Chatuchak, Bangkok 10900

Government Savings Bank

470 Phaholyothin Road, Sam Sen Nai, Phayathai, Bangkok 10400



Section

2

Corporate Governance

- 6. Corporate Governance
- 7. Governance Structure and Key Data
on the Board of Directors, Specific Committees,
Management, Employees and Others
- 8. Corporate Governance Milestones
- 9. Internal Control and Connected Transactions

6. Corporate Governance

6.1 Overview of CG Policy and Guidelines

As the national energy company with a state-owned enterprise status and a listed company on The Stock Exchange of Thailand (SET), PTT recognizes its vital mission of good and transparent management, establishing equitability among all stakeholders while striving to develop itself into a Corporate Governance (CG) role model. PTT considers that CG under good management will lead to fairness and investors' confidence, create long-term value for shareholders, boost stakeholders' confidence, and give the corporation the most suitable, efficient, and effective management system while enhancing its competitiveness for sustainable growth.

Since its privatization into PTT Plc., and distribution of its share on SET in late 2001, the Board of Directors has always prioritized CG policy and guidelines by formulating the CG policy and handbook, ethical standards, including ethics in business operations distributed to directors, executives, and employees for acknowledgment and compliance. The handbook has been regularly revised to improve operational standards in accordance with SEC's and SET's CG principles for listed companies (CG Code) as well as recommendations in the Corporate Governance Report from the Thai Institute of Directors Association (IOD), including the principles of the Organization for Economic Co-operation and Development (OECD), the ASEAN Corporate Governance Scorecard, and the Dow Jones Sustainability Indices (DJSI), together with best practices of leading international companies. The current edition is "Corporate Governance, Ethical Standards and Code of Business Ethics Handbook" (CG Handbook) revision 5.

PTT has integrated corporate governance as part of its vision, mission, and values while remaining committed to its mission to create energy security and stability for the country. This illustrates the potential to drive business growth both domestically and internationally based on the "balanced sustainability" principle across economic, social, environmental, and governance dimensions, aiming to **"Together for Sustainable Thailand, Sustainable World."**



Corporate Governance Policy

PTT has duly reviewed its CG Policy and handbook to suit prevailing laws and good practices, economic and changing social circumstances as well as requiring all directors, executives, and employees to acknowledge it in writing and observe all policies in the course of their work for the commitment and the policy implementation. The Board's CG policy is as follows:

1. The Board of Directors (The Board), executives, and all employees shall commit to PTT's 6 Good Corporate Governance Principles, namely Accountability, Responsibility, Equitable Treatment, Transparency, Vision to Create Long-term Value, and Ethics, with an organizational structure that fairly balances the roles of the Board, management, and shareholders.

2. The Board shall perform their duties with dedication, responsibility, and independence, and there shall be clear segregation between the roles and responsibilities of the Chairman and CEO & President. The Board shall also define the Board's structure, composition, and qualifications for efficient and effective performance.
3. The Board and management shall play a vital role in formulating PTT's vision, strategies, policies, and key plans while taking into consideration risk factors and impacts, and shall oversee, monitor, define, and establish appropriate risk management with proper resource allocation, as well as ensure the reliability of accounting systems, financial reports, and accounting audits. PTT shall be engaged in ethical businesses with good corporate citizenship while promoting innovation for adaptability amid changes, and strengthening long-term sustainable competitiveness.
4. The Board and management shall be role models for ethics and perform duties under PTT's good corporate governance guidelines as well as oversee and resolve conflicts of interest and connected transactions.
5. The Board may appoint specific committees as deemed appropriate, to assist in prudently reviewing critical matters.
6. The Board shall perform an annual self-assessment to be used as a framework for reviewing the Board's performance.
7. The Board shall establish PTT's Corporate Governance, Ethical Standards and Code of Business Ethics Handbook which the Board, management, and all employees must adhere to in parallel with PTT's Articles of Association, regulations, and rules.
8. The Board, management, and employees shall arrange for disclosure of PTT's information, both financial and non-financial, to be carried out adequately, credibly, and timely so that shareholders and stakeholders may receive such information fairly and equitably. Corporate Communication and Investor Relations shall be responsible for providing information to investors and the public.
9. PTT's shareholders shall receive equitable treatment and have equal rights to access PTT information and appropriate communication channels with PTT. The Board, management, and employees shall also advocate shareholders' engagement with PTT.
10. The Board shall ensure an appropriate system for the selection and appointment of all key management positions under a fair and transparent nomination process.
11. The Board shall establish an efficient Anti-Fraud and Corruption support system to ensure that the management recognizes and prioritizes Anti-Fraud and Corruption, as well as conforming to such measures.

PTT has published the latest version of "Corporate Governance, Ethical Standards, and Code of Business Ethics Handbook" on its intranet and website in both Thai and English so that PTT employees, Thai and foreign investors, interested parties, and stakeholders can apply this for their benefits or reference.

Policy and Guidelines Related to the Board

PTT's Board of Directors comprises experts with knowledge and experience highly beneficial to the company. They shall be highly committed and devote their full time to fulfilling their duties. The Board is appointed by shareholders to oversee PTT's operations. The Board then appoints management to be responsible for business operations, specific committees for delegated specific matters, the company's auditor, and the Company Secretary for the conduct of meetings and ensure legal compliance. The policy and guidelines for the Board are as follows:

1. Composition, Qualifications and Appointment of the Board

The Board's of Directors, led by the Chairman, must have leadership and be able to continuously control the management to ensure the effectiveness and efficiency of operations, and achievement of the company's targets by creating and increasing investment value for shareholders, the government, the public, and other stakeholders.

2. Independence of the Board

The Board shall consider, express opinions, and vote on matters under their authority. If a decision is made under pressure from work, family, or any conflicts of interest, it may be made in bias to benefit the directors, their families, or self-interest. Therefore, the independence of the Board must be emphasized to protect the shareholders and the company's interests. Any director who is not wholly independent shall not be responsible for making decisions.

3. Role, Responsibilities, and Authority of the Board

The Board shall act professionally on behalf of shareholders with accountability to steer the company in the right direction, make decisions on important matters with care and integrity, and protect the benefits of all stakeholders as well as the company. Therefore, the Board must perform its duties independently from the management. Responsibilities of the Board also include but are not limited to, oversee the management's operations and results, manage risks, and determine remuneration.

4. Role and Responsibilities of the Chairman

- The Chairman is independent from the management and is not involved in routine management with clear segregation of roles between the Chairman and the management.
- The Chairman shall regulate the Board to ensure highly efficient operations. Also, the Chairman shall support and provide assistance to the management's operations under the authority delegated by the Board for achieving the company's objectives and targets.
- The Chairman shall encourage directors to perform their duties within the scope of duties and authority towards shareholders and stakeholders while adhering to PTT's Corporate Governance, Ethical Standards, and Code of Business Ethics. The Chairman shall advocate directors' efforts in promoting ethical corporate culture and good corporate governance.
- The Chairman shall determine together with the CEO & President, regarding the Board's meeting agenda.
- The Chairman shall serve as an efficient chairman of the Board's meetings and the shareholders' meetings.

- The Chairman shall allocate sufficient time for the management to propose information and for directors to express their opinions on significant matters prudently. The Chairman shall also promote constructive relations among directors as well as the relations between the Board and the management.

5. Establishment of Specific Committees

To ensure a thorough and efficient examination of the key operation, the Board has established the following 5 specific committees, namely Audit Committee, Nominating Committee, Remuneration Committee, Corporate Governance and Sustainability Committee, and Enterprise Risk Management Committee.

6. Board Meetings and Receiving of Relevant Documents and Information

Every board member should regularly attend board meetings. Office of the President is responsible for preparing documents, arranging the venue, and coordinating the meeting. Each director shall be informed of the meeting date, agenda, and information for advance study.

7. Company Secretary

The Board appoints a Company Secretary, responsible for managing board and shareholders' meetings to ensure that they are smoothly and transparently conducted in compliance with applicable laws and regulations.

8. Assessment of the Board Performance

The Board shall assess its performance annually to be used as a framework for evaluating the Board's performance, and considering, reviewing, and analyzing its performance for further improvement.

9. Remuneration of Directors and the CEO & President

The Board and the CEO & President shall not remunerate themselves due to a conflicts of interest. The directors' remuneration must be allocated by the Remuneration Committee and proposed to the Board and shareholders for approval based on their performance. (Details on remuneration for directors and management are reported under Section 2: "7.4.2 Management's Remuneration Policy" and "8.1.2 (2) Remuneration of Directors".)

10. Succession Plan

The Board must ensure that PTT has an appropriate nomination process for key management positions at all levels. The CEO & President will be selected through a nomination process that will consider both internal and external candidates, which follows the Standard Qualifications of State Enterprise Directors and Officials Act. To be prepared for succession planning, especially executive positions, PTT has defined a policy and guideline to lay down a succession plan for personnel when the time comes for assuming higher positions that become vacant, namely: the CEO & President, Senior Executive Vice President or equivalent, Executive Vice President or equivalent, and Vice President or equivalent.

11. Directors' Development

PTT desires that directors develop their knowledge, competencies, and skills in terms of business operation, good corporate governance, and other courses that are beneficial to their roles. PTT shall support and encourage their training with the Thai Institute of Directors Association (IOD) and other institutions with applicable courses throughout the year. PTT, furthermore, supports and organizes in-house briefings by regularly inviting experts and consultants to present information beneficial for business performance. As for new directors, PTT arranges an orientation program and provides each with a Director's Handbook, documents, useful information, lectures on PTT's business, and site visits for their understanding of operations useful for their performance, as well as corporate governance policies and practices. These preparations will be provided within three months of their appointment.

12. The Criteria for Serving in Various Positions of PTT Group's Executives

Principles for holding a position of director, advisor, qualified person, or any position in a company, agency, or other juristic persons of PTT Group executives are detailed in line with the policies and guidelines of PTT's Board of Directors, which are in PTT's Corporate Governance, Ethical Standards, and Code of Business Ethics Handbook, in Thai and English, on PTT Intranet and PTT Website.

Governance of Subsidiaries and Associated Companies

Governance Mechanisms

PTT defined "PTT Group Way of Conduct" as a guideline, practice, and work procedure in various aspects of PTT Group and affiliates for conformity and unity. As a governance tool, all are required to practice and drive towards the same standard across PTT Group through PTT's representatives assigned as directors, management, and officers to ensure that PTT Group with risk management in place operates according to laws, rules, and regulations for increased competitiveness. PTT Group aims to achieve its objectives and grow its business transparently and sustainably, along with building operational unity through the following key principles:

5 Governance Principles according to PTT Group Way of Conduct are as follows:

- 1. Definition of Key Strategic Positions for PTT's executives and employees,** based on the joint agreement of PTT Group or other business terms.
- 2. Rules and Regulations,** including directives to drive linkages between PTT Group's policy governance and its successful implementation. Such rules, regulations, policies, and directives are to be put into practice and driven towards a uniform standard throughout PTT Group companies by PTT's representatives assigned to work in these companies as directors, top executives, management, and officers.
- 3. Reporting Line and Performance Management:** PTT Group must report implementation updates under assorted policies to PTT management and/or the Board.

- 4. Multi-Level Governance:** This is to proceed through PTT Group Way of Conduct from PTT directly to subsidiaries. PTT authorizes this governance through its executives serving as the top executives there. To this end, such companies must develop their group governance to convey PTT Group Way of Conduct concept to its affiliates so that a single standard may govern the entire PTT Group.
- 5. Management Committees** such as PTT Group Management Committee (PTTGMC) and other policy committees play a key role in driving the efficiency of PTT Group governance since they represent a forum for consultation and joint formulation of business directions. By imposing regular performance reporting under PTT Group Way of Conduct by PTT Group to PTTGMC for tracking business efficiency and effectiveness. PTT also defines the key roles and duties under PTT Group Way of Conduct as follows:

Policies are pushed to achieve concrete compliance in line with PTT's operations by dividing into 2 following groups:

- 1. Strategic Alignment:** Important policies for PTT Group companies are applied in the same direction, covering accounting, tax and finance, plan and investment, Governance, Risk Management, and Internal Control and Compliance (GRC). This is to ensure that PTT Group companies have precise, transparent, and auditable operations and disclosure, with appropriate and accurate good corporate governance standards, risk management, internal control, and compliance throughout PTT Group.
- 2. Performance Excellence** for enhancing competitiveness and leading PTT Group to achieve business objectives with sustainability. The implementation may vary by risks and business context of each company.

PTT supervises, monitors, and annually reports the performance of PTT Group throughout the Group. PTT Group Management Committee (PTTGMC) and Minor PTT Group Management Committee (Minor PTTGMC) are responsible for pushing, driving, and promoting corporate governance, while good governance and corporate ethics units, policy owner, and subsidiary management functions jointly supervise and monitor the performance to achieve and align with the goals.

Policy on Serving as Directors in Other Companies of Directors and Management

In 2024, PTT had 39 affiliated companies, six of which are SET-listed flagships. PTT, therefore, adopted PTT Group management structure for policy synergy and alignment. To achieve these, the Board of Directors appointed management team members as directors in these companies to supervise policies and business management which align with PTT's policies for the benefit and added value of all stakeholders. The objectives of such appointments are:

- 1) To ensure that the management of affiliated companies aligns with the policies of PTT Group and monitor its overall business performance to be in line with PTT's policy and institute comparable standards.
- 2) To establish synergy for the business of PTT Group and add value to all related parties, including Thailand.
- 3) To apply specific expertise in support of business, such as financial expertise to improve accounting and financial processes so that the company can grow robustly. This includes assistance to companies outside PTT Group. The resulting application of the knowledge and expertise gained from serving in such leading companies will enhance the benefit to PTT and foster cordial relations as well as create business partners.
- 4) These objectives are part and parcel of the responsibility of the directors and management of PTT.

PTT ensures its consideration of executives or outsiders from the Ministry of Finance's Director's Pool for appointment within PTT Group regarded as a state enterprise is based on the Act on Standard Qualifications of State Enterprise Directors and Officials. Chosen directors from the pool must make up no less than one-third of the other directors of a given state enterprise. As of December 31, 2024, PTT had 15 members who belonged to the Director's Pool. It also ensures that PTT executives and such outsiders who serve as directors of PTT affiliates serve on no more than 3 PTT affiliates or other state enterprise affiliates. This is designed to lower risks of conflicts of interest and ensure conformance to applicable laws, as well as to the Cabinet resolution of January 24, 2011, on fraud preventive measures at state enterprises, entitled "The appointment of senior government officials or persons as directors on multiple state enterprises", as proposed by the National Anti-Corruption Commission (NACC).

In addition, the Board defined guidelines and criteria for serving in various positions of PTT Group's executives, and from 2014 resolved to adopt them as part of the CG Handbook.

Policy and Guidelines Related to Shareholders and Stakeholders

1) Shareholders' Rights

As the owners, shareholders are entitled to determine PTT's business direction or decide on matters of significant impact. Shareholders' meetings, therefore, serve as their key forums for view expression, questioning, and voting apart from the election of directors to supervise PTT's operations on their behalf. Shareholders are entitled to attend shareholders' meetings, take adequate deliberation time, and acknowledge meeting minutes.

Schedule of Shareholders' Meeting

PTT schedules an Annual General Meeting (AGM) within 4 months of the annual closing date of its accounting books. For urgent matters that affect or involve shareholders' interests or conditions, regulations, or laws that require shareholders' approval, it can call an Extraordinary General Meeting of Shareholders (EGM) on a case-by-case basis.

In 2024, the AGM was scheduled on April 12, 2024, as an E-Meeting only. PTT chose the electronic meeting control system of PTT Digital Solutions Co., Ltd., a service provider assessed for compliance with the meeting control system by the Electronic Transactions Development Agency (ETDA) and meeting the standards of the Decree on Electronic Meetings B.E. 2563 (2020) and the Announcement of the Ministry of Digital Economy and Society on Security Standards of Electronic Meeting, and other related laws and regulations. PTT arranged for the recording of the 2024 AGM in video format for dissemination to attendees for later viewing via PTT Website. PTT complied with the guidelines of the AGM Checklist prepared by the Thai Investors Association (TIA), Thai Listed Companies Association (TLCA), and the Securities and Exchange Commission (SEC). In 2024, PTT received a full score of 100 points for the 11th consecutive year, and no Extraordinary General Meeting of Shareholders (EGM) was called.

Advance Meeting Notice

For the 2024 AGM, the Board meeting No. 2/2024 on February 15, 2024, resolved to call a meeting via electronic meeting (E-Meeting) on April 12, 2024. Its resolutions, meeting date, and meeting agenda were disclosed in detail ahead of time by announcing on SET's website to notify shareholders before sending meeting notices. PTT assigned Thailand Securities Depository Co., Ltd. (TSD), its securities register, to mail the notices along with agenda details and accompanying documents, supplementary and supporting information for decision-making, opinions of the Board, completed minutes of the last meeting, 56-1 One Report, meeting documents, and proxy forms with complete instruction for shareholders, set forth by PTT, more than 14 days before the meeting date. The meeting notices were sent on March 21, 2024. The invitation was also announced through Thai and English newspapers, for 3 consecutive days, at least 3 days before the meeting (April 3 - 5, 2024) to allow shareholders enough time to prepare themselves for the meeting.

The AGM meeting notice and supporting documents were made available on PTT Website 28 days before the meeting date (starting on March 14, 2024).

Proceeding of the Shareholders' Meeting

Before the beginning of the meeting, PTT presented a video introducing how to participate in the meeting through electronic media as well as instructions on how to vote through the e-Voting system and the inquiry process. At the start of the meeting, the Chairman of the meeting introduced directors, management, external auditor, and legal advisors who served as neutral parties and witnesses. The Chairman then elaborated on the voting and ballot counting for individual agenda items under PTT's Articles of Association as well as voting procedures for each item. Once the information had been provided on each item, the Chairman gave a chance for all attendees to comment, recommend, and ask questions, allowing adequate time for debate. Inquiries can be made via electronic media through 2 channels: channel 1 via text message and channel 2 via video and audio or video conference. The Chairman and the management answered all questions clearly and precisely, treating all questions with due respect. For the election of directors, individual votes were required.

The Chairman ensured that the meeting proceeded by the order of the agenda and did not add any items without notifying shareholders in advance. If the meeting resolves to change the agenda order, under PTT's Articles of Association, at least two-thirds of the votes of the shareholders in attendance are needed. Alternatively, the shareholders with at least one-third of all subscribed shares may ask the meeting to consider other matters that are not mentioned in the meeting notice. At the 2024 AGM, the order of the agenda was not changed, and there was no request to consider any other matter.

At every meeting, the minutes must be completely and accurately recorded with the tally on each applicable agenda item. As a rule, a shareholders' meeting lasts 3 - 4 hours. The 2024 AGM started at 1:30 p.m. Registration was open at least 7 days in advance, i.e., from March 29, 2024, until the meeting was completed, and shareholders were allowed to enter the meeting room at least 1 hour before the meeting

time. When the meeting started, a total of 22,585,016,000 shares, or 79.0709% of the total shares were attended by shareholders, exceeding one-third of all PTT's subscribed shares of 28,562,996,250. Below is a description of meeting attendants and those responsible for issue clarification:

- All 15 PTT directors attended the meeting. The Chairman presided over the meeting with all specific committee chairmen, the CEO & President, Chief Operating Officer, Upstream Petroleum and Gas Business Group, Chief Operating Officer, Downstream Petroleum Business Group, Chief New Business and Infrastructure Officer, and Chief Financial Officer, provided supporting information. The Senior Executive Vice Presidents and Executive Vice Presidents attended the meeting to provide information for relevant questions. Independent directors served as proxies for minor shareholders.
- Auditors from EY Office Limited were Mr. Kittiphun Kiatsomphob and Miss Kessirin Pinpuvadol.
- Legal advisors from TTT & Partners Co., Ltd. (witnessing and inspecting the vote counting in case of controversy throughout the meeting) were Mrs. Veeranuch Thammavaranucupt, Mr. Pathorn Towongchuen and Mr. Chanvit Prachayapipat.

Shareholder Count (as the AGM adjourned at 4:01 p.m.)

A total of 1,940 shareholders; 194 in person and 1,746 proxies attended the AGM, representing a total of 22,588,089,160 shares or 79.0816% of the total subscribed shares.

Practical Guidelines for Reporting Conflicts of Interest

As specified in PTT CG Handbook, all directors, management, and employees must prepare reports on conflicts of interest annually and in case of changes. At a meeting, those with vested interests or conflicts of interest with PTT must inform the meeting to excuse themselves and abstain from voting on such matters.

At each shareholders' meeting, any director with vested interests or involvement in any agenda item must inform the meeting to excuse themselves and abstain from voting on each applicable agenda item.

Disclosure of Shareholders' Meeting Results

For the 2024 AGM, PTT submitted a summary of AGM resolutions to SET and SEC on the next business morning (April 17, 2024). PTT also submitted the minutes of the AGM (by separating each agenda, demonstrating the number of directors in both attendance and absence, questions raised by shareholders, and answers from directors, together with the tallies of each agenda item) to SET and SEC within 14 days of the meeting. Furthermore, PTT had to publish minutes of the AGM on PTT Website.

2) Equitable Treatment of Shareholders

PTT treats all shareholders fairly despite their different shareholding proportions, and corresponding voting power. Shareholders' fundamental rights are conserved regardless of their gender, age, race, nationality, religion, belief, social status, physical impairment, or political inclination. Information on the shareholders' meeting was announced ahead of the meeting in Thai and English. Directors with vested interests in any agenda item must excuse themselves from the meeting on that item. All shareholders are given the opportunity to take part in PTT's activities without limitations.

Proposing Additional Meeting Agenda Items and Nominating Directors

To enable minor shareholders to take part in business oversight, for the 2024 AGM, PTT defined the criteria and consideration process for entitling them to propose meeting agenda items and/or nominate directors in advance, so that

PTT Board will deliberate agenda items that could prove useful to PTT, including the selection of qualified directors to perform their duties efficiently for PTT, shareholders, and stakeholders. In practice, shareholders with a single shareholder or multiple shareholders of at least 5% of the total eligible votes or at least 1 million shares held uninterrupted for at least one year could propose agenda items or nominate directors before the AGM from September to December 2023, in case the nomination of directors needed the approval of the State Enterprise Policy Committee (SEPC), under the guidelines for the appointment of state enterprise directors and the cabinet resolution on August 6, 2019.

PTT posted such criteria on its website and an announcement on SET's website from September 1 to December 1, 2023. However, this attracted no recommendation of such agenda items or nomination of directors, and the Company Secretary duly informed the Board meeting on the matter. In addition, PTT informed shareholders to submit questions in advance for the 2024 AGM via 3 channels, namely acknowledgment mail sent together with the invitation letter, E-Mail at corporatesecretary@pttplc.com, and facsimile number 0-2537-3887. In the 2024 AGM, some shareholders sent questions in advance through the aforementioned channels and PTT clarified the details to them and disclosed them in the minutes of the meeting.

Facilitating Shareholders at the Meeting

In organizing the 2024 AGM via E-Meeting, PTT facilitated all shareholders by submitting documents showing the registration procedures for E-Meeting and proxy along with the meeting notice. PTT also provided a call center to respond to problems using the system from March 29, 2024, the opening date for pre-registration, until the 2024 AGM, was fully completed on April 12, 2024. On the meeting date, e-Voting and inquiry processes via E-Meeting were available for shareholders to log in from 11:30 a.m. Video instruction regarding voting through e-Voting and inquiry procedures was shown for shareholders' acknowledgment.

Since most shareholders at the AGM were Thais, it was conducted in Thai. However, for the benefit of foreign shareholders, PTT commissioned the translation of the meeting's handouts, supplementary documents, and relevant documents into English. Its website is also bilingual. During the meeting, PTT provided officers with a good command of English to facilitate foreign shareholders.

Appointing Proxies

To maintain the rights of those who could not attend the 2024 AGM in person, they could appoint proxies or delegate their votes to any independent director in attendance. To this end, PTT specified these independent directors' names on proxy forms defined by the Ministry of Commerce for voting on behalf of shareholders without conditions. In case where a shareholder grants a proxy to another person, PTT will accord the proxy holder the same rights and treatment as those granted to the shareholder. PTT treated proxies as if they were shareholders. As a rule, 28 days before each meeting, PTT disclosed the proxy form, attached with details and procedures on its website. Shareholders may make further inquiries about this by phone or through other channels such as PTT Website and E-Mail.

3) Roles towards Stakeholders

As the national energy company, PTT prioritizes stakeholders' rights and interests by addressing the needs of each group both inside and outside PTT, including its social and environmental responsibility. Stakeholders are classified into 6 groups with different missions defined to meet the needs of each in a balanced manner.

Public Sector

Ensuring long-term energy security by providing sufficient high-quality energy supply at fair prices to foster economic growth and ensure environmental sustainability.

Society and Communities

Maintaining an excellent corporate standing in Thai society and being Thai's pride, by exercising environmental stewardship of internationally accepted standards and enhancing the quality of life for the society and community.

Investors

Operating commercial business with transparency and good governance that generates sustainable growth and return.

Customers

Ensuring customer satisfaction and engagement by delivering world-class quality products and services at fair prices.

Suppliers and Partners

Conducting transparent and fair business practices with all partners, while promoting trust, good relationships, and cooperation to expand business capability and increase efficiency for long-term business partnerships.

Directors and Employees

Supporting the Board of Directors to effectively govern the organization and promote employees' capability building professionally and ensuring that employees' well-being remains competitive with other leading companies to enhance their engagement.

Treatment of 6 Main Stakeholder Groups

1. Public Sector

1) Building energy security: PTT and its wholly owned Company had a 5-year investment plan (2024 - 2028)

(worth THB 89,203 million on core businesses as follows: (1) 34% in Gas Business Unit, i.e. Gas Separation Plant (GSP) Unit 7 to replace GSP Unit 1, (2) 17% in Natural Gas Transmission Pipeline Business Unit, including Bang Pakong-South Bangkok Power Plant and the 5th onshore natural gas pipeline projects, (3) 14% in New Business and Sustainability, and Head Office (4) 4% in International Trading and Downstream Petroleum Business Unit, also in International Trading Business Unit and (5) 31% in PTT's wholly owned companies, namely EV ecosystem, Map Ta Phut Industrial Port Development Project Phase 3, and Laem Chabang Port Development Project Phase 3.

2) Focusing on new business in line with future world trends both in energy and other areas, with provisional capital expenditure

over the next 5 years in the amount of THB 106,932 million emphasizing the clean energy business towards low-carbon society. The goal is to produce electricity from renewable energy to 15,000 megawatts by 2030 and invest in the natural gas business, a transition fuel, with a focus on expanding the gas pipeline network, and investment in the LNG value chain both domestically and internationally and downstream petroleum business to build product storage tanks. In addition to investing in existing businesses to maintain energy security, PTT also expands investments in other businesses to cope with technology disruption and support modern behaviors or lifestyles.

3) Being a “low-carbon and sustainable organization” ready to drive Thailand towards Net Zero Emissions:

PTT Group emphasizes its business intention for balanced sustainable growth by integrating environmental, social, and governance (ESG) in accordance with the corporate context, along with reducing greenhouse gases to achieve carbon neutrality by 2040 and Net Zero Emissions by 2050 through promoting hydrogen-related businesses and implementing carbon capture storage (CCS) projects. By integrating operations and setting mutual targets for the entire group, clear roles and common goals are formulated to make the most of each company's strengths, with PTT overseeing the overall picture through the C³ approach, as follows:

- (1) Climate-Resilience Business: Investing in clean energy, low-carbon business, and restructuring the business by adjusting the portfolio to align with global and Thailand's energy transition directions.
- (2) Carbon-Conscious Asset: Focusing on reducing greenhouse gas emissions from production processes and operational activities through various methods, including energy conservation, energy efficiency, utilizing clean and renewable energy, adopting advanced technologies such as Small Modular Reactors (SMR).

- (3) Coalition, Co-Creation, and Collective Efforts for All: Collaborating with stakeholders, as a national leader in developing infrastructure and technologies to reduce greenhouse gas emissions, such as Carbon Capture and Storage (CCS), hydrogen utilization and reforestation in collaboration with various organizations to absorb carbon dioxide through nature-based solutions.

(More details are in the Section 1, Subsection 3 Driving Business towards Sustainability, Topic 3.4 Overview of Sustainability Material Topics Management and Performance, Page 160 - 172)

4) Supporting government policies for economic growth, and the grassroots economy in close collaboration with the public sector,

by expanding NGVs support measures for taxis and public buses nationwide through the Privilege Card Program. NGVs price discounts are provided for taxis, small vehicles (Taxi trucks and passenger vans), and large vehicles (mini buses and buses) with a purchase limit of THB 12,000 per month per vehicle*, THB 10,000 per month per vehicle and THB 40,000 per month per vehicle, respectively, from July 5, 2023 to December 31, 2024, amounting to THB 708 million.

* Remark: From February 1, 2024, the NGV purchase limit for taxis was increased from THB 10,000 per month/car to THB 12,000 per month/car.

2. Society and Communities

- Development of human resource community and society
- Development of product and community potential
- Improving the quality of life of the underprivileged and creating economic opportunities for coffee farmers through the operation of Sarn Palung Social Enterprise Co., Ltd.
- Promoting the conservation and restoration of natural resources and the environment.

(More details are in the Section 1, Subsection 3 Driving Business towards Sustainability, Topic 3.4 Overview of Sustainability Material Topics Management and Performance, Page 183 - 193)

3. Investors

PTT is dedicated to fostering economic growth, enhancing national competitiveness, improving societal well-being, leveraging innovation and technology across all sectors, and being a driving force for people's way of life, society, communities, and environment to move through changes under the new vision for investors' confidence in PTT's sustainable operations and delivering consistent returns while remaining an integral part of Thai society.

Investors' Activities (Common Shareholders)

Since 2006, PTT has arranged ongoing trips for minor investors to visit its operations, update information, and meet the management, as well as participate in PTT's CSR activities in Rayong Province.

In 2020 - 2022, due to the continuous outbreak of COVID-19 in Thailand, PTT decided to halt the company site visit to prevent the spread of COVID-19 for the safety of participants.

In 2024, PTT scheduled minority shareholder site visits to Vidyasirimedhi Institute of Science and Technology (VISTEC), Kamnoetvidya Science Academy (KVIS), and Wangchan Forest Learning Center, Rayong Province on November 26 - 28, 2024. 300 eligible visitors were divided into 3 groups of 100 people each. PTT sent invitation letters and acceptance documents to shareholders listed as of the Record Date to determine their right to attend the 2024 AGM (March 1, 2024) for shareholders to submit their intention to visit PTT's business. In addition, since there were 3,964 people interested in visiting PTT's business via postcard and QR code, PTT required a lucky draw to select eligible visitors, which was witnessed by executives and assigned staffs. The lucky draw was scheduled on October 15, 2024 and the list of eligible visitors to PTT's business was announced on PTT Website. PTT officials notified those who had the right to visit PTT's business by telephone to confirm their acceptance. After the activities, PTT provided a satisfaction survey to attending shareholders to gather their feedback and suggestions, utilizing the input to improve its work in the following year.

Shareholders who are interested in joining the next site visit (2025) can follow the progress and details of the project on PTT Website. PTT reserves the right for shareholders who have not participated in this activity only, if it is the same visit site.

Activities for Institutional Investors and General Investors

PTT organizes activities to meet institutional investors and general investors in the physical form along with communication through various online networks using modern technology systems. Diversified communication channels are considered another form of investor relations management, which can increase investors' satisfaction and engagement with PTT.

Investors' Activities (Debenture/ Bondholders)

Since 2003, PTT has been issuing and offering debentures to shareholders. In 2024, the number of Baht-denominated debenture holders reached 16,667. PTT has consistently engaged with debenture holders through various activities since 2010, aiming to maintain strong relationships and reward their long-term confidence in PTT bonds. In 2024, PTT organized a range of activities to cater to debenture holders of all age groups, utilizing advanced technology to host seminars via live streaming. Additionally, the Happiness Magazine Paperless Project was implemented to determine the appropriate number of magazines to produce, thereby reducing paper usage and supporting the country's move towards a low-carbon society. Debenture holders can access all event details through online channels.

PTT continues to enhance efficiency and improve debenture holders' satisfaction by promoting the use of technology. The organization has developed services through the PTT Debenture Line official account and mobile application. By the end of the year, over 10,068 debenture holders had joined various membership systems.

4. Customers

PTT divides its market into domestic and overseas with two major groups of customers: Business to Business (B2B), which consists of customers in gas, international trading, and infrastructure businesses, and Business to Customer (B2C), with NGV customers, where the core products are natural gas, crude oil, petroleum products, petrochemicals, and chemicals.

PTT listens to customer needs and expectations to analyze them through diversified channels, including customer visits, both onsite and online seminars, opinion surveys, and customer information via online channels, for instance, the official website of the International Trading Business Unit which connects 5 PTT affiliates and representative offices globally; power plants and wholesale's Customer Service Center (CSC) website, and industry's PTT NGR website provide information necessary for business operations such as economic situation and trends, energy, government policies, regulations, technology innovation, natural gas properties and consumption, financial and economic data for designing products and services that meet the current and future needs and expectations.

PTT has consistently advanced its products, services, and support systems to enhance the speed, accuracy, and precision of customer transactions. This includes the implementing of Robotic Process Automation (RPA) in the billing process and developing of the One Platform system for data sharing with flagship companies. This system supports product import and export planning, optimizes logistics through initiatives such as Co-load and Co-purchase, and thereby creates additional trade value. Additionally, the Intelligence Trading Signal (ITS) has been developed to identify optimal times for buying and selling derivatives contracts, providing an effective price risk management model that better meets customer needs amid volatile market conditions. PTT has also expanded its customer contact channels through its official LINE account, facilitating customer interactions and providing updates on energy prices, news, market insights, and relevant information, along with links to the CSC website and Application Voice.

Comprehensive consulting services for compressed natural gas and liquefied natural gas distribution systems are offered to increase LNG usage channels for industrial customers outside the pipeline network. This also enhances efficiency in product delivery management and energy consumption for customers. These initiatives have strengthened PTT's relationships with customers, fostering long-term business partnerships and enhancing customer engagement with PTT.

PTT has also developed comprehensive service and procedure manual that covering including manuals for service station standards, gas customers guideline, pipeline emergency response plans, industrial gas pipelines and gas metering procedures. PTT operates in compliance with standards set by the Energy Regulatory Commission (ERC) and regularly reported its operations to the commission as required or, in the case of violation of the standard, within the specified timeframe.

PTT conducts annual assessments of customer satisfaction, dissatisfaction, and engagement, comparing results with competitors. Customers' satisfaction and dissatisfaction are regularly collected and analyzed for proposing and improving products and services or problem-solving in a timely manner.

Despite the volatile and competitive gas market, PTT has maintained a high level of customer satisfaction by organizing after-sales service activities such as seminars to meet with customers and clarify the gas situation, providing technical services, listening to problems and complaints for developing plans, and regularly updating customers with relevant information. PTT also launched the online classroom platform (GASTALKTH.COM), which provides news on various types of fuels, maintenance techniques for gas pipeline systems and other industrial equipment, energy efficiency laws, and expert-Led training for industrial plants. Those interested can enroll in an unlimited number of classes. Additionally, PTT creates social activities for customers, such as exchanging plastic bottles for recycling and tree planting in national parks to create green spaces and reduce carbon dioxide emissions.

PTT classifies complaints based on their severity and defines Service Level Agreements (SLAs) for each type. Relevant units are required to resolve issues within a specified timeframe. All complaints must be acknowledged within 24 hours. Once the issue is resolved, PTT will conduct a customer satisfaction survey regarding its problem-solving efforts. Additionally, customers will be informed of PTT's long-term problem-solving plans to enhance their confidence and satisfaction, thereby fostering their engagement with PTT's products and services.

Customer Satisfaction Survey (%)

| | Natural Gas | | | | | International Trading |
|------|-------------|----------------------------|----------|--------------------------------------|------|-----------------------|
| | Natural Gas | Power Plants and Wholesale | Industry | Petroleum and Petrochemical Products | NGV | |
| 2024 | 94.0 | 93.0 | 94.0 | 90.2 | 93.0 | 97.3 |
| 2023 | 93.2 | 90.1 | 94.0 | 92.9 | 87.0 | 94.4 |
| 2022 | 92.2 | 90.0 | 92.9 | 89.9 | 90.6 | 90.8 |
| 2021 | 92.2 | 90.8 | 92.6 | 91.3 | 90.2 | 99.3 |

5. Suppliers and Partners

Recognizing the vital role of suppliers and partners in achieving business success, PTT is committed to treating them with fairness and respect, reflected in our adherence to fair competition, mutual respect, fostering strong relationships and cooperation, and strict compliance with contracts and procurement procedures, which are essential for determining expenses and ensuring product and service quality. Clear procurement procedures are in place to guarantee transparency, auditability, and maximum benefit.

To achieve its resolution, PTT is committed to sustainable growth while upholding good governance for communities, society, and the environment. Consequently, PTT places significant importance on supply chain management by implementing clear risk management processes and mitigating the impacts of business partners' actions to ensure the success of supply chain management in a sustainable manner. The 3 key factors for the drive are as follows:

1. Clear business policy and directions

PTT's policies and strategies are pivotal in raising awareness among employees and society regarding PTT's commitment and business direction. Consequently, PTT has issued PTT Group policy on sustainable procurement and supplier management. To provide PTT's business partners with guidelines for conducting business in line with the corporate sustainable management concept, PTT introduced the PTT Supplier Sustainable Code of Conduct (SSCoC) on April 1, 2012, with its latest revision on November 1, 2022. The content and scope are set under the requirements, regulations, and relevant laws. This initiative drives PTT's suppliers to operate ethically, respect human rights, ensure occupational health and safety, and prioritize sustainable environmental management, including the issues that PTT focuses on. The SSCoC consists of 4 main topics as follows:

1. Business Integrity
2. Corporate Social Responsibility
3. Safety
4. Environmental Management

2. Sustainable supplier selection and management process development

To align supply chain management with the organization's direction, PTT has established supplier management guidelines considering Environmental, Social, and Governance (ESG) impacts. PTT assesses risks and impacts from environmental, social, and governance perspectives, categorizing business partner management into 3 levels: (1) Critical/ Strategic, (2) Key, and (3) Manage/ Routine, based on potential impact severity. For the Critical/ Strategic group, management actions are more intensive. These suppliers must formally acknowledge PTT Supplier Sustainable Code of Conduct and respond to the Sustainability Performance Assessment Form. If they do not meet the criteria, they must create an ESG Corrective Action Plan. PTT reserves the right to audit these self-assessments. In 2024, PTT, along with a third-party agency, conducted sustainability assessments of 7 Critical business partners, all of them passed the criteria. PTT also initiated a project to develop suppliers' sustainable operations, selecting major business partners for training on sustainability capability development and practices. These suppliers also undertook self-assessment for development planning in line with PTT's policy. Additionally, PTT has a Green Procurement policy aligned with the public sector. A system supports green procurement through PTT Vendor Management System, compiling green product and spending data. In 2024, there were 33 tasks related to green spending and products, valued at approximately THB 449 million.

PTT and PTT Group are dedicated to reducing risks in product and service supply, enhancing supplier service confidence, and promoting sustainable procurement in line with international standards. In 2024, PTT adopted the ISO 20400:2017 Sustainable Procurement standard for joint procurement across 3 groups in PTT Group. The plan is to extend this practice to all business groups within 5 years.

To demonstrate PTT's transparency and confidence in business operations, PTT has actively collaborated with public agencies to prevent and combat corruption, exemplified by the signing of a memorandum of cooperation with the Office of the National Anti-Corruption Commission (NACC), the State Enterprise Policy Office (SEPO), and other state enterprises to ensure the successful implementation of the national strategy on preventing and suppressing corrupt practices, relevant measures, government policies, and action plans within state enterprises under corporate governance (CG). To this end, PTT has disclosed procurement-related information in accordance with the announcement by the Official Information Commission, which mandates that public agencies must make information on procurement deliberations available to the public under Section 9 (8) of the Public Information Act of B.E. 2540 (1997). PTT ensures monthly disclosure of this information on its website, www.pttplc.com, for public examination. Additionally, PTT's procurement information disclosure undergoes an annual assessment through the State Enterprise Integrity and Transparency Assessment (ITA) project, conducted by NACC. In 2024, PTT achieved a 100% score on procurement information disclosure based on the assessment of visual evidence inspection.

Since August 24, 2017, PTT has complied with the Public Procurement and Supplies Administration Act, B.E. 2560 (2017), by preparing and publicly announcing an annual procurement plan according to the Comptroller General's Department's specified method. This initiative benefits vendors interested in working with PTT by enabling efficient and effective planning and preparation for proposal and price submissions. PTT disseminates the annual procurement plan through 3 channels: (1) the Comptroller General's Department Public Procurement System: www.gprocurement.go.th, (2) PTT Procurement Website: <https://procurement.pttplc.com>, and (3) announcement boards at PTT offices. Specifically, at PTT Head Office, the announcement is made following the Comptroller General's Department's prescribed format and is simultaneously displayed electronically via the Digital Signage Kiosk. These measures enhance the accessibility and convenience for traders to receive information about PTT's annual procurement plan promptly.

PTT has appointed PTT Procurement Oversight Committee (KorTorJor) to ensure transparency in procurement processes. This applies to both procurement under procurement laws and direct commercial procurement adhering to PTT regulations approved by the Public Procurement and Supplies Administration Policy Committee. The KorTorJor Committee, comprising executives from procurement, legal units, and the Office of Corporate Audit, governs and audits procurement processes to ensure compliance with relevant laws, regulations, criteria, and relevant processes. Annually, the Committee conducts random inspections to identify deficiencies, determine causes, and implement preventive measures.

PTT has enhanced its procurement process efficiency to be more equitable, transparent, and flexible by developing PTT Bid Submission system, which allows vendors to receive and purchase procurement documents, as well as submit proposals and prices through online channels, thereby reducing vendors' travel time and costs, and minimizing the use of paper and other resources. Additionally, the registration process for PTT Vendor Management (PTTVM) system has facilitated the upload of legal entity information and identification documents via the Department of Business Development's Web Service. Detailed vendor evaluation results are now added after each delivery period, ensuring compliance with PTT's corporate governance policy and commitment to transparency, fairness, and auditability in business operations.

3. Capability development of relevant parties

Since the mastery and caliber of relevant parties represent another key factor driving the success of this matter, PTT values capability development on procurement and management of business partners by PTT's executives and employees systematically and suitably. This is achieved through training, communication, and knowledge management (KM), to achieve the sustainability objectives of business partner management of PTT and PTT affiliates companies. Annual reviews and plans are conducted for the development of employees in the procurement profession to empower employees to effectively accommodate organizational changes. The focus is on providing employees with expertise in laws,

rules, and regulations related to procurement. Employees are encouraged to attend procurement courses certified by government agencies. Their knowledge is enhanced by inviting qualified and experienced instructors from government agencies such as the Office of the Ombudsman, and the Office of the Attorney General to give lectures, educate, give advice, and observations on additional operations to ensure that employees have knowledge and understanding, expertise in procurement, able to perform work correctly and professionally. Knowledge is extended and applied using information technology to design and develop Digital Procurement with a focus on preventive and control system development for raising the standard of PTT's procurement process to be efficient, accurate, fast and responsive to the needs of suppliers.

PTT organizes additional training courses such as a sustainable procurement guideline workshop in line with ISO 20400:2017 Sustainable Procurement to provide employees with knowledge and understanding of sustainable procurement principles, the development of PTT Group ESG Auditors to equip employees with knowledge and understanding of assessment criteria, basic auditing principles, guidelines and processes of a good auditor, which can be adapted or integrated into the sustainability vendor audit process, as a guideline for developing each business partner to sustainably conduct business in the environment, society, economy together with PTT Group.

To foster the exchange of information and knowledge between PTT and its business partners, and to enhance their potential in supporting PTT's operational results, business continuity, and social responsibility, PTT organizes an annual supplier seminar. In 2024, 5 Supplier Seminars were held: two at the PTT Head Office, one at Rayong Gas Separation Plants, one at Natural Gas Transmission, and one at Natural Gas for Vehicles. During these seminars, PTT communicated its business direction to achieve the Net Zero target by 2050, under its new vision and mission, including sustainability guidelines, corporate governance, stakeholder management, and adaptation to changes with a digital procurement system that emphasizes transparency, convenience, and speed. Participants were also invited to declare their anti-corruption intentions under

the CAC program, which benefits suppliers by fostering strong business growth. PTT promotes participation in sustainability management aligned with its operations, setting a strong example for its business partner network throughout the supply chain. The company is committed to addressing the needs and treating all stakeholders equally, with a particular focus on actively developing, supporting, and promoting sustainable growth among its suppliers and partners.

PTT requires bidders to strictly comply with the rules of work safety and tool handling, as well as other regulations, particularly the types of work affecting health, safety, and the environment. PTT visits business partners' sites to assess their capabilities, particularly those on the Safety, Security, Health, and Environment side. In addition, business partners' employees must complete mandatory training on PTT's sites in addition to conforming to the requirements for entering sites to work, as described for each specific job role.

PTT Approved Vendor List (PTT AVL) is prepared for the benefit of procurement through bidding to ensure that, under the process of determining business groups and procedures or methods of selecting business partners to register for PTT AVL, business partners are efficient and deliver products/ services that meet PTT's requirements and foster sustainable partnership with PTT. In 2024, PTT AVL consisted of 337 companies from 28 groups.

To ensure efficient preparation of PTT AVL, PTT considers the criteria, conditions, and qualifications of vendors who apply to PTT AVL in each business group. Initial qualifications must meet the following requirements:

1. Vendors must never abandon the work of PTT, the public sector, state enterprises, and government agencies.
2. Vendors must not have the following PTT's Blacklist criteria:

- Be a person the NACC resolves as having grounds for fault. Such a person will no longer be classified as prohibited once the case is finalized and they are proven not guilty.
- Be a party to PTT in any dispute or case for which criminal penalties are imposed, but not including petty offenses.
- A person whose contract with PTT has been terminated due to fraudulent actions against PTT.
- Be a person who is in the process of being ordered bankrupt by the court.
- Be a person designated and declared by the Anti-Money Laundering Office under the Anti-Money Laundering and Combating the Financing of Terrorism laws.

3. If vendors were removed from the Vendor List, they would have no right to apply for registration in that particular business group for 3 years from the day of revocation. An exception applies if the removal was the result of abandoning the work of PTT, state enterprises, and public sector agencies, in which case PTT will not accept them to PTT AVL until PTT receives a letter proving the cancelation of such removal.

4. Vendors must understand and acknowledge PTT Suppliers' Sustainable Code of Conduct (SSCoC).

Apart from these initial criteria, PTT assesses vendors' operations and sustainable implementation in parallel.

After vendors deliver products/ services in each allotment, PTT will assess and notify them of the strengths/ improvements for future supplier development.

PTT prioritizes supporting Thai vendors of goods and services. Historical procurement data indicates that PTT has sourced approximately 96% of its products locally. This approach not only promotes the procurement of products from areas where PTT operates but also stimulates cash flow within the Thai economy, creates jobs, and generates income for local communities.

6. Directors and Employees

This appears under Section 7: Corporate Governance Structure, Topic "7.5 Employees."

Respect for Universal Human Rights Principles (Code)

Since implementing the human rights management system in 2016, PTT has demonstrated its strong commitment to conducting business with respect for human rights principles as outlined in PTT's Human Rights Statement, PTT's Sustainability Management Policy, and PTT's Compliance Policy. PTT has reviewed human rights risks across its business operation, covering 17 companies in 21 countries and totaling 50 areas under PTT Group Way of Conduct. The Group identified core operational risks in areas such as the security and occupational health of employees and contractors, labor rights, suppliers' workplace conditions, community living standards, and the rights of indigenous peoples. Control measures have been developed and applied along with human rights management plans to effectively mitigate risks by the responsible unit. These measures include raising the management level and conducting quarterly follow-ups on plan implementation, with reports submitted to relevant committees according to governance structure including PTT Board and the designated management for review and feedback to maximize efficiency and effectiveness. In addition, PTT has established the processes and provided multiple reporting channels to accommodate all stakeholder groups. Furthermore, a management system for complaints, including both corrective actions and prevention of recurrence, as well as appropriate remediation, is also put in place. Since 2012, PTT has been a member of the United Nations Global Compact (UNGC), disclosing operational information in accordance with its 10 Principles of the UNGC. In 2024, no complaints were found on human rights issues. Additionally, PTT participated in the effectiveness assessment of operating outcomes on human rights organized by the Corporate Human Rights Benchmark (CHRB) and was ranked in the 2nd quartile level of the Extractive industrial group, despite the more intense assessment methodology. PTT was also awarded the Outstanding Role Model Organization Human Rights Award 2024 in the State Enterprise sector by the Rights and Liberties Protection Department, Ministry of Justice, for the 4th consecutive year.

Significant Disputes with Stakeholders

This appears under Section 1: Business Operations and Performance, **"5.2 Legal Disputes."**

Policies and Guidelines for Stakeholders' Personal Data Protection

PTT places a high priority on protecting the personal data of all stakeholders, ensuring compliance with the Personal Data Protection Act B.E. 2562 (2019) (PDPA), effective June 1, 2022. To this end, PTT has established comprehensive personal data protection policies and guidelines to ensure that the handling of personal data for customers, business partners, and associates is conducted in accordance with regulatory requirements and operational standards, with appropriate, concise, consistent operational guidelines as required by laws. PTT personnel are trained to manage personal data correctly and legally, covering aspects such as collection, use, disclosure, and security. Additionally, PTT has set up a "Privacy Center" on its website <https://pttpdpa.pttplc.com> to provide stakeholders with detailed information on data processing, privacy notices (a notification to the personal data regarding the objectives, collection, use and disclosure of information, retention period, the rights of personal data owner), rights, and contact channels, including the Data Protection Officer at the E-Mail: pttdpo@pttplc.com.

Disclosure and Transparency

Disclosure of information is a key transparency index of operation, a crucial factor for confidence among investors and stakeholders. PTT values accurate and precise information disclosure and creates numerous channels of disclosure so that all stakeholders can gain easy access to information. It promotes awareness among directors, management, and employees of the importance of information disclosure and transparent operations, and creates appropriate avenues for complaints while providing fair treatment to whistleblowers and those complained against as follows:

Financial and Non-financial Reports

PTT discloses its sustainability reports and performance, considering the interests of all stakeholders and covering Environmental, Social, and Governance (ESG) aspects. This information is presented through the Annual Registration Statement/ Annual Report (56-1 One Report) in the subsection "Driving Business towards Sustainability." Additionally, details on the outcomes of sustainability implementation are included in Risk Management, Management's Discussion and Analysis (MD&A), and Corporate Governance (CG) sections, as well as published on PTT Website under the Sustainability section. The sustainability performance reporting is based on Global Reporting Initiative (GRI) Standards, GRI 11: Oil and Gas Sector 2021, International Financial Reporting Standards (IFRS) Sustainability Disclosure Standards (S1 and S2) of the International Sustainability Standards Board (ISSB), The United Nations Global Compact (UNGC), and Measuring Stakeholder Capitalism: Towards Common Metrics and Consistent Reporting of Sustainable Value Creation of the World Economic Forum (WEF). PTT applies the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) to report performance on climate change, disclosed as a thematic report on PTT Website and also illustrates its commitment to supporting the UN Sustainable Development Goals (SDGs). PTT's 22 sustainability indicators covering all ESG dimensions have been verified by an independent external party to build confidence in the data disclosed annually.

Investor Relations

Ever since PTT's privatization in October 2001 and share trading on SET in December 2001, the Investor Relations Department has centralized essential information for investors and shareholders, both domestically and internationally, with financial data such as the quarterly performance and financial statements, quarterly Management's Discussion and Analysis (MD&A), corporate strategies, and outlooks of PTT, which are regularly, fairly, and comprehensively disclosed. Investors may directly

contact Investor Relations at 0-2537-3518-9, E-Mail: ptt-ir@pttplc.com, and follow up on PTT information through the website at www.pttplc.com, which is regularly updated, with both Thai and English information, which includes:

- Company information
- 56-1 One Report
- Information for common shareholders
- Information and activities for debenture holders
- Presentations and Webcasts
- Roadshow/ Conference
- Analyst Research
- Activity Calendar
- Code of Conduct for Investor Relations
- Major investment project information
- Policy and business direction statements by management
- Compliance with public policies
- Key plans
- Corporate Governance Policy
- Financial performance
- Non-financial performance
- Highlights of CSR activities
- Procurement
- Name and contact number of Investor Relations

Through the years, PTT has valued disclosure of information that is accurate, complete, transparent, and comprehensive, as well as continual direct and indirect presentation of performance. Highlights appear below:

- **Direct:** PTT regularly reports performance, capital budgets, and industry outlooks to analysts, institutional investors, and employees at Quarterly Analysts' Meetings. In 2024, they were organized through physical meetings in parallel with virtual conferences (Microsoft Teams and Facebook live) in Thai and English, conference calls; local and international roadshows/ conferences organized by securities companies and/or those directly contacted with IR; virtual conferences with analysts, institutional investors and/or related parties such as credit rating agencies. To increase communication channels and ease of access to information, continuous application of digital technology e.g. via PTTIR Line Chatbot to provide information to analysts and institutional investors to access operating results, prices of oil, petroleum, and petrochemical products, schedules

of AGM and Analyst Meeting of PTT Group; dividend payment schedules of PTT Group; automated inquiry response channel; press meetings to discuss performance outcomes and investment projects; knowledge sharing on upstream and downstream businesses, cooperation of PTT Group via PTT Group Investor Day for Thai fund managers; participation in SET's Opportunity Day via Virtual Conferences using the Webex Meeting program; global institutional investors quarterly meeting via Digital Platform (SET Digital Roadshow) to inform investors and analysts of directions and opportunities of PTT business operations according to the new vision. In 2022 - 2024, the following key activities took place as follows:

| Activity | 2022 (times) | 2023 (times) | 2024 (times) |
|---|--|---|---|
| Analyst Meeting via Facebook Live/ Webex/ MS Teams | 4 | 4 | 4 |
| Conference Calls (presentations of quarterly performances, capital investment, and other key events (if any)) | 4 | 4 | 4 |
| Domestic roadshows/ conferences (including provision of basic PTT business knowledge, via Physical and Virtual Meeting) | 12 | 9 | 12 |
| International roadshows/ conferences (including Virtual Meeting) | 12 | 5 | 5 |
| Company Visits (via Physical and Virtual Meeting) | 65 | 70 | 50 |
| Credit Rating Review | 3 | 3 | 3 |
| Press Meeting | 2 | 2 | 2 |
| Company visits by analysts and institutional investors | 1 | 1 | 1 |
| E-Mails/ phone calls | 10 - 12 times a day | 10 - 12 times a day | 10 - 12 times a day |
| Participation in Quarterly SET Opportunity Days | 4 | 4 | 4 |
| Participation in SET Digital Roadshows organized by SET | 4 | 4 | 4 |
| Minor investors' meetings with management and company site visits | Two debenture holder visits (2 groups) (August 23 - 25, October 4 - 6) | Two debenture holder visits (2 groups) (May 23 - 25, October 3 - 5) | Two debenture holder visits (2 groups) (May 28 - 30, September 24 - 26) |
| | No common shareholder site visit in 2022, due to COVID-19 | One common shareholder site visit (3 groups) (November 21 - 23) | One common shareholder site visit (3 groups) (November 26 - 28) |

| Activity | 2022 (times) | 2023 (times) | 2024 (times) |
|---|----------------------------|----------------------------|----------------------------|
| Relations activities with debenture holders | 14 (3 via online channels) | 16 (4 via online channels) | 15 (3 via online channels) |

- **Indirect:** PTT disclosed information on performance, financial statements, and reports filed with SET. PTT's SET reports can be found at www.set.or.th, www.pttplc.com, and the "Happiness" magazine for debenture holders (via PTT Debenture Application).
- Investors and interested parties can also submit inquiries to Investor Relations at Tel. 0-2537-3518-9, E-Mail at ptt-ir@pttplc.com, or through www.pttplc.com. In addition, PTT has constantly publicized news, business activities, operations, and project updates as well as addressing questions and facilitating contacts for the media and the public. In 2022 - 2024, the activities appear below:

| Activity | 2022 (times) | 2023 (times) | 2024 (times) |
|--|---------------------------|----------------------------|----------------------------|
| E-Mails | 747 | 684 | 178 |
| News/ photo releases | 261 | 183 | 119 |
| Press conferences | 2 | 1 | 4 |
| Media visits to operations (domestic and international) | 3 | 3 | 2 |
| Welcoming and providing information to visiting agencies for assorted purposes | 5 groups (168 persons) | 18 groups (594 persons) | 26 groups (713 persons) |

The Policies and Guidelines for Shareholders and Stakeholders

4) The Use of Inside Information

PTT has defined guidelines in its CG handbook for all employees on best practices, for the use of inside information and guarding of confidential information. They must guard PTT's inside information or confidential information not yet publicly available, and must not share inside information learned during the course of their duties with other parties or use it to fraudulently seek profit or to cause damage to PTT's interests.

In addition, PTT has a policy for PTT Board, management, and personnel with the privilege of inside information to refrain from insider trading of PTT stocks as well as those of PTT Group. If necessary, they must report such trading to the Company Secretary at least 2 days in advance. All PTT personnel will be reminded to refrain from using inside information through PTT's contact channels, in particular, upon important events such as capital increases, debenture issuance, etc.

5) Conflict of Interest

PTT mandates the disclosure of any conflicts of interest between personal interests and the company to prevent activities that may lead to conflicts of interest, or illegal, or inappropriate actions. The Board has established a policy on conflicts of interest based on the principle that all business decisions made by personnel at every level must prioritize the best interests of PTT. It is the duty of all personnel to continuously assess whether they have any interests or conflicts of interest in their work and to comply with related measures. Personnel involved in or connected with the transaction under consideration must notify PTT of their relationship or connection and must not participate in the decision-making process. PTT must ensure that such personnel do not have the authority to approve or be involved in the transaction.

Reporting Potential Conflicts of Interest with PTT

PTT has required all directors, management, and employees to prepare a report on the disclosure of transactions that may have a conflict of interest with PTT through the conflict of interest reporting system annually and every time an incident occurs, and stipulated adequate and appropriate internal control measures. Audit Committee is responsible for reviewing transactions that may involve conflicts of interest or potential corruption that could impact PTT's operations, in accordance with the laws and regulations of the Stock Exchange.

Reporting Vested Interests of Directors, Management, and Related Parties

In the first quarter of 2024, the Board submitted reports on their vested interests to be used as basic information for stakeholder governance at the director level; the same process was followed by senior management. These reports are prepared annually and submitted to the Company Secretary for collection. A copy is provided to the Chairman of the Board and the Chairman of the Audit Committee for review and supervision of conflicts of interest. In 2024, no vested interests of directors, management, and related parties were reported.

In addition, newly appointed directors must report their vested interests with directors, executives, and related persons and notify the Company Secretary for further collection and submission to the Chairman of the Board and the Chairman of the Audit Committee within 7 days.

Reporting Changes in Share Portfolios

As part of the oversight of inside-information measures, all PTT directors and management, including their spouses and children under the legal age, must report any changes in their PTT share ownership to PTT and the SEC under Article 59 of the Securities and Exchange Act B.E. 2535 (1992) and its amendments within 3 days of the date of sale, purchase, disposal, or receipt of such shares. PTT defines a policy of disclosing such reports of the directors and management to the Board meeting as a regular agenda in the calendar of board meetings in advance.

A week before the closing of the quarterly and yearly financial statements, Office of President issues a PR media release on insider trading to PTT personnel. Additionally, a letter is sent to directors, management, or units with access to inside information, prohibiting the disclosure of such information to external parties or those without relevant duties. It also forbids the purchase and sale of PTT shares within 45 days for quarterly financial statements and 60 days for annual financial statements from the closing date of the financial statements until

the submission date to the SET. In other words, this restriction applies before the financial statements are made public. Directors, management, and personnel with access to inside information must refrain from trading securities or derivatives related to securities until 24 hours (1 day) after the information is disclosed to the public to prevent insider trading.

Filing of Assets and Debts to the National Anti-Corruption Commission (NACC)

Under the Organic Act on Anti-Corruption B.E. 2561 (2018), PTT's directors, top executives, deputy top executives, and equivalent positions including those in companies where PTT holds more than 50% shares, are required to file a comprehensive list of their assets and liabilities. This requirement extends to their spouses, both registered and unregistered, living together as husband and wife, and their children under the legal age. These declarations are submitted to the NACC to ensure transparency in assets and liabilities. PTT utilizes the Online Declaration Registration System (ODRS) of the NACC to report any changes in appointments or transfers of individuals responsible for filing these declarations. Additionally, PTT issues reminders to individuals responsible for filing of assets and debts, as well as reminding directors and senior management through formal letters and direct notifications.

Disclosure of Vested Interests in Meetings

The Board of Directors has established a policy on vested interests for all Board meetings and any other meetings. The Chairman consistently reminds directors to comply with the conflict of interest policy for all agenda items, mandating that individuals with vested interests must declare their interests and abstain from voting, providing opinions, and not attending that agenda. This ensures that other meeting participants can consider, analyze, and critique without the influence of stakeholders. In 2024, there were 18 agenda items presented to the Chairman across a total of 24 meetings.

Review of Connected Transactions

The Audit Committee is responsible for considering connected transactions or transactions that may have a conflict of interest or the possibility of corruption that may affect PTT's operations in accordance with the laws and regulations of the Stock Exchange.

6) Right of Shareholders

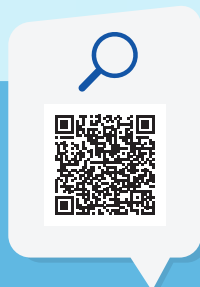
PTT has adopted measures to ensure fair and equal treatment of all shareholders through a corporate governance policy and best practices that promote participation and communication with shareholders. These guidelines are documented in PTT's "Corporate Governance, Ethical Standards, and Code of Business Ethics Handbook," which all directors, management, and employees are required to follow.

7) Anti-Fraud and Corruption

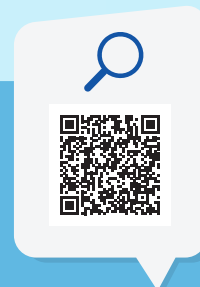
PTT is dedicated to conducting its business with integrity, transparency, and fairness, in strict adherence to the CG Code, and resisting all forms of fraud and corruption, whether direct or indirect. To this end, PTT has implemented Anti-Fraud and Corruption Operations, which are continuously improved to ensure effectiveness as follows:

- PTT has developed its annual and long-term plans in alignment with the National Strategy (2018 - 2037), which aims to enhance and balance the public administration system to ensure transparency and eliminate corruption and misconduct. PTT has joined forces with a commitment to governance, operational risk management and internal control, and compliance (GRC) to support business competitiveness in a transparent and auditable manner, in accordance with the CG Code. This approach enables PTT to respond to changes promptly and achieve sustainable growth.

- PTT recognizes that fraud and corruption are critical issues that cause significant damage to the country. Therefore, it is essential to integrate efforts and develop Anti-Corruption networks with public and private agencies to advance the fight against fraud and corruption in a concrete manner, including various forms of cooperation, such as signing Memorandums of Understanding (MOUs) on Driving Good Corporate Governance among the Office of the National Anti-Corruption Commission (NACC), the Securities and Exchange Commission (SEC), the Thai Institute of Directors Association (IOD), and 51 state enterprises. Additionally, PTT has established an Anti-Corruption Operations Center in State Enterprises, participated in National Anti-Corruption Day and International Anti-Corruption Day, and engaged in discussions to exchange ideas in various forums organized by public and private sectors etc.
- In 2012, PTT joined the United Nations Global Compact (UNGC) to demonstrate its commitment to integrating the principles of human rights, labor rights, environmental preservation, and anti-corruption into its business practices at an international level.
- PTT enlisted in the declaration of intention to join the Thai Private Sector Collective Action Against Corruption (CAC), an initiative led by the Thai Institute of Directors Association (IOD) with support from the government and the National Anti-Corruption Commission (NACC). As one of the first 27 companies to join, PTT underwent the certification process and became a certified member in 2014. PTT also received approval for CAC recertification for the 4th term on June 30, 2024.
- PTT has established and annually reviews its Anti-Fraud and Corruption Policy of PTT and PTT Group to ensure alignment with laws, practices, and standards of leading companies. PTT personnel must not engage in any form of fraud or corruption, either directly or indirectly, and are to seriously implement in line with guidelines in the policy. The policy encompasses various operational processes, including charitable donations, human resource management, procurement, internal control. In 2024, PTT conducted a review of the policy and guidelines, confirming their continued relevance to PTT's business model. The findings were reported to PTT's Corporate Governance and Sustainability Committee and the Board of Directors for their acknowledgment.



PTT has presented an update of its compliance with the 10 universal principles of UNGC on PTT Website www.pttplc.com under Section Sustainability, Subheading: Sustainability Governance, Topic: Sustainability Network.



Details of PTT's and PTT Group's Anti-Fraud and corruption policies are shown at https://www.pttplc.com/uploads/CG/PTTAntiFraudandCorruptionPolicy2023_EN.pdf

- PTT has designated PTT's Anti-Fraud and Corruption Policy as part of its CG Handbook and stipulated that PTT Group's Anti-Fraud and Corruption Policy is part of PTT Group way of Conduct for PTT Group have the same operations and management guidelines to create synergy according to investment objectives.



- Since 2015, PTT has implemented a "No Gift Policy" for all festive periods, adhering to practical guidelines under PTT Group's policy on gifts, entertainment, or other benefits. This initiative aims to establish a high standard for business practices, encouraging employees to perform their duties without expecting any benefits. Additionally, PTT has issued an announcement, signed by the Chairman and the President, declaring its commitment to transparent management and the refusal to accept gifts of any kind. An additional letter has been sent to business partners and external agencies through letters, and signboards were put up on PTT premises, and various PR channels. PTT has set an example in Thailand by rigorously enforcing this policy.

- PTT has developed a Fraud and Corruption Risk Assessment Manual for all units to use as a guideline for annual fraud and corruption risk assessment in their work processes (Process Level) according to GRC (Governance Risk and Compliance) guidelines to have an adequate and appropriate internal control process and set to be reviewed regularly.
- PTT places a high priority on conducting business with transparency, fairness, and auditability, with an efficient risk management and internal control system, the Third Party Screening Program was thus enhanced to be clear and practical. In 2024, PTT improved its audit and oversight processes to ensure transparency in third-party transactions within the investment process. The data verification system was also upgraded to assist PTT personnel in efficiently verifying the qualifications of individuals entering into transactions with PTT, ensuring a concise and appropriate manner.
- PTT communicates its Anti-Fraud and Corruption Policy and guidelines to persons related to its subsidiaries, associates, and other PTT-controlled companies, business partners, and stakeholders as well as the public through assorted channels such as letters, E-Mails, Website, social media, PTT intranet, seminars, activities, and exhibitions etc. so that all stakeholders may acknowledge and conform to PTT's guidelines.
- PTT communicates with its employees and provides training to ensure their understanding of Anti-Fraud and Anti-Corruption measures, PTT's expectations, and disciplinary actions for non-compliance. The training includes an orientation session, morality courses, and E-Learning. Executives and employees are encouraged to participate in external courses on Anti-Fraud and Anti-Corruption.
- PTT applies information technology as a means for its personnel to express their transparency which are conflict of interest reporting system, Insider Trading system, and a reporting system on receiving or offering customary gifts, assets, and other benefits under the No Gift Policy, which is intended for PTT personnel who have to receive and cannot return a gift to report and give it to the Good Governance and Corporate Ethics Department to collect and donate for public use.

- Oversight and monitoring of performance:
 - The Board is to supervise PTT to command an efficient system for Anti-Fraud and Corruption to ensure that management recognizes and values Anti-Fraud and Corruption and abides by Anti-Fraud and Corruption measures.
 - The Audit Committee assess the efficiency and effectiveness of corporate governance, risk management and internal control processes; financial reporting to ensure its accuracy and credibility, and related operations to guarantee their alignment with the Anti-corruption policies and guidelines of the Thai Private Sector Collective Action against Corruption (CAC), as well as the complaint filing and whistleblowing process.
 - The Corporate Governance and Sustainability Committee endorses objectives, goals, strategies, and management framework and grants Anti-Fraud and Corruption Policy and implementation directions. The Committee regularly advises, supervises, and monitors related operations, including supporting the implementation of fraud and corruption risk management at the operational level (Process Level) by assessing fraud and corruption risk and reviewing Anti-Fraud and Corruption measures for adequacy and suitability.
 - Executives establish risk assessment for business processes that may lead to corrupt practices, review the efficiency and effectiveness of internal control processes and measures, and personify proper behavior as well as communicate it to all employees and related parties.
 - PTT establishes procedures for maintaining auditable documents and records to confirm the accuracy and suitability of financial reports. The internal control of accounting processes and information storage is audited to verify the effectiveness of Anti-Fraud and Corruption processes and ensure that the entry of financial items is well-evidenced for audit.

- The Office of Corporate Audit reviews potential conflicts of interest, the possibility of corruption, and corporate efficiency, including corruption risks at the operational level. The Office also reviews business ethics principles and the code of conduct for executives and employees. In the event of any transaction or action that may cause serious damage to PTT's performance, conflict of interest, corruption, or any irregularities or major deficiencies in the internal control system, the Office will promptly consider and report its findings and opinions to the Audit Committee and top executives for further consideration and subsequently present them to the Board.

8) Disciplinary Measures for Non-Compliance with Policies, Regulations and Guidelines

- Measures, scope, and tools for whistleblower protection:
 - PTT's HR administration process echoes its commitment to Anti-Fraud and Corruption measures. Although refusal to take part in fraud and corruption may deprive PTT of business opportunities, its policy is not to demote, punish, or harm those who do so.
 - PTT's employees should not ignore actions in potential conflicts with Anti-Fraud and Corruption Policy. PTT has established channels for whistleblowing and the protection of whistleblowers or those who need advice about conformance to Anti-Fraud and Corruption measures.
 - PTT has established rules on "complaint-filing and whistleblowing on corruption and non-compliance with laws and corporate regulations" to define applicable criteria and guidelines that are explicit, transparent, fair, and uniform throughout the corporation. Protective measures and fair treatment are in place for whistleblowers or those who provide information.

- Punishment
 - PTT has established a suitable and fair process for punishing violators of Anti-Fraud and Corruption measures. Any violation of this policy, direct or indirect, will be called for disciplinary review under PTT's regulations, consisting of fact-finding, investigation, punishment, and appeal. They could also lead to punishment by law. Employees must therefore master and strictly conform to the Anti-Fraud and Corruption Policy at every step of their work.

6.2 Code of Conduct

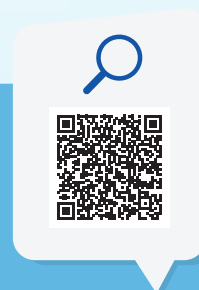
Ethical Standards and Code of Business Ethics

PTT has its written policy, and a code of conduct included in the "Corporate Governance, Ethical Standards, and Code of Business Ethics Handbook" (CG Handbook), based on international standards. The handbook compiles the format, scope of standard behaviors, and actions that the directors, management, and employees must comply with during the course of business and in their duties with ethics, integrity, fairness, and equality. The code maintains PTT's image as an organization of sustainable growth. Supervisors are responsible for the monitoring and promotion of CG compliance among their subordinates. Violators of the code are subject to disciplinary action.

The essential aspects of the code are included below:

1. Compliance with Laws and Regulations and Human Rights Principles
2. Anti-money Laundering
3. Political Support
4. Vested Interests, Conflicts of Interest, and Connected Transactions
5. Confidentiality, Data Safeguarding, and Use of Inside Information
6. Practices with Customers and Consumers
7. Practices with Business Competitors
8. Procurement and Practices with Trade Partners
9. Community, Social, and Environmental Responsibilities
10. Treatment of Employees

11. Practices with Creditors
12. Internal Control and Internal Audit
13. Receiving and Offering Gifts, Entertainment, or Other Benefits
14. Security, Safety, Health, and the Environment
15. Intellectual Properties and Application of Information Technology
16. Responsible communication



Corporate Governance, Ethical Standards, and Code of Business Ethics can be found at https://www.pttplc.com/uploads/CG/Publication/CGHandbookforOneReport/PTTCGHandbook_Revision5.3_EN.pdf

6.3 Milestone Development of the CG Policy, Guidelines, and System during the Year

In 2024, the Board approved the review and revision of the essence of the CG Policy, guidelines, governance system, and the CG Handbook as follows:

- Improving Governance, Risk Management, and Compliance (GRC) Policy to comply with international standards and rules of the regulatory authorities by adding the disclosure of information to stakeholders in a transparent and auditable manner, personnel potential development support, and managing risks that may arise from the use of technology in the organization.

In addition, in 2024, the Governance Risk Compliance and Sustainability Management Committee (GRCMC) approved a material review of the governance such as policy, practices, and system for instance, PTT's Compliance Framework and Third party screening program for pre-investment considerations to be clear and more up-to-date, etc.

Including consideration of approval of the review of the revised substance, policies, practices and corporate governance systems, such as the improvement of the third-party inspection manual on sanction guidance to make the screening more effective appropriate in practice and consistent with international guidelines announced in 2024, etc.

Compliance with CG Code in Other Aspects

The survey conducted by the Thai Institute of Directors Association (IOD) under the Corporate Governance Report of Thai Listed Companies for 2024 ranked PTT performance on corporate governance as "Excellent", with an overall score and by category higher than the average score of 808 other companies surveyed and higher than the average score of listed companies with a market value of not less than THB 10,000 million. The survey was based on the information PTT disclosed to the public.

In 2024, PTT's other guidelines which might be useful to other listed companies are

- The current Chairman of the Board is an independent director and independent in assigning policies and supervising PTT's management.
- PTT requires that independent directors must consist of at least half of the existing directors.

- The Corporate Governance and Sustainability Committee Meeting No. 4/2024 on December 11, 2024, and PTT Board Meeting No. 12/2024 on December 19, 2024, considered PTT's current Corporate Governance Policy and operations, and it was found opinion that PTT's policy, measures, and operational processes are in line with the "Corporate Governance Principles for Listed Companies 2017" (CG Code) prepared by SEC, and the "Corporate Governance Principles and Guidelines for State Enterprises 2019" prepared by the State Enterprise Policy Office (SEPO), Ministry of Finance. PTT also commanded short-term and long-term plans to develop PTT's CG system to suit the business growth directions and trends of other leading international companies.

Currently, PTT has a total of 15 directors, which exceeds the best practice guidelines set by the SEC's CG Code, but in accordance with PTT's regulations, stipulating the number of directors to be no less than 5 and no more than 15. This range is deemed appropriate for the context of energy business operations, requiring qualified individuals from various fields necessary to manage PTT's business.

(Meeting attendance of the specific committees is detailed under Section 2: **"8.1.2 (1) Board Meetings"**).

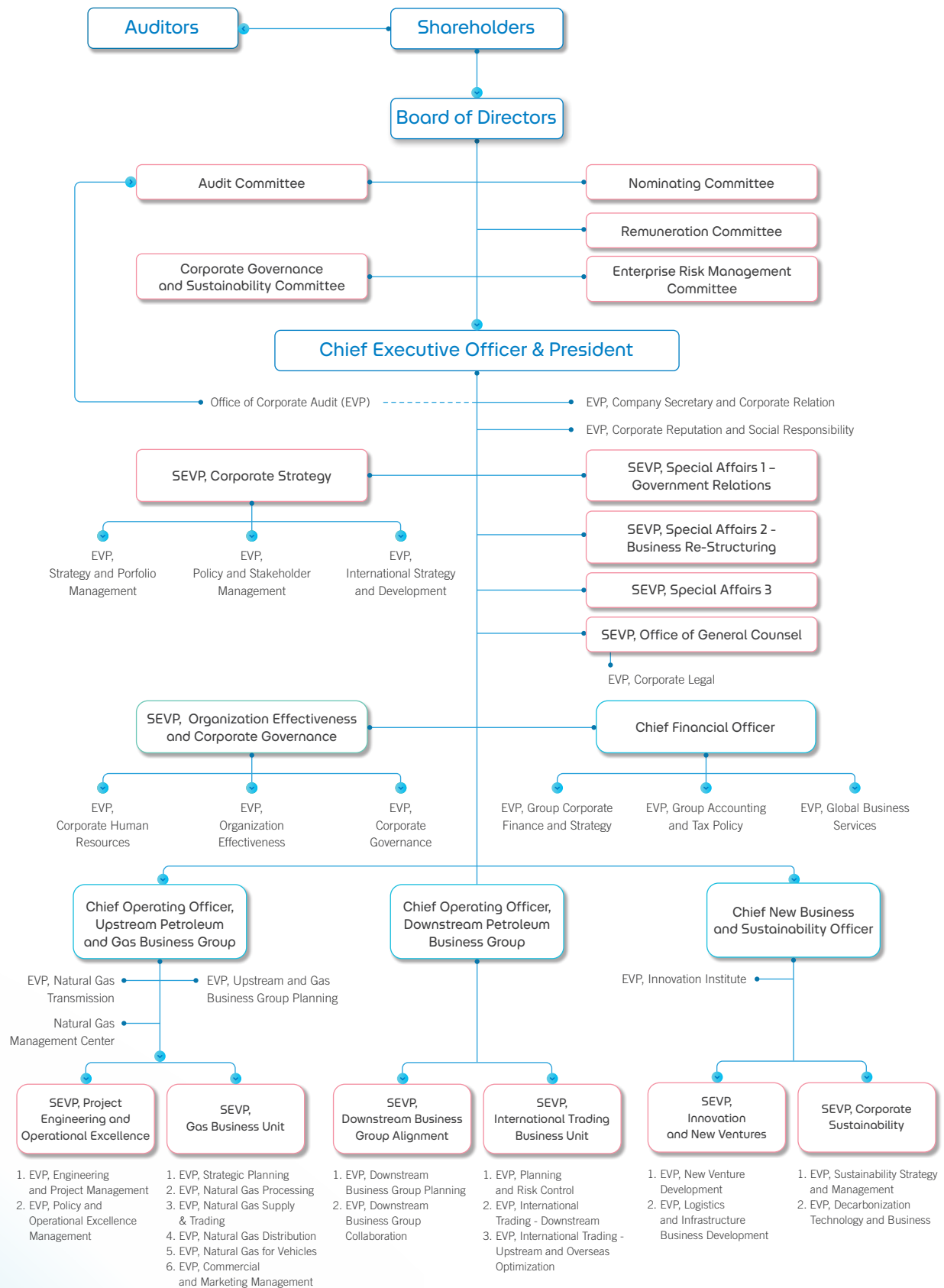
7. Governance Structure and Key Data on the Board of Directors, Specific Committees, Management, Employees and Others

7.1 Governance Structure

PTT's management structure as of December 31, 2024, comprises the Board of Directors and 5 specific committees to consider significant matters: Audit Committee, Nominating Committee, Remuneration Committee, Corporate Governance and Sustainability Committee, and Enterprise Risk Management Committee. CEO & President (President) is the top executive who manages PTT's business groups through 3 groups of 59 management committees.

PTT's management structure as of December 31, 2024, comprises the Board of Directors and 5 specific committees to consider significant matters.





Remark: EVP = Executive Vice President

7.2 Board of Directors

7.2.1 Board Composition

Under PTT's Articles of Association, the Board consists of:

- 5 - 15 persons
- A minimum of 3 independent directors (PTT's CG requires that independent directors account for no less than half of the Board.)
- At least 1 director must be knowledgeable in accounting and finance.

According to the certification of the Ministry of Commerce dated January 1, 2025, the PTT Board consisted of 15 directors as follows:

- 14 non-executive directors (93.33% of the entire Board)
- 12 independent directors, which exceeds half of the Board (80% of the entire Board)
- 1 executive director
- 2 female directors

7.2.2 Information of the Board and Authorized Directors

The Board of Directors as of December 31, 2024, consisted of:

| No. | Name | Position | Date of Appointment |
|-----|------------------------------|--|---|
| 1. | Mr. Chatchai Phromlert | Independent Director/ Chairman of the Board (Appointed as Chairman effective from December 23, 2023) | December 1, 2023 (First term) April 12, 2024 (Second term) |
| 2. | GEN. Teerawat Boonyawat | Independent Director/ Chairman of the Remuneration Committee | April 11, 2019 (First term) April 8, 2022 (Second term) |
| 3. | Mr. Krishna Boonyachai | Independent Director/ Chairman of the Audit Committee (Expertise and experience to review and ensure the accuracy and credibility of financial statements) | July 3, 2020 (First term) April 12, 2023 (Second term) |
| 4. | Mr. Payong Srivanich | Independent Director/ Chairman of the Nominating Committee | April 9, 2021 (First term) April 12, 2024 (Second term) |
| 5. | Mr. Jatuporn Buruspat | Independent Director/ Chairman of the Corporate Governance and Sustainability Committee | April 9, 2021 (First term) April 12, 2024 (Second term) |
| 6. | Mrs. Phongsaward Neelayodhin | Independent Director/ Member of the Corporate Governance and Sustainability Committee | December 1, 2023 (First term) |
| 7. | Mr. Chansin Treenuchagron | Independent Director/ Member of the Audit Committee | May 14, 2022 (First term) |

| No. | Name | Position | Date of Appointment |
|-----|--|---|--|
| 8. | Associate Professor Dr. Narongdech Srukhsosit | Independent Director/ Member of the Audit Committee | October 8, 2021 (First term) April 12, 2023 (Second term) |
| 9. | Mr. Lavaron Sangsnit | Director/ Member of the Nominating Committee/ Member of the Remuneration Committee | April 12, 2023 (First term) |
| 10. | Air Chief Marshal Chanon Mungthanya | Independent Director/ Member of the Nominating Committee/ Member of the Remuneration Committee | April 12, 2023 (First term) |
| 11. | Dr. Chayatan Phromsorn | Independent Director/ Member of the Enterprise Risk Management Committee | August 15, 2024 (First term) |
| 12. | Dr. Nattapon Nattasomboon | Independent Director/ Member of the Corporate Governance and Sustainability Committee/ Member of the Enterprise Risk Management Committee | March 21, 2024 (First term) |
| 13. | Dr. Veerapat Kiatfuengfoo | Director/ Member of the Enterprise Risk Management Committee | October 17, 2024 (First term) |
| 14. | Miss Choosri Kietkajornkul | Independent Director/ Member of the Corporate Governance and Sustainability Committee | May 28, 2024 (First term) |
| 15. | Dr. Kongkrapan Intarajang | Director and Secretary to the Board (CEO & President) | May 13, 2024 (First term) |

Remarks:

In 2024, the Board/ the Annual General Meeting (AGM) appointed new directors to replace those who had either completed their terms and/or resigned as follows:

- No. 11: Dr. Chayatan Phromsorn was appointed an independent director with effect from August 15, 2024, replacing Professor Dr. Thosaporn Sirisumphand who resigned with effect from June 29, 2024.
- No. 12: Dr. Nattapon Nattasomboon was appointed an independent director with effect from March 21, 2024, replacing Mr. Phongsthorn Thavisin who resigned with effect from March 7, 2024.
- No. 13: Dr. Veerapat Kiatfuengfoo was appointed a director with effect from October 17, 2024, replacing Mr. Wattanapong Kurovat who resigned with effect from September 25, 2024.
- No. 14: Miss Choosri Kietkajornkul was appointed an independent director with effect from May 28, 2024, replacing Associate Professor Dr. Chayodom Sabhasri who resigned with effect from May 26, 2024.
- No. 15: Dr. Kongkrapan Intarajang was appointed CEO & President, director, and Secretary to the Board with effect from May 13, 2024, replacing Mr. Auttapol Rerkpiboon, who completed his employment contract with effect from May 13, 2024.

7.2.3 Authorities, Duties, and Responsibilities of the Board

Authorities of the Board

- The Board is authorized to supervise and oversee PTT's management's compliance with applicable laws, objectives, articles of association, and resolutions of shareholders' meetings.
- The Board is authorized to select one director to serve as Chairman and may select a Vice Chairman if appropriate.
- The Board is authorized to appoint CEO & President who has been nominated under the nomination process and procedures under relevant laws and regulations. CEO & President shall be a director and secretary to the Board of Directors.

Duties and Responsibilities of the Board

- The Board has the authority to supervise and manage PTT to operate in accordance with the laws, objectives, Articles of Association, and resolutions of shareholders' meetings, as well as prescribed policies or guidelines.
- The Board shall emphasize and devote time to the formulation of the corporate vision, direction, strategy, policy, and key plan. In addition, they shall gather relevant insights for such formulation; review potential risks; and ensure management's ability to transform such vision, direction, strategy, policy, and key work plans into efficient and effective fruition, with competitiveness and proper performance results with due regard for long-term impacts. PTT must conduct business with ethics, respect shareholders' and stakeholders' rights with responsibility, steer good corporate citizenship with corporate resilience, and encourage innovation within the company. The Board shall review the corporate vision, direction, and strategies annually.
- The Board shall review and endorse the company's strategies, policies, and business plans in addition to objectives, financial targets, and budgets as well as key resource allocation to enable objective and goal achievement.
- The Board shall regularly provide oversight, control, monitoring, and review of management performance

to ensure that they are performing according to the approved business plans in line with the company's direction and strategy at least annually. To this end, the Board shall advocate corporate culture to achieve the mission, objectives, targets, strategic plans, and business policies.

- The Board shall review and approve significant transactions that create obligations for PTT Group in line with laws, articles of association, policies, regulations, or operational authority, including connected transactions and key transactions. To this end, transaction approval processes shall comply with legal requirements with an emphasis on the best interest of shareholders and stakeholders as a whole. The Board shall oversee and resolve potential conflicts of interest and connected transactions.
- The Board shall ensure that the company's accounting systems, financial reporting, and account auditing are reliable and that the assessment processes for internal control and internal audit are effective and efficient.
- The Board shall establish clear and written policies on principles and business approaches for the Board, management, and employees, including the Corporate Governance Policy, Ethical Standards, Code of Business Ethics, and Internal Control Policy. The Board shall ensure communication among the Board, management, and employees so that they all may be kept thoroughly informed and apply with true understanding; as well as monitor and assess the implementation while regularly reviewing policies and implementation effectiveness.
- The Board shall ensure that potential risk factors are considered and the risk management policies for the whole of PTT are established with regular review. The management is obliged to implement the policies and report the results thereof regularly to the Board. The Board shall review and evaluate the risk management processes and effectiveness of risk management by emphasizing the potential signs or irregularity while seeking potential business opportunities arising from such risks.
- The Board shall establish an appropriate remuneration system or mechanism for management to motivate both short-term and long-term performance.
- The Board shall conduct a self-assessment and the assessment of the performance of each specific committee annually to examine its own performance and disclose the results in the 56-1 One Report.

- The Board shall assign authority and responsibility to CEO & President for daily management of PTT's operations, ensuring that the operations are alignment with strategic plans, business directions, objectives, policies, and budget approved by the Board. In addition, CEO & President performance shall be regularly appraised.
- The Board shall review and approve the remuneration of CEO & President in keeping with PTT's short-term and long-term performance outcomes.
- The Board shall provide appropriate communication channels for shareholders and the disclosure of information shall be monitored to ensure high standards of accuracy, clarity, transparency, and reliability.
- The Board shall be leaders and role models for excellent performance, and legal compliance, in line with PTT's corporate governance principles and culture promotion underlined by the commitment to business ethics.
- When the company gains sufficient profits, with no cumulative loss, the Board shall propose dividend distribution for shareholders' approval at the Shareholders' Meeting.
- The Board shall set up an appropriate regulatory framework for digital technology development in line with changing internal and external factors, including the use of information technology to increase opportunities and develop operations to achieve PTT's key goals and objectives.
- The Board shall consider and approve the master plan and annual action plan on digital technology development.
- The Board shall consider and approve the Master Plan and Annual Action Plan for submission to the SEPO.

The Board's Additional Authorities Include:

- Approve long-term investments, such as common stocks, preferred stocks, bonds, debentures, warrants, or other financial instruments.
- Approve financial support, including funds, common stocks, preferred stocks, loans, or others as appropriate for PTT-invested companies.
- Approve debt financing and issuance of debt instruments such as debentures.
- Approve the annual budget.
- Approve procurement and other related matters exceeding the President's approval authority.

- Consent to employ, appoint, transfer, or promote employees serving as senior executive vice presidents or equivalent upward, and employees serving as executive vice presidents or equivalent upward.
- Appoint the Company Secretary.

Authorized Directors to Sign and Bind for PTT

According to PTT's Articles of Association, as of January 1, 2025, the directors whose signatures are authorized to sign and bind PTT are either (1) Dr. Kongkrapan Intarajang, CEO & President, to sign and affix PTT's seal, or (2) Mr. Jatuporn Buruspat and Mrs. Phongsaward Neelayodhin, jointly sign and affix PTT's seal.

Appointment and Dismissal of Directors

1. The Board consists of 5 - 15 persons who are appointed at shareholders' meetings. In addition, the Board consists of a minimum of 3 independent directors and at least half of the directors must reside in the Kingdom. At least 1 of them must be knowledgeable in accounting and finance. The Nominating Committee also seeks to maintain an appropriate balance and consider board diversity including expertises, skills, and qualifications without discrimination of gender, race, or religion in the appointment. All directors must have qualifications as specified by law and the Articles of Association. Since 2004, the Board has decided that independent directors must consist of at least half of the Board, a requirement that remains effective until the present. As of December 31, 2024, the Board had 12 independent directors, all of whom resided in Thailand. 8 directors are experts in accounting and finance, namely: Mr. Chatchai Phromlert, Mr. Krishna Boonyachai, Mr. Payong Srivanich, Mr. Chansin Treenuchagron, Mr. Lavaron Sangsnit, Dr. Veerapat Kiatfuengfoo, Miss Choosri Kietkajornkul, and Dr. Kongkrapan Intarajang.
2. The shareholders' meetings are to appoint qualified directors whom the Nominating Committee has elected and proposed to the Board under the following criteria:
 - (1) Each shareholder has one vote per share held.
 - (2) Each shareholder exercises all votes applicable under (1) in electing one or several persons as directors but may not allot the votes to any person at any number.

- (3) Candidates with the highest number of votes are to be appointed directors up to the number required at the meeting. If candidates get equal votes, which makes the number of successful candidates exceed that of directors to be elected, the Chairman of that meeting will cast the decisive vote.
3. At the AGM, one-third of the directors, or if the number is not a multiple of three, then the number nearest to one-third will retire from directorship.
 4. If a director's seat is vacated for reasons other than term completion, the Board may elect a qualified person without the prohibitions stipulated by PTT's Articles of Association to fill the vacancy at the next Board meeting unless the remaining term of the vacated director is less than two months. The acting director must secure at least three-quarters of the votes of the remaining directors. The elected director shall serve only for the remaining term of the predecessor.
 5. Any director wishing to resign from the position must tender his/her resignation to PTT, which will take effect from the date the resignation letter reaches PTT.
 6. For voting to remove any director from the directorship before the completion of his or her term, a three-quarter vote of eligible shareholders present at the meeting is required and at least half of the total voting shares of the company must be represented at the meeting.

- Must not hold any position in a political party or be an official of a political party.
- Must not be expelled, dismissed, or removed from a position due to fraud.
- Must not be a shareholder of the state enterprise or a shareholder of a juristic person in which the state enterprise holds shares. Exceptions apply to directors of state enterprises who are not government officials, government employees, or staff with permanent positions or salaries from central, regional, or local government agencies, or other state agencies. Also, such state-enterprise directors can hold no more than 0.5% of the paid-up capital of the state enterprise of which they are directors or juristic person in which the state enterprise of which they are directors holds share.
- Must not hold any position in a juristic person in which the state enterprise holds shares, unless assigned by the Board of Directors of the state enterprise to hold a director position or other position in the juristic person in which the state enterprise holds shares.
- Must not be a director or an executive or person with authority over the management or an interest in a juristic person who is a concessionaire or joint venture partner, or has a conflict of interest related to the business of the state enterprise, except for being a chairperson of the Board of Directors, director or executive assigned by entrustment of the state enterprise.

Qualifications of Directors

Directors must be duly qualified, without the prohibitions stated in the Public Company Limited Act B.E. 2535 (1992) and the Standard Qualifications of State Enterprise Directors and Officials Act B.E. 2518 (1975) and their amendments, as well as relevant Cabinet resolutions, including:

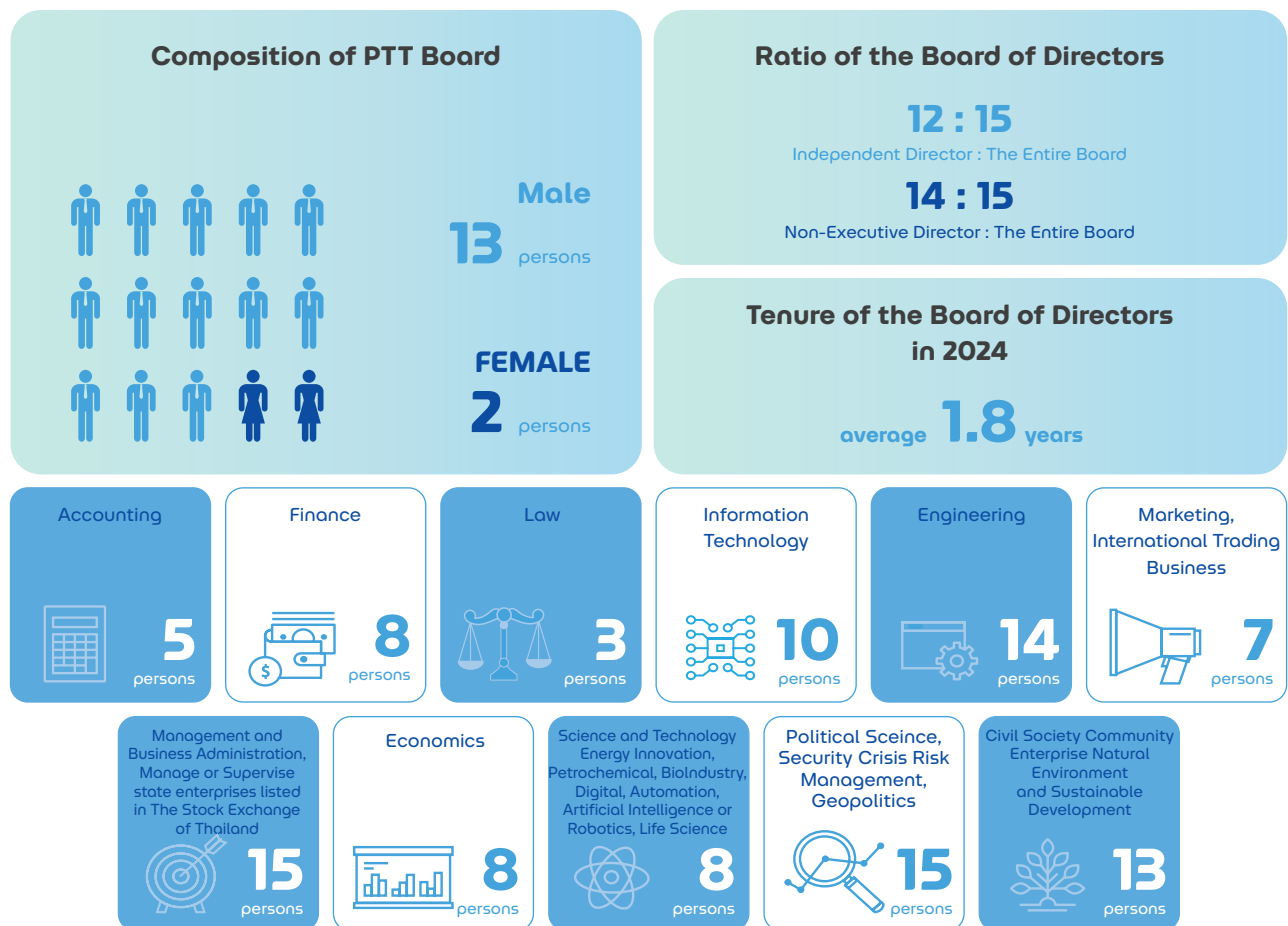
- Must not be exceeded 65 years of age.
- Must not hold more than 3 directorships in state enterprises or juristic persons where state enterprises hold shares, including appointments due to their positions and those due to acting assignments.
- Independent directors must command independence as required by The SET's Notification on the Qualifications and Scope of Work of the Audit Committee.
- Must not have been sentenced to imprisonment, except for offenses committed through negligence or minor offense.
- Must not be a political office holder, except when holding a director position under a provision of law.

In addition, the Corporate Governance, Ethical Standards, and Code of Business Ethics Handbook (Revision 5), defines the term holding of a director with the following limits:

1. A maximum of 3 directorships in the state enterprises/ juristic persons of which the state enterprise is a shareholder.
2. A maximum of 3 directorships in SET-listed companies provided that the directorships under 2. do not contradict 1. Such directorships in 1. and 2. must not exceed 5.

In addition, independent directors and members of specific committees shall serve no more than 9 consecutive years.

In compliance with the law, PTT ensures that at least one-third of the Board is listed in the Director's Pool of the Ministry of Finance. As of December 31, 2024, 13 out of 15 PTT directors' names were listed in the Director's Pool.



7.3 Specific Committees

PTT's Specific Committees consist of:

(1) The Audit Committee

Each quarter, the Audit Committee, together with the Chief Financial and Accounting functions and the external auditor (EY Office Limited), reviews PTT's financial reports. The Board is accountable for PTT Group's consolidated financial statements as well as other financial information presented in the annual report. The financial reports are prepared under generally accepted accounting principles and are audited and certified by Mr.Kittiphun Kiatsompob, C.P.A. No. 8050, of EY Office Limited. Material information, financial and non-financial, is accurately, completely, and consistently disclosed.

The Board approved the appointment of the Audit Committee on October 1, 2001, which consisted of directors with the qualifications specified by SEC and SET laws. The committee must consist of at least 3 directors. As of December 31, 2024, it consisted of 3 independent directors as follows:

| Name | Position in the Audit Committee | Position in the Board |
|--|---------------------------------|-----------------------|
| 1. Mr. Krishna Boonyachai | Chairman | Independent Director |
| 2. Associate Professor Dr. Narongdech Srukhsit | Member | Independent Director |
| 3. Mr. Chansin Treenuchagron | Member | Independent Director |

The Executive Vice President, Office of Corporate Audit, served as secretary.

Remarks:

1. Mr. Krishna Boonyachai was appointed member with effect from July 3, 2020 and appointed Chairman with effect from April 12, 2023. He commands sufficient expertise and experience to review and ensure the accuracy and credibility of financial reports.
2. Associate Professor Dr. Narongdech Srukhsit was appointed member with effect from December 1, 2023.
3. Mr. Chansin Treenuchagron was appointed member with effect from March 21, 2024, replacing Air Chief Marshal Chanon Mungthanya who was a member from April 12, 2023 to March 21, 2024.

Duties and Responsibilities

1. Review and reassess the adequacy of the Audit Committee Charter annually in accordance with PTT strategic objectives. Final approval of the charter resides with the Board.
2. Review the effectiveness and efficiency of governance, risk management and control processes.
3. Review and ensure that PTT financial statement is appropriate and in accordance with the accounting standards.
4. Review and ensure that PTT business processes are in accordance with the Securities Law, the Stock Exchange's regulations, policy, rules, ordinances, the Articles, the Cabinet Resolutions and the relevant laws.
5. Review and ensure that PTT internal audit system is appropriate including the sufficiency of internal audit budget, resource, and the organizational independence of the internal audit activity.
6. Consider any connected or Conflict of Interest transaction or fraud occurrence that may affect PTT business in accordance with the Stock Exchange's regulations and rules.
7. Review and ensure that the business processes are in accordance with State Enterprise Assessment Model (SE-AM), including monitoring the implementation of the relevant observations/ recommendations.
8. Recommend to the Board, the Chief Audit Executive appointment, removal and performance.
9. Recommend to the Board, the external auditor nomination, appointment or termination including its fee.
10. Coordinate with the external auditor and may purpose to review or assess any significant accounting and reporting issues.
11. Receive complaints through the channels and methods identified in PTT's Rule on Complaints and Whistleblowing against Fraud, Malpractice, Misconduct, and Non-Compliance with Laws or Organizational Regulations.
12. Report to the Board, the Audit Committee performance at least one time quarterly. For the fourth quarter, the Audit Committee Annual Report must be prepared and submitted to Responsible Ministry of Government agencies and the Ministry of Finance.
13. Report to the Board, the Audit Committee performance on internal audit activity assessment at least one time annually.

14. Disclose the Audit Committee Annual Report and the external auditor annual fee in the PTT annual report.
15. Either the Chairman or a member of the Audit Committee must attend PTT annual general shareholder meeting.
16. If competent advice or assistance is needed to perform internal audit activity or other the Audit Committee tasks, the Audit Committee can purpose the Board to appoint any independent consultant or expert. The costs and expenses of such services or invitations shall be on PTT's account.
17. Inform the CEO, any breach of the Securities Law, the Stock Exchange's regulations, policy, rules, ordinances, the Articles, the Cabinet Resolutions and the relevant laws to resolve the issue.
18. Meet at least one time quarterly and must hold private meeting with the external auditor at least one time annually.
19. Officially meet with the managements at least one time annually.
20. Perform any designated tasks by the laws or the Board under the Audit Committee duties and responsibilities.

As found in PTT Public Company Limited's ordinance on the Audit Committee and Internal Audit Unit, B.E. 2564 (2021).

In 2024, the Committee held 24 meetings and duly reported its findings to the Board. In addition, it participated in quarterly audits along with the external auditor and the Chief Financial Officer functions.

The Audit Committee disclosed its annual performance in the Report of the Audit Committee.

(2) The Nominating Committee

The Board approved the appointment of the Nominating Committee on October 1, 2001, by appointing 3 directors. As of December 31, 2024, it consisted of 3 members as follows:

| Name | Position in the Nominating Committee | Position in the Board |
|--|--------------------------------------|-----------------------|
| 1. Mr. Payong Srivanich | Chairman | Independent Director |
| 2. Mr. Lavaron Sangsnit | Member | Director |
| 3. Air Chief Marshal Chanon Mungthanya | Member | Independent Director |

The Company Secretary served as secretary.

Remarks:

1. Mr. Payong Srivanich was appointed the Chairman with effect from October 19, 2023.
2. Mr. Lavaron Sangsnit was appointed a member with effect from April 12, 2023.
3. Air Chief Marshal Chanon Mungthanya was appointed a member with effect from March 21, 2024, replacing Mr. Chansin Treenuchagron who was a member from October 19, 2023 - March 20, 2024.

Duties and Responsibilities

1. Determine procedures and criteria for nomination of The Board to ensure transparency.
2. Select director nominees to fill vacancies (due to resignation or term expiration) for the Board's or the shareholders' meeting's consideration and appointment with due regard for the composition of the Board, expertise, competencies, and experience beneficial to PTT in accordance with PTT's Board Skill Matrix and the Director Pool of the Ministry of Finance and Thai Institute of Directors Association (IOD). Equally important, nominees must have no conflict of interest with PTT, and the qualifications of desirable directors must align with PTT's business strategies.
3. Propose suitably qualified directors to serve on Specific Committee, considering the composition of committees in question, suitability, qualifications, knowledge, and competencies. Then, propose the list to the Board for approval, except for the Nomination Committee which is being appointed directly by the Board.
4. Be directly accountable to the Board, while the Board is accountable for PTT's businesses to all stakeholders.
5. Evaluate the performance of the Nominating Committee and report to the Board of Directors for further disclosure in PTT Annual Report.
6. Disclose its performance in PTT Annual Report.
7. Hold at least 2 meetings annually.
8. Consider and approve the recruitment, appointment, transfer, or promotion of employees (EVP or equivalent) to propose for approval by the Board, except the Head of Internal Audit, which must follow PTT's regulations on the Internal Audit Committee.
9. Perform other tasks assigned by the Board.

The procedures and criteria for the nomination of directors are as follows:

1. The Committee defines the qualifications needed for replacements to ensure the criteria and qualifications comply with applicable laws and regulations and aligned with PTT's strategy and operations and procedures for nominating method of qualified candidates.

According to the CG Handbook, the Board should consist of experts from a variety of disciplines necessary for the management of PTT's businesses. Specifically, its composition should include at least 3 experts in the petroleum business, 1 legal expert, and 1 expert in finance and accounting. Currently, PTT's Board Skill Matrix consists of accounting, finance, law, information technology, engineering, marketing, international business, economics, business administration and management, listed state enterprise management or supervision, civil society, community enterprise, natural resources, environment and sustainable management, stakeholder management, science and technology and energy innovation, petrochemical, bioscience industry, digital, automation, artificial intelligence or robotics, political science, security, crisis risk management, geopolitics, and life science.

2. The Committee summarizes the nomination results, and presents a shortlist of qualified candidates along with supporting rationale to The Board.
3. The Board considers and selects qualified candidates from the list prepared by the Nomination Committee and submits their names to the shareholders' meeting for approval.

In 2024, the Committee held 20 meetings, with all committee members at the time in attendance. The Company Secretary served as secretary.

The Nominating Committee disclosed its annual performance in the Report of the Nominating Committee.

(3) The Remuneration Committee

The Board approved the appointment of the Remuneration Committee on October 1, 2001, by appointing three directors. As of December 31, 2024, it consisted of 3 members:

| Name | Position in the Remuneration Committee | Position in the Board |
|---------------------------------------|--|-----------------------|
| 1. GEN. Teerawat Boonyawat | Chairman | Independent Director |
| 2. Mr. Lavaron Sangsnit | Member | Director |
| 3. Air Chief Marshal Chanon Munghanya | Member | Independent Director |

The Company Secretary served as secretary.

Remarks:

1. GEN. Teerawat Boonyawat was appointed Chairman with effect from April 11, 2019.
2. Mr. Lavaron Sangsnit was appointed a member with effect from December 1, 2023.
3. Air Chief Marshal Chanon Munghanya was appointed a member with effect from March 21, 2024, replacing Mr. Phongsthorn Thavisin who was a member from December 1, 2023 to March 7, 2024.

Duties and Responsibilities

1. Establish the criteria for remuneration and propose fair, and reasonable remuneration of directors and specific committees to the Board and the shareholders' meeting for approval.
2. Propose guidelines for assessing performance outcomes and remuneration for CEO & President to the Board for approval.
3. Acknowledge and recommend organizational restructuring and job levels, including performance evaluation and remuneration for Senior Executive Vice Presidents.
4. Be directly accountable to the Board, while the Board is accountable for PTT's businesses to all stakeholders.
5. Evaluate its performance and report to the Board for acknowledgment and disclose them in PTT Annual Report.
6. Disclose its performance in PTT Annual Report.
7. Hold at least 2 meetings annually.
8. Perform other tasks assigned by the Board.

In 2024, the Committee held 8 meetings, with most committee members at the time in attendance. The Company Secretary served as secretary.

The Remuneration Committee disclosed its annual performance in the Report of the Remuneration Committee.

(4) The Corporate Governance and Sustainability Committee

The PTT Board approved the appointment of the Corporate Governance Committee on June 24, 2004, and approved the restructuring to be the Corporate Governance and Sustainability Committee on October 27, 2022, by appointing 3 independent directors. As of December 31, 2024, it consisted of 3 members:

| Name | Position in the Corporate Governance and Sustainability Committee | Position in the Board |
|-------------------------------|---|-----------------------|
| 1. Mr. Jatuporn Buruspat | Chairman | Independent Director |
| 2. Dr. Nattapon Nattasomboon | Member | Independent Director |
| 3. Miss Choosri Kietkajornkul | Member | Independent Director |

Senior Executive Vice President, Organization Effectiveness and Corporate Governance served as secretary, and Executive Vice President, Corporate Governance, Executive Vice President, Company Secretary and Corporate Relation, and Executive Vice President, Sustainability Strategy and Management served as assistant secretaries.

Remarks:

1. Mr. Jatuporn Buruspat was appointed a member of the Corporate Governance Committee with effect from April 9, 2021, and appointed Chairman of the Corporate Governance and Sustainability Committee with effect from April 8, 2022.
2. Dr. Nattapon Nattasomboon was appointed a member of the Corporate Governance and Sustainability Committee with effect from March 21, 2024, replacing Mrs. Phongsaward Neelayodhin who was appointed the Chairman of the Enterprise Risk Management Committee on February 9, 2024.
3. Miss Choosri Kietkajornkul was appointed a member of the Corporate Governance and Sustainability Committee with effect from June 20, 2024, replacing Associate Professor Dr. Chayodom Sabhasri who resigned with effect from May 26, 2024.

Duties and Responsibilities

1. Corporate Governance, operational risk management and internal control, and compliance (GRC), and anti-fraud and corruption
 - Establish objectives, targets, strategies, and management framework, and assign policy and operational guidelines that align with PTT's strategies and targets as well as laws, regulations, and domestic and international practices, with annual review required.
 - Provide best practices, advice, and recommendations to The Board and management on matters dealing with PTT's corporate governance, operational risk management and internal control, and compliance (GRC), and anti-fraud and corruption according to the CG principles, for the formulation of the organization's policies and guidelines in compliance with relevant laws, regulations, criteria, standard, national and international practices.
 - Establish the policies and define the scope of guidelines for the supervision, support, and monitoring of PTT's whistleblowing mechanism related to fraud and corruption, and non-compliance.
 - Supervise and monitor the implementation of PTT's corporate governance, operational risk management and internal control, and compliance (GRC), and anti-fraud and corruption, as well as whistleblowing and non-compliance cases, and report the outcome to The Board.
2. Sustainability Management (SM)
 - Establish objectives, targets, policies, master plans, strategies, manuals, and sustainability management plans covering Environmental, Social, and Governance (ESG) to align with PTT's targets and strategies, including standards, national and international practices, with an annual review.

- Establish objectives, targets, strategies, and management framework on Corporate Social Responsibility (CSR) and assign policy and operational guidelines in line with PTT's strategies and targets as well as international practices, with an annual review.
 - Serve as a role model, advise, and support PTT's operations to align with PTT's Sustainability Management Policy for target achievement and compatibility with leading companies, as well as support the Board, management, and employees to adhere to PTT's Sustainability Management Manual.
 - Supervise and monitor the implementation of PTT's Sustainability Management and Corporate Social Responsibility (CSR), and report the outcomes to The Board.
3. Establish the policy that allows minority shareholders to nominate directors and propose agenda items for the Annual General Meeting.
 4. Advise and provide consultation to the Governance, Risk, Compliance, and Sustainability Management Committee (GRCMC).
 5. Perform other tasks assigned by The Board.
 6. Hold meeting at least quarterly.

In 2024, the Committee held 6 meetings with all committee members at the time in attendance. Senior Executive Vice President, Organization Effectiveness and Corporate Governance served as secretary.

The Corporate Governance and Sustainability Committee disclosed its annual performance in the Report of the Corporate Governance and Sustainability Committee.

(5) The Enterprise Risk Management Committee

The Board approved the appointment of the Enterprise Risk Management Committee (ERMC) on October 25, 2013, by appointing at least 3 directors, and at least 1 of whom must be an independent director. As of December 31, 2024, it consisted of 4 members:

| Name | Position in the Enterprise Risk Management Committee | Position in the Board |
|---------------------------------|--|-----------------------|
| 1. Mrs. Phongsaward Neelayodhin | Chairman | Independent Director |
| 2. Dr. Chayatan Phromsorn | Member | Independent Director |
| 3. Dr. Nattapon Nattasomboon | Member | Independent Director |
| 4. Dr. Veerapat Kiatfuengfoo | Member | Director |

Senior Executive Vice President, Corporate Strategy tasked as Chief Risk Officer (CRO) and Chief Stakeholder Officer (CSO) served as secretary.

Remarks:

1. Mrs. Phongsaward Neelayodhin was appointed Chairman of the Enterprise Risk Management Committee effective from February 9, 2024, replacing Mr. Chatchai Phromlert, Chairman of the Enterprise Risk Management Committee from December 1, 2023 - December 22, 2023.
2. Dr. Chayatan Phromsorn was appointed member with effect from August 28, 2024.
3. Dr. Nattapon Nattasomboon was appointed Member of the Enterprise Risk Management Committee effective from June 20, 2024, replacing Associate Professor Dr. Chayodom Sabhasri who resigned with effect from May 26, 2024.
4. Dr. Veerapat Kiatfuengfoo was appointed Member of the Enterprise Risk Management Committee effective from November 5, 2024, replacing Mr. Wattanapong Kurovat who resigned with effect from September 25, 2024.

Duties and Responsibilities

1. Define and review PTT's corporate risk management and stakeholder management policies and scope.
2. Supervise and support corporate risk management and stakeholder management practices in line with strategies and business goals as well as prevailing circumstances.
3. Provide recommendations, monitor, and evaluate risk management and stakeholder management for the further implementation of the Corporate Plan and Risk Management Committee (CPRC) at the management level.
4. Review corporate risk management outcome reports and provide recommendations on risks, including specifications of control measures or mitigation plans, and development of the risk management system for the CPRC for continued efficiency.
5. Review reports of corporate stakeholder management outcomes and provide recommendations on relevant plans to enhance positive outcomes or minimize/ offset potential impacts on stakeholders, including the development of a stakeholder management system for the CPRC to ensure continued efficiency.
6. Support the Chief Risk Officer (CRO) and Chief Stakeholder Officer (CSO) in achieving PTT's corporate risk management and stakeholder management goals.
7. Report corporate risk management and stakeholder management outcomes to the PTT Board at least quarterly. For factors or events with potentially significant impacts on PTT, the Board must be notified immediately.
8. Screen and provide comments on contract-related agendas with complicated businesswise and risks that may potentially affect PTT's stakeholders, as endorsed by the Enterprise Risk Management Committee before submitting them to PTT Board for approval.
9. Screen and provide comments on investment agendas related to PTT and its subsidiaries in accordance with PTT's Regulation on Investment Criteria and Budget Management for the Investments by PTT and PTT Group, and the Guidelines for Supervision of Investment of PTT's subsidiaries B.E. 2567 (2024).
10. Define and review the corporate innovation management policy.
11. Provide recommendations and guidelines for the monitor and evaluate the long-term and annual innovation management master plan for further implementation.
12. Supervise, promote and support the implementation under the innovation policy and master plan to ensure that the annual operating plan can achieve its goals.
13. Report the results of the implementation outcomes of creative thinking and innovation to PTT Board for acknowledgment at least quarterly.
14. Define and review the customer and market management framework.
15. Supervise, promote, and support the implementation of the customer and market management framework to achieve the establish objectives in alignment with the business direction.
16. Report the performance of customer and market management to PTT Board for acknowledgment at least quarterly.
17. Hold meeting at least quarterly.
18. Perform other tasks assigned by PTT Board.

The review of the corporate risk management system remains the responsibility of the Audit Committee and the Internal Audit Office.

In 2024, the Committee held 16 meetings with all committee members in attendance. The Senior Executive Vice President, Corporate Strategy served as secretary.

The Corporate Risk Management Committee disclosed its annual performance in the Corporate Risk Management Committee Report.

7.4 Management

7.4.1 Management Team Members as of December 31, 2024

(PTT Management Structure as in the organization chart “7.1 Governance Structure”)

| Name | Position |
|--|--|
| 1. Dr. Kongkrapan Intarajang ^{1/} | Chief Executive Officer and President |
| 2. Mr. Wuttikorn Stithit | Chief Operating Officer, Upstream Petroleum and Gas Business Group |
| 3. Mr. Kris Imsang ^{2/} | Chief Operating Officer, Downstream Petroleum Business Group |
| 4. Dr. Buranin Rattanasombat ^{3/} | Chief New Business and Sustainability Officer |
| 5. Miss Pattaralada Sa-ngasang ^{4/} | Chief Financial Officer |
| 6. Dr. Chaya Chandavas ^{5/} | Senior Executive Vice President, Corporate Strategy |
| 7. Mr. Chadil Chavanalikhorn | Senior Executive Vice President, Organization Effectiveness and Corporate Governance |
| 8. Miss Peangpanor Boonklum | Senior Executive Vice President, Office of General Counsel |
| 9. Mr. Pongpun Amornvivat ^{6/} | Senior Executive Vice President, Gas Business Unit |
| 10. Mr. Prasong Intaranongpai | Senior Executive Vice President, Downstream Business Group Alignment |
| 11. Mr. Jaturong Worawitsurawatthana ^{7/} | Senior Executive Vice President, International Trading Business Unit |
| 12. Mr. Cherdchai Boonchoocha | Senior Executive Vice President, Innovation and New Ventures |
| 13. Mr. Chansak Chuenchom | Senior Executive Vice President, Project Engineering and Operational Excellence ^{8/} |
| 14. Mr. Rathakorn Kampanathsanyakorn | Senior Executive Vice President, Corporate Sustainability ^{9/} |
| 15. Mrs. Nivadee Jaroensitipun | Senior Executive Vice President, Special Affairs 1 - Government Relations ^{10/} |
| 16. Dr. Rosaya Teinwan | Senior Executive Vice President, Special Affairs 2 - Business Re-Structuring ^{11/} |
| 17. Mr. Narongsak Jivakanun ^{12/} | Senior Executive Vice President, Secondment as Chief Executive Officer PTT Global Chemical Plc. |
| 18. Mr. Bandhit Thamprajamchit | Senior Executive Vice President, Secondment as Chief Executive Officer and President Thai Oil Plc. |
| 19. Mr. Terdkiat Prommool ^{13/} | Senior Executive Vice President, Secondment as President and Chief Executive Officer IRPC Plc. |

| Name | Position |
|--|---|
| 20. Mr. Worawat Pitayasiri | Senior Executive Vice President, Secondment as President and Chief Executive officer Global Power Synergy Plc. |
| 21. Mr. Suchat Ramarch | Senior Executive Vice President, secondment as President PTT Oil and Retail Business Plc. |
| 22. Miss Thariswan Thiansawat ^{14/} | Executive Vice President, Group Corporate Finance and Strategy |
| 23. Miss Numpetch Supharatanasit | Executive Vice President, Global Business Services |
| 24. Miss Jaroonsri Wankertphon | Executive Vice President, Group Accounting and Tax Policy |

Remarks:

Nos. 1 - 5 are "Management" under SEC's notification.

1/ Appointed on May 13, 2024, replacing Mr. Auttapol Rerkpiboon completed his employment contract with effect from May 13, 2024.

2/ Appointed on October 1, 2024, replacing Mr. Noppadol Pinsupa who retired.

3/ The position name was changed to Chief New Business and Sustainability Officer, with effect from September 1, 2024.

4/ Appointed on October 1, 2024, replacing Miss Pannalin Mahawongtikul who retired.

5/ Appointed on October 1, 2024, replacing Mr. Terdkiat Prommool who was appointed Senior Executive Vice President, seconded as President and Chief Executive Officer of IRPC Plc.

6/ Appointed on December 12, 2024, replacing M.L. Peekthong Thongyai who retired early on December 12, 2024.

7/ Appointed on December 12, 2024, replacing Mr. Pongpun Amornvivat appointed Senior Executive Vice President, Gas Business Unit.

8/ The position name was changed to Senior Executive Vice President, Project Engineering and Operational Excellence with effect from September 1, 2024.

9/ Appointed on September 1, 2024 according to organizational restructuring.

10/ The position name was changed to Senior Executive Vice President, Special Affairs 1 - Government Relations with effect from September 1, 2024.

11/ Appointed on September 1, 2024 according to organizational restructuring.

12/ Appointed on May 13, 2024, replacing Dr. Kongkrapan Intarajang who was appointed PTT's Chief Executive Officer and President.

13/ Appointed on October 1, 2024, replacing Mr. Kris Imsang who was appointed Chief Operating Officer, Downstream Petroleum Business Group, PTT Plc.

14/ Appointed on October 1, 2024, replacing Mrs. Wanida Boonpiraks, who was appointed Executive Vice President and seconded as Executive Vice President-Finance and Accounting, Thai Oil Plc.

Duties and Responsibilities of Chief Executive Officer & President

Under the Articles of Association, the President is authorized and responsible for managing the Board-assigned and PTT's overall business, which must be strictly and prudently managed with integrity under the Board-approved plans or budget in the best interests of PTT and its shareholders. The President's authority and responsibilities include:

- Operate or manage day-to-day business or both.
- Hire, appoint, remove, transfer, promote, demote, deduct the salaries or wages of, punish, and dismiss any employee under the Board's regulations.
- Ensure the preparation and submission of business policies, including operational plan and budget estimation, for the Board's approval, and report the performance outcomes to the Board every three months.
- Ensure implementation of the Board-approved policies, plans, and budgets.

The Board authorizes the President to manage PTT's business under the following scope:

- Manage the overall business under the objectives, Articles of Association, policies, rules and regulations, directives, and resolutions of the Board and/or shareholders' meetings.
- Order, contact, command, implement, and sign juristic acts, agreements, orders, announcements, or correspondence with government agencies, state enterprises, or other parties and engage in any essential and suitable action to facilitate this duty.
- Command all employees, including hiring, appointing, removing, promoting, demoting, deducting the salary or wages of, taking disciplinary action against, or dismissing any employee under the rules, regulations, and directives of the Board. For employees serving as advisers, senior executive vice presidents, or equivalent upward, prior approval of the Board is required. The President is also authorized to specify employment conditions for employees and issue rules for PTT's operations provided that they do not contradict the rules, regulations, and directives of the Board.
- Assign the power of attorney or delegate specific tasks to other persons, or both provided that the action complies with the document on the power of attorney or rules, regulations, or directives of the Board or PTT, or both.

The authority and duties of the President stated above shall not apply in case of conflict of interest with PTT in any form resulting from the President's exercise of the authority. In 2024, no such cases have arisen.

The Management Committee

The PTT Management Committee (PTTMC) was appointed on October 1, 2001, with the mandate of operating PTT's business. As of December 31, 2024, the Committee consisted of 17 members as follows:

| Name | Position |
|---|----------|
| 1. Chief Executive Officer and President | Chairman |
| 2. Chief Operating Officer, Upstream Petroleum and Gas Business Group | Member |
| 3. Chief Operating Officer, Downstream Petroleum Business Group | Member |
| 4. Chief New Business and Sustainability Officer ^{1/} | Member |
| 5. Chief Financial Officer | Member |
| 6. Senior Executive Vice President, Corporate Strategy ^{2/} | Member |
| 7. Senior Executive Vice President, Gas Business Unit | Member |
| 8. Senior Executive Vice President, International Trading Business Unit | Member |
| 9. Senior Executive Vice President, Downstream Business Group Alignment | Member |
| 10. Senior Executive Vice President, Innovation and New Ventures | Member |
| 11. Senior Executive Vice President, Project Engineering and Operational Excellence ^{3/} | Member |
| 12. Senior Executive Vice President, Organization Effectiveness and Corporate Governance | Member |
| 13. Senior Executive Vice President, Office of General Counsel | Member |

| Name | Position |
|---|-----------|
| 14. Senior Executive Vice President, Corporate Sustainability | Member |
| 15. Senior Executive Vice President, Special Affairs 1 - Government Relations ^{4/} | Member |
| 16. Senior Executive Vice President, Special Affairs 2 - Business Re-Structuring | Member |
| 17. Executive Vice President, Company Secretary and Corporate Relation | Secretary |

Remarks:

1/ The position name was changed to Chief New Business and Sustainability Officer, with effect from September 1, 2024.

2/ The position name was changed to Senior Executive Vice President, Corporate Strategy with effect from September 1, 2024.

3/ The position name was changed to Senior Executive Vice President, Project Engineering and Operational Excellence with effect from September 1, 2024.

4/ The position name was changed to Senior Executive Vice President, Special Affairs 1 - Government Relations with effect from September 1, 2024.

The Management Committee meets at least twice a month or as appropriate. In 2024, there were altogether 49 meetings (47 regular and 2 special meetings).

Duties and Responsibilities of PTT Management Committee (PTTMC)

Provide advice and recommendations to CEO & President on significant issues regarding corporate strategy and business directions, long-term planning, business performance, investment plans, budgets, and allocation of resources to PTT and its affiliates, and ensure the uniformity of PTT's operations. PTTMC also provides consultation and recommendations to CEO & President and promotes operation on the following matters:

- Set the vision and key missions for PTT Group.
- Establish directions, strategies, and business targets for PTT Group along with the performance targets of business units and the group as a whole.
- Define a direction for corporate governance monitoring and integration of Governance, Risk, and Compliance of PTT Group.
- Consider PTT Group's Capital Allocation Structure (budgets and resources) to support future investment and operations of PTT and PTT Group.
- Consider PTT Group's Portfolio Management.
- Consider and monitor PTT Group's international investment expansion.
- Establish Human Resource Strategy and Policy, including relevant decision-making policy, and prepare and develop the Group's management of level 14 up in a systematic, professional way for its future missions in line with the Leadership Affiliation and Alignment Program.
- Screen and provide opinions on standards/ organization management mechanisms/ human resource system, as well as business processes and organizational structures of PTT and PTT Group to be a corporation of sustainability excellence.
- Consider, screen, and define policies and principles for PTT Group Way of Conduct, and ensure desirable direction.
- Prioritize significant matters about the allocation of human and financial resources of PTT and its affiliates.

- Jointly resolve significant conflicts between PTT's upstream and downstream petroleum and new business and sustainability businesses.
- Follow up on progress and assess the performance of the Group against KPIs (PAs & KPIs).
- Scrutinize risk management in the business operations of the Group.
- Screen meeting agendas before presenting to the Board.
- Prioritize Board decision outcomes to ensure effective implementation.
- Appoint sub-committees or working groups, or both, to assist PTTMC's tasks.
- Perform other work as assigned by CEO & President.

To efficiently manage PTT Group to drive the strategies and operations to achieve their goals, PTT has divided its committees into three categories, as of December 31, 2024, as follows:

1. Strategy Committees

Consider, screen, and define strategies/ policy, business directions, and operational plans of PTT/PTT Group in various management aspects, comprising:

- 1.1 PTT Group Management Committee (PTTGMC)
- 1.2 PTT Management Committee (PTTMC)
- 1.3 Minor PTT Group Management Committee (Minor PTTGMC)
- 1.4 Corporate Plan and Risk Management Committee (CPRC)
- 1.5 Upstream & Gas Subsidiaries Alignment Committee (USC)
- 1.6 Downstream Petroleum Business Group Strategic Alignment Committee (DBSC)
- 1.7 Trading Business Strategic Alignment Committee (TBSC)
- 1.8 Upstream Management Committee (UMC)

2. PTT Group Alignment Committees

Provide advice/ suggestions, drive/ decide when cooperation between business units or PTT Group is required to enhance synergy and good collaboration, consisting of:

- 2.1 Downstream Business Group Alignment & Coordination Committee (DAC)
- 2.2 New Business and Sustainability Group Alignment & Coordination Management Committee (NBSAC)
- 2.3 Finance & Accounting Group Alignment & Coordination Management Committee (FAAC)
- 2.4 Human Resources Group Alignment & Coordination Management Committee (HRAC)
- 2.5 PTT Group Core Values & KM Alignment Committee
- 2.6 PTT Group Operational Excellence Steering Committee: OpEx SteerCo.
- 2.7 PTT Group Internal Audit Management Committee
- 2.8 PTT Group Corporate Social Responsibility Steering Committee, Rayong province
- 2.9 LNG Business Cooperation Committee (LBCC)
- 2.10 PTT Group Digital Steering Committee
- 2.11 PTT Group Technology Committee (PTTGTC)
- 2.12 Procurement Strategic Alignment Committee (PSAC)
- 2.13 Properties Acquisition and Utilization Committee (PAC)
- 2.14 PTT Group Corporate Governance Committee
- 2.15 PTT Group ONE Project Committee
- 2.16 PTT Group Sustainability Management Committee (GSMC)
- 2.17 PTT Group Corporate Reputation and Social Responsibility Committee (PTT Group CRSR)
- 2.18 Petrochemical and Refining Integrated Synergy Management (PRISM Committee)
- 2.19 Business Association Strategic Collaboration (BASC)
- 2.20 PTT Group Decarbonization Masterplan and Execution Roadmap Steering Committee (G-Decarbon)
- 2.21 The Steering Committee of PTT Group's Business Operations in Cambodia

3. Corporate Management Committees

Responsible for overseeing, follow-up on the progress of operations, approval/ screening/ giving opinions/ advice/ suggestions in various aspects of organization management, comprising:

- 3.1 Governance Risk Compliance and Sustainability Management Committee (GRCMC)
- 3.2 PTT Procurement Oversight Committee (KorTorJor)
- 3.3 PTT Credit Committee
- 3.4 Upstream Petroleum and Gas Credit Committee
- 3.5 Trading Credit Committee (TCC)
- 3.6 Strategic Investment Management Committee (SIMC)
- 3.7 Upstream Strategic Investment Management Committee (USIM)
- 3.8 Support Function Budgeting Committee (SFBC)
- 3.9 Non-Life Insurance Fund Management Committee
- 3.10 PTT Innovation Management Committee (PTT IMC)
- 3.11 Information Security Management System Committee (ISMSC)
- 3.12 PTT Idea to Commercialization Gate Committee (PTT I2C Gate Committee)
- 3.13 Thailand Energy Academy Management Committee
- 3.14 Thailand Energy Academy Board
- 3.15 PTT Customer Excellence Committee (PTT CEC)
- 3.16 Social Enterprise Committee
- 3.17 Structure, Job Weight, and Manpower Committee (SJMC)
- 3.18 Human Resources Management Committee (HRMC)
- 3.19 Corporate Human Resources Committee (HRC)
- 3.20 Screening Committee for the Request for the Royal Bestowment of the Most Exalted Order of the White Elephant and the Most Noble Order of the Crown of Thailand
- 3.21 Potential Pool and Scholarship Management Committee
- 3.22 Employee Welfare Fund Committee
- 3.23 PTT Group Committee on International Sanctions against Myanmar
- 3.24 Vendor Selection Committee
- 3.25 Trading Risk Management Committee (TRMC)
- 3.26 Gas Business Unit Hedging Committee (Gas HC)
- 3.27 Powering Digital Organization With ERP Project (POWER)
- 3.28 Genesis Steering Committee
- 3.29 Independence and Neutrality Risk Management Committee of the Greenhouse Gas Feasibility Inspection and Verification Unit
- 3.30 New Commodities Trading Management System (New CTRM)

Succession Plan

As PTT is a state enterprise, the President must be nominated and appointed according to the Standard Qualifications of Directors and State Enterprise Officer Act. Candidates must meet the qualifications outlined in Section 8 Ter and then go through the recruitment process / outlined in Section 8 Quarter, in which PTT Board appoints a nominating committee of five people who meet the qualifications and do not have any prohibited characteristics under the law. Applicants must be knowledgeable, have competent and relevant experience for PTT executives, have no prohibited characteristics under the law, and are not positioned as a PTT director, except for executives who are directors by position and are under the age of 58 on the date of application submission. When the Nominating Committee selects a suitable candidate, he/she will be recommended for appointment. This must be completed within one year of the former executive's departure from office. The employment contract has a term of no more

than four years. If the Board of Directors decides to hire the former executive after the contract period has expired, no new recruitment process is required; however, the former executive may not be hired for more than two consecutive terms.

In 2024, PTT's Board of Directors proceeded with the process of selecting a new President and CEO to replace Mr. Auttapol Rerkpiboon, whose tenure according to the employment contract ended on May 12, 2024, by appointing the Nomination Committee for the President in accordance with the Standard Qualifications of State Enterprise Directors and Officials Act. Five individuals expressed interest in applying, and the selection procedure was conducted transparently. In compliance with the Standard Qualifications of State Enterprise Directors and Officials Act B.E. 2518 (1975) and its amendments, the President's Nomination Committee evaluated, chose, and presented to the Board following the Guidelines for the Nomination of the Top Executive. On January 25, 2024, PTT's Board of Directors resolved to approve the proposal of the President's Nomination Committee and appointed Dr. Kongkrapan Intarajang to serve as the new PTT Chief Executive Officer & President, succeeding Mr. Atthapol Rerkpiboon. The newly appointed President began his term on May 13, 2024, and would serve until his retirement on April 20, 2027.

PTT has been grooming top management to become qualified candidates to replace the top management due to retirement in the next 3 - 5 years. In 2007, PTT set up a Group Leader Development Program (GLDP) to develop a succession plan for potential leaders to assume higher positions in PTT Group that become vacant, namely:

- CEO & President
- Senior Executive Vice President (SEVP) or equivalent
- Executive Vice President (EVP) or equivalent
- Vice President (VP) or equivalent.

Management mechanisms are as follows:

- Human Resources Management Committee (HRMC)
- Career Counselling Team (CCT)

Performance in 2024

- Selection of SEVP pool members from potential EVPs (PTT Group)
 - 47 pool members (as of December 31, 2024)
 - 61 pool members already promoted (2008 - December 31, 2024)
- Selection of EVP pool members from potential VPs (PTT Group)
 - 112 pool members (as of December 31, 2024)
 - 155 pool members already promoted (2009 - December 31, 2024)
- Selection of VP pool members from PTT potential division managers (PTT)
 - 151 pool members (as of December 31, 2024)
 - 354 pool members already promoted (2009 - December 31, 2024)

Labor Disputes

No reports of labor disputes have been received over the past three years.

7.4.2 Management's Remuneration Policy

Management's Remuneration

Management's remuneration is set under the policy and regulations specified by the Board, aligning with the Company's Performance Agreement (PA) stipulated by the Ministry of Finance. The CEO & President and all executives together define Key Performance Indicators (KPIs) on annual performance targets.

The Remuneration Committee is responsible for considering the remuneration of CEO & President to reflect his performance management, which is also in line with the principles and standards of other industrial peers, with clear criteria, transparency, and fairness. As a result, the increase in annual salary and bonus payment would align with the results of KPIs and the short-term and long-term performance of PTT. Overall, it should reflect his vision and long-term value-added and capacity enhancement for the Company. The principles and the appropriate remuneration must be presented to the Board for approval. To this end, key factors to evaluate the performance of CEO & President were (1) PTT's performance under the State Enterprise Assessment Model (SE-AM), (2) the performance based on the vision presented to the Board, (3) management capability and leadership, and (4) 360° assessment.

According to the definition of "Management" defined by the Securities and Exchange Commission (SEC), 5 members included CEO & President, Chief Operating Officer, Upstream Petroleum and Gas Business Group; Chief Operating Officer, Downstream Petroleum Business Group; Chief New Business and Sustainability Officer; and Chief Financial Officer. The remuneration paid to management (excluding those seconded to PTT affiliates and those from PTT affiliates seconded to PTT) is detailed below:

Total Remuneration Paid to CEO & President in 2023 - 2024

Unit: THB

| Remuneration | 2023 | 2024 |
|--------------------|-------------------|-------------------|
| | Amount | Amount |
| Total Remuneration | 34,734,240 | 31,849,041 |
| Bonus | 10,897,049 | 10,357,217 |
| Total | 45,631,289 | 42,206,258 |

Remark:

The remuneration of CEO & President included an allowance for additionally assigned tasks, namely the positions of Chairman or Director (or both) of PTT's subsidiaries. The CEO & President **has duly complied** with the terms of the employment contract as president.

Total Remuneration Paid to 4 Top Management according to SEC's Definition (2023 - 2024)

Unit: THB

| Remuneration | 2023 | | 2024 | |
|--------------|-------------------------------------|-------------------|-------------------------------------|-------------------|
| | Management (under SEC's Definition) | | Management (under SEC's Definition) | |
| | Person | Amount | Person | Amount |
| Salary | 4 | 34,618,560 | 4 | 36,950,220 |
| Bonus | 4 | 17,378,021 | 4 | 18,777,584 |
| Total | | 51,996,581 | | 55,727,804 |

Total Remuneration Paid to 5 Top Management according to SEC's Definition (2023 - 2024)

Unit: THB

| Remuneration | 2023 | | 2024 | | 2023 | | 2024 | |
|--------------|--------|-------------------|--------|-------------------|--------|-------------------|--------|-------------------|
| | Person | Amount | Person | Amount | Person | Amount | Person | Amount |
| Salary | 5 | 64,611,840 | 5 | 68,306,700 | 5 | 69,352,800 | 5 | 68,799,261 |
| Bonus | 5 | 26,487,086 | 5 | 28,218,608 | 5 | 28,275,070 | 5 | 29,134,802 |
| Total | | 91,098,926 | | 96,525,308 | | 97,627,870 | | 97,934,063 |

Remark:

The remuneration of CEO & President included an allowance for additionally assigned tasks, namely the positions of Chairman and/or Director of PTT's subsidiaries. The CEO & President **has duly complied** with the terms of the employment contract as president.

Remuneration Paid to Top 5 Management according to SEC's Definition as Chairman and Directors of PTT Group and Subsidiaries, 2023 - 2024

Unit: THB

| Remuneration | 2023 | | 2024 | |
|---|--------|----------------------|--------|----------------------|
| | Person | Amount | Person | Amount |
| Meeting Allowance and Monthly Allowance | 5 | 19,436,358.13 | 5 | 10,497,219.10 |
| Bonus | 5 | 20,152,517.70 | 5 | 13,907,691.06 |
| Total | | 39,588,875.83 | | 24,404,910.16 |

Remark:

The remuneration paid to top 5 Management according to SEC's Definition as Chairman and Directors of PTT Group and Subsidiaries. In addition, the remuneration of CEO & President **has complied** with the employment term contract as president.

Provident Fund Contribution to Management from 2021 - 2024

Unit: THB

| Remuneration | 2021 | | 2022 | | 2023 | | 2024 | |
|------------------------------|--------|--------------|--------|--------------|--------|--------------|--------|--------------|
| | Person | Amount | Person | Amount | Person | Amount | Person | Amount |
| Provident Fund Contributions | 4 | 4,584,004.80 | 4 | 4,872,019.50 | 4 | 5,136,311.20 | 4 | 5,542,533.00 |

Additional information on the management:

Records have shown no violation of the law within the past 10 years regarding:

1. Being sentenced for criminal charges except for violations of traffic laws, petty charges, or similar charges
2. Being sentenced to bankruptcy or having assets controlled
3. Serving as an executive or an authority in a company or partnership sentenced to bankruptcy or whose assets are controlled.

7.5 Employees

All PTT personnel are considered the most important resource in conducting business. PTT believes that the growth of the organization depends on quality employees. PTT thus has a policy that focuses on streamlining human resource management processes and systems, comparable to international standards, and in line with changing technology to strengthen and develop employees to be both good and capable, as well as participating in the development and assistance of society as a whole. It is indeed through employees that PTT focuses on its development into a sustainable organization to elevate competitiveness and respond to internal changes of a corporation in pursuit of national energy security.

Headcount and Remuneration

The employee headcount (including those seconded to PTT's affiliates) as of December 31, 2024, stood at 3,605 (Male 2,224 and Female 1,381). PTT has continued to set its manpower plans in line with its operations under economic uncertainty. The focus is on allocating resources where significant value supplementation is likely or where continuing investment is needed.

The business-group headcounts from 2021 to 2024 were as follows:

Unit: person

| Business Unit | 2021 | | 2022 | | 2023 | | 2024 | |
|---|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|-------------------|-------------------|
| | PTT | PTT Group | PTT | PTT Group | PTT | PTT Group | PTT | PTT Group |
| 1. Natural Gas | 1,480 | - | 1,471 | - | 1,487 | - | 1,732 | - |
| 2. Petrochemical and Refining | 112 | - | 121 | - | 130 | - | 272 | - |
| 3. New Business and Sustainability | 462 | - | 478 | - | 476 | - | 292 | - |
| 4. Support staff/ secondees to PTT affiliates | 1,104 ^{1/} | 393 ^{2/} | 1,083 ^{1/} | 387 ^{2/} | 1,100 ^{1/} | 381 ^{2/} | 944 ^{1/} | 365 ^{2/} |
| 5. Subsidiaries and joint ventures | - | 29,372 | - | 30,241 | - | 30,391 | - | 29,886 |
| Total | 3,158 | 29,765 | 3,153 | 30,628 | 3,193 | 30,772 | 3,240 | 30,251 |

Remarks:

1/ Excluding PTT secondment

2/ PTT secondment

Remuneration for Personnel (excluding the President and management) from 2021 - 2024

Unit: THB

| Remuneration | 2021 | 2022 | 2023 | 2024 |
|------------------------------|-------------------------|-------------------------|--------------------------|--------------------------|
| Salary | 4,122,373,594.88 | 4,329,636,122.70 | 4,549,904,844.95 | 4,847,792,513.47 |
| Bonus | 2,078,579,310.45 | 2,163,016,469.28 | 2,255,856,193.86 | 2,418,454,982.19 |
| Provident Fund Contributions | 490,980,568.77 | 517,863,032.09 | 548,488,317.14 | 585,472,002.98 |
| Others (if any) | 2,593,728,683.64 | 2,982,723,913.24 | 3,084,264,816.02 | 3,308,510,024.90 |
| Total | 9,285,662,157.74 | 9,993,239,537.31 | 10,438,514,171.97 | 11,160,229,523.54 |

PTT sets the remuneration of employees based on the Company's short-term and long-term performance through Performance Management, a continuous and systematic process to drive the Company's performance to its achievement and in line with the Performance Agreement (PA) which is also linked to the corporate targets, business unit targets, and individual targets in the same direction, as well as PTT's strategic direction, to drive the operating results according to business plan targets.

PTT employees' annual salary increase is considered according to their performance. To this end, KPIs were applied to manage employee performance evaluation, which would be accordingly reflected in their salary increases and benefits. Employee KPIs could be divided into 2 key types: Corporate KPIs and business/ operational/ personal (or Functional KPIs). Individual KPIs must align with the 4 aspects of the balanced scorecard, namely finance, customers, internal process, and learning and development. To achieve the company's targets sustainably, PTT has added 2 more important aspects: products and personnel, to align with current performance results (short-term) and long-term business plans. Besides, PTT set a variable bonus aligned with the KPIs of PTT executives and employees of the management group to create motivation in achieving the annual targets.

Provident Fund

PTT has established and registered a provident fund called the “Provident Fund of PTT Public Company Limited and Affiliates” (the Fund). Employees of PTT and its joint ventures are eligible to participate in the scheme, and currently, 3,511 employees out of the total 3,557 employees of PTT, or 98.71%, have joined the Fund, managed by Krungthai Asset Management Plc. and TISCO Asset Management Co., Ltd. The two companies disclosed related information in compliance with the Investment Governance Code (I Code).

The Fund engaged in investment with due regard for Environmental, Social, and Governance (ESG) factors and jointly with the companies set a policy and assigned them to invest in entities with committed responsibility for all stakeholders: shareholders, employees, customers, business partners, society, and the world. PTT has defined CG criteria and applied its decision-making process to ensure that the Fund makes the right investment in transparent businesses. Moreover, the Investment Committee required the fund managers to report PTT’s current assets that are currently invested and compare them with the lists of SETTHSI index (Thailand Sustainability Investment) of the Securities Exchange of Thailand to learn the ratio of its assets and the change whenever they submit investment performance.

Other Remunerations

PTT has provided employee welfare and other remuneration programs apart from salary, bonus, and provident fund contributions for management and all employees. This is to keep balance with economic conditions, the cost of living, and other standards of peer companies as well as PTT’s current and future performance, achieved through constant revision and improvement. In addition, PTT has adopted a Flexible Benefits scheme, in response to the needs of individual employees. Each employee can choose to apply for flexible benefits by declaring his or her intention once a year under the period, conditions, and details prescribed by PTT, provided that such customized flexible benefits are not against the law, tradition, and good morals. However, mandatory employee benefits vital to the well-being of employees and in performing his or her duties will not be included as a choice.

HR System Development and Improvement

To become a sustainable organization, PTT continuously improves its HR management processes and mechanisms to ensure higher efficiency and realize the full potential of its employees, which will lead PTT toward its goals. PTT employees can fully demonstrate their competence, advance in their careers, and keep growing together with PTT.

PTT has focused on participation across the board in designing business plans to suit its direction and targets since this will efficiently align all its components. To this end, it has instituted a process in which senior PTT Group management along with support staff jointly define a vision and directions before propagating the agreed items for other units to apply in turning business strategies into business plans and budget plans in broad alignment. All PTT employees define individual objectives and KPIs, cascaded through the ranks from the corporate, department, to an individual level. Such objectives and indicators defined by employees then serve as a scope for performance and performance assessment standards to reflect individual performance.

PTT has applied Career Management guidelines to prepare and promote management and all employees with skills and knowledge to fit PTT-designed model in coping with its missions and creating value for the organization. PTT has applied this model to the management and development of all its employees and, taking into account business direction to enhance corporate competitiveness, has divided them into two professional groups (senior management and employees), with clear, efficient interconnected systems for recruitment, assessment, and individual development planning (IDP) in place.

- Executives (equivalent to Vice Presidents upwards) undergo PTT Group Leadership Development, which sustains the needs of senior executives in both quantity and quality. Management of this group is supervised by a panel of CEOs in PTT Group called PTT Group Management Committee (PTTGMC), responsible for defining directions and policies for development plans for senior management. Another team, called Human Resources Group Alignment & Coordination Management Committee (HRAC), provides counseling and recommendations to the Senior Executive Vice President, Organization Effectiveness & Corporate Governance, to enhance decision-making on key coordination issues regarding human resource development strategies and directions of PTT Group to align with those of PTT.
- Employees (division manager or equivalent and below): This internal management is specific to PTT or a PTT affiliate in developing employees to suit future operational needs. For PTT, Corporate Human Resources Committee (HRC) was established to promote and monitor career development planning to ensure goal achievement. Career Counseling Teams (CCT) for 16 professional groups take charge of defining and developing individuals, providing counseling and guidance, and monitoring and following up on implementation. An individual development plan is a tool for employees to set their goals and develop their career paths, thus adding value to their work in line with PTT's directions and goals. Such employee development can be undertaken through proper training via success profiles or job rotation in line with their career paths. This would enable all employees to develop skills in their new positions, as would suitable appointments and promotions in line with their responsibilities and potential. With this development framework, employees will be qualified to assume top management positions in PTT Group and enable PTT to achieve its goals.
- To ensure that the policy defined and HR management align with and support the business directions of PTT Group, the Human Resources Management Committee (HRMC), appointed to define and propose policies and make decisions on HR management, provide recommendations on the preparedness and development of PTT's current as well as future executives and employees, screen and give recommendations on the corporate structure and manpower, and approve or screen matters on HR management under the authority assigned.

PTT continues to focus on career and competency management by preparing and reviewing the success profile and career path of each position and pushing for the evaluation of the success profile in line with the performance cycle, where supervisors must discuss with employees (two-way) their responsibilities at the beginning of the year and follow up and evaluate the results in the half and end of the year to follow up and/or prepare an Individual Development Plan (IDP) for employees.

PTT Group encourages and supports employees' learning through the PTT Leadership and Learning Institute (PLLI) with goals of establishing standards and developing employee capability through the management and implementation of compulsory courses for all PTT employees in the same direction.

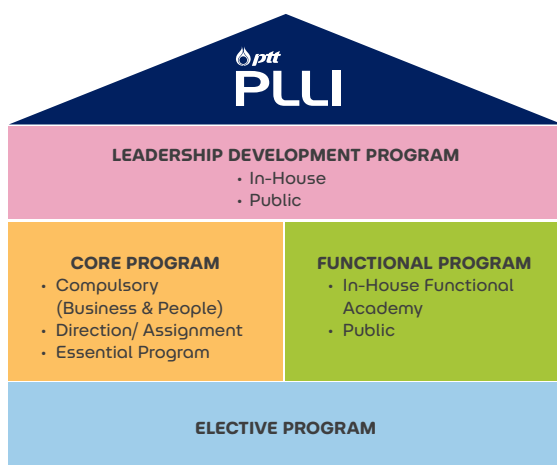
PLLI has continuously developed management and employees of PTT and PTT Group to be both "good and capable" to support organization growth and develop personnel capabilities. Hybrid learning is introduced and designed to suit target groups by mixing formats and learning techniques including classroom, virtual classroom, online learning, field trips, etc. for the highest learning efficiency, which can be adjusted in line with changing circumstances. Experiential Learning is developed for employee learning through role play, simulation, board games, etc. for enjoyable and interesting learning, with opportunities for actual practices, leading to more knowledge and understanding of business operations.

It also develops digital learning materials in many different formats on the Learning Management System (LMS) to meet employees' learning and needs in various generations, thereby responding to learning Anywhere, Anytime, and Lifelong learning, such as E-Learning about organizational knowledge, rules, regulations, and corporate policies. Online learning and learning resources selected by PTT from outside cover business, technology, soft skills, lifestyle, and more than 300 courses. PTT E-Library (E-Book, E-Magazine, Magazine, Book) is for employees to search, reserve, borrow, and return books, and magazines, as well as read books online anywhere, anytime. There are also podcasts, and online audio programs, as another option for employee self-development with a variety of content both within and outside the organization. Casual Learning, a new learning style, and microlearning are additionally adopted as short-time learning, fun, and easy to understand for employees.

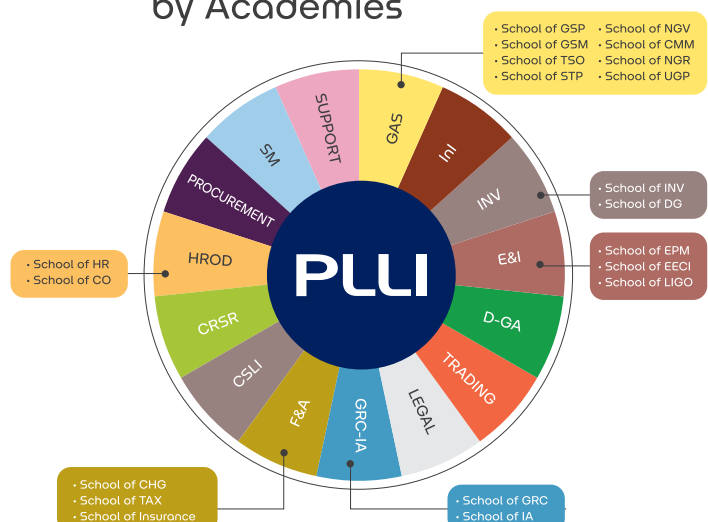
In addition, a Feature Playlist has been developed in the LMS system where courses are categorized for ease of finding. This allows supervisors or employees to select the group of courses of interest based on the New Core Competencies and other interesting skill topics, as well as a customized playlist according to the needs of each department to help promote the IDP of supervisors and subordinates and respond to the organization's strategies.

The curriculum structure of PLLI covers employee development at all levels from new employees to senior executives. The courses are divided into 3 main groups:

- 1. Talent Development Program** is designed to prepare and accelerate the development of high-potential management for skills, knowledge, and ability in people and business management through learning, knowledge, and experience sharing with leading instructors both Thai and world-class instructors, including learning and experience-sharing with top management both internal and external. Participants of this program are management selected as a potential pool under the given criteria.
- 2. Core/ Functional Program** (a group of compulsory courses for employees at all levels) is the core curriculum to develop the potential of all employees according to the work level group or career, divided into Compulsory, Direction/ Assignment, Essential Program, and Functional Program.
- 3. Elective Program** (additional elective course as needed) is a curriculum to develop employees' potential according to individual needs by mutual consideration of supervisors and employees in choosing development courses as per employees' needs.



Functional Program by Academies



In addition, PTT also pays attention to environmental training courses for employees working in related jobs and interested parties. In 2024, environmental training courses were organized as follows:

| Course | Batch | Participants | Training Format |
|---|-------|---------------|-------------------------|
| Downstream SDGs Business | 1 | 41 | Classroom |
| Circular Business Workshop | 1 | 23 | Classroom |
| Chemical Sustainability for Downstream Business Opportunities | 1 | 26 | Classroom |
| Fundamentals of Environmental, Social, and Governance (ESG) Auditing | 1 | 42 | Classroom |
| PTT's Sustainability Management Process (Environmental, Social, and Governance: ESG) | 1 | 39 | Classroom |
| Social Return Assessment and Monitoring Using CIPP and OECD Models for Sustainable Investment | 1 | On process | Classroom + Workshop |
| Climate Action, NOT an Option Series. Ep. 1 Introduction to GHG emissions reduction direction and target in Thailand | 1 | 77 | MS Teams |
| Carbon pricing mechanism | 1 | 73 | MS Teams |
| Requirements and Internal Audits in ISO 14065 and ISO/IEC 17029 Systems | 1 | 37 | Classroom + Workshop |

In addition, PTT continues to organize the Young People to Global (YP2G) program, the latest of which is the 10th batch (Batch 10), to develop employees to be ready for difficult and challenging tasks, as well as new important projects according to PTT's strategy. These YP2G employees are assigned challenging responsibilities through the following 3 core functions: Strategy & Planning, Business Development, and Commercial & Marketing. These tasks will enable them to learn and increase experience in business acumen through on-the-job training (OJT).

Summary of Human Resource Development

Unit: Hours per person per year

| Training hours/person/year | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------|-------|-------|-------|-------|-------|
| Employee | 30.26 | 37.40 | 42.78 | 45.87 | 47.72 |
| Management | 45.93 | 34.25 | 64.93 | 49.57 | 44.90 |

Unit: THB per person per year

| Expense/person/year | 2020 | 2021 | 2022 | 2023 | 2024 |
|-----------------------|-----------|-----------|-----------|-----------|-----------|
| Employee & Management | 13,471.73 | 13,485.45 | 29,502.06 | 30,513.87 | 37,040.97 |

Fostering Relationship between Management and Staff in Search of Common Goal

Communication between management and staff comes in various forms, whereby CEO & President has continuously held communication sessions with employees to ensure their awareness of the organization's strategic direction, obstacles, or challenges in the organization's operations each year, focusing on employee participation, answering questions, and expressing opinions. Senior executives in each line of work also hold meetings to convey business strategies consistent with PTT's operations of CEO & President to employees under their supervision to ensure their understanding.

An annual employee satisfaction and engagement survey is implemented for solutions and improvement of satisfaction and engagement. PTT believes that proper communication and information exchange among staff and management will foster smooth relations and cooperation, thus driving the organization toward goal achievement. In addition, PTT surveys the basic human resource needs of management and staff through various committees such as the Human Resource Management Committee, PTT Labor Relations Committee, and Career Path Management Committee. An annual survey of staff opinions is undertaken by an external human resource management expert advisor. There was also cooperation with PTT Group to jointly develop a database of management as well as development plans for senior management.

PTT Labor Relations Committee was established under the State Enterprise Labor Relations Act B.E. 2543 (2000). The committee consists of 19 members with CEO & President (as PTT director) as Chairman, nine members representing employer, and nine members representing employees. The committee considers issues about employment conditions, employees' rights, and benefits, as well as employee complaints. The committee meets monthly to monitor the progress of related issues with prudence.

Besides the monthly Labor Relations Committee meetings, PTT holds meetings of a working group on the study and development of employees' welfare and other benefits, appointed with the resolution of the Labor Relations Committee. Members comprise representatives from the employer and employees to jointly search and analyze information on employees' welfare and benefits of PTT Group in comparison with those of other leading businesses for use in the improvement of PTT's regular and probationary employees.

PTT also holds Joint Consultation Committee (JCC) meetings between its management team and staff of regional offices nationwide, e.g., Rayong Gas Separation Plant, Khanom Gas Separation Plant in Nakhon Si Thammarat, and Chon Buri Operations Center. The JCC comprising the top management of certain establishments as chairman and employee representatives would jointly consider every issue of proposals and complaints of both management and employees for employees' good standard of living in line with laws and PTT's regulations.

PTT Group Core Values

PTT Group has defined its SPIRIT core values as to create behaviors and ways of working together in PTT Group. The SPIRIT values consisting of S: Synergy, P: Performance Excellence, I: Innovation, R: Responsibility for Society, I: Integrity & Ethics, T: Trust & Respect, are the important foundation that shapes PTT Group executives and employees to be good and capable, and responsible towards the organization and society.

Core values align with the corporate vision and future challenges by focusing on PTT Group's employees as the driving force for Thailand to move through the transformation into a new future through SPIRIT values, namely:



- **Synergy:** Synchronize through partnership by focusing on employee knowledge sharing and instigating collaborative power both inside and outside the company.
- **Performance Excellence:** Agile for excellence by focusing on employees' readiness to quickly adapt to changes, and work hard to accomplish beyond-expectation results to create and deliver the best value to stakeholders.
- **Innovation:** Invent future growth through innovation by focusing on employees to have a positive attitude. Seek opportunities for new ideas and think creatively. Able to apply new digital technologies to increase work efficiency along with continuous learning and self-development.
- **Responsibility for Society:** Reach sustainability with green economy, focusing on employees to work with awareness, taking into account the impact on stakeholders for sustainable development, develop an environmentally conscious business, with a volunteer spirit for the public, community, society, and the nation.
- **Integrity & Ethics:** Embed integrity & ethics to enhance good corporate citizenship focusing on employees to perform properly, transparently, and as good employees of the company with honesty and a good sense of ethics.
- **Trust & Respect:** Tune up trust through empowerment and respect focusing on employees working together, being open to opportunities and trust in others' potential capabilities, being open-minded and respectful of others' diversity.

7.6 Other Key Information

Company Secretary

To comply with the corporate governance principles of listed companies under the category of directors' responsibilities and the terms of the Securities and Exchange Act, the Board appointed a Company Secretary to provide the Board with legal advice and remind them of assorted regulations that they need to know and comply with; hold meetings; supervise Board activities to enable them to perform efficiently and effectively in the best interests of PTT; prepare and maintain key documents, including directors' registration, Board meeting notices and minutes, annual reports; issue shareholders' meeting notices and minutes; and keep reports on vested interests reported by directors or management.

The Board has appointed Company Secretary since 2008. From May 16, 2024, Mrs. Pilasphan Udomjarumanee has served as the Company Secretary. She is knowledgeable, capable, and experienced in company secretary work. She attended training courses that are important to her duties and is also a lecturer on matters related to her duties.

Company Secretary



Mrs. Pilasphan Udomjarumanee
Company Secretary
(May 16, 2024 - Present)
Age: 59

(%) of Share Possession:

- 0.000403

Education:

- Bachelor of Arts (English), Silpakorn University
- Post Graduate Diploma Degree in Business Administration, Victoria University, Melbourne, Australia
- Master's Degree of Business Administration (Finance), Royal Melbourne Institute of Technology, Melbourne, Australia

Company Secretary Training Record:

- Anti-Corruption Practical Guide (ACPG 64/2023), Board Nomination & Compensation Program (BNCP 16/2023), Ethical Leadership Program (ELP 27/2022), Company Secretary Refreshment Training Program (RFP 4/2021) Subsidiary Governance, Business and Legal Issues for Directors and Executives and Transformative Leadership for Global Enterprise, 2022 Director's Legal Liabilities, Ethical Leadership for New Era and High Performing Board & Board Effectiveness,

2021 (In-house Programs organized by GC), Board Reporting Program (BRP 35/2020), Company Reporting Program (CRP 26/2020), Company Secretary Program (CSP 107/2020), Corporate Governance for Executives (CGE 16/2020), Director Certification Program (DCP 287/2019, Thai Institute of Directors Association (IOD)

- Leadership Development Program 2 (LDP 2), (with INSEAD), PTT Leadership and Learning Institute (PLLI)
- Supply Chain and Supply Sourcing, McKinsey
- Strategy Management Program 2018, Fiscal Policy Research Institute Foundation, Ministry of Finance
- M&A Training for Senior Leadership 2018, Institute for Merger, Acquisition & Alliance
- Leadership Development Program (LDP 2) 2015, Sasin Graduate Institute of Business Administration, Chulalongkorn University

Professional Experience (past 5 years):

- May 16, 2024 - Present
Executive Vice President, PTT Global Chemical Plc., working on a Secondment as Executive Vice President, Company Secretary and Corporate Relation PTT Public Company Limited
- October 1, 2019 - May 15, 2024
Senior Vice President - Corporate Secretary and Legal and Company Secretary, PTT Global Chemical Public Company Limited
- September 1, 2016 - September 30, 2019
Vice President - Strategy and Planning Department, PTT Global Chemical Public Company Limited

Key Related Directorship:

- Vice Chairman of the Committee, Power of Innovation Foundation
- Vice Chairman of the Committee, Power for Sustainable Future Foundation
- Committee Member, Vidyasirimedhi Institute of Science and Technology (VISTEC)
- Committee Member, Thai Listed Companies Association (TLCA)

Relationship with Executives:

- -None-

The Person Supervising Accounting

Executive Vice President, Global Business Services, PTT, is assigned by position to be directly responsible for PTT's accounting. Miss Numpetch Supharatanasit has been holding the position since December 1, 2023, and is directly in charge of accounting management. She is qualified as an accountant under the criteria set by the Department of Business Development. **More profile details appear in the Executive Profile in Attachment 1.**

Head of the Office of Corporate Audit

Executive Vice President, Office of Corporate Audit, PTT, is by position assigned as Head of the Corporate Audit. Miss Piyaporn Thanangteerapong is the present Head of the Office of Corporate Audit. More profile details appear in Section 2 **"9. Internal Control and Connected Transactions"** and **details of the Head of the Office of Corporate Audit also appear in Attachment 3.**

Head of Compliance

Senior Executive Vice President, Organization Effectiveness and Corporate Governance, PTT, is by position assigned as Head of Compliance. Mr. Chadil Chavanalikhorn was appointed to the position and is currently responsible for PTT's compliance. More details about the Compliance Unit are presented in Section 2 **"9. Internal Control and Connected Transactions"** and **profile details of the Head of Compliance also appear in Attachment 1.**

Head of Investor Relations and Contact Information

Mr. Tanapon Prapapan, Investor Relations, was appointed Vice President, Investor Relations Department with effect from April 16, 2021, and can be contacted at Investor Relations, PTT, Tel.: 0-2537-3518-9, E-Mail: ptt-ir@pttplc.com, or PTT Website (www.pttplc.com).

Audit Fee

In the fiscal year 2024, the company and its subsidiaries incurred a total audit fee of THB 344,240,280 which includes fees paid to the auditing firm, EY, as well as individuals or entities related to the auditor. This amount consists of THB 54,271,796 paid to the aforementioned auditing firm and THB 289,968,484 paid to other auditing firms.

Non-Audit Fee

In the fiscal year 2024, PTT and its subsidiaries paid a total of THB 119,396,598 for other services to EY, including persons or entities related to the auditor and the auditing firm, mainly for consulting services in various area.

8. Corporate Governance Milestones

8.1 Performance of the Board of Directors in 2024

8.1.1 Nomination, Development, and Performance Assessment of the Board

(1) Independent Directors

PTT's Board of Directors, at Meeting No. 1/2013 on January 17, 2013, approved the revised definition of independence of directors, proposed by the Corporate Governance Committee which was more stringent than the criteria set by the Securities and Exchange Commission (SEC) and The Stock Exchange of Thailand (SET), and defined their roles, duties, and responsibilities. PTT published a handbook on their execution of duties and responsibilities, signed by the Chairman, on January 21, 2013. The Board meeting No. 3/2021 on March 18, 2021 approved the revision of roles and responsibilities of

The current Chairman is an independent director. He exercises high-level leadership and ensures that directors do not fall under the influence of management by encouraging them to exercise their voting rights and strictly comply with CG principles.



PTT's independent directors to be more updated and in line with regulation criteria of various agencies, which was signed by the Chairman of the Board on April 1, 2021. Essential elements of the revised handbook are:

Qualifications of Independent Directors

- (A) Must not hold more than 0.5% of the total voting shares of PTT, its subsidiaries, associated and related companies of PTT's major shareholders, or PTT's controlling person, including the shares held by persons related to such an independent director.
- (B) Must not be or have not been involved as the management, employee, staff member, or advisor who earns a regular salary, or authorized controlling person of PTT, its subsidiaries, associated companies, related companies, or a juristic person of which PTT's major shareholders or PTT's controlling person during the period of two preceding years before the appointment. This forbidden characteristic excludes former government officials or consultants of the government agency, which is PTT's majority shareholder or has a controlling interest in PTT.
- (C) Must not have blood relationship or relationship through legal registration as parents, spouses, siblings, and children, including the spouse of the children, of any other directors, management, major shareholders, authorized controlling person, or any person to be nominated as a director, management, or authorized controlling person of PTT or its subsidiaries.
- (D) Must never have engaged or not engage in a business relationship with PTT, its parent company, subsidiaries, associated or related companies, major shareholders, or controlling person in a way that could obstruct his or her exercise of independent discretion; including must never have been or be a significant shareholder or controlling person of parties with a business relationship with PTT, its parent company, subsidiaries, associated or related companies, major shareholders, or controlling person except where such an association has ended at least two years before his or her appointment as an independent director.
- (E) Must never have been or not be an auditor for PTT, its parent company, subsidiaries, associated or related companies, major shareholders, or controlling person, and must not be a significant shareholder, controlling person, or partner of an audit office in which an auditor of PTT, its parent company, subsidiaries, associate or related companies, major shareholders, or controlling person serves, except where such association has ended at least 2 years before his or her appointment as an independent director.
- (F) Must never have been or not be a professional service provider, including legal or financial advisor with a fee of more than THB 2 million a year paid by PTT, its parent company, subsidiaries, associated or related companies, major shareholders, or controlling person, and must not be a significant shareholder, controlling person, or partner of the professional service provider in question, except where such association has ended at least 2 years before his or her appointment as an independent director.
- (G) Must not be a director appointed to represent PTT, a major shareholder, or a shareholder connected to PTT's major shareholder.
- (H) Must not engage in similar businesses that compete significantly with PTT or its subsidiaries and must not be a significant partner in partnerships or director participating in business management, staff, employee, advisor on payroll, or hold more than 1% shares of the total voting shares of other companies that are in similar businesses and compete significantly with PTT or its subsidiaries.
- (I) Must not have any other qualification that may compromise the expression of independent views on PTT's businesses.

The business relationship in the preceding paragraph includes engagement in normal business transactions for operation, property rent, asset or service transactions, financial assistance involving borrowing, guaranteeing, provision of assets as collateral, and similar behavior that

incurs debts on the part of PTT or its contract counterpart to each other amounting to 3% or more of PTT's net tangible assets or THB 20 million (whichever is smaller). Calculation of such debts is to follow the method for connected transactions under the announcement of the Capital Market Supervisory Board on connected transaction criteria mutatis mutandis; such debts must, however, include all debts incurred during the entire year before the business relationship with the same party begins.

Independent directors with qualifications under (A) - (I) above may be assigned by the Board to decide on the business operations of PTT, its subsidiaries, associated companies, sister companies, juristic persons, major shareholders, or controlling persons that could pose conflicts of interest; such decisions will be collective decisions.

If a person appointed by PTT as an independent director has or used to have a business relationship or professional service provision with PTT exceeding the value given under (D) or (F) of the previous paragraphs, PTT is allowed to relax such prohibitions on a business relationship or professional service provision with excessive value if it could secure the Board of Directors' views regarding the criterion of Section 89/7 of the Securities and Exchange Act has illustrated that the appointment of such person will not affect his or her performance and independent expression of views. To this end, PTT must disclose the following information in the meeting notice to shareholders under the agenda item on consideration of independent director appointment:

- (A) Business relationships or professional service provisions disqualifying a person from eligibility that person.
- (B) Justification and necessity for the appointment of that person as an independent director.
- (C) PTT's Board of Directors' views on the appointment of that person as an independent director.

Under (E) and (F) of the previous paragraph, "partner" means a person assigned by the audit office or professional service provider to serve as a signatory of the audit report or professional service report (as applicable) on behalf of the company.

In addition, these qualifications must not contradict the applicable law

If independent directors hold this position at PTT, its subsidiaries, associated companies, or sister companies, PTT must disclose information regarding their service and total compensation in the 56-1 One Report.

- Business relationships or professional service provisions of independent directors in the past fiscal year: -None-

Roles, Duties, and Responsibilities of PTT's Independent Directors

- (1) Recommend critical and beneficial matters to PTT, its shareholders, including minor shareholders, to the Board and/or Chief Executive Officer & President.

- (2) Advocate for the roles and responsibilities of the Board and provide views commonly expected of independent directors for the benefit of PTT, its shareholders, and minor shareholders.
- (3) Review matters to ensure PTT's compliance with laws concerning independent directors and periodically revise the definition of independent directors to maintain suitability and legal accuracy.
- (4) Perform other Board-assigned duties, provided that these responsibilities do not compromise their independence
- (5) An independent director's term commences upon fulfilling all requirements under PTT's corporate governance framework and concludes upon losing qualifications or completing the designated term.
- (6) The independent directors must convene their own meeting at least once annually.

Segregation of the Chairman and CEO & President

To segregate policy-making duties from those daily management responsibilities and enable directors to oversee and evaluate performance effectively, PTT has required that the Chairman and CEO & President are always two distinct individuals. This is because the Chairman needs to supervise management's performance, provides guidance and support it, but does not participate in or interfere with daily operations, which is the duty of CEO & President under the authority delegated by the Board.

The current Chairman as an independent director, provides high-level leadership and ensures that directors remain free from management influence by encouraging them to exercise their voting rights and adhere strictly to comply with CG principles.

Independence of the Chairman

The Board Meeting No. 12/2023 on December 21, 2023, appointed Mr. Chatchai Phromlert, an independent director, was appointed as Chairman of the Board, effective December 23, 2023. The appointment was in accordance with the 2017 CG Code for Listed Companies. This ensures the Chairman's independence and strengthens confidence in operational transparency and fair treatment of all stakeholders.

(2) Nomination of Directors and CEO & President

Nomination of Directors

In 2024, the Nominating Committee nominated to the shareholder's meeting the consideration and appointment of 5 new directors to replace those who had resigned at the 2024 Annual General Meeting (AGM):

- Mr. Wattanapong Kurovat,
Director (Mr. Wattanapong Kurovat resigned effective from September 25, 2024)
- Dr. Nattapon Nattasomboon,
Independent Director
- Miss Choosri Kietkajornkul,
Independent Director
- Dr. Chayatan Phromsorn,
Independent Director
- Dr. Veerapat Kiatfuengfoo,
Director

The Committee also nominated to the shareholder's meeting the consideration and reappointment of 5 directors who had completed their terms at the 2024 AGM for another term, as follows:

- Mr. Chatchai Phromlert,
Independent Director
- Mr. Payong Srivanich,
Independent Director
- Mr. Jatuporn Buruspat,
Independent Director
- Associate Professor Dr. Chayodom Sabhasri,
Independent Director (Associate Professor Dr. Chayodom Sabhasri resigned effective from May 26, 2024.)
- Mr. Auttapol Rerkpiboon,
Director and Secretary to the Board (Mr. Auttapol Rerkpiboon completed his employment contract effective from May 13, 2024.)

Nomination procedures are reported under Section 2, Corporate Governance, the topic of **Proposing Additional Meeting Agenda Items and Nominating Directors**, and **Item 7.3 (2) The Nominating Committee**.

Nomination of CEO & President/ Succession Planning

Nomination of CEO & President and succession plan are reported under Section 2 Corporate Governance, **Item 7.4 Information about executives**.

(3) Director Development

Training Courses/ Seminars/ Engagement in PTT Activities

The Board and management value regular participation in training and seminars concerning their competencies for their jobs. (Training details appear in directors' profiles in Attachment 1.) Most PTT directors (more than 90%) underwent training with the Thai Institute of Directors Association (IOD) and other leading entities and institutes as well as seminars on related topics.

At present, the Board have undergone training in courses related to their director duties, with 13 members completing the Director Certification Program (DCP) and 3 members completing the Director Accreditation Program (DAP), totaling of 14 out of 15 directors, accounting for 93.33%.

PTT supports and sponsors IOD membership for all directors, providing them with communication channels and additional resources beneficial to their roles. PTT also delivers training information for directors to consider enrollment in curricula of their interest; this also applies to other continual seminars or curricula throughout the year. It regularly organizes in-house briefings by leading consultants and experts from PTT Group on useful business data. Finally, it organizes company site visits for directors to other units or entities as seen fit to provide helpful insights for application to PTT's businesses for sustainable growth.

In 2024, training and seminars to foster their work knowledge and PTT's activities include the items below.

| Directors | Training/ Seminar/ Activity |
|------------------------------|---|
| Mr. Chatchai Phromlert | <ul style="list-style-type: none"> • A lecture on Derivatives and Price Hedging of PTT Group • In attendance at a visit by HRH Princess Maha Chakri Sirindhorn to Vidyasirimedhi Institute of Science and Technology (VISTEC)'s Pilot Plant 3, Kamnoetvidya Science Academy (KVIS)'s AI and Mechatronics Lab, School of Innovative Agriculture, Chitralada Technology Institute, Wangchan, Rayong, November 10 - 12, 2024 • In attendance of His Majesty the King and Her Majesty the Queen at the inauguration ceremony of the "Prem Pracha Vanarak" Royal Celebration Public Park, December 10, 2024 |
| GEN. Teerawat Boonyawat | <ul style="list-style-type: none"> • A lecture on Derivatives and Price Hedging of PTT Group • In attendance at a visit by HRH Princess Maha Chakri Sirindhorn to Vidyasirimedhi Institute of Science and Technology (VISTEC)'s Pilot Plant 3, Kamnoetvidya Science Academy (KVIS)'s AI and Mechatronics Lab, School of Innovative Agriculture, Chitralada Technology Institute, Wangchan, Rayong, November 10 - 12, 2024 |
| Mr. Krishna Boonyachai | <ul style="list-style-type: none"> • A lecture on Derivatives and Price Hedging of PTT Group • 2024 IIA International Conference (The Institute of Internal Auditors 2024) organized by the Institute of Internal Auditors, July 15 - 17, 2024 • PTT Group AC Forum 2024: "Watch out for the signs" organized by PTT's Office of Corporate Audit, August 30, 2024 • CAE Forum 2024 on "Roles of CAE and Internal Auditors with Global Internal Audit Standards 2024" organized by The Institute of Internal Auditors of Thailand and The Stock Exchange of Thailand, September 13, 2024 • In attendance at a visit by HRH Princess Maha Chakri Sirindhorn to Vidyasirimedhi Institute of Science and Technology (VISTEC)'s Pilot Plant 3, Kamnoetvidya Science Academy (KVIS)'s AI and Mechatronics Lab, School of Innovative Agriculture, Chitralada Technology Institute, Wangchan, Rayong, November 10 - 12, 2024 |
| Mr. Payong Srivanich | <ul style="list-style-type: none"> • A lecture on Derivatives and Price Hedging of PTT Group |
| Mr. Jatuporn Buruspat | <ul style="list-style-type: none"> • A lecture on Derivatives and Price Hedging of PTT Group • In attendance of His Majesty the King and Her Majesty the Queen at the inauguration ceremony of the "Prem Pracha Vanarak" Royal Celebration Public Park, December 10, 2024 |
| Mrs. Phongsaward Neelayodhin | <ul style="list-style-type: none"> • A lecture on Derivatives and Price Hedging of PTT Group • In attendance at a visit by HRH Princess Maha Chakri Sirindhorn to Vidyasirimedhi Institute of Science and Technology (VISTEC)'s Pilot Plant 3, Kamnoetvidya Science Academy (KVIS)'s AI and Mechatronics Lab, School of Innovative Agriculture, Chitralada Technology Institute, Wangchan, Rayong, November 10 - 12, 2024 • In attendance of His Majesty the King and Her Majesty the Queen at the inauguration ceremony of the "Prem Pracha Vanarak" Royal Celebration Public Park, December 10, 2024 |

| Directors | Training/ Seminar/ Activity |
|--|---|
| Mr. Chansin Treenuchagron | <ul style="list-style-type: none"> • A lecture on Derivatives and Price Hedging of PTT Group • 2024 IIA International Conference (The Institute of Internal Auditors 2024) organized by the Institute of Internal Auditors, July 15 - 17, 2024 • PTT Group AC Forum 2024: “Watch out for the signs” organized by PTT’s Office of Corporate Audit, August 30, 2024 |
| Associate Professor Dr. Narongdech Srukhsit | <ul style="list-style-type: none"> • A lecture on Derivatives and Price Hedging of PTT Group • 2024 IIA International Conference (The Institute of Internal Auditors 2024) organized by the Institute of Internal Auditors, July 15 - 17, 2024 • PTT Group AC Forum 2024: “Watch out for the signs” organized by PTT’s Office of Corporate Audit, August 30, 2024 |
| Mr. Lavaron Sangsanit | <ul style="list-style-type: none"> • A lecture on Derivatives and Price Hedging of PTT Group |
| Air Chief Marshal Chanon Mungthanya | <ul style="list-style-type: none"> • A lecture on Derivatives and Price Hedging of PTT Group |
| Dr. Chayatan Phromsorn | <ul style="list-style-type: none"> • Director Orientation • A lecture on Derivatives and Price Hedging of PTT Group • In attendance of His Majesty the King and Her Majesty the Queen at the inauguration ceremony of the “Prem Pracha Vanarak” Royal Celebration Public Park, December 10, 2024 |
| Dr. Nattapon Nattasomboon | <ul style="list-style-type: none"> • Director Orientation • A lecture on Derivatives and Price Hedging of PTT Group |
| Dr. Veerapat Kietfuengfoo | <ul style="list-style-type: none"> • In attendance of His Majesty the King and Her Majesty the Queen at the inauguration ceremony of the “Prem Pracha Vanarak” Royal Celebration Public Park, December 10, 2024 |
| Miss Choosri Kietkajornkul | <ul style="list-style-type: none"> • Director Orientation • A lecture on Derivatives and Price Hedging of PTT Group • In attendance at a visit by HRH Princess Maha Chakri Sirindhorn to Vidyasirimedhi Institute of Science and Technology (VISTEC)’s Pilot Plant 3, Kamnoetvidya Science Academy (KVIS)’s AI and Mechatronics Lab, School of Innovative Agriculture, Chitralada Technology Institute, Wangchan, Rayong, November 10 - 12, 2024 |

| Directors | Training/ Seminar/ Activity |
|---------------------------|---|
| Dr. Kongkrapan Intarajang | <ul style="list-style-type: none">• A lecture on Derivatives and Price Hedging of PTT Group• In attendance at a visit by HRH Princess Maha Chakri Sirindhorn to Vidyasirimedhi Institute of Science and Technology (VISTEC)'s Pilot Plant 3, Kamnoetvidya Science Academy (KVIS)'s AI and Mechatronics Lab, School of Innovative Agriculture, Chitralada Technology Institute, Wangchan, Rayong, November 10 - 12, 2024• In attendance of His Majesty the King and Her Majesty the Queen at the inauguration ceremony of the “Prem Pracha Vanarak” Royal Celebration Public Park, December 10, 2024 |

PTT Board also engaged in other corporate activities, such as business visits to PTT and PTT Group, and attended Committee attained PTT Inauguration Day, etc.

(4) Board Self-assessment

In compliance with the CG policy, PTT requires the Board to conduct a self-assessment to scope its regular review of its performance. In 2022, PTT worked with PricewaterhouseCoopers ABAS Co., Ltd. (PwC) in reviewing and preparing the 2022 PTT Board Performance Assessment Form to ensure effective and up-to-date assessment of the Board's performance in line with the corporate governance principles of SEC, SET, SEPO, including other related criteria and guidelines in Thailand and international. The Board Meeting No. 10/2024 on October 17, 2024, approved all five 2024 self-assessment forms: Assessment of the Board (Entire Board), Assessment of Individual Directors (Self-assessment), cIndividual Assessment of Other Directors (Cross-assessment), Assessment of Specific Committees (Self-assessment) of specific committees) and Assessment of Chairman's roles and performance, along with satisfaction with specific committees and chairman of each specific committees. The five assessment forms stipulated the percentages corresponding to the levels of performance achieved in each topic with reference scoring criteria: 90 - 100 = excellent, 80 - 89 = very good, 70 - 79 = good, 60 - 69 = satisfactory, 50 - 59 = pass, and below 50 = not pass. The self-assessment findings were as follows:

1. Assessment of the Board (Entire Board) consisted of 4 topics: Board composition and qualifications, Board roles and responsibilities, Meeting preparation and conducting, Board training and self-development.

The overall results indicated excellent performance, with an average score of 96.72%.

2. Assessment of Individual Directors (Self-assessment)

consisted of 4 topics: Board roles and responsibilities, Board meetings, Relationship with the Management, and Board self-development.

The overall results indicated excellent performance, with an average score of 99.08%.

3. Individual Assessment of Other Directors (Cross assessment)

consisted of the 4 same topics as the self-assessment of individual directors for direct comparison.

The overall results in these 4 topics indicated excellent performance, with an average score of 98.67%.

4. Self-assessment of Specific Committees (Entire Committees)

consisted of 4 topics: Specific Committee composition and qualifications, Specific Committee roles and responsibilities, Meeting preparation and conducting, and training and self-development.

The results indicated excellent overall performance as follows:

- 4.1 The Nominating Committee indicated excellent performance, with an average score of 98.80%.
- 4.2 The Remuneration Committee indicated excellent performance, with an average score of 99.32%.
- 4.3 The Corporate Governance and Sustainability Committee indicated excellent performance, with an average score of 99.47%.
- 4.4 The Enterprise Risk Management Committee indicated excellent performance, with an average score of 100%.

5. Assessment of Chairman's Roles and Performance, Satisfaction of the Committees, and the Chairman of each.

The assessment of the Chairman consisted of 8 topics, and 10 topics on work satisfaction assessment indicated excellent performance, with an average score of 96.18%.

Audit Committee's Performance Assessment: To comply with the best practices of SET, the Audit Committee assesses its audit performance by undertaking a self-assessment at least one time annually. Also, the Audit Committee's Performance Assessment, problems, and improvement plan are presented annually to the Board. In 2024, the Audit Committee's Meeting No. 9/2024 on September 10, 2024, approved its assessment forms, namely Assessment of the Committee (entire committee), Assessment of Individual Directors (self-assessment), and Individual Assessment of Other Directors (cross-assessment). The scoring criteria are 1 = disagree, no action was taken in that regard, 2 = agree, or reasonable action was taken on the matter, 3 = quite agree or good action was taken on that matter, 4 = strongly agree, or excellent action on that matter. The Audit Committee Extraordinary Meeting No. 10/2024 on November 13, 2024, approved the self-assessment of its 2024 and reported the results together with the performance improvement plan of 2025 to Board Meeting No. 12/2024 on December 19, 2024. The results indicated "good" performance, with an average score of 98.01%.

PTT also analyzes assessment topics to enhance the efficiency of the Board's operations and formulates an annual plan for improving the Board's performance for approval. In addition to developing annual performance assessment criteria, since 2017, the Board has established KPIs to measure directors' efficiency and effectiveness early in the year. These KPIs are used as a benchmark for evaluating the Board's overall performance and are also considered in determining directors' remuneration.

Director Orientation

For new directors, PTT arranges an orientation program on its business policies, capital structure, shareholding structure, business performance, and information systems, as well as applicable laws and regulations. In addition, each director receives a Director's Handbook, with useful information for performing duties as PTT directors. The Director's Handbook/Information for Directors consists of the following:

Director's Handbook:

1. Public Company Act, B.E. 2535 (1992)
2. Securities and Exchange Act, B.E. 2535 (1992)
3. Standard Qualifications of State Enterprise Directors and Employees Act, B.E. 2518 (1975)
4. Emergency Decree on Electronic Meetings, B.E. 2563 (2020)
5. Company Registration Certificate
6. Company Certificate
7. Company Objectives
8. Articles of Association
9. Company Regulations (15 regulations)
10. PTT Corporate Governance, Ethical Standards and Code of Business Ethics Handbook
11. Manual for Directors of Listed Companies
12. Principles and Guidelines on Corporate Governance for State-Owned Enterprises B.E. 2562 (2019) (SEPO)

Information Kit for Directors:

1. Business overview presentation of PTT
2. List of directors, specific committees, and management structure
3. Director Fiduciary Duty Check List
4. CG Principles for Listed Companies (CG Code)
5. Connected Transactions of Listed Companies
6. Guidance on Providing Information for Listed Company Management
7. PTT Plc. Company Profile (summary version)
8. Annual Registration Statement/ Annual Report (Form 56-1 One Report)
9. Annual Registration Statement/ Annual Report (Form 56-1 One Report) Financial Report
10. Corporate Governance
11. Debenture Magazine ("Happiness")
12. Article: "Truth about Privatization"
13. PTT Group Way of Conduct
14. PTT Technology and Innovation Management Operating System
15. PLLI Course Catalog

In 2024, in the briefing to the new directors, CEO & President along with senior management presented information about PTT, its management structure, strategies and policies on business operations and financial performance, and relevant information for their overview of the business operations. The above-mentioned documents, along with the handbook for new directors and other relevant materials, were handed over. In 2024, 4 director orientations were organized.

8.1.2 Meeting Attendance and Individual Directors' Compensation

(1) Board Meetings

PTT schedules its board meetings in advance all through the year. In 2024, the monthly meetings took place on the third Thursday of each month, with occasional special meetings on special agendas as needed. The Office of President sends each director meeting notices, agendas with complete details and rationale, and supplementary documents containing essential details for decision-making about 7 days ahead of each meeting, allowing directors sufficient time for review. Directors consider the agenda through application software on electronic devices to streamline the process of agenda delivery and reduce paper usage. This not only enhances efficiency but also ensures that directors have access to comprehensive information for effective decision-making.

Since 2015, for each meeting, the Board has required a regular follow-up agenda on the updates of implementation of Board observations and comments to ensure the execution of PTT's strategies, which is a monthly report in the meeting.

The Board's policy is that, for a given agenda item, if any director has potential conflicts of interest with PTT, The office of President will not deliver such agenda item to that director, who will not attend the meeting and abstain from voting on such an agenda item. In voting, the minimum quorum of directors is 2/3 of all attending directors. If the quorum does not comply with this guideline, the discretion of the Chairman will be sought, a policy that is stated in the Corporate Governance Handbook.

For each agenda item, the minute of meeting contain written comments and observations. The Board-certified minutes are filed for perusal by the directors and related parties. Each meeting normally takes 3 - 4 hours. In addition, the meeting schedule for the whole year has been set in advance, and directors have been informed of the meeting schedule at the end of the previous year or the beginning of the year.

In 2024, PTT held a total of 24 Board meetings, 12 regular meetings, and 12 special meetings. Out of 24 meetings, 23 were physical meetings and 1 was an electronic meeting (E-Meeting). A special meeting is held annually to determine, review, and approve PTT Group's vision, mission, directions, and strategies (5-year rolling). In 2024, the Board and management took part in reviewing such matters and approved the direction and strategy to scope and guide the work by business units, subsidiaries, and associates in developing enterprise and budgeting plans for 2025 - 2029. In addition, one non-executive meeting was held in June 2024 on the topic of PTT's businesses on various issues and recommendations to management for further business improvement. This is in line with the Principles and Guidelines on Corporate Governance for State-owned Enterprises B.E. 2562 (2019) as well as the guidelines given by the State Enterprise Policy Office. Management process after the meeting included disclosing the issues discussed and notifying the results of the meeting to the Board or CEO & President for acknowledgment.

4 independent director meetings were held: (1) January 2024, (2) May 2024, (3) August 2024, and November 2024. Topics discussed in the meetings were PTT's businesses on various issues and recommendations to management for further business improvement. At every meeting, the Chairman allowed all directors to express their opinions freely and independently. The Board meetings are detailed below.

Attendance of the Board and 5 Specific Committee Meetings for 2024

| No. | Name | Special 1/2024 | 1/2024 | Special 2/2024 (Online) ^{1/} | 2/2024 | Special 3/2024 | 3/2024 | Special 4/2024 | 4/2024 | Special 5/2024 | 5/2024 | 6/2024 | Special 6/2024 | 7/2024 | Special 7/2024 | Special 8/2024 | 8/2024 | Special 9/2024 | 9/2024 | 10/2024 | Special 10/2024 | Special 11/2024 | 11/2024 | Special 12/2024 | 12/2024 | Number of Attendances | Number of Meetings | % | | |
|---|--|--|--------|---------------------------------------|---|----------------|---|----------------|------------------------------------|--|--------|--------|---|--------|----------------|----------------|--------|----------------|--|---------|-----------------|-----------------|---------|-----------------|---------|-----------------------|--------------------|-----|-----|-----|
| 1 | Mr. Chatchai Phromlert | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | 24 | 24 | 100 | | |
| 2 | GEN. Teerawat Boonyawat | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | 24 | 24 | 100 | | |
| 3 | Mr. Krishna Booyaohai | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | 24 | 24 | 100 | | |
| 4 | Mr. Payong Srivanich | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | X | / | / | / | / | / | 23 | 24 | 96 | | |
| 5 | Mr. Jatuporn Buruspat | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | X | / | 23 | 24 | 96 | | |
| 6 | Mrs. Phongsaward Neelayodhin | / | / | / | X | / | / | / | / | / | / | / | X | / | X | X | / | / | / | / | / | / | / | / | / | 20 | 24 | 83 | | |
| 7 | Mr. Chansin Treenuchagron | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | 24 | 24 | 100 | | |
| 8 | Associate Professor Dr. Narongdech Srukhsosit | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | 24 | 24 | 100 | | |
| 9 | Mr. Lavaron Sangsnit | / | / | / | / | / | / | / | / | / | / | / | / | / | X | X | / | / | / | / | X | / | / | X | / | 20 | 24 | 83 | | |
| 10 | Air Chief Marshal Chanon Mungthanya | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | 24 | 24 | 100 | | |
| 11 | Dr. Chayatan Phromsorn ^{2/} | Appointed with effect from August 15, 2024 | | | | | | | | | | | | | | | | | / | / | / | X | X | X | / | / | 5 | 8 | 63 | |
| 12 | Dr. Nattapon Nattasomboon ^{3/} | Appointed with effect from March 21, 2024 | | | | | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | 19 | 19 | 100 | | |
| 13 | Dr. Veerapat Kiatfuengfoo ^{4/} | Appointed with effect from October 17, 2024 | | | | | | | | | | | | | | | | | | | / | / | / | / | / | 5 | 5 | 100 | | |
| 14 | Miss Choosri Kietkajornku ^{5/} | Appointed with effect from May 28, 2024 | | | | | | | | | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | 15 | 15 | 100 | | |
| 15 | Dr. Kongkrapan Intarajang ^{6/} | Appointed with effect from May 13, 2024 | | | | | | | | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | 16 | 16 | 100 | | |
| Directors Who Retired/ Resigned in 2024 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Dr. Prasert Sinsukprasert | / | / | / | Resigned with effect from February 10, 2024 | | | | | | | | | | | | | | | | | | | | 3 | 3 | 100 | | | |
| 2 | Mr. Phongsthor Thavisin | / | / | / | / | / | Resigned with effect from March 7, 2024 | | | | | | | | | | | | | | | | | | | | 5 | 5 | 100 | |
| 3 | Mr. Auttapol Rerkpiboon | / | / | / | / | / | / | / | Completed his term on May 13, 2024 | | | | | | | | | | | | | | | | | | | 8 | 8 | 100 |
| 4 | Associate Professor Dr. Chayodom Sabhasri | / | / | / | / | / | / | / | / | Resigned with effect from May 26, 2024 | | | | | | | | | | | | | | | | | | 9 | 9 | 100 |
| 5 | Professor Dr. Thosaporn Sirisumphand | / | X | / | X | / | X | / | / | / | X | X | Resigned with effect from June 29, 2024 | | | | | | | | | | | | | | | 6 | 11 | 55 |
| 6 | Mr. Wattanapong Kurovat | Appointed with effect from February 15, 2024 | | | | / | / | / | / | / | / | / | / | / | / | / | / | / | Resigned with effect from September 25, 2024 | | | | | | | 14 | 14 | 100 | | |
| Total Attendance | | 15 | 14 | 15 | 12 | 15 | 14 | 15 | 15 | 15 | 14 | 14 | 13 | 14 | 12 | 12 | 14 | 15 | 15 | 13 | 13 | 14 | 14 | 13 | 15 | | | | | |
| Total Directors | | 15 | 15 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 14 | 14 | 15 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | | | | | |
| % | | 100 | 93 | 100 | 86 | 100 | 93 | 100 | 100 | 100 | 93 | 93 | 92 | 100 | 86 | 86 | 100 | 100 | 100 | 93 | 87 | 93 | 93 | 87 | 100 | | | | | |

Remark:

^{1/} One E-Meeting^{2/} Dr. Chayatan Phromsorn has been appointed as Independent Director in replacement of Professor Dr. Thosaporn Sirisumphand.^{3/} Dr. Nattapon Nattasomboon has been appointed as Independent Director in replacement of Mr. Phongsthor Thavisin.^{4/} Dr. Veerapat Kiatfuengfoo has been appointed as Director in replacement of Mr. Wattanapong Kurovat which had been previously appointed as Director in replacement of Dr. Prasert Sinsukprasert.^{5/} Miss Choosri Kietkajornkul has been appointed as Independent Director in replacement of Associate Professor Dr. Chayodom Sabhasri.^{6/} Dr. Kongkrapan Intarajang has been appointed as Director in replacement of Mr. Auttapol Rerkpiboon.

| Directors | Board and Specific Committee Meetings in 2024 | | | | | | Appointment during the Year |
|--|---|--------------------------------|---|-------------------------------------|--------------------------------------|---|---|
| | Board of Directors Total 24 | Audit Committee Total 24 | Corporate Governance and Sustainability Committee Total 6 | Nominating Committee Total 20 | Remuneration Committee Total 8 | Enterprise Risk Management Committee Total 16 | |
| 1. Mr. Chatchai Phromlert | 24/24 | - | - | - | - | - | - |
| 2. GEN. Teerawat Boonyawat | 24/24 | - | - | - | 8/8 | - | - |
| 3. Mr. Krishna Boonyachai | 24/24 | 24/24 | - | - | - | - | - |
| 4. Mr. Payong Srivanich | 23/24 | - | - | 20/20 | - | - | - |
| 5. Mr. Jatuporn Buruspat | 23/24 | - | 6/6 | - | - | - | - |
| 6. Mrs. Phongsaward Neelayodhwin | 20/24 | - | - | - | - | 13/14 | - |
| 7. Mr. Chansin Treenuchagron | 24/24 | 14/16 | - | 5/5 | - | 4/4 | - |
| 8. Associate Professor Dr. Narongdech Srukhsit | 24/24 | 24/24 | - | - | - | - | - |
| 9. Mr. Lavaron Sangsnit | 20/24 | - | - | 20/20 | 8/8 | - | - |
| 10. Air Chief Marshal Chanon Munghanya | 24/24 | 8/8 | - | 17/17 | 6/6 | - | - |
| 11. Dr. Chayatan Phromsorn | 5/8 | - | - | - | - | 6/6 | August 15, 2024 (Replacing Professor Dr. Thosaporn Sirisumphand) |
| 12. Dr. Nattapon Nattasomboon | 19/19 | - | 5/5 | - | - | 10/10 | March 21, 2024 (Replacing Mr. Phongsthorn Thavisin) |
| 13. Dr. Veerapat Kiatfuengfoo | 5/5 | - | - | - | - | 4/4 | October 17, 2024 (Replacing Mr. Wattanapong Kurovat) |
| 14. Miss Choosri Kietkajornkul | 15/15 | - | 4/4 | - | - | - | May 28, 2024 (Replacing Associate Professor Dr. Chayodom Sabhasri) |
| 15. Dr. Kongkrapan Intarajang | 16/16 | - | - | - | - | - | May 13, 2024 (Replacing Mr. Auttapol Rerkpiboon) |

Attendance Record of Directors Who Retired/ Resigned in 2024 (Total: 6 directors)

| Directors | Board and Specific Committee Meetings in 2024 | | | | | | Appointment during the Year |
|--|---|--------------------------|---|-------------------------------|--------------------------------|---|---|
| | Board of Directors Total 24 | Audit Committee Total 24 | Corporate Governance and Sustainability Committee Total 6 | Nominating Committee Total 20 | Remuneration Committee Total 8 | Enterprise Risk Management Committee Total 16 | |
| 1. Dr. Prasert Sinsukprasert | 3/3 | - | - | - | - | - | Resigned effective from February 10, 2024 |
| 2. Mr. Phongsthorn Thavisin | 5/5 | - | - | - | 1/1 | - | Resigned effective from March 7, 2024 |
| 3. Mr. Auttapol Rerkpiboon | 8/8 | - | - | - | - | - | Completed his term, effective from May 13, 2024 |
| 4. Associate Professor Dr. Chayodom Sabhasri | 9/9 | - | 1/1 | - | - | 5/5 | Resigned effective from May 26, 2024 |
| 5. Professor Dr. Thosaporn Sirisumphand | 6/11 | - | - | - | - | - | Resigned effective from June 29, 2024 |
| 6. Mr. Wattanapong Kurovat | 14/14 | - | - | - | - | 7/7 | Resigned effective from September 25, 2024 |

Remarks:

In 2024, a total of 24 Board meetings were held (12 regular and 12 special meetings).

* Reasons for meeting absence were prior scheduled official engagements and/or urgent special meeting appointments. Leave of absence letters were duly forwarded to the Chairman ahead of the meetings.

(2) Remuneration of Directors

PTT fairly and sensibly specifies the remuneration of directors, by appointing the Remuneration Committee to review directors' proper compensation. In 2024, the Remuneration Committee adopted the consideration practices for directors and specific committees, taking into account practices of other listed peer companies, leading domestic as well as international companies, and state enterprise companies, the corporate governance principles, PTT's financial performance, responsibilities of the Board, and economic growth. Directors' remuneration consists of monthly allowance, meeting allowance, and bonuses. Directors appointed to specific committees receive additional allowances for additional responsibilities. Shareholder-approved directors' compensation rates are as follows:

Remuneration of Directors

The Directors' Remuneration was approved at the 2024 Annual General Meeting (AGM) held on Friday, April 12, 2024, including the remuneration for the Board of Directors and specific committees, as follows:

1. Monthly Fee and Meeting Attendance Fee for 2024, of which rates remained the same.

1.1 Monthly fee and meeting attendance fee of the Board:

- Monthly fee of THB 30,000 per month per director with the Chairman receiving twice the amount received by directors.
- Meeting attendance fee of THB 60,000 per meeting for those in attendance only and the Chairman shall receive 25% higher than the directors. The payment was limited to one meeting per month. Where necessary, the attendance fee may be paid for more than one meeting during a month but must not exceed 15 meetings per year.

1.2 Monthly fee and meeting allowance fee of specific committees shall be **at the same rate** as follows:

1.2.1 The Audit Committee

- Monthly fee of THB 15,000 per month per director with the Chairman receiving the same rate as the members.
- Meeting attendance fee of THB 45,000 per meeting for those in attendance only. The Chairman receives 25% more than the members, and the secretary to the meeting receives a monthly fee of THB 7,500 (the same rate as last year).

1.2.2 The remuneration for other committees, namely **the Nominating Committee, the Remuneration Committee, the Corporate Governance and Sustainability Committee, the Enterprise Risk Management Committee**, and other sub-committees that may be appointed by the Board as necessary and appropriate in the future, shall be **the same rate** as last year as follows:

- Monthly fee - None (same as last year)
- Meeting attendance fee of THB 30,000 per meeting for those in attendance only. The Chairman receives 25% more than the members.

1.3 Other benefits - None (same as last year)

A vehicle was provided to the Chairman to facilitate his duties only.

Directors' Bonuses in 2024

Bonus payouts for directors, at 0.05% of the net profit of 2024, corresponded with PTT's performance and net profit, with a maximum limit of THB 60 million for the entire Board. Bonuses were prorated with each director's term, with the Chairman receiving 25% higher than members (same as previously).

The Remuneration for Directors in 2024

Unit: THB

| No. | Directors | Days of Service Jan. - Dec. 2024 | Bonus 2024 | Meeting (Inclusive of Monthly Allowance) | Meeting Allowance (Specific Committee) | Total Allowance | Total Remuneration |
|--------------|--|--|----------------------|---|---|----------------------|-----------------------|
| 1. | Mr. Chatchai Phromlert | 366 | 3,400,712.00 | 1,845,000.00 | - | 1,845,000.00 | 5,245,712.00 |
| 2. | GEN. Teerawat Boonyawat ^{1/} | 366 | 2,720,569.00 | 1,260,000.00 | 285,000.00 | 1,545,000.00 | 4,265,569.00 |
| 3. | Mr. Krishna Boonyachai ^{1/} | 366 | 2,720,569.00 | 1,260,000.00 | 930,000.00 | 2,190,000.00 | 4,910,569.00 |
| 4. | Mr. Payong Srivanich | 366 | 2,720,569.00 | 1,200,000.00 | 450,000.00 | 1,650,000.00 | 4,370,569.00 |
| 5. | Mr. Jatuporn Buruspat ^{1/} | 366 | 2,720,569.00 | 1,260,000.00 | 285,000.00 | 1,545,000.00 | 4,265,569.00 |
| 6. | Mrs. Phongsaward Neelayodhin | 366 | 2,720,569.00 | 1,200,000.00 | 337,500.00 | 1,537,500.00 | 4,258,069.00 |
| 7. | Mr. Chansin Treenuchagron | 366 | 2,720,569.00 | 1,260,000.00 | 725,081.00 | 1,985,081.00 | 4,705,650.00 |
| 8. | Associate Professor Dr. Narongdech Srukhsit ^{2/} | 366 | 2,720,569.00 | 1,260,000.00 | 750,000.00 | 2,010,000.00 | 4,730,569.00 |
| 9. | Mr. Lavaron Sangsnit ^{2/} | 366 | 2,720,569.00 | 1,260,000.00 | 547,500.00 | 1,807,500.00 | 4,528,069.00 |
| 10. | Air Chief Marshal Chanon Mungthanya ^{1/} | 366 | 2,720,569.00 | 1,260,000.00 | 624,919.00 | 1,884,919.00 | 4,605,488.00 |
| 11. | Dr. Chayatan Phromsorn | 139 | 1,026,782.00 | 316,451.61 | 120,000.00 | 436,451.61 | 1,463,233.61 |
| 12. | Dr. Nattapon Nattasomboon | 286 | 2,125,853.00 | 820,645.16 | 330,000.00 | 1,150,645.16 | 3,276,498.16 |
| 13. | Dr. Veerapat Kiatfuengfoo | 76 | 555,239.00 | 194,516.13 | 60,000.00 | 254,516.13 | 809,755.13 |
| 14. | Miss Choosri Kietkajornkul | 218 | 1,628,035.00 | 633,870.97 | 120,000.00 | 753,870.97 | 2,381,905.97 |
| 15. | Dr. Kongkrapan Intarajang | 233 | 1,738,647.00 | 708,387.10 | - | 708,387.10 | 2,447,034.10 |
| Total | | | 34,960,389.00 | 15,738,870.97 | 5,565,000.00 | 21,303,870.97 | 56,264,259.97 |

1/ Including the meeting allowance of the Nominating Committee of PTT's CEO & President nomination.

2/ Including the meeting allowance of the Remuneration Committee of PTT's CEO & President.

Remarks:

No. 11, Dr. Chayatan Phromsorn was appointed as an independent director on August 15, 2024.

No. 12, Dr. Nattapon Nattasomboon was appointed as an independent director on March 21, 2024.

No. 13, Dr. Veerapat Kiatfuengfoo was appointed as a director on October 17, 2024.

No. 14, Miss Choosri Kietkajornkul was appointed as an independent director on May 28, 2024.

Dr. Kongkrapan Intarajang has been in full compliance with the terms of his employment contract as CEO & President for the remuneration that he received as a director from May 13 - December 31, 2024.

The Remuneration for Directors Who Completed the Terms and/or Resigned in 2024

Unit: THB

| No. | Directors | Days of Service Jan. - Dec. 2024 | Bonus 2024 | Allowance (Inclusive of Monthly Allowance) | Meeting Allowance (Specific Committee) | Total Allowance | Total Remuneration |
|--------------|--|--|---------------------|---|---|---------------------|-----------------------|
| 1. | Dr. Prasert Sinsukprasert | 40 | 292,231.00 | 219,310.34 | - | 219,310.34 | 511,541.34 |
| 2. | Mr. Phongsthorn Thavisin ^{1/} | 66 | 485,257.00 | 365,806.45 | 60,000.00 | 425,806.45 | 911,063.45 |
| 3. | Mr. Auttapol Rerkpiboon | 133 | 981,922.00 | 551,612.90 | - | 551,612.90 | 1,533,534.90 |
| 4. | Associate Professor Dr. Chayodom Sabhasri ^{1/} | 146 | 1,071,090.55 | 570,000.00 | 180,000.00 | 750,000.00 | 1,821,090.55 |
| 5. | Professor Dr. Thosaporn Sirisuphand | 180 | 1,324,319.00 | 420,000.00 | - | 420,000.00 | 1,744,319.00 |
| 6. | Mr. Wattanapong Kurovat | 268 | 1,648,182.00 | 765,517.24 | 150,000.00 | 915,517.24 | 2,563,699.24 |
| Total | | | 5,803,001.55 | 2,892,246.93 | 390,000.00 | 3,282,246.93 | 9,085,248.48 |

1/ Including the meeting allowance of the Remuneration Committee of PTT's CEO & President.

Remarks:

- No. 1 Dr. Prasert Sinsukprasert was appointed a director on December 26, 2022 and the Chairman from November 16, 2023 - December 22, 2023, and resigned with effect from February 10, 2024.
- No. 2 Mr. Phongsthorn Thavisin was appointed a director from May 9, 2023 - October 18, 2023 and an independent director with effect from October 19, 2023, and resigned with effect from March 7, 2024.
- No. 3 Mr. Auttapol Rerkpiboon was appointed CEO & President/ Director and Secretary to the Board with effect from May 13, 2020. He completed his employment terms on May 13, 2024.
- No. 4 Associate Professor Dr. Chayodom Sabhasri was appointed an independent director on April 9, 2021 and resigned with effect from May 26, 2024.
- No. 5 Professor Dr. Thosaporn Sirisumphand was appointed an independent director from November 6, 2020 and the Chairman from November 18, 2020 - November 15, 2023, and resigned with effect from June 29, 2024.
- No. 6 Mr. Wattanapong Kurovat was appointed a director on February 15, 2024 and resigned with effect from September 25, 2024.

Directors' Remuneration Profile, 2021 - 2024

Unit: THB

| Remuneration | 2021 | | 2022 | | 2023 | | 2024 | |
|--------------------|--------|----------------------|--------|----------------------|--------|----------------------|--------|----------------------|
| | Person | Amount | Person | Amount | Person | Amount | Person | Amount |
| Meeting Attendance | 15 | 24,182,451.62 | 15 | 24,350,806.45 | 15 | 23,970,000.00 | 15 | 22,279,505.00 |
| Bonus | 15 | 54,181,705.42 | 15 | 45,587,428.76 | 15 | 56,011,940.47 | 15 | 40,763,390.55 |
| Total | | 78,364,157.04 | | 69,938,235.21 | | 79,981,940.47 | | 63,042,895.55 |

Remark:

The 2021 - 2024 directors' remuneration shown in the table includes the remuneration of CEO & President who has already complied with the terms of the employment contract as CEO & President.

Remuneration of PTT's Directors/ Independent Directors from being a Director/ Independent Director of Subsidiaries* in 2024 (The table below presents remuneration paid to directors/ independent directors only for the period they served on PTT.)

Unit: THB

| Directors | Director Remuneration | | Specific Committee Meeting Allowance | Total Remuneration | Remarks |
|---|-----------------------|---|--------------------------------------|--------------------|---|
| | Bonus** | Meeting Allowance and Monthly Allowance | | | |
| 1. Air Chief Marshal Chanon Mungthanya | - | 1,239,583.33 | - | 1,239,583.33 | Independent Director/ Chairman of the Board, Thai Oil Plc. from April 11 - December 31, 2024 |
| 2. Dr. Kongkrapan Intarajang*** | 2,521,244.00 | 920,000.00 | - | 3,441,244.00 | Director, PTT Exploration and Production Plc. from May 21 - December 31, 2024 |
| | - | 840,000.00 | - | 840,000.00 | Director, PTT Global Chemical Plc. from May 13 - December 31, 2024 |
| 3. Professor Dr. Thosaporn Sirisumphand | - | 517,500.00 | - | 517,500.00 | Director, ARUN PLUS Co., Ltd. from January - June 2024 |
| 4. Mr. Auttapol Rerkpiboon | 1,490,335.00 | 550,000.00 | - | 2,040,335.00 | Director, PTT Exploration and Production Plc. from January 1 - May 12, 2024 |
| | 2,728,630.50 | 639,000.00 | - | 3,367,630.50 | Director/ Chairman of the Board, PTT Oil and Retail Business Plc. from January 1 - May 12, 2024 |

Remarks:

* According to the new International Financial Reporting Standards

** Director's bonuses received from PTT Global Chemical Plc. and PTT Oil and Retail Business Plc. are the 2024 annual bonuses for the 2023 performance. The directors will receive the bonuses, once approved by the 2024 AGM each company.

*** Dr. Kongkrapan Intarajang has complied with the terms of his employment contract as CEO & President.

8.1.3 Governance of Subsidiaries and Associates

The Corporate Governance and Sustainability Committee is responsible for overseeing, monitoring, and evaluating the corporate governance and anti-fraud and corruption performance of PTT and PTT Group through PTT Group Way of Conduct. The Committee provides policies and guidelines to the Governance Risk Compliance and Sustainability Management Committee (GRCMC), chaired by the Senior Executive Vice President, Organization Effectiveness and Corporate Governance. GRCMC is tasked with the supervision of conformance with good governance principles, operational risk management, internal control, and compliance with laws, rules, and regulations of the organization, including setting an action plan and annual goals, approved by the Corporate Governance and Sustainability Committee and PTT's Board of Directors.

PTT operates to promote compliance with policies and guidelines on supervision of subsidiaries and associated companies to achieve strong governance and uniform standards across PTT Group as follows:

1. Communicated the overview and compliance with policies and practices according to PTT Group Way of Conduct to ensure that PTT Group companies can follow correctly and appropriately with the company's context, including providing PTT Group Guideline for New Company through New Company Establishment & Dissolution Integration Taskforce meetings and sub-meetings with PTT policy owners to support and advise the company on its implementation.
2. Monitored the implementation to ensure consistency and thoroughness through the indicators of the top management of PTT Group. This is in line with those of the State Enterprise Assessment Model (SE-AM) for monitoring the achievement of PTT Group's governance. The implementation of PTT Group's management guidelines was reported to the meeting of PTT Group Management Committee (PTTGMC) and Minor PTT Group Management Committee (Minor PTTGMC) to monitor the efficiency and effectiveness of operations on an annual basis.
3. Developed PTT Group Way of Conduct Web Portal, a channel for communicating news, publicizing the contact information of those involved, regulations, and important information related to PTT Group management to be completed and up to date. It is also a channel for submitting operational evidence and supporting monitoring of the implementation of PTT Group management guidelines among policy owners, subsidiary management units, and PTT Group to be comprehensive and timely.
4. Site visits to drive PTT Group governance to be efficient focusing on the Strategic Alignment Policy Group and exchange best practices to push the "Multi-Level Governance" through the transfer of PTT Group Way of Conduct from PTT to PTT Group of the next hierarchy. The concept is to study best practices in supervising companies in the Flagship Group as well as other perspectives to be used as a guideline to improve and develop PTT Group Way of Conduct to be more efficient, including providing advice on PTT Group management practices.
5. Conducted PTT Group Way of Conduct Effectiveness Survey 2024 to take scores, comments, and suggestions into consideration in developing, improving, and preparing an ongoing operational plan on an annual basis.
6. Continuously reviewed PTT Group Way of Conduct by studying international standards and best practices through opinions from external consultants to analyze gaps and use good recommendations as guidelines for developing a framework suitable for the governance context in PTT Group.
7. Enhanced knowledge and understanding of Governance, Risk Management and Internal Control, and Compliance (GRC), as well as emphasis on various practices through knowledge sharing session and development programs for PTT Group as follows:
 - MD on Board for senior management team members that are MDs or CEOs in PTT Group,
 - Secondment Development Program for PTT's executives and employees serving in affiliates.

8.1.4 Corporate Governance Policy and Compliance Control Guideline

(1) Inside Information Guideline

PTT provides notifications and campaigns against the use of insider information through PTT's communication channels, for example, internal PR E-Mail to refrain from purchase/ sale/ transfer of PTT's securities during the financial statement closing date to the date of reporting the financial statement to The Stock Exchange of Thailand for 1 day on a quarterly basis; and communicates good practices in the CG Handbook through CG Tips.

PTT has instituted a system for reporting trading of PTT Group's securities in advance. If PTT's personnel need to trade such securities, they must inform the Company Secretary through the system at least 2 days in advance. In 2024, there was no reported transaction outside silent periods involving those whose jobs involved internal information; no major incidents occurred that impacted PTT, and no accusations of using inside information by regulators.

(2) Conflict of Interest

PTT requires disclosure of information with conflicts of interest between self-interest and PTT to prevent activities that could cause conflicts or illegal and improper activities.

To support the good corporate governance policy, PTT Chairman will inform the Board of Directors to comply with the policy on conflicts of interest at every PTT Board meeting. The Board of Directors who are involved or have a stake or conflict of interest must inform the meeting to abstain from voting or not attending the meeting on that agenda, including being careful about using inside information that has not yet been disclosed to the Stock Exchange,

Preparation of Reports on Potential Conflicts of Interest with PTT

To prevent conflicts of interest, PTT requires boards, management, and employees annually file reports to disclose possible items where employees or their relatives develop conflicts of interest with PTT each time this is discovered. In 2024, the Board, management, and all employees all electronically filed their reports (100%) through PTT Intranet; no material cases were found. The disclosed items of conflicts of interest with PTT confirm acknowledgment that a breach of ethics and PTT's code of conduct is regarded as a disciplinary offense, subject to disciplinary actions according to disciplinary procedures and severity. In 2024, there was no case of a conflict of interest related to a disciplinary offense.

(3) Corporate Governance, Code of Conduct, and Anti-Fraud and Corruption Activities

The Corporate Governance and Sustainability Committee and the Governance Risk Compliance and Sustainability Management Committee (GRCMC) provide oversight and monitor PTT's execution of corporate governance, operational risk management, internal control, and compliance. GRCMC serves as PTT's Anti-Fraud and Corruption Operation Center for State Enterprises and is charged with steering and implementing plans for corporate governance and Anti-fraud and Corruption together with the definition of goals and KPIs approved by the Corporate Governance and Sustainability Committee and the Board. Besides its constant implementation and development as mentioned under Section 6 Corporate Governance on the topic of Anti-Fraud and Corruption. In 2024, PTT executed the following promotional activities on Corporate Governance, Code of Conduct, and Anti-fraud and Corruption:

- Communicated corporate governance and Anti-Fraud and Corruption together with delivering the CG Handbook to all new employees for study and acknowledgment as their guidelines. 100% of Board, management, and employees signed their acknowledgment of the Handbook.
 - Prepared E-Learning courses in the areas of corporate governance and Anti-Fraud and Corruption for employees to choose from, for example (1) CG and Anti-Fraud and Corruption E-Learning to comply with the CG Handbook, covering good practices such as prevention of inside information use, prevention of conflict of interest, and anti-fraud and corruption, (2) Conflict of Interest, and (3) Basic knowledge on Anti-Corruption Organic Act, B.E. 2561 (2018). Executives and employees were informed of this for self-study in all work areas. The total number of PTT employees participating in the training was 88.2%, 87.4%, and 87.2%, respectively.
- In addition, in 2024, training courses on good corporate governance and anti-fraud and corruption were held, by inviting external expert speakers to educate employees, e.g. Conflict of Interest and Insider Trading, Principles for Diagnosing Disciplinary Actions for Executives, etc.
- Fostered an ambiance of awareness through various internal media, including website, CG Intranet/ GRC Intranet, GRC Advisory Program for inquiries from employees, CG/ GRC reminders through CG Tips and Do-Don't, GRC PODCAST, GRC Short Video, GRC Lesson Learned, and internal CG4U PR E-Mail, GRC video clips in elevators and LED video wall on 1st floor hall of PTT Head Office for everyone's information about CG/ GRC, and knowledge sharing as well as engagement in activities of interest. In addition, to enhance GRC-based functioning, GRC Talk has been designated as agenda-based in functional meetings, such as PTT Management Committee meetings, as a channel to communicate governance, risk management and internal control, and compliance, and promote GRC.
 - In 2024, PTT organized the GRC Forum as a hybrid event under the theme "GRC Together for Sustainability #Already good, but even better" to raise awareness of Governance, Risk Management and Compliance (GRC), and promoting GRC behavior to benefit employees' work through various activities such as a discussion on "Together with GRC & AI for Sustainability" by sharing experiences from PTT executives and external guest speakers.
 - Appointed PTT Group Corporate Governance Committee, whose goal is to supervise the achievement in upgrading corporate governance standards for PTT Group to comparable levels and define action plans and relentlessly proactive guidelines for public relations through PTT Group CG Day, a campaign to promote and publicize PTT Group corporate governance, namely PTT, PTTEP, GC, TOP, IRPC, GPSC and OR. Guests of honor from external agencies included representatives of the Anti Corruption Foundation, Office of the Secretary of the National Moral Promotion Committee, Department of Religious Affairs, along with business partners, the Boards, management, and employees of PTT Group. In 2024, the event was organized under the concept of "CG Citizen Sustainability Connect" in a hybrid form to demonstrate the enhancement of good corporate governance cooperation, prepare for business transformation towards a sustainable future, and build confidence among all stakeholders.
 - Participated in building a transparent network for a robust Thai society by strongly advocating its business partners' declaration of the intention to join the Thai Private Sector Collective Action Against Corruption (CAC) to lower risks of corrupt practices across the supply chain. In 2024, PTT educated and urged business partners to join CAC at the annual suppliers' seminar and the annual supplier seminars for NGV and gas distribution pipeline functions.

- Promoted and shared knowledge with external agencies to upgrade corporate governance standards. Management team members served as speakers to share CG experience and concepts on various occasions. Public and private entities, including educational institutions, were welcomed on-site visits, where the experience was shared, and observation was made on PTT's corporate governance practices.
- In 2024, PTT assessed corporate governance and anti-fraud and corruption performance to develop related tasks. It was found that 97.06% commanded good understanding, 89.74% were satisfied with good to very good GRC communication, and 97.08% behaved with awareness of GRC implementation.

All questions, comments, and recommendations are forwarded to related units to act or remedy through the whistleblowing system, with follow-ups made through alerts under the E-Mail system under applicable service level agreements (SLA). If action is not completed, the next superior is reminded to take action. When the action is taken, the responsible unit informs the whistleblower and follows up again by inquiring about service satisfaction by a Contact Center officer. Executives monitor all information monthly to gauge trends and use them as guidelines for process and goods and service improvement to meet all stakeholders' needs. In 2024, (excluding complaints about PTT Oil and Retail Business Plc. (OR)), 6,983 cases were filed, most dealing with NGV privilege cards for public buses and their use, and contacts with PTT's employees/ offices.

(4) Whistleblowing

All stakeholders can use mechanisms to contact and stay informed of information, news, and complaints of products and services through PTT Intranet and from outside through PTT Website, phone, written notification, and E-Mail to Investor Relations Department, Office of the President, Corporate Communication and Branding Department, Good Governance and Corporate Ethics Department, or Customer Relation Center as follows:

Phone: 1365 Contact Center, 0-2537-2000

LINE@: @contact1365

Website: www.pttplc.com

E-Mail: Customer Relations

Center: 1365@pttor.com

Corporate Communication and Branding
Department:

contact@pttplc.com

Office of the President:

corporatesecretary@pttplc.com

Investor Relations Department:

ptt-ir@pttplc.com

GRC Hotline:

GRChelpdesk@pttplc.com

Whistleblowing:

pttvoice@pttplc.com

PTT enables the public to file grievances and complaints when coming across improper or unethical behavior of directors, executives, or employees towards PTT Board, the Audit Committee, CEO & President, Senior Executive Vice President, Organization Effectiveness and Corporate Governance. Senior Executive Vice President, Office of General Counsel, Executive Vice President, Corporate Human Resources, and Executive Vice President, Office of Corporate Audit. PTT values all complaints in an equitable, transparent, attentive, and fair manner, with suitable action periods and due safeguarding of confidential information and whistleblower protection.

To this end, Good Governance and Corporate Ethics Department is a center for grievances and whistleblowing, follow-ups of notifications, protection and fairness assurance for whistleblowers concerning corporate corrupt practices, including reports of investigation and punishment to management and relevant committees, apart from notification to related parties. The reports include monthly to CEO & President, quarterly to Governance Risk Compliance and Sustainability Management Committee, and Corporate Governance and Sustainability Committee, and semi-annually to the Audit Committee. This is to supervise and monitor the management of complaints and whistleblowing of corruption to comply with PTT's regulations on Complaints and Whistleblowing, Corruption, Misconduct, and Non-compliance with laws, and organizational regulations. In 2024, a total of 11 complaints were made through whistleblowing channels for fraud and non-compliance. After due consideration under the process, 6 were found to be without grounds for fraud, and 5 were under process.

(5) The Reporting of Securities Holding Portfolio

In 2024, PTT, by Office of President, issued a reminder on four occasions to directors and management team on forbidding the trading or transfer of PTT securities (1) from January 1 to March 1, 2024 (fiscal year 2023) or 1 day after PTT disclosed its 2023 financial statements to The Stock Exchange of Thailand (SET); (2) from April 1 to May 16, 2024 (first quarter budget of 2024) or 1 day after PTT disclosed the financial statements of the first quarter budget of 2024 to SET; (3) from July 1 to August 16, 2024 (second quarter budget of 2024) or 1 day after PTT disclosed the financial statements of the second quarter budget of 2024 to SET; (4) from October 1 to November 16, 2024 (third quarter budget of 2024) or 1 day after PTT disclosed the financial statements of the third quarter budget of 2024 to SET. In addition, PTT defined a policy of avoiding securities trading of PTT Group outside these periods. Directors and management strictly complied with this. If necessary to trade PTT Group securities, they must inform the Company Secretary at least 2 days ahead.

PTT Securities Portfolios of Directors, 2023 - 2024

| No. | Name | Number of Shares | | | Remarks |
|-----|--|---------------------|---------------------|--|---|
| | | As of Dec. 31, 2023 | As of Dec. 31, 2024 | Increase (Decrease during the Year (shares)) | |
| 1. | Mr. Chatchai Phromlert | - | - | - | (No PTT share held) |
| | Spouse and Minor | - | - | - | - |
| 2. | GEN. Teerawat Boonyawat | - | - | - | (No PTT share held) |
| | Spouse and Minor | - | - | - | - |
| 3. | Mr. Krishna Boonyachai | - | - | - | (No PTT share held) |
| | Spouse and Minor | - | - | - | - |
| 4. | Mr. Payong Srivanich | - | - | - | (No PTT share held) |
| | Spouse and Minor | - | - | - | - |
| 5. | Mr. Jatuporn Buruspat | - | - | - | (No PTT share held) |
| | Spouse and Minor | - | - | - | - |
| 6. | Mrs. Phongsaward Neelayodhin | - | - | - | (No PTT share held) |
| | Spouse and Minor | - | - | - | - |
| 7. | Mr. Chansin Treenuchagron | - | - | - | (No PTT share held) |
| | Spouse and Minor | - | - | - | - |
| 8. | Associate Professor Dr. Narongdech Srukhsit | - | - | - | - |
| | Spouse | 1,399 | 1,399 | - | (No trading transaction of PTT shares in 2024) |
| | Minor | - | - | - | - |
| 9. | Mr. Lavaron Sangsnit | - | - | - | (No PTT share held) |
| 10. | Air Chief Marshal Chanon Mungthanya | - | - | - | (No PTT share held) |
| | Spouse and Minor | - | - | - | - |
| 11. | Dr. Chayatan Phromsorn | N/A | - | - | Newly appointed director on August 15, 2024 (No PTT share held) |
| | Spouse and Minor | N/A | - | - | - |
| 12. | Dr. Nattapon Nattasomboon | N/A | - | - | Newly appointed director on March 21, 2024 (No PTT share held) |
| | Spouse and Minor | N/A | - | - | - |
| 13. | Dr. Veerapat Kiatfuengfoo | N/A | - | - | Newly appointed director on October 17, 2024 (No PTT share held) |
| | Spouse and Minor | N/A | - | - | - |
| 14. | Miss Choosri Kietkajornkul | N/A | - | - | Newly appointed director on May 28, 2024 (No PTT share held) |

| No. | Name | Number of Shares | | | Remarks |
|-----|---------------------------|---------------------|---------------------|--|--|
| | | As of Dec. 31, 2023 | As of Dec. 31, 2024 | Increase (Decrease during the Year (shares)) | |
| 15. | Dr. Kongkrapan Intarajang | - | - | - | Appointed a director and Secretary to the Board/ CEO & President on May 13, 2024 |
| | Spouse and Minor | - | - | - | - |

Remark:

No PTT share was held by directors' spouses and Minor except that of No. 8.

Securities Portfolios of Directors Who Completed Their Terms and Resigned in 2024

| No. | Name | Number of Shares | | | Remarks |
|-----|--|---------------------|---------------------|--|--|
| | | As of Dec. 31, 2023 | As of Dec. 31, 2024 | Increase (Decrease during the Year (shares)) | |
| 1. | Dr. Prasert Sinsukprasert | - | N/A | N/A | Resigned effective from February 10, 2024 (No PTT share held during his directorship in 2024) |
| | Spouse and Minor | - | N/A | N/A | - |
| 2. | Mr. Phongsthorn Thavisin | 10,000 | N/A | N/A | Resigned effective from March 7, 2024 (No trading transaction of PTT shares in 2024) |
| | Spouse and Minor | - | N/A | N/A | - |
| 3. | Mr. Auttapol Rerkpiboon | 225,000 | N/A | N/A | Completed his employment contract on May 13, 2024 (No trading transaction of PTT shares in 2024) |
| | Spouse | 43,000 | N/A | N/A | - |
| | Minor | - | N/A | N/A | - |
| 4. | Associate Professor Dr. Chayodom Sabhasri | - | N/A | N/A | Resigned effective from May 26, 2024 (No PTT share held during his directorship in 2024) |
| | Spouse and Minor | - | N/A | N/A | - |
| 5. | Professor Dr. Thosaporn Sirisumphand | - | N/A | N/A | Resigned effective from June 29, 2024 (No PTT share held during his directorship in 2024) |
| | Spouse | 18,000 | N/A | N/A | (No trading transaction of PTT shares in 2024) |
| | Minor | - | N/A | N/A | - |
| 6. | Mr. Wattanapong Kurovat | N/A | N/A | N/A | Appointed on February 15, 2024 and resigned effective from September 25, 2024 (No PTT share held during his directorship in 2024) |
| | Spouse and Minor | N/A | N/A | N/A | - |

Securities Portfolio of Executives, 2023 - 2024

| No. | Name | Number of Shares | | | Remarks |
|-----|----------------------------------|---------------------|---------------------|--|--|
| | | As of Dec. 31, 2023 | As of Dec. 31, 2024 | Increase (Decrease during the Year (shares)) | |
| 1. | Dr. Kongkrapan Intarajang | - | - | - | Appointed CEO & President on May 13, 2024 (No PTT share held) |
| | Spouse and Minor | - | - | - | - |
| 2. | Mr. Wuttikorn Stithit | 141,210 | 141,210 | - | (No trading transaction of PTT shares in 2024) |
| | Spouse | 90,960 | 90,960 | - | (No trading transaction of PTT shares in 2024) |
| | Minor | - | - | - | - |
| 3. | Mr. Kris Imsang | 100,000 | 100,000 | - | (No trading transaction of PTT shares in 2024) |
| | Spouse and Minor | - | - | - | - |
| 4. | Dr. Buranin Rattanasombat | 214,190 | 214,190 | - | (No trading transaction of PTT shares in 2024) |
| | Spouse and Minor | - | - | - | - |
| 5. | Miss Pattaralada Sa-ngasang | N/A | - | - | Newly appointed executive on October 1, 2024 (No PTT share held) |
| 6. | Dr. Chaya Chandavasv | N/A | 7,000 | - | Newly appointed executive on October 1, 2024 (No trading transaction of PTT shares in 2024) |
| | Spouse and Minor | N/A | - | - | - |
| 7. | Mr. Chadil Chavanalikhorn | - | - | - | (No PTT share held) |
| | Spouse and Minor | - | - | - | - |
| 8. | Miss Peangpanor Boonklum | - | - | - | (No PTT share held) |
| 9. | Mr. Pongpun Amornvivat | 8,000 | 8,000 | - | (No trading transaction of PTT shares in 2024) |
| | Spouse and Minor | - | - | - | - |
| 10. | Mr. Prasong Intaranongpai | 20,750 | 20,750 | - | (No trading transaction of PTT shares in 2024) |
| | Spouse and Minor | - | - | - | - |
| 11. | Mr. Jaturong Worawitsurawatthana | N/A | 10,000 | - | Newly appointed executive on December 12, 2024 (No trading transaction of PTT shares in 2024) |
| | Spouse and Minor | N/A | - | - | - |
| 12. | Mr. Cherdchai Boonchoochaay | - | - | - | (No PTT share held) |

| No. | Name | Number of Shares | | | Remarks |
|-----|----------------------------------|---------------------|---------------------|--|--|
| | | As of Dec. 31, 2023 | As of Dec. 31, 2024 | Increase (Decrease during the Year (shares)) | |
| 13. | Mr. Chansak Chuenchom | - | - | - | (No PTT share held) |
| | Spouse and Minor | - | - | - | - |
| 14 | Mr. Rathakorn Kampanathsanyakorn | N/A | 120,000 | - | Newly appointed executive on October 1, 2024 (No trading transaction of PTT shares in 2024) |
| | Spouse | N/A | 107,000 | - | (No trading transaction of PTT shares in 2024) |
| | Minor | N/A | - | - | - |
| 15. | Mrs. Nivadee Jaroensitipun | - | - | - | (No PTT share held) |
| | Spouse and Minor | - | - | - | - |
| 16. | Dr. Rosaya Teinwan | N/A | 185,960 | - | Newly appointed executive on September 1, 2024 (No trading transaction of PTT shares in 2024) |
| | Spouse and Minor | N/A | - | - | - |
| 17. | Mr. Narongsak Jivakanun | N/A | - | - | Newly appointed executive on May 13, 2024 (No PTT share held) |
| | Spouse and Minor | N/A | - | - | - |
| 18. | Mr. Bandhit Thamprajamchit | - | - | - | - |
| | Spouse | 121,000 | 121,000 | - | (No trading transaction of PTT shares in 2024) |
| | Minor | - | - | - | - |
| 19. | Mr. Terdkiat Prommool | - | - | - | (No PTT share held) |
| | Spouse and Minor | - | - | - | - |
| 20. | Mr. Worawat Pitayasiri | - | - | - | (No PTT share held) |
| | Spouse and Minor | - | - | - | - |
| 21. | Mr. Suchat Ramarch | 160,800 | 160,800 | - | (No trading transaction of PTT shares in 2024) |
| | Spouse and Minor | - | - | - | - |
| 22. | Miss Tharisan Thiansawat | N/A | 279,130 | - | Newly appointed executive on October 1, 2024 |
| 23. | Miss Numpetch Supharatanasit | - | - | - | (No PTT share held) |
| 24. | Miss Jaroonsri Wankertphon | 26,000 | 26,000 | - | (No trading transaction of PTT shares in 2024) |

Remark:

No PTT share was held by executives' spouses and Minor except those of No. 2, 14, and 18.

Securities Portfolios of Management Transferred/ Resigned/ Retired in 2024

| No. | Name | Number of Shares | | | Remarks |
|-----|-----------------------------|---------------------|---------------------|--|---|
| | | As of Dec. 31, 2023 | As of Dec. 31, 2024 | Increase (Decrease during the Year (shares)) | |
| 1. | Mr. Auttapol Rerkpiboon | 225,000 | N/A | N/A | Completed term of employment contract on May 13, 2024 (No trading transaction of PTT shares in 2024) |
| | Spouse | 43,000 | N/A | N/A | - |
| | Minor | - | N/A | N/A | - |
| 2. | Mr. Noppadol Pinsupa | 136,000 | N/A | N/A | Retired on September 30, 2024 (No trading transaction of PTT shares in 2024) |
| | Spouse | 298,000 | N/A | N/A | - |
| | Minor | - | N/A | N/A | - |
| 3. | Miss Pannalin Mahawongtikul | 288,120 | N/A | N/A | Retired on September 30, 2024 (No trading transaction of PTT shares in 2024) |
| 4. | M.L. Peekthong Thongyai | - | N/A | N/A | Early retirement before reaching the age of 60 on November 12, 2024 (No trading transaction of PTT shares in 2024) |
| | Spouse and Minor | - | N/A | N/A | - |
| 5. | Mr. Montri Rawanchaikul | 64,000 | N/A | (64,000) | Retired on September 30, 2024 (There were trading transactions of PTT's shares in 2024) |
| | Spouse and Minor | - | N/A | N/A | - |

Remark:

PTT issued and offered 60,000,000 warrants to the President, management, PTT employees, and employees of PTT Group companies seconded to PTT consisting of two batches: 1) PTT-W1 (40,000,000 units), offered in 2005, with the last exercise date on August 31, 2010, and 2) PTT-W2 (20,000,000 units), offered in 2006, with the last exercise date on September 28, 2011. All warrants were exercised, and no new ones have been issued.

(6) Filing of Assets and Debts to NACC

Details appear in Section 6 Corporate Governance Policy “**Section 6.1 Overview of Corporate Governance Policy and Guidelines.**”

(7) Declaration of Vested Interests in Meetings

Details appear in Section 6 Corporate Governance Policy “**Section 6.1 Overview of Corporate Governance Policy and Guidelines.**”

(8) Deliberation and Review of Connected Transactions

Details appear in Section 6 Corporate Governance Policy “**Section 6.1 Overview of Corporate Governance Policy and Guidelines.**”

8.2 Reports of Specific Committees’ Performance in the Past Year

The Board of Directors values corporate governance and thus appoints 5 specific committees to consider significant matters: Audit Committee, Nominating Committee, Remuneration Committee, Corporate Governance and Sustainability Committee, and Enterprise Risk Management Committee.

8.3 Report of the Audit Committee for 2024

8.3.1 Report of the Audit Committee

Details can be found on pages 328 - 331.

8.4 Report of the Specific Committees for 2024

8.4.1 Report of the Nominating Committee

Details can be found on pages 332 - 333.

8.4.2 Report of the Remuneration Committee

Details can be found on pages 334 - 335.

8.4.3 Report of the Corporate Governance and Sustainability Committee

Details can be found on pages 336 - 340.

8.4.4 Report of the Enterprise Risk Management Committee

Details can be found on pages 341 - 343.



Report of the Audit Committee



Mr. Krishna Boonyachai
Chairman of the Audit Committee

PTT's present Audit Committee is made up of three knowledgeable independent directors, chaired by Mr. Krishna Boonyachai, with Associate Professor Dr. Narongdech Srukhsit, and Mr. Chansin Treenuchagron as members. Serving as the secretary to this committee is Miss Piyaporn Thanangteerapong, Executive Vice President, Office of Corporate Audit. The tenure in 2024 is summarized as follows:

January 1, 2024 to March 21, 2024

- Mr. Krishna Boonyachai
Chairman
- Air Chief Marshal Chanon Mungthanya
Member
- Associate Professor Dr. Narongdech Srukhsit
Member

March 21, 2024 to Present

- Mr. Krishna Boonyachai
Chairman
- Associate Professor Dr. Narongdech Srukhsit
Member
- Mr. Chansin Treenuchagron
Member

In 2024, the Committee executed its Board-assigned duties and those under its own charter, which agreed with SET's best practices. It reviewed and advocated PTT's good governance, together with adequate risk management and internal control process. It ensured PTT's emphasis on being a transparent organization with efficient and effective internal audit activity, while aligning with corporate goals, and enhancing the internal audit quality, the journey of Office of Corporate Audit to be a trustworthy partner for sustainable long-term value creation for PTT with due regard for comprehensively satisfying stakeholders' expectations. The key highlights are as follows:

1. Emphasized raising awareness for management and employees at all levels to operate with transparency and compliance with relevant regulations, based on the principles of good governance by continuously reviewing the internal control process as well as encouraging Tone from the Top to foster a good corporate culture and support the sustainable growth of the organization.
2. Provided recommendations to management for enhancing internal control measures to reduce the likelihood and impacts of key risks that may occur, particularly in operational safety and cybersecurity. This included using case studies to review the investment supervision process, along with Third Party Screening Program. In 2024, the Audit Committee held a joint meeting with the Corporate Governance and Sustainability Committee and the Enterprise Risk Management Committee to exchange perspectives and discuss the guidelines for action in this matter together.

3. Assigned a policy to enhance PTT Group's internal audit quality to efficiently, effectively, and credibly align with PTT Group's strategic directions and stakeholders' expectations by focusing on efficient and effective audits. Advisory roles were highlighted to add value to PTT and its affiliates, in parallel with promoting professional certifications and developing internal auditors whilst continuously applying more technology in internal audit activities.

In 2024, the Committee held 24 meetings, as detailed below:

January 1, 2024 to March 21, 2024: 8 meetings

- Mr. Krishna Boonyachai
Attended 8 meetings
- Air Chief Marshal Chanon Mungthanya
Attended 8 meetings
- Associate Professor Dr. Narongdech Srukhsit
Attended 8 meetings

March 21, 2024 to present: 16 meetings

- Mr. Krishna Boonyachai
Attended 16 meetings
- Associate Professor Dr. Narongdech Srukhsit
Attended 16 meetings
- Mr. Chansin Treenuchagron
Attended 14 meetings

Summary of Performance

1. Review of Financial Reports:

The Committee reviewed quarterly and annual financial reports together with consolidated financial reports with the Management, the Office of Corporate Audit, and the External Auditor. It asked the External Auditor about the accuracy and completeness of financial reports, adjustment of material account entries and accounting projections affecting such reports, adequacy, and suitability of account recording, audit scope, and information disclosure that was accurate, complete, and adequate. All these elements ensured that the preparation of financial reports abided by legal requirements as well as accounting standards under generally accepted accounting principles that were credible and timely, and that adequate information was disclosed for users' benefit. The Committee also held a private meeting with the External Auditor on one occasion in the absence of PTT management to discuss the audit scope, guidelines, audit plans together with its performance independence, as well as reporting of suspicious circumstances under Section 89/25 of the Securities and Exchange Act B.E. 2535 (1992) as amended by the Securities and Exchange Act (No. 4) B.E. 2551 (2008), including the opinion of the External Auditor focusing on presenting accurate, complete and sufficient information.

2. Review of Risk Management Process:

In conjunction with the Management, the Committee regularly reviewed the efficiency and effectiveness of the risk management process as well as the policy, action plans, and risk management approach that affect PTT Group's operations. It also provided advice for process improvement and prompt actions for unforeseen events.

3. Review of Internal Control Process:

The Committee reviewed PTT's internal control with the Office of Corporate Audit every quarter by examining its operation, resource consumption, stewardship of properties, prevention or reduction of errors or damage, losses, waste, or potential of fraud, the credibility of financial reports, including compliance with laws, regulations, and Cabinet resolutions. No significant problems or material shortcomings were

detected. This year's assessment outcomes of internal control against SET's best practices and the Ministry of Finance's Internal Control Standards for Government Agencies, B.E. 2561 (2018), according to PTT management, were that PTT had indeed designed adequate and appropriate control mechanisms.

4. Review of Governance and Corruption Prevention Process:

The Committee reviewed the governance process, compliance with laws, and regulations related to PTT's business operations and the defined work system, including the connected transactions of the Group companies to ensure sensible conformance to normal business terms, as well as related operations for their alignment with the anti-fraud and corruption policies and practices, together with the Thai Private Sector Collective Action against Corruption (CAC)'s guidelines. The Committee also reviewed the complaint handling and whistleblowing process and related parties transaction or transactions that may have a conflict of interest or potential fraud that may affect PTT's operations.

5. Review of the Implementation According to the State Enterprise Assessment Model (SE-AM) of the State Enterprise Policy Office, Ministry of Finance:

The Committee annually reviewed PTT's operating process according to the SE-AM together with the Office of Corporate Audit and other divisions involved, covering eight Core Business Enablers i.e. Corporate Governance & Leadership, Strategic Planning, Risk Management and Internal Control, Stakeholder and Customer Management, Digital Technology, Human Capital Management, Knowledge Management and Innovation Management and Internal Audit by monitoring the implementation of relevant observations and/or recommendations to ensure that PTT's operating process complied with the SE-AM, with continuous improvement.

6. Monitoring of Internal Audit Activity:

The Committee reviewed the internal audit charter amendment, strategic plan, annual and long-term audit plans, adequacy of resources and budget, performance indicators, quality assurance and improvement program, and independence of the Office of Corporate Audit, including audit results and performance according to the plans to ensure its adequate and appropriate internal audit performance standards. The Committee also supervised the continuous quality assurance and level enhancement of the internal audit activities including the annual performance evaluation of the Executive Vice President, Office of Corporate Audit for further presentation to the Board. The Committee recommended and monitored management actions regarding to internal audit report for significant aspects of good governance and adequate internal control.

7. Maintaining the Quality of the Audit Committee:

The Committee reviewed the appropriateness of its Charter and its Skill Matrix. The Committee reported its performance outcomes to the Board every quarter, and assessed its performance as a group and as individuals (self-assessment and cross-assessment), in accordance with SET's best practices to ensure efficient and fruitful performance. Overall assessment result was "good", and action plans for performance improvement were set.

8. Appointment of the External Auditor for 2025

The Committee considered and endorsed the auditor from EY Office Company Limited to be the External Auditor of PTT for 2025 for the Board's concurrence and the shareholders' approval at the 2025 AGM, together with its audit fees. The Committee considered the guidelines for determining the Term of Reference (TOR) to be clear and appropriate and attended the presentation of information from the bidders to ensure the independence of the auditors, with the capacity and time to act as PTT's external auditor.

In summary, the Committee executed its chartered duties and responsibilities with due competence, care, prudence, and adequate independence while providing comments and advice for the equitable benefit of all stakeholders. Its view is that PTT's financial statements are accurate, credible, and align with generally accepted accounting standards. In addition, PTT practiced compliance with applicable laws and business obligations, together with good governance, adequate risk management and internal control, conformance to rules along with efficient and effective internal audit activity.



Mr. Krishna Boonyachai
Chairman of the Audit Committee



Report of the Nominating Committee



Mr. Payong Srivanich
Chairman of the Nominating Committee

The Nominating Committee consists of 3 directors, chaired by Mr. Payong Srivanich, independent director, with Mr. Lavaron Sangsnit, director, and Air Chief Marshal Chanon Munghanya, independent director, (appointed on March 21, 2024), as members. The Nominating Committee member who served during the year was Mr. Chansin Treenuchagron, independent director from December 1, 2023 - March 20, 2024). Mrs. Pilasphan Udomjarumanee, The Company Secretary or the Executive Vice President, Company Secretary and Corporate Relation, serves as its secretary.

In 2024, the Committee executed Board-assigned duties with due prudence, transparency, and fairness and improved its approach to align with up-to-date business strategies with due regard for shareholders' and stakeholders' best interests. This year, the Committee held 20 meetings as shown below:

January 1, 2024 to March 20, 2024

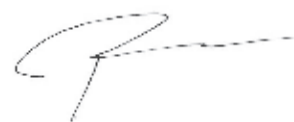
- Mr. Payong Srivanich
Chairman
Attended 5 meetings
- Mr. Lavaron Sangsnit
Member
Attended 5 meetings
- Mr. Chansin Treenuchagron
Member
Attended 5 meetings

March 21, 2024 to December 31, 2024

- Mr. Payong Srivanich
Chairman
Attended 15 meetings
- Mr. Lavaron Sangsrit
Member
Attended 15 meetings
- Air Chief Marshal Chanon Mungthanya
Member
Attended 15 meetings

The Nominating Committee considered the following important matters:

- Nominated directors to replace those who were due to retire by rotation, based on diverse information, from various professions with suitable qualifications under applicable laws and regulations, PTT's Articles of Association, and the corporate governance code. Nominated candidates must be duly competent, skillful, and qualified for PTT's business strategies, based on an analysis of PTT Board Skill Matrix and the Director Pool of the Ministry of Finance and Thai Institute of Directors Association (IOD). Their track records as well as past to present roles must ensure stakeholders' confidence. Their background must also be unblemished and without conflicts of interest with PTT. The names of qualified candidates were tabled for the Board's concurrence for appointment by the Annual General Meeting (AGM) according to the relevant laws and regulations.
- Nominated directors to replace those resigning during the year. To this end, the Committee carefully tabled qualified individuals with knowledge, abilities, and appropriate qualifications according to the above criteria to the Board for the appointment.
- Nominated directors for specific committees, based on their compositions, qualifications, knowledge, expertise, competencies, related skills, and suitability (Skill Matrix) for the Board's appointment, except the Nominating Committee itself, which is to be directly appointed by the Board. The suitability of specific committees must be considered in line with the Company's vision, strategy, and sustainability goals.
- Reviewed the Board Skill Matrix as well as the matrix for the five specific committees and added skills, knowledge, and expertise. The Board Skill Matrix: adjust technology topic to technology and science and technology to science and innovation to modernize and cover current expertise.
- KPIs were defined by improving the weight of indicators to focus on creating successors for PTT's key positions, which will continuously affect the implementation of directions and strategies, as well as PTT's important tasks in the future. The results of the review were presented to the Board's comments.
- Considered and screened the appointment, transfer, and promotion of Executive Vice President levels and above, and provided guidelines for the appointment, transfer, or promotion of the management level for appropriateness, including considering succession plan and up-to-date succession pool of senior executives in line with PTT's strategy for its continuous growth.
- Discussed the supervision/ the driving of the Board's performance guidelines for sustainable development.
- In addition, in 2024, the Board allowed minor shareholders to nominate directors, but no such nomination was put forward for the 2024 AGM. For transparency, other details appear in this form 56-1 One Report.



Mr. Payong Srivanich
Chairman of the Nominating Committee



Report of the Remuneration Committee



General Teerawat Boonyawat

Chairman of the Remuneration Committee

In 2024, the Board of Directors appointed the Remuneration Committee, which consists mainly of independent directors. The Committee is chaired by General Teerawat Boonyawat, independent director, with Mr. Lavaron Sangsnit, director, and Air Chief Marshal Chanon Mungthanya, independent director, (appointed on March 21, 2024), as members. The Remuneration Committee member who served during the year was Mr. Phongsthorn Thavisin, independent director, (was a member of the Remuneration Committee from December 1, 2023 - March 7, 2024). Mrs. Pilasphan Udomjarumanee, the Company Secretary or the Executive Vice President, Company Secretary and Corporate Relation, serves as its secretary.

The Committee performed its duties with prudence and care by screening and commenting on key issues for the Board's consideration. In 2024, the Committee held 8 meetings as shown below:

January 1, 2024 to March 7, 2024

- GEN. Teerawat Boonyawat
Chairman
Attended 1 meeting
- Mr. Lavaron Sangsnit
Member
Attended 1 meeting
- Mr. Phongsthorn Thavisin
Member
Attended 1 meeting

March 8, 2024 to March 20, 2024

- GEN. Teerawat Boonyawat
Chairman
Attended 1 meeting
- Mr. Lavaron Sangsnit
Member
Attended 1 meeting

March 21, 2024 to December 31, 2024

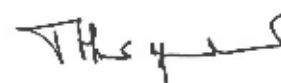
- GEN. Teerawat Boonyawat
Chairman
Attended 6 meetings
- Mr. Lavaron Sangsnit
Member
Attended 6 meetings
- Air Chief Marshal Chanon Mungthanya
Member
Attended 6 meetings

The summary of performance is highlighted as follows:

- Considered the 2024 remuneration for the Board and its specific committees, based on PTT's performance and business size, practices of listed companies of the same industry and leading ones worldwide, along with Board responsibilities and the outcomes of Board assessment under various topics defined in the annual assessment forms. The remuneration was tabled for the Board's concurrence and subsequent proposal for approval at the 2024 AGM.
- Considered the assessment guidelines for determining remuneration for the President & CEO by taking into account factors and weights in various aspects such as performance which is linked to PTT's performance agreement with the Ministry in charge, the Ministry of Finance, his performance against the corporate vision, as well as his managerial ability, leadership, and self-assessment. Key recommendations and indicators were provided based on the State Enterprise Assessment Model (SE-AM) according to the same guidelines used for Board assessment to evaluate the CEO & President.

- Considered and made recommendations on organizational restructuring to be in line with corporate direction and strategy according to the new vision "Together for Sustainable Thailand, Sustainable World", taking into account the revenue-generating functions and redundancy of work.
- Acknowledged and commented on the assessment of senior executive vice presidents.
- Considered and provided suggestions on salary restructuring to be comparable to leading state enterprises and private companies, which reflects the current situation to attract potential people to join PTT and at the same time retain current employees.
- Reviewed and made observations on the implementation of the Variable Bonus system at the employee and management levels as an assisting tool to efficiently drive work for the organization's optimum benefit.

For transparency, the Remuneration Committee has disclosed the remuneration of all directors and specific committees together with management remuneration in this form 56-1 One Report.



General Teerawat Boonyawat
Chairman of the Remuneration Committee



Report of the Corporate Governance and Sustainability Committee



Mr. Jatuporn Buruspat

Chairman of the Corporate Governance and Sustainability Committee

The Corporate Governance and Sustainability Committee is committed to driving PTT to be an organization with transparent and auditable business competitiveness, managed with ethics and integrity, and zero tolerance for all fraud and corruption, with adherence to the principles of governance, operational risk management and internal control, and compliance (Governance, Risk and Compliance: GRC), Anti-Fraud and Corruption, Sustainability Management (SM) and Corporate Social Responsibility (CSR) to foster fairness and confidence among all stakeholders. PTT Group Way of Conduct drives these important rules for PTT Group companies, ensuring sustainable growth across the value chain.

The current Corporate Governance and Sustainability Committee is made up of 3 independent directors, namely Mr. Jatuporn Buruspat (Chairman), Dr. Nattapon Nattasomboon (member), and Miss Choosri Kietkajornkul (member). Senior Executive Vice President, Organization Effectiveness and Corporate Governance is serving as secretary. In 2024, the term of office and details of attendance at the 6 meetings are as follows:

January 1, 2024 to March 20, 2024

- Mr. Jatuporn Buruspat
Chairman
Attended 1 meeting
- Associate Professor Dr. Chayodom Sabhasri
Member
Attended 1 meeting

March 21, 2024 to June 19, 2024

- Mr. Jatuporn Buruspat
Chairman
Attended 1 meeting
- Dr. Nattapon Nattasomboon
Member
Attended 1 meeting

June 20, 2024 to December 31, 2024

- Mr. Jatuporn Buruspat
Chairman
Attended 4 meetings
- Dr. Nattapon Nattasomboon
Member
Attended 4 meetings
- Miss Choosri Kietkajornkul
Member
Attended 4 meetings

Additionally, the Corporate Governance and Sustainability Committee also participated in a meeting with the Audit Committee and the Enterprise Risk Management Committee during the special meeting of the Audit Committee No. 11/2024 on November 14, 2024. The purpose was to exchange viewpoints and discuss operational strategies, as well as to support the processes of governance, risk management, and compliance with laws, rules, and corporate regulations (GRC) of PTT, enhancing their efficiency and effectiveness.

In 2024, the Corporate Governance and Sustainability Committee supervised, monitored, and evaluated the performance of the Company's operations, as highlighted below:

Information Disclosure and Transparency

- Supervised the disclosure of good corporate governance information in the Annual Registration Statement/ Annual Report (56-1 One Report) and PTT Website www.pttplc.com, as well as PTT's operating results on a quarterly basis, and information for shareholders, investors, and the general public. The disclosure was complete, adequate, timely, and continuous through various channels. PTT was thus ranked in the "Excellent" group of the Corporate Governance Report of Thai Listed Companies 2024 for the 16th consecutive year.
- Supervised the disclosure of sustainability performance information on environmental, social, and governance (ESG) aspects that take into account all stakeholders in a balanced manner, through the Annual Registration Statement/ Annual Report (Form 56-1 One Report) on the subsection Driving Business towards Sustainability, as well as integrating the sustainability performance data into the topics of Risk Management, Management's Discussion and Analysis, and Corporate Governance. The information was made public on PTT Website under the topic of Sustainability, by applying the Global Reporting Initiative (GRI) Standards, GRI 11: Oil and Gas Sector 2021, International Financial Reporting Standards (IFRS) Sustainability Disclosure Standards (S1 and S2) of the International Sustainability Standards Board (ISSB), The United Nations Global Compact (UNGC), Measuring Stakeholder Capitalism: Towards Common Metrics and Consistent Reporting of Sustainable Value Creation of the World Economic Forum (WEF). Recommendations of

the Task Force on Climate-related Financial Disclosures (TCFD) were applied to report PTT's climate change operational performance, which was specifically reported on PTT Website. PTT's unwavering support for the UN Sustainable Development Goals (SDGs) was confirmed. The sustainability performance of all 22 indicators, covering all ESG dimensions, has been verified by an independent external organization to build confidence in the data disclosed annually.

Rights of Shareholders and Equitable Treatment of Shareholders

- Held the 2024 AGM in the electronic format (e-AGM) and provided adequate and timely information in advance, as well as all information relevant to matters needing decisions at the AGM. Informed the shareholders about meeting rules and meeting participation methods via electronic media. Such information was publicized on PTT Website before sending out meeting notices to give shareholders adequate time to study details. Facilitated their full exercising of meeting and voting rights. All rules, including vote counting in each agenda item according to PTT's Articles of Association, including the exercise of voting rights via electronic system (e-Voting) in each agenda were clarified. PTT thus achieved an "outstanding" score on the AGM Checklist assessment.
- Allowed shareholders to propose additional agenda items and nominate directors for election in advance from September 1 to December 1, 2024, under the criteria prescribed by PTT.
- Required all directors and executives to disclose vested interests of themselves and related parties for 2024 so that the Board might review PTT's transactions with potential conflicts of interest and decide in PTT's best interests. Required directors with potential vested interests in any meeting agenda items to abstain, refrain from commenting, and skip such agenda items.

- Required all directors, executives, and employees to report their conflicts of interest for 2024, which was fully implemented, and no significant conflicts was found.
- Required all directors and executives to report their securities portfolios as required by law and assigned the Company Secretary to compile and report these to the Board every quarter.
- Ensured enforcement of the Insider Trading Guidelines by asking directors, management, and personnel with access to inside information to refrain from PTT's and PTT Group's securities trading before and after financial statements disclosure as required. If such trading is necessary, for transparency they must notify the Company Secretary ahead of time.

Strengthening the Effective Board of Directors

- Assessed Board performance using 5 types of forms: (1) overall self-assessment, (2) individual self-assessment, (3) cross-assessment, (4) specific committee assessment, (5) Chairman's duty and performance assessment, satisfaction with the performance of specific committees and chairman of each specific committee. The 2024 results were "outstanding."
- Encouraged directors to attend training courses to develop directorship competencies, such as courses hosted by the Thai Institute of Directors Association (IOD) and other relevant institutes, as well as holding in-house courses and sessions by inviting experts to provide information related to the Board's work.
- Studied business management practices in PTT Group, including participating in activities related to energy and related businesses.
- Held 4 meetings among the independent directors.
- Held 1 non-executive meeting.

Corporate Governance, Operational Risk Management and Internal Control, Compliance (GRC), and Anti-Fraud and Corruption

- Approved the improvement of the Governance, Risk Management and Compliance (GRC), including short-term (annual) and long-term GRC and anti-fraud and corruption action plans. Set implementation targets at all levels to raise PTT's corporate governance standards to international par.
- Led the promotion of a corporate culture that aligns with Governance, Risk, and Compliance (GRC) principles, upholding the corporate values of Integrity and Ethics, and serving as a role model.
- Considered and approved the self-assessment form for membership recertification of the Thai Private Sector Anti-Corruption Coalition (CAC). In 2024, PTT was continuously certified as a CAC member for the 4th term.
- Supervised and monitored the management of complaints and whistleblowing through complaint channels to comply with the PTT's regulations on Complaints and Whistleblowing, Corruption, Misconduct, and Non-compliance with laws and regulations through quarterly reports.
- Supervised and recommended internal control assessments of operational processes of PTT and PTT Group by assessing risks, efficiency, and effectiveness of control activities, including developing control activities to lower the risks to an acceptable level.
- Continuously supported and pushed PTT's legal and regulatory compliance processes and managed the non-compliance practices to prevent and reduce the likelihood of repeated non-compliance in the future. In 2024, no incidents of non-compliance with substantial impacts on the organization were found.
- Supported and recommended the third-party screening program to establish standards for auditing the qualifications of those who enter into transactions with PTT to be rigorous and appropriate with efficient risk management and internal control system.

- Assigned policies and recommendations to management to drive the implementation of PTT Group Way of Conduct, a collection of guidelines, practices, and work processes in various dimensions for alignment and harmony within PTT Group, including supporting the promotion of multi-level governance to strengthen governance through site visits.
- Encouraged and urged PTT's business partners to declare their intention to join the CAC.

Sustainability Management

- Supervised, advised, and drove sustainability management by integrating into business operations towards concrete practices throughout the Group, along with the mission of creating national energy security, with good performance and continuous growth to strengthen the long-term societal value.
- Reviewed, signed off, approved, and oversight Material Topics, results of reviewing PTT Sustainability Management Principles review, PTT Sustainability Management Manual and PTT's Sustainability Management Master Plan for Social and Environmental Responsibility for 2021 - 2025 (3rd Edition), which covers the details of the strategic direction, short, medium and long-term goals, Annual Sustainability Management Plan and Action Plan to support the Master Plan to drive sustainability management in accordance with the vision, strategic direction, and PTT Sustainability Management Framework.
- Monitored and reviewed the efficiency and effectiveness of sustainability management according to policies and master plan, and make suggestions for continuous improvement.

Corporate Social Responsibility and Sustainable Development


- Supported PTT's social contribution activities aiming for sustainable community development by applying PTT Group's potential and expertise along with building community engagement as a positive contribution to enhance livelihood aiming to increase income and reduce expenses by more than 10%, as well as creating important skills for community self-reliance to achieve sustainability, promoting youth access to quality education to be an important force in driving the country, including raising awareness of environmental conservation for society. Key social projects implemented are as follows:

1. The Strong Community Project brings technology and innovation knowledge to enhance agricultural skills and raise the community's potential to be self-reliant in a sustainable manner.
2. Developing knowledge and inspiring STEM skills by mobilizing PTT Group's strengths and knowledge in science and technology through cooperation with Kamnoetvidya Science Academy and Vidyasirimedhi Institute of Science and Technology.
3. Improving the quality of life of the underprivileged and creating economic opportunities through the operation of Sarn Palung Social Enterprise Company Limited.
4. Promoting a strong environmental community network through the Green Globe Institute and the development and campaign project for the use of vetiver due to the Royal Initiative by expanding the knowledge of natural resource conservation and restoration and linking the national operational network.
5. Natural resource conservation and restoration through reforestation and knowledge dissemination of the Nature Learning Center to cultivate awareness of natural resources and the environment, and to drive the country towards a low-carbon society.

Awards of Pride

Thanks to our firm commitment to operating businesses with CG, social responsibility, and sustainability management for continuous standard enhancement, in 2024, PTT earned extensive acclaim from domestic and international entities, as highlighted below:

- Ranked as No. 1 in the Oil & Gas Upstream & Integrated (OGX) industry in S&P Global's Corporate Sustainability Assessment (CSA) 2024, as recognized Top 1% and has been listed in Dow Jones Best-in-Class Indices in the World Index and Emerging Markets Index for the 13th consecutive year.
- Integrity & Transparency Assessment (ITA) 2024 at the Good level with 95.76 scores from the NACC.
- Two SET Awards 2024: Sustainability Awards of Honor for 4 consecutive years and Innovative Company Awards of Honor.
- Outstanding Climate Action Leading Organization (CALO) Award at the excellent level in the resource field from Thailand Greenhouse Gas Management Organization (Public Organization).
- Carbon Footprint for Organization (CFO) certification and registration covers the scope of direct and indirect greenhouse gas emissions and greenhouse gas absorption from forest planting and maintenance from the Reforestation Project in 2022 (Reforestation carried out since 1994). The certification results were announced in 2024 by Thailand Greenhouse Gas Management Organization (Public Organization).



Mr. Jatuporn Buruspat

Chairman of the Corporate Governance
and Sustainability Committee



Report of the Enterprise Risk Management Committee



Mrs. Phongsaward Neelayodhin
Chairman of
the Enterprise Risk Management Committee

The Enterprise Risk Management Committee of PTT consists of 3 members: Mrs. Phongsaward Neelayodhin, Chairman, Dr. Chayatan Phromsorn, and Dr. Veerapat Kiatfuengfoo, Members, with Dr. Chaya Chandavas, Senior Executive Vice President, Corporate Strategy, serving as secretary to the Committee. The tenure is as follows:

January 1, 2024 to February 8, 2024

- Mr. Chansin Treenuchagron
Chairman
- Associate Professor Dr. Chayodom Sabhasri
Member

February 9, 2024 to March 20, 2024

- Mrs. Phongsaward Neelayodhin
Chairman
- Mr. Chansin Treenuchagron
Member
- Associate Professor Dr. Chayodom Sabhasri
Member

March 21, 2024 to May 25, 2024

- Mrs. Phongsaward Neelayodhin
Chairman
- Associate Professor Dr. Chayodom Sabhasri
Member
- Mr. Wattanapong Kurovat
Member

May 26, 2024 to June 19, 2024

- Mrs. Phongsaward Neelayodhin
Chairman
- Mr. Wattanapong Kurovat
Member

June 20, 2024 to August 27, 2024

- Mrs. Phongsaward Neelayodhin
Chairman
- Dr. Nattapon Nattasomboon
Member
- Mr. Wattanapong Kurovat
Member

August 28, 2024 to September 24, 2024

- Mrs. Phongsaward Neelayodhin
Chairman
- Dr. Nattapon Nattasomboon
Member
- Dr. Chayatan Phromsorn
Member
- Mr. Wattanapong Kurovat
Member

September 25, 2024 to November 4, 2024

- Mrs. Phongsaward Neelayodhin
Chairman
- Dr. Nattapon Nattasomboon
Member
- Dr. Chayatan Phromsorn
Member

November 5, 2024 to December 31, 2024

- Mrs. Phongsaward Neelayodhin
Chairman
- Dr. Nattapon Nattasomboon
Member
- Dr. Chayatan Phromsorn
Member
- Dr. Veerapat Kiatfuengfoo
Member

The Enterprise Risk Management Committee (ERMC) supports the Board's performance under corporate governance principles to keep risk management efficient and effective for goal achievement while aligning with corporate vision and direction as well as mitigating impacts of business uncertainties and emerging risks that are increasingly complex and severe from both internal and external factors, including volatile world economy. The key is to ensure shareholders and stakeholders that PTT's risk management system can indeed handle these risks in all dimensions and obtain projected business goals.

In 2024, ERMC held a total of 16 meetings as highlighted below:

January 1, 2024 to February 8, 2024: 2 meetings

- Mr. Chansin Treenuchagron Attended 2 meetings
- Associate Professor Attended 2 meetings
Dr. Chayodom Sabhasri

February 9, 2024 to March 20, 2024: 2 meetings

- Mrs. Phongsaward Neelayodhin Attended 2 meetings
- Mr. Chansin Treenuchagron Attended 2 meetings
- Associate Professor Attended 2 meetings
Dr. Chayodom Sabhasri

March 21, 2024 to May 25, 2024: 1 meeting

- Mrs. Phongsaward Neelayodhin Attended 1 meeting
- Associate Professor Attended 1 meeting
Dr. Chayodom Sabhasri
- Mr. Wattanapong Kurovat Attended 1 meeting

May 26, 2024 to June 19, 2024: 1 meeting

- Mrs. Phongsaward Neelayodhin Attended 1 meeting
- Mr. Wattanapong Kurovat Attended 1 meeting

June 20, 2024 to August 27, 2024: 4 meetings

- Mrs. Phongsaward Neelayodhin Attended 3 meetings
- Dr. Nattapon Nattasomboon Attended 4 meetings
- Mr. Wattanapong Kurovat Attended 4 meetings

August 28, 2024 to September 24, 2024: 1 meeting

- Mrs. Phongsaward Neelayodhin Attended 1 meeting
- Dr. Nattapon Nattasomboon Attended 1 meeting
- Dr. Chayatan Phromsorn Attended 1 meeting
- Mr. Wattanapong Kurovat Attended 1 meeting

September 25, 2024 to November 4, 2024: 1 meeting

- Mrs. Phongsaward Neelayodhin Attended 1 meeting
- Dr. Nattapon Nattasomboon Attended 1 meeting
- Dr. Chayatan Phromsorn Attended 1 meeting

November 5, 2024 to December 31, 2024: 4 meetings

- Mrs. Phongsaward Neelayodhin Attended 4 meetings
- Dr. Nattapon Nattasomboon Attended 4 meetings
- Dr. Chayatan Phromsorn Attended 4 meetings
- Dr. Veerapat Kiatfuengfoo Attended 4 meetings

Performance Highlights

1. Supervised Risk Management to Ease Business Impacts:

Key global situations that may affect PTT Group's business operations were monitored. PTT has proactive measures focusing on management to lower the likelihood of all risk incidents, with reactive measures if a risk event occurs to minimize the impact on organizational goals. It defined comprehensive risk management plans for all situations. In 2024, the Risk Management Policy was reviewed and improved, and the "Risk Appetite Statement" was adjusted in line with the changing circumstances to ensure that PTT's risk management process is appropriate and effectively implemented.

2. Oversaw Corporate Stakeholder Management: This was designed to make such management complete and embrace comprehensive management of all stakeholders. Comments and suggestions were given as follows:

- 2.1 Summary of 2023 Stakeholder Relationship Management comprising a summary of stakeholder management and stakeholder survey results
- 2.2 Stakeholder Management Quarterly Report (2024)
- 2.3 Stakeholder Strategy and Direction (2025 - 2029) comprises vision and objectives, stakeholder management scope, strategic direction, indicators, stakeholder groups, organizational issues, and strategies

This included the drive for implementation by all functions and monitoring of operations and outcomes of management assessment. ERMIC also provided comments and advice for goal achievement.

3. Supervised the Management of Corporate Innovations:

To ensure a complete innovation management process with efficient and systematic innovation and technology management for increased effectiveness that meets PTT's strategic objectives and core goals, as well as resource optimization, thereby contributing to sustainable growth, the following matters were endorsed by ERMIC:

- 3.1 Innovation Management Quarterly Report (2024)
- 3.2 PTT Innovation Management Policy
- 3.3 PTT Innovation Management Master Plan (2025 - 2029)

This included driving, giving comments and suggestions for PTT's innovation management to achieve tangible results and leveraging business in line with the purpose.

4. Steered Customer and Market Management: To ensure the implementation of customer and market management framework achieve the specified goals and align with the business direction by endorsing the following matters:

- 4.1 Customer and Market Management Quarterly Report (2024)
- 4.2 Customer and Market Management Strategic Plan (2025 - 2029)
- 4.3 Service Standard, Customer Support and Complaint Management

ERMIC pushed and provided feedback and recommendations on PTT's customer and market management to enhance efficiency and create long-term satisfaction and engagement for all customers, which will contribute to future business sustainability.

5. Considered and Commented on Complex Business Contracts and Large-scale Investments:

ERMIC rigorously considered risk issues and risk management practices, advised on the pros and cons of contract preparation and business decisions to make the investment suitable for the business context, as well as carefully commented on current and new businesses PTT wants to grow in the future in line with its strategic business direction before submitting for the Board's approval.

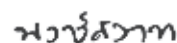
6. Closely Monitored Corporate Risk Management every Quarter in 2024:

ERMIC advocated leading and lagging Key Risk Indicators (KRIs) and counseled management on the improvement of its management practices by revising risk management plans in line with prevailing business strategies and contexts. Finally, ERMIC reported its performance results to the Board. This year, ERMIC closely monitored the outcomes of price hedging processes of PTT and PTT Group companies with continuous monitoring under highly volatile market conditions.

7. Screened the List of 2024 Corporate Risks and Sought Approval of the Board:

To this end, a list of corporate risk items and risk management plans was integrated with the preparation of the annual corporate plans. Risk management plans have thus become more explicit and aligned with strategic directions, and business objectives. Implementation was cascaded throughout the corporation to effectively address the risks.

On the whole, ERMIC and PTT's risk management task force are committed to maintaining and developing the efficiency of risk management for effective and proper performance as well as keeping risks manageable. Ultimately, this would sustainably support long-term business goal achievement amid challenging circumstances.



Mrs. Phongsaward Neelayodhin

Chairman of
the Enterprise Risk Management Committee

9. Internal Control and Connected Transactions

9.1 Internal Control

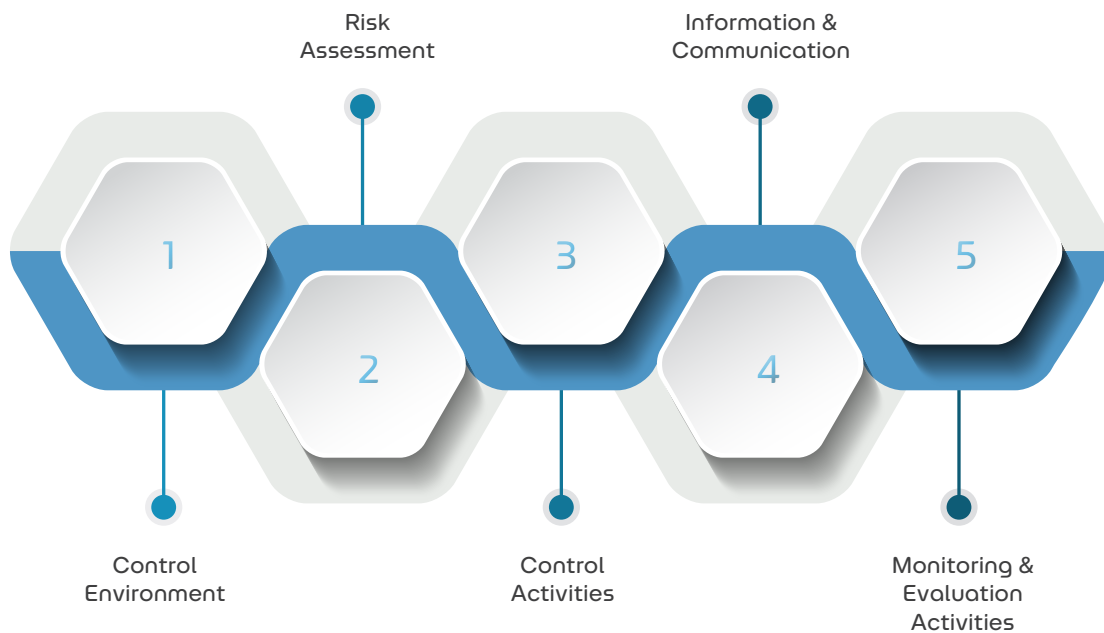
PTT places great importance on continuously developing and improving its internal control system by adopting the international framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) to achieve these objectives: Operation, Reporting, and Compliance.

At PTT Board Meeting No. 12/2024 on December 19, 2024, attended by all 15 directors (12 independent directors, 3 of whom were on the Audit Committee) the Board evaluated and reviewed PTT's internal control system bases on assessments from the Corporate Governance and Sustainability Committee and the Audit Committee. The review concluded PTT's internal control system consists of 5 key components - Control Environment, Risk Assessment, Control Activities, Information and Communication, and Monitoring and Evaluation Activities which are appropriate and sufficient. PTT ensures sufficient personnel for efficient operations, with reports being accurately and reliably prepared. Business operations comply with all relevant laws and regulations, with a system in place to protect PTT's assets and PTT Group from unauthorized or improper use by directors, executives, or other unauthorized individuals, including transactions involving conflicts of interest or related parties.

Furthermore, PTT has enhanced its procedures and system to strengthen internal control, ensuring more efficient and timely detection of potential issues and risks. PTT's internal control system can be summarized by COSO components as seen below:

The review concluded PTT's internal control system consists of 5 key components - Control Environment, Risk Assessment, Control Activities, Information and Communication, and Monitoring and Evaluation Activities which are appropriate and sufficient.





(1) Control Environment

PTT has a strong internal control environment that is appropriate for ensuring business efficiency and effectiveness. Its executives have promoted a corporate culture focusing on integrity and ethics as role models, with the following implementations:

- PTT Board and executives are committed to fostering the corporate culture that promotes transparency, fairness, and auditability seriously by defining policies for internal control, risk management, corporate governance (CG), anti-fraud and corruption, compliance, and guidelines on giving and receiving of gifts, assets, or other benefits (No Gift Policy). These policies are announced for all to acknowledge, and comply with. Additionally, training and public relations are organized both internally and externally within PTT, along with regular monitoring and assessment.
- PTT has communicated the Corporate Governance, Ethical Standards, and Code of Business Ethics Handbook (CG Handbook) to the Board, executives, and employees for enhancing their understanding and ensuring proper implementation were also organized to promote awareness and foster a corporate culture that aligns with CG principles, such as PTT Group CG Day and GRC Forum, held in a hybrid format to accommodate executives and employees across all regions to join the activities. In addition, in 2024, training was held to provide knowledge and understanding of anti-fraud and corruption measures. These sessions were led by external experts speakers, and covered topics such as conflict of interests, principles of diagnosis, and disciplinary punishment for executives, etc.

- PTT Emphasized integrity and ethics as a part of the SPIRIT corporate values to stress transparent business conduct and collaboration in the power of virtue, which explicitly embraces their everyday duties, decision-making, and treatment of all stakeholders, including suppliers and partners, customers, and third parties. PTT values equitable treatment based on fair competition, mutual respect for rights, and nurturing of relations and cooperation.
- PTT stipulates that the Board, executives, and employees report conflicts of interest annually and every time an incident occurs for transparency in their work, including disclosing information on those related to their families working in PTT and PTT Group companies as defined in the CG Handbook. In 2024, 100% of PTT Board, executives, and employees reported their conflicts of interest; no violations of good practices in the Code of Business Ethics were found.
- PTT defines the roles and duties of the Board to be clearly independent from the management in the CG Handbook.
- In 2024, PTT's vision was redefined to PTT "Together for Sustainable Thailand, Sustainable World", with its mission, business direction, goals, and organizational structure communicated by the CEO and executives through Town Hall and PR media for all employees to understand and improve operational processes in line with the organization's direction.
- Company structure is based on the "Three Lines Model" management approach focusing on ensuring everyone's understanding and strictly complying with regulations, duties, and responsibilities, aiming at prevention and solution by those on the job, systematic operation with total segregation of authority for approval, inspection review, and asset verification and stewardship, which results in effective checks and balances. In addition, Office of Corporate Audit has a clear and independent direct report to the Audit Committee. PTT structure is decentralized according to business units, making communication flexible and fit with authority and responsibilities.
- PTT has established human resource management policies and strategies aligned with human resource systems and processes that are consistent with and support the achievement of PTT's objectives, including written policy on performance assessment and human resource development, short-and-long-term manpower planning and management, and annual manpower review.
- PTT has analyzed, planned, and specified key succession planning processes by defining policies, regulations, selection tools, potential assessment, and plans for developing those in the Potential Pool for key positions. The Core Competency has been adjusted to plan for capacity development and prepare employees in terms of knowledge, skills, and experience necessary to drive PTT to efficiently achieve the projected goals. In addition, an annual awarded employee selection program is held to motivate people development in various aspects according to SPIRIT, the corporate value.
- PTT Leadership and Learning Institute (PLLI), the learning center for leaders and employees, plays an important role in supporting learning for everyone through various learning methods, including career development courses to tangibly respond to the organization's knowledge-based direction. Other programs include Leadership Program to prepare employees for the executive level advancement, and the Elective Program to enhance knowledge related to the current situation or an impact on the organizational context or the workplace. In 2024, the SPARK Manager project was established to develop supervisors to be good role models and able to retain employees and fostering engagement within the organization.

(2) Risk Assessment

PTT recognizes the importance of risk management to achieve business objectives as well as those of compliance and preparation of credible reports on changes that impact its businesses due to internal and external factors. It views risk management as a critical component of every business process that must be interconnected.

- PTT requires a review of the vision, objectives, and missions that it wants to achieve, defines key work processes and related activities aligned with corporate objectives and strategies, and identifies comprehensive risks at all activity levels for strategic planning.
- PTT has a risk management policy and systematic and continuous enterprise risk management process by referring to the guidelines according to international standards of COSO ERM-2017 and ISO 31000. This requires all business groups, business units, and Head Office support functions to consider the source of risk, embracing all internal and external factors that will affect the organization, to determine the risk universe and assess risks along with business/ operational plan preparation process for developing a corporate risk profile (CRP). The Corporate Plan and Risk Management Committee (CPRC) is a supervisor at the management level and the Enterprise Risk Management Committee (ERMC) at PTT Board level. PTT Board is to approve risk items and the annual risk management plan. Various risk management guidelines have been formulated to ensure risks' acceptable level, including regular risk review and monitoring of operations and risk plans to achieve the organization's goals.
- PTT requires an assessment of fraud and corruption risks in all operational processes and reviews the appropriateness of the processes and measures. A Fraud and Corruption Risk Management Manual is formulated for PTT personnel to understand the potential impact and analyze the adequacy, efficiency, and effectiveness of existing internal control processes to be used for operational planning and to prevent risks and losses that may occur to PTT. Results of the fraud and corruption risk assessment in the operational process are reported to the executives and the management to supervise and monitor prevention guidelines.
- The Business Continuity Management (BCM) process is applied to crisis management to assess guidelines for business, workforce communication, and preparation of resources and business processes for employees' uninterrupted and safe work without impacts on key goals. In addition, PTT holds annual crisis management and business continuity training by simulating a situation that results in disruption and affects PTT's business operations continuity. This is to prepare for the response and impact mitigation in case of an incident and to ensure the readiness of emergency management.

(3) Control Activities

PTT has set a variety of control activities to manage the Company's risks to an acceptable level. Control activities with technological systems are being developed. Expectations and procedures are defined for the implementation of established policies as follows:

- PTT Management Committee (PTTMC) reviews financial and non-financial reports of all business units and regularly reviews performance to ensure conformance to regulations, protocols and job manuals. PTT defines written policies and procedures. Portions of businesses have been identified for key risks, and mechanisms have been defined to control and minimize errors. Regular performance reviews by the management are in place, including financial, procurement and general administrative transactions.
- Systematic delegation of duties to personnel groups ensures proper checks and balances. Authority is duly and fully segregated for approval, information compilation, transaction recording, receipt and disbursement of cash, reviews of inspection and stewardship of properties. In place is an internal control system for finance and accounting, with complete, accurate and regular recording. Systematic and consistent storage of accounting documents both documents and information are in place to comply with the law. In case of PTT engage in transactions with the major shareholder, directors, executives, or their related parties, it would apply strict measures to ensure that each such transaction secures required approval every time and every transaction. Parties with vested interests will not take part in the approval of such an item. PTT also closely monitors subsequent actions.



- PTT Group Way of Conduct serves as a mechanism and guideline for steering the policies and business conduct of PTT Group. Multi-level Governance ensures a single implementation standard for all. PTT Group submit their annual internal control reports to PTT; their effectiveness is evaluated to take feedback and suggestions for improvement with continuous annual operational plan. Site visits to PTT Group are arranged to engage in sharing, counseling and recommending ideas on internal control development and GRC. Guidelines for operations are prepared to ensure adequacy and suitability in line with business operations for newly established companies.
- Policies, regulations and procedures are regularly reviewed to ensure their suitability, for example, PTT Corporate Governance Policy, PTT Anti-Fraud and Corruption Policy, Corporate Governance, Ethical Standards and Code of Business Ethics Handbook (CG Handbook), Fraud and Corruption Risk Assessment Manual, regulations for finance and accounting, procurement, etc. to comply with laws, rules, regulations, including risks and current situations. In 2023, PTT's Anti-Corruption Policy and CG Handbook were revised by adding details of guidelines on hiring or appointing government officials to prevent the risk of fraud and corruption related to conflicts of interest that may result in impartial performance of duties.
- A third-party screening manual and PTT's blacklist criteria were launched on March 1, 2023, to ensure that PTT's business operations are based on transparency, fairness, accountability and transparency measures in transactions with third parties. PTT's blacklist criteria are publicized to PTT's stakeholders through PTT Website, and supplier seminars, as well as stipulated in PTT's scope of work standards. In addition, in place is a database system for monitoring the transparency of third parties as a center for searching information according to PTT's blacklist criteria.
- PTT has follows guidelines according to ISO/IEC 38500 standards by developing digital policies, digital standards, and enterprise architecture governance guidelines covering the enterprise architecture management process aligned with The Open Group Architecture Framework (TOGAF) and the Digital Government Development Agency (DGA). An Enterprise Architecture Working Group was set up to be responsible for overseeing the acquisition, development and maintenance of technological systems as appropriate. Regulations on information security in controlling, developing, or modifying computer systems (Change Management) were in place, with the practical guidelines embracing various work procedures, including requesting, testing, and migrating for actual applications and major system maintenance, e.g., data backup. Also available is IT Security Policy compliance for controlling key infrastructure, including the security of network systems and operation centers and access control for wireless networks.

- Operations controls by information technology systems in line with regulations and requirements through ERP system, procurement, PTT Bid Submission system and expense disbursement system have been implemented. Robotic Process Automation (RPA) has been introduced to enhance efficiency and reduce manual workload e.g. information verification before account closure and information review before billing.
- Aware of cyber threats, PTT organized a test activity to raise awareness among employees by sending phishing E-Mails to convince users to open files or fill in username/password information, a behavior that highly raises the risk for the organization. At present PTT conducts this test every 2 months and provides solutions for employee awareness and recognition of cyber threats so that they do not fall victim easily. If an E-Mail is suspected to be fraudulent, problems must be reported, or questions can be raised via E-Mail Servicedesk or PTT Digital Call Center or press the automatic report button from PTT's E-Mail application immediately.
- PTT values the proactive sustainability management in line with the "State Enterprise Assessment Model: Core Business Enablers" in Corporate Governance and Leadership Group, Section 9.2 Strategic Sustainable Development and Section 9.3 Sustainable Development Report required by the State Enterprise Policy Office. PTT is also committed to continuously improving the management level according to standards, guidelines and criteria for international sustainability assessments, sustainability risks and opportunities covering human rights issues arising from activities, operations, products and services throughout the value chain which may have a positive and negative impact on stakeholders across 3 dimensions: environmental, social, and governance based on the value chain analysis. PTT also collects and analyzes internal and external factors, including trends, directions and standard adjustments. A comprehensive Materiality Assessment is conducted based on the principle of Double Materiality to determine material topics for strategic management from the determination of strategic direction, risk management and organizational performance indicators and integrate them into internal operations systematically every year. Each issue will have a responsible agency to formulate policies, strategies

and plans, as well as short, medium and long-term impact reduction goals and risks. Progress is monitored and reported to the committees following the sustainability governance structure for consideration and review and periodic recommendations as appropriate. In the sustainability management governance structure, the Board supervises, monitors, and provides policies and recommendations on sustainability management; the Corporate Governance and Sustainability Committee (CGSC) reviews, orders, and comments on the implementation outcomes of strategy, plan, goals, and key sustainability indicators every quarter. At the management level, subcommittees for specific matters and management practices at the strategic level and operating level for sustainability include Governance Risk Compliance and Sustainability Management Committee (GRCMC), PTT Group Sustainability Management Committee (GSMC), and Corporate Plan and Risk Management Committee (CPRC). To this end, centralized departments are Good Governance and Corporate Ethics Department, Sustainability Strategy Department and Corporate Planning and Budgeting Departments. Security, Safety, Health and Environment (SSHE) is one of the key sustainability issues, PTT operates under the Operational Excellence Management System to act as a shield against risks and reduce losses from potential impacts on all stakeholder groups, as well as assets, work processes, data, and the environment in a structured manner. This will result in business continuity and operational excellence towards the vision and goals of sustainable business operations. In 2024, to enhance and align sustainability and SSHE operations in line with the vision and strategic direction set. PTT has restructured the organization to establish clearer lines of responsibility for sustainability and SSHE operations, namely Senior Executive Vice President, Corporate Sustainability and Senior Executive Vice President, Project Engineering and Operational Excellence. **Details about sustainability management and SSHE management appear under Section 1 "Business Operations and Performance", Subsection 3 "Driving Business Sustainability" of this 56-1 One Report, and "Sustainability" on PTT Website.**

(4) Information & Communication

PTT has a framework in place to ensure that processes related to information system development are efficient and transparent, including ensuring compliance with laws and regulations, along with managing risks from cybersecurity threats continuously, as follows:

- Announced the Digital Policy, Information Security Management Policy, Cyber Security Policy, and Personal Data Protection Policy to enable the organization to use digital technology for enhanced efficiency and create added value in business operations for continuous growth, agility, promptness, transparency and safety according to good governance principles.
- Established comprehensive information security requirements covering website security and internet usage, work equipment security, cyber threat management procedures, and vulnerability assessment (VA) for all work systems.
- Specified digital standards to serve as guidelines for PTT employees for the highest standard and efficiency in all aspects, including information equipment, software, machine standards, information systems, system development, infrastructure security, training as well as service level agreements, for PTT's maximum benefits and effectiveness.
- Set standards related to information security of PTT's information, communication network, and equipment, as well as management of abnormal incidents and information technology problems, to ensure that PTT's information system is protected against threats with efficient cyber risk management.
- Internationally operated according to Information Security Management Systems (ISMS) or ISO/IEC 27001 and Privacy Information Management System (PIMS) or ISO/IEC 27701. The policy is formulated with systematic practices covering all important processes, both Information Technology (IT) and Operation Technology (OT).
- Supervised and administered information and cyber security systems in accordance with the Code of Practices and Standard Framework on Cyber Security for government agencies and critical information infrastructure agencies under the cybersecurity framework of the National Institute of Standards and Technology (NIST).
- Closely monitored, measured, and supervised the cybersecurity operations of the Cyber Security Operation Center (CSOC) operated by PTT Digital Solutions Co., Ltd., which provides cybersecurity services and operations to PTT Group companies on a monthly basis.
- Specified cyber resilience as a corporate strategy, of which indicator is PTT's zero cybersecurity incident scenarios or action taken to contain damage from cyber security incidents within the specified Mean Time to Contain (MTTC) period as follows:
 - People: Establishing employee awareness plans and testing security awareness with phishing E-Mails.
 - Process: Compliance with ISO 27001, Cyber Insurance Disaster, IT recovery plan, Cyber Drill, and Incident Management. Elevate the Cyber Attack drill from Table Top to Full Live to test the system and the ability of employees to respond.



- Technology: 24-hour surveillance of IT threats by the Cyber Security Operation Center (CSOC) and installation of a Data Loss Prevention (DLP) system to prevent the transmission of personal data outside the organization. Measures to lower the violence level include the preparation of work plans and forms of business continuity management plan drills to cover emergencies from cyber threats, preparation of threat response plans and cyber anomalies to be able to respond, communicate, and report the incident to relevant parties in a timely manner.

The quality of information and communication is an important part of ensuring that internal control can be carried out effectively. Information is disclosed and communicated through various channels to executives, all employees, and external stakeholders. PTT has a channel to report information or clues about fraud or corruption to the Company safely. Information and communication management guidelines are as follows:

- PTT requires that every unit develops operational procedures outlining the documents and information used in operations and data management. Guidelines for storing important and controlled documents, as well as operational information from both internal
- and external sources, are set to ensure that critical information about PTT's business operations is correct, complete, sufficient for operations, and available on time.
- PTT efficiently communicates information by reporting through appropriate channels of command, such as various committee meetings, management meetings, and operational meetings. Meeting minutes are documented in writing. There are two communication formats: (1) Top Down, to convey policy information and encourage employees to manage future challenges, and (2) Bottom Up, to report operational performance in various meetings, address operational obstacles, and provide opportunities for executives and employees to express their opinions.
- PTT integrates risk assessment and internal control processes with knowledge management by promoting knowledge exchange activities that are linked to risks and key control points in operations within units or lines of work, aiming to raise risk awareness in operational processes while systematically storing risk management knowledge.
- PTT provides multiple channels for communication with external stakeholders through PTT Website and social media, with dedicated units responsible for regularly disclosing important information to stakeholders.



whistleblowing channels for informing malpractice, misconduct, and non-compliance with laws, rules, and organizational regulations through the Company's website, E-Mail and letter, with clearly stated protection of whistleblowers. This is to ensure that employees and third parties can be confident that complaints will be considered transparently, honestly, fairly, and confidentially within a reasonable time. The Governance Risk Compliance and Sustainability Management Committee (GRCMC) is assigned to manage oversight and operate PTT's Anti-Corruption Operation Center in State Enterprises (ACOC), responsible for supervising and monitoring the progress of corruption complaints and reporting the results to PTT's President, Corporate Governance and Sustainability Committee and Audit Committee.

(5) Monitoring & Evaluation Activities

PTT commands a process for monitoring and assessing the adequacy of internal control and defines improvement guidelines to ensure system efficiency and effectiveness:

- Conduct internal control assessment based on the principles of process-level self-assessment in accordance with the Integrated Governance, Risk and Compliance (GRC Assessment) approach. Risk assessment and control of both design and practice shall be carried out annually to ensure that the internal control system has been implemented, including internal control evaluation in key processes of PTT and PTT Group, preparing internal control improvement plans, following up on the improvement results, and regularly reporting to the relevant committees.
- PTT's operations are reviewed by internal/external auditors such as auditors, and ISO system assessors to certify quality, performance standards, including assessors of the implementation of the State Enterprise Assessment Model (SE-AM) criteria, Office of the State Enterprise Policy Committee. Ministry of Finance.
- The Board and executives regularly monitor implementation reports of strategic plans, laws, rules, and regulations of PTT and PTT Group.

Internal Audit System

The Office of Corporate Audit is an independent unit that directly reports to the Audit Committee. It fosters assurance and provides advice to ensure that business processes are duly equipped with efficient good corporate governance, risk management, and internal control practices in support of corporate objectives.

The Office commands an annual audit plan and 3-year audit plans in line with PTT's business strategic direction and a risk-based approach to key corporate risks, encompassing PTT Group's domestic and overseas businesses. A quarterly audit report is presented to the Audit Committee for consideration for further submission to the Board. Regular monitoring is undertaken for actions in response to the office's recommendations. In its course of work, the office freely expresses its opinions and there is no situation that management disagree about the audit recommendation and/or action plan.

Head of the Office of Corporate Audit

In Meeting No. 5/2024 on May 28, 2024, the Board appointed Miss Piyaporn Thanangteerapong, Executive Vice President, Office of Corporate Audit, with effect from June 1, 2024, citing her mastery of PTT's business. Equipped with knowledge, skills, and diverse experience in PTT, including planning, procurement, and various work process improvements, she is thus exposed to a variety of work perspectives, good governance, risk assessment, and internal control at the business and overall levels. She is therefore regarded as suitable for the position. The Audit Committee approved the appointment, transfer, performance assessment, and annual merit pay increase of this position.

Biography of the Head of the Office of Corporate Audit



Miss Piyaporn Thanangteerapong

Executive Vice President,
Office of Corporate Audit
Age: 55

Education

- Bachelor of Science (B.Sc.), King Mongkut's University of Technology North Bangkok
- Bachelor of Laws, Sukhothai Thammathirat Open University
- Master of Engineering (M.Eng.), Chulalongkorn University

Training

- Strategy Implementation Course, Basic Course on Personal Data Protection Act B.E. 2562 (2019), Course on Public Companies and Companies Limited, Business Contracts and Taxes Course under the Revenue Code, Procurement Risk Course, PTT Leadership and Learning Institute (PLLI)

- Principles and Techniques of Fact-Finding Investigation and Disciplinary Investigation, Provincial Electricity Authority
- Investigation and Investigation Principles and Techniques, Investigation Process for Executives, Office of the National Anti-Corruption Commission
- Observations on Procurement from the Audit of the State Audit Office, The State Audit Office
- Appeal and Complaint Course, Comptroller General's Department
- Leadership Development Program I, PTT-Harvard Business School, PTT Leadership and Learning Institute (PLLI)
- Advanced Management Program 2 (AMP 2) - Business & People Management, PTT Leadership and Learning Institute (PLLI)
- Executive Occupational Safety Officer Course, Department of Labor Protection and Welfare
- Management Program for Senior Executives, Class 12, National Institute of Development Administration (NIDA)

Working Experiences (Past 10 years)

- 2024 - Present
Executive Vice President, Office of Corporate Audit, PTT Public Company Limited
- 2018 - 2024
Vice President, Strategic Procurement and Administration Department, PTT Public Company Limited
- 2017 - 2018
Senior Analyst, Project Management Unit, Wangchan Valley Development Project (EECi), PTT Public Company Limited
- 2015 - 2017
Manager, Property Development Business Division, PTT Public Company Limited
- 2011 - 2015
Manager, Procurement Policy and Strategic Sourcing Division, PTT Public Company Limited

Key Related Directorship

- -None-

Relations with the Management

- -None-

Compliance Unit

PTT has assigned “Compliance Department” to oversee legal and regulatory compliance of PTT with detailed roles, duties, and responsibilities defined in the Compliance Charter. Currently, it is under Executive Vice President, Corporate Governance, and supervised by Senior Executive Vice President, Organization Effectiveness and Corporate Governance (biography shown in Information of Executives Section), and indirectly reporting to the Governance Risk Compliance and Sustainability Management Committee (GRCMC) and the Corporate Governance and Sustainability Committee (CGSC), respectively. PTT launched the “Compliance Policy” and “Compliance Framework” for directors, management, and employees to adhere to as their work principles in accordance with relevant laws and regulations. The policy and compliance guidelines are reviewed annually to ensure that PTT’s legal compliance and business operations are governed by up-to-date laws and international standards.

Compliance Department centralizes corporate compliance and oversees all personnel and all business units under PTT to fully comply with laws, rules, regulations, directives, procedures and announcements controlling all facets of PTT businesses. Supervisory procedures such as monitoring, gathering, and communicating new laws, risk assessment, operational supervision and review, and consultation are defined. This is to ensure that PTT’s business operations comply with laws and regulations. PTT has integrated compliance work with regulatory to ensure alignment with specific laws and regulations within PTT (2nd Line).

Compliance Department also constantly develops and nurtures compliance culture by launching GRC Survey: Compliance to assess the compliance culture of PTT’s management and employees to analyze the scores and develop a plan to effectively promote and develop compliance culture, for in-depth, on-the-spot development and improvement. Exchange of views and opinions on legal and regulatory problems and obstacles, as well as consultation, support

to units in complying with laws and related regulations, supporting the promotion of corporate compliance culture, especially promoting the role model of executives and supervisors are in place. Legal education training, public relations and dissemination of information about laws and regulations that are important to PTT’s business operations are provided. In 2024, there was communication to educate about laws and regulations, including guidelines for conduct and work in accordance with laws and regulations, guidelines for executives and supervisors to support the Compliance Management Guideline through various channels such as internal E-Mails, preparation of a summary of important laws in the form of infographics, video clips to convey economic and trade sanctions measures, as well as various activities.

Compliance Department also conducts audits of contract management procedures, supervision of legal compliance and compliance with important laws in collaboration with various units within the organization to ensure that they have appropriate procedures in place to keep them informed and able to comply with the laws related to their operations, as well as finding ways to prevent risks that may be caused by operations that are not in accordance with the laws, regulations or contract management processes that are not properly enforced. Management of non-compliance incidents is also undertaken by collecting, analyzing, reviewing non-compliance cases (if any), and follow-up to improve the operational process and find ways to prevent and reduce the chance of non-compliance recurrence in the future. PTT also sets a goal of becoming a Zero Non-Compliance organization by reviewing and setting indicators for measuring results. The annual performance of various departments must comply with laws and regulations by setting up the Corporate KPI: Non-Compliance, which measures the result by not finding any material errors from the complaints (both inside and outside PTT) that are considered fraudulent, malpractice, or misconduct, serious disciplinary action and unlawful acts with final punishment orders or written notices of illegal acts by legal regulators. In 2024, no non-compliance with a significant impact or legal liability to PTT in any way was found.

The aforementioned implementation of compliance supervision is aimed at fostering values and culture in compliance with laws and regulations, enhancing PTT personnel's knowledge and understanding of key laws related to their responsibilities and awareness of potential impacts of non-compliance with laws and regulations, including being able to work properly and adhering to strict compliance with laws and regulations, and to ensure that PTT's business operations will not be interrupted by legal compliance risks. The aim is to make PTT's operations sustainably achieve the goal of "Zero Non-Compliance".

In addition to conducting the aforementioned compliance supervision, the Compliance Department also acts as PTT's DPO Office, with a personal data protection policy disclosed on the public disclosure page on PTT Website (<https://www.pttplc.com/>). Also in place are Personal Data

Protection guidelines to provide PTT's operations related to the personal data of various groups of stakeholders, including personal data of customers, business partners, and business-related parties with a regulatory process and appropriate operational guidelines. This is to ensure that PTT's personnel know how to treat personal data and can correctly perform their work in accordance with such laws. In addition, relevant stakeholders can be assured that PTT will protect and treat personal data under PTT's control under the Personal Data Protection Act B.E. 2562 (PDPA) as well as having a "Privacy Center" on PTT Website <https://pttpdpa.pttplc.com/> to provide a channel for various groups of stakeholders who own personal data to know the details of the processing of personal data and to manage the exercise of privacy rights.



9.2 Connected Transactions

The connected transactions during 2022 - 2024 are summarized below:

9.2.1 Connected Transactions with Shareholders

The Company had no connected transactions with shareholders during 2022 - 2024.

9.2.2 Connected Transactions between PTT and Parties with the Common Major Shareholder

Connected Transactions between PTT and parties with the common major shareholder with potential conflicts are summarized below:

| Connected Transactions | Unit: THB million | | |
|---|-------------------|---------|------|
| | 2022 | 2023 | 2024 |
| Items from Statement of Income | | | |
| Sales and service income | 116,664 | 111,292 | 382 |
| Cost of goods purchased and services | 1,328 | 1,681 | 153 |
| Other income | 85 | 149 | 17 |
| Interest income | 67 | 38 | 201 |
| Other expenses | 87 | 304 | 27 |
| Items from Statement of Financial Position | | | |
| Trade receivables | 16,644 | 13,570 | 39 |
| Other current receivables | 134 | - | 101 |
| Short-term advance payment | 3 | 4 | - |
| Trade payables | 16 | 27 | 23 |
| Other current payables | 283 | 62 | 106 |

As of December 31, 2024, PTT was related to various parties by having a common major shareholder. Key relationships and related items are as follows:

| Party with the Common Major Shareholder | Relationship (As of December 31, 2024) | Connected Transactions | Unit: THB million | | |
|---|--|---|-------------------|------|------|
| | | | 2022 | 2023 | 2024 |
| The Transport Co., Ltd. | Ministry of Finance, PTT's major shareholder, has control over The Transport Co., Ltd. | Items from Statement of Income | | | |
| | | Sales and service income | 320 | 362 | 379 |
| | | Other income | 1 | 1 | 1 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 37 | 34 | 37 |
| | | Items from Statement of Income | | | |
| TMBThanachart Bank Plc. | Ministry of Finance, PTT's major shareholder, has control over TMBThanachart Bank Plc. | Other income | - | 14 | - |
| | | Interest income | 45 | 79 | 201 |
| | | Items from Statement of Financial Position | | | |
| | | Other current receivables | 133 | - | 101 |
| | | Other current payables | 133 | - | 102 |
| | | | | | |



9.2.3 Connected Transactions among PTT and Subsidiaries, Joint Operations, Joint Ventures, Associates and Other Related Parties

Transactions among PTT and subsidiaries, joint operations, joint ventures, associates, and other related parties are summarized below:

| Connected Transactions | Unit: THB million | | |
|---|-------------------|-----------|-----------|
| | 2022 | 2023 | 2024 |
| Items from Statement of Income | | | |
| Sales and service income | 1,312,239 | 1,164,259 | 1,086,763 |
| Cost of goods purchased and services | 598,769 | 570,407 | 530,546 |
| Other income | 9,313 | 10,394 | 11,238 |
| Interest income | 1,852 | 1,657 | 1,629 |
| Other expenses | 4,331 | 4,108 | 3,951 |
| Interest expenses | 2,366 | 2,364 | 2,741 |
| Items from Statement of Financial Position | | | |
| Trade receivables | 92,024 | 87,067 | 71,801 |
| Other current receivables | 2,139 | 2,776 | 1,522 |
| Short-term advance payment | 32 | 34 | 24 |
| Current portion of finance lease receivable | - | 67 | 68 |
| Short-term lending | 2,044 | 35,844 | 3,059 |
| Long-term finance lease receivable | - | 103 | 34 |
| Long-term lending | 56,067 | 21,020 | 36,449 |
| Trade payables | 54,716 | 58,137 | 43,714 |
| Other current payables | 4,592 | 7,431 | 6,901 |
| Current portion of lease liabilities | 508 | 573 | 681 |
| Short-term borrowings | 9,447 | 18,297 | 16,819 |
| Lease liabilities | 2,531 | 2,406 | 4,442 |
| Long-term borrowings | 50,260 | 49,379 | 48,457 |

As of December 31, 2024, PTT was related to companies by holding shares or having common shareholders or common directors. Key relationships and related items are as follows:

| Related Party | Relationship (As of December 31, 2024) | Connected Transactions | Unit: THB million | | |
|---|--|---|-------------------|---------|---------|
| | | | 2022 | 2023 | 2024 |
| PTT Exploration and Production Plc. (PTTEP) | <ul style="list-style-type: none"> A subsidiary (PTT Group owns 65.29% of shares.) PTT's executive, Dr. Kongkrapan Intarajang, is PTTEP's director. PTT's executive, Mr. Wuttikorn Stithit, is PTTEP's director. | Items from Statement of Income | | | |
| | | Sales and service income | 5 | 1 | 2 |
| | | Cost of goods purchased and services | 125,870 | 79,617 | 62,499 |
| | | Other income | 116 | 103 | 116 |
| | | Other expenses | 63 | 44 | 31 |
| | | Items from Statement of Financial Position | | | |
| | | Other current receivables | 35 | 60 | 26 |
| | | Trade payables | 12,960 | 11,193 | 5,513 |
| | | Other current payables | 22 | 34 | 7 |
| PTT Global Chemical Plc. (GC) | <ul style="list-style-type: none"> A subsidiary (PTT Group owns 48.18% of shares.) PTT's executives, Dr. Kongkrapan Intarajang, Mrs. Nivadee Jaroensitipun, are GC's directors. PTT's executive, Mr. Narongsak Jivakanun, is a director & the Board's secretary, and CEO of GC. | Items from Statement of Income | | | |
| | | Sales and service income | 376,062 | 341,818 | 348,336 |
| | | Cost of goods purchased and services | 12,894 | 19,424 | 22,901 |
| | | Other income | 1,010 | 1,042 | 600 |
| | | Interest income | 1 | - | - |
| | | Other expenses | 53 | 13 | 30 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 21,030 | 21,352 | 16,843 |
| | | Other current receivables | 81 | 270 | 132 |
| | | Trade payables | 1,386 | 2,668 | 2,063 |
| | | Other current payables | 36 | 35 | 42 |

| Related Party | Relationship (As of December 31, 2024) | Connected Transactions | Unit: THB million | | |
|---------------------|--|---|-------------------|---------|---------|
| | | | 2022 | 2023 | 2024 |
| IRPC Plc. (IRPC) | <ul style="list-style-type: none"> A subsidiary (PTT Group owns 48.05% of shares.) PTT's executives, Dr. Buranin Rattanasombat, Mr. Pongpun Amornvivat, Mr. Chansak Chuenchom, are IRPC's directors. PTT's executive, Mr. Terdkiat Prommool, is a director & the Board's secretary, and CEO & President of IRPC. | Items from Statement of Income | | | |
| | | Sales and service income | 240,239 | 219,031 | 215,449 |
| | | Cost of goods purchased and services | 1,439 | 3,009 | 5,269 |
| | | Other income | 2,573 | 2,542 | 2,575 |
| | | Interest income | 2 | - | - |
| | | Other expenses | 24 | 30 | 33 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 14,907 | 13,270 | 7,691 |
| | | Other current receivables | 285 | 344 | 199 |
| | | Trade payables | 1,442 | 939 | 992 |
| | | Other current payables | 3 | 3,204 | 2,693 |
| Thai Oil Plc. (TOP) | <ul style="list-style-type: none"> A subsidiary (PTT Group owns 48.00% of shares.) PTT's director, Air Chief Marshal Chanon Munghanya, is Chairman of the Board of TOP. PTT's executive, Mr. Bandhit Thamprajamchit, is a director & the Board's secretary, and CEO & President of TOP. PTT's executives, Miss Pattaralada Sa-ngasang, Mr. Kris Imsang, Miss Peangpanor Boonklum, Mr. Terdkiat Prommool, Mr. Prasong Intaranongpai, are TOP's directors. | Items from Statement of Income | | | |
| | | Sales and service income | 382,479 | 324,037 | 308,302 |
| | | Cost of goods purchased and services | 1,233 | 691 | 677 |
| | | Other income | 2,377 | 3,137 | 3,571 |
| | | Other expenses | 301 | 14 | 7 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 39,281 | 25,625 | 23,835 |
| | | Other current receivables | 181 | 147 | 92 |
| | | Trade payables | 1,256 | 578 | 401 |
| | | Other current payables | 121 | 6 | 3 |

| Related Party | Relationship (As of December 31, 2024) | Connected Transactions | Unit: THB million | | |
|---------------------------------------|---|---|-------------------|--------|--------|
| | | | 2022 | 2023 | 2024 |
| PTT Oil and Retail Business Plc. (OR) | <ul style="list-style-type: none"> A subsidiary (PTT Group owns 75.00% of shares.) PTT's executives, Miss Pattaralada Sa-ngasang, Dr. Chaya Chandavas, Mr. Chadil Chavanalikhorn, are OR's directors. PTT's executive, Mr. Suchat Ramarch, is OR's President. | Items from Statement of Income | | | |
| | | Sales and service income | 39,156 | 39,506 | 39,575 |
| | | Cost of goods purchased and services | 18,789 | 17,156 | 17,694 |
| | | Other income | 1,114 | 1,327 | 813 |
| | | Interest income | 18 | 1 | 4 |
| | | Other expenses | 671 | 790 | 618 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 2,452 | 2,671 | 2,384 |
| | | Other current receivables | 239 | 283 | 194 |
| | | Current portion of finance lease receivable | - | 68 | - |
| | | Long-term finance lease receivable | - | 102 | - |
| | | Trade payables | 3,841 | 3,101 | 3,131 |
| | | Other current payables | 1,581 | 1,419 | 1,081 |
| | | Current portion of lease liabilities | - | 1 | 1 |
| | | Lease liabilities | - | 1 | - |
| Global Power Synergy Plc. (GPSC) | <ul style="list-style-type: none"> A subsidiary (PTT Group owns 75.23% of shares.) PTT's executives, Dr. Buranin Rattanasombat, Mr. Wuttikorn Stithit, Mr. Kris Imsang, Mr. Cherdchai Boonchoocha, Mr. Bandhit Thamprajamchit are GPSC's directors. PTT's executive, Mr. Worawat Pitayasiri, is a director & the Board's secretary, and CEO & President of GPSC. | Items from Statement of Income | | | |
| | | Sales and service income | 19,489 | 15,387 | 14,137 |
| | | Other income | 90 | 83 | 68 |
| | | Other expenses | 4 | 5 | 3 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 1,724 | 1,237 | 1,220 |
| | | Other current receivables | 22 | 24 | 19 |
| | | Other current payables | 1 | 1 | 1 |

| Related Party | Relationship (As of December 31, 2024) | Connected Transactions | Unit: THB million | | |
|--|--|---|-------------------|--------|--------|
| | | | 2022 | 2023 | 2024 |
| PTT LNG Co., Ltd. (PTT LNG) | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) PTT's executive, Mr. Wuttikorn Stithit, is Chairman of the Board of PTT LNG. | Items from Statement of Income | | | |
| | | Sales and service income | 1,300 | 582 | 408 |
| | | Cost of goods purchased and services | 9,554 | 12,426 | 10,711 |
| | | Other income | 292 | 84 | 82 |
| | | Other expenses | 8 | 10 | 10 |
| | | Interest expenses | 5 | 20 | 24 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 40 | 37 | 29 |
| | | Other current receivables | 90 | 25 | 26 |
| | | Trade payables | 873 | 1,310 | 854 |
| | | Other current payables | 1 | 24 | 32 |
| | | Current portion of lease liabilities | 2 | 8 | 87 |
| | | Short-term borrowings | 1,969 | 895 | 1,149 |
| | | Lease liabilities | 31 | 238 | 2,508 |
| PTT Natural Gas Distribution Co., Ltd. (PTTNGD) | <ul style="list-style-type: none"> A subsidiary (PTT Group owns 58.00% of shares.) PTT's executive, Mrs. Nivadee Jaroensitipun, is a director of PTTNGD. | Items from Statement of Income | | | |
| | | Sales and service income | 10,195 | 7,556 | 6,019 |
| | | Cost of goods purchased and services | 16 | 17 | 10 |
| | | Other income | 25 | 34 | 28 |
| | | Other expenses | 3 | - | - |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 1,538 | 1,160 | 524 |
| | | Other current receivables | 7 | 28 | 10 |
| | | Trade payables | 1 | 1 | 1 |
| | | Other current payables | 1 | 1 | 1 |

| Related Party | Relationship (As of December 31, 2024) | Connected Transactions | Unit: THB million | | |
|---------------------------------------|--|---|-------------------|---------|---------|
| | | | 2022 | 2023 | 2024 |
| PTT International Trading Pte. Ltd. | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) | Items from Statement of Income | | | |
| | | Sales and service income | 58,665 | 81,902 | 60,184 |
| | | Cost of goods purchased and services | 262,536 | 240,139 | 154,303 |
| | | Other income | 381 | 730 | 1,504 |
| | | Other expenses | 145 | 139 | 138 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 3,887 | 9,942 | 11,654 |
| | | Other current receivables | 123 | 327 | 57 |
| | | Trade payables | 15,618 | 13,513 | 9,060 |
| | | Other current payables | 54 | 8 | 82 |
| PTT International Trading London Ltd. | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) | Items from Statement of Income | | | |
| | | Sales and service income | 27,636 | 14,849 | 1,613 |
| | | Cost of goods purchased and services | 11,722 | 14,256 | 14,831 |
| | | Other income | 224 | 80 | 393 |
| | | Other expenses | 34 | 18 | 40 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 1 | - | 8 |
| | | Other current receivables | 182 | 661 | 21 |
| | | Trade payables | - | 2,801 | - |
| | | Other current payables | 32 | 3 | 30 |

| Related Party | Relationship (As of December 31, 2024) | Connected Transactions | Unit: THB million | | |
|--|---|---|-------------------|--------|--------|
| | | | 2022 | 2023 | 2024 |
| PTT International Trading USA Inc. | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) | Items from Statement of Income | | | |
| | | Sales and service income | 31,807 | 25,332 | 5,793 |
| | | Cost of goods purchased and services | - | 1,664 | 22,352 |
| | | Other income | 126 | 78 | 393 |
| | | Other expenses | - | 76 | 53 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | - | 8 | - |
| | | Other current receivables | 6 | 32 | 8 |
| | | Trade payables | - | - | 2,038 |
| | | Other current payables | 119 | 24 | 13 |
| PTT Tank Terminal Co., Ltd. (PTT TANK) | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) PTT's executive, Mr. Kris Imsang, is Chairman of the Board of PTT TANK. PTT's executive, Mr. Prasong Intaranongpai, is a director of PTT TANK. | Items from Statement of Income | | | |
| | | Cost of goods purchased and services | 176 | 176 | 179 |
| | | Other income | 57 | 68 | 69 |
| | | Other expenses | - | 31 | 14 |
| | | Interest expenses | 5 | 16 | 28 |
| | | Items from Statement of Financial Position | | | |
| | | Other current receivables | 22 | 22 | 21 |
| | | Trade payables | 8 | 8 | 7 |
| | | Other current payables | 1 | 13 | 4 |
| | | Short-term borrowings | 1,425 | 1,915 | 2,153 |
| PTT Global Management Co., Ltd. (PTTGGM) | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) PTT's executive, Miss Jaroonsri Wankertphon, is a director of PTTGGM. | Items from Statement of Income | | | |
| | | Other income | 3 | 3 | 1 |
| | | Interest expenses | - | 2 | 361 |
| | | Items from Statement of Financial Position | | | |
| | | Other current receivables | 1 | 1 | - |
| | | Other current payables | - | 1 | 24 |
| | | Short-term borrowings | 50 | 8,736 | 8,051 |

| Related Party | Relationship (As of December 31, 2024) | Connected Transactions | Unit: THB million | | |
|---|--|---|-------------------|--------|--------|
| | | | 2022 | 2023 | 2024 |
| PTT Digital Solutions Co., Ltd. (PTT DIGITAL) | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) PTT's executive, Dr. Chaya Chandavasul, is Chairman of the Board of PTT DIGITAL. PTT's executive, Mr. Rathakorn Kampanathsanyakorn, is a director of PTT DIGITAL. | Items from Statement of Income | | | |
| | | Cost of goods purchased and services | 36 | 36 | 66 |
| | | Other income | 173 | 155 | 157 |
| | | Other expenses | 1,282 | 1,396 | 1,459 |
| | | Interest expenses | 3 | 4 | 7 |
| | | Items from Statement of Financial Position | | | |
| | | Other current receivables | 63 | 66 | 59 |
| | | Short-term advance payment | 32 | 24 | 23 |
| | | Long-term advance payment | - | - | 2 |
| | | Other current payables | 1,017 | 911 | 830 |
| | | Current portion of lease liabilities | 42 | 56 | 74 |
| | | Lease liabilities | 140 | 137 | 199 |
| PTT Treasury Center Co., Ltd. (PTT TCC) | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) PTT's executive, Miss Thariswan Tiensawat, is Chairman of the Board of PTT TCC. | Items from Statement of Income | | | |
| | | Other income | 185 | 178 | 183 |
| | | Interest income | 1,830 | 1,656 | 1,625 |
| | | Other expenses | 1 | - | - |
| | | Interest expenses | 2,268 | 2,218 | 2,199 |
| | | Items from Statement of Financial Position | | | |
| | | Other current receivables | 265 | 252 | 460 |
| | | Short-term lending | 2,044 | 35,844 | 3,059 |
| | | Long-term lending | 56,067 | 21,020 | 36,449 |
| | | Other current payables | 877 | 868 | 862 |
| PTTEP International Ltd. | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) | Items from Statement of Income | | | |
| | | Cost of goods purchased and services | 22,590 | 21,858 | 24,453 |
| | | Items from Statement of Financial Position | | | |
| | | Trade payables | 3,876 | 3,265 | 3,529 |
| | | Other current payables | 25 | 41 | 32 |

| Related Party | Relationship (As of December 31, 2024) | Connected Transactions | Unit: THB million | | |
|------------------------------------|--|---|-------------------|--------|---------|
| | | | 2022 | 2023 | 2024 |
| PTTEP Siam Ltd. | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) | Items from Statement of Income | | | |
| | | Cost of goods purchased and services | 24,895 | 19,850 | 21,069 |
| | | Other income | 1 | 2 | 1 |
| | | Items from Statement of Financial Position | | | |
| | | Trade payables | 1,682 | 3,264 | 1,535 |
| PTTEP SP Limited | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) | Items from Statement of Income | | | |
| | | Cost of goods purchased and services | 9,649 | 9,638 | 10,470 |
| | | Other income | - | - | 3 |
| | | Items from Statement of Financial Position | | | |
| | | Other current receivables | - | - | 3 |
| PTTEP Energy Development Co., Ltd. | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) | Items from Statement of Income | | | |
| | | Sales and service income | 2 | 10 | 7 |
| | | Cost of goods purchased and services | 30,257 | 91,002 | 120,897 |
| | | Other income | - | - | 2 |
| | | Other expenses | 14 | 25 | 14 |
| PTTEP MENA Limited | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) | Items from Statement of Financial Position | | | |
| | | Trade receivables | - | - | 1 |
| | | Trade payables | 3,356 | 8,685 | 8,081 |
| | | Other current payables | 27 | 54 | 14 |
| | | Items from Statement of Income | | | |
| PTTEP Oman E&P Corporation | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) | Items from the Income Statement | | | |
| | | Cost of goods purchased and services | 7,534 | - | - |

| Related Party | Relationship (As of December 31, 2024) | Connected Transactions | Unit: THB million | | |
|----------------------------|---|---|-------------------|--------|--------|
| | | | 2022 | 2023 | 2024 |
| TOP SPP Co., Ltd. | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) | Items from Statement of Income | | | |
| | | Sales and service income | 8,033 | 8,532 | 7,394 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 613 | 1,661 | 1,016 |
| | | Other current receivables | 135 | - | - |
| IRPC Clean Power Co., Ltd. | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) | Items from Statement of Income | | | |
| | | Sales and service income | 7,034 | 5,887 | 5,766 |
| | | Other income | 23 | 23 | 23 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 523 | 1,032 | 755 |
| Glow Energy Plc. | <ul style="list-style-type: none"> A subsidiary (PTT Group owns 99.83% of shares.) PTT's executive, Mr. Worawat Pitayasiri, is a director of Glow Energy Plc. | Items from Statement of Income | | | |
| | | Sales and service income | 19,312 | 17,600 | 14,450 |
| | | Cost of goods purchased and services | 684 | 475 | 603 |
| | | Other income | 5 | 1 | 1 |
| | | Items from Statement of Financial Position | | | |
| Glow SPP 2 Co., Ltd. | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) PTT's executive, Mr. Worawat Pitayasiri, is a director of Glow SPP 2 Co., Ltd. | Items from Statement of Income | | | |
| | | Sales and service income | 7,914 | 5,919 | 3,911 |
| | | Other income | 2 | - | 1 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 754 | 882 | 446 |
| | | Other current receivables | 2 | - | 1 |

| Related Party | Relationship (As of December 31, 2024) | Connected Transactions | Unit: THB million | | |
|--|---|---|-------------------|-------|-------|
| | | | 2022 | 2023 | 2024 |
| Glow SPP 11 Co., Ltd. | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) PTT's executive, Mr. Worawat Pitayasiri, is a director of Glow SPP 11 Co., Ltd. | Items from Statement of Income | | | |
| | | Sales and service income | 6,113 | 5,076 | 4,435 |
| | | Other income | 1 | 1 | 4 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 474 | 845 | 559 |
| | | Other current receivables | - | - | 3 |
| | | Other current payables | 1 | 1 | 1 |
| Glow IPP Co., Ltd. | <ul style="list-style-type: none"> A subsidiary (PTT Group owns 95.00% of shares.) PTT's executive, Mr. Worawat Pitayasiri, is a director of Glow IPP Co., Ltd. | Items from Statement of Income | | | |
| | | Sales and service income | 908 | 1,531 | 1,239 |
| | | Other income | - | 5 | 12 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 142 | 325 | 154 |
| Amata Natural Gas Distribution Co., Ltd. | <ul style="list-style-type: none"> A subsidiary (PTT Group owns 80.00% of shares.) | Items from Statement of Income | | | |
| | | Sales and service income | 5,208 | 4,574 | 3,599 |
| | | Other income | 1 | - | 2 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 791 | 727 | 311 |
| | | Other current receivables | 1 | 10 | 1 |

| Related Party | Relationship (As of December 31, 2024) | Connected Transactions | Unit: THB million | | |
|-----------------------------------|--|---|-------------------|--------|--------|
| | | | 2022 | 2023 | 2024 |
| PTT MEA Ltd. | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) | Items from Statement of Income | | | |
| | | Sales and service income | 36,092 | 20,680 | 26,047 |
| | | Cost of goods purchased and services | 5,871 | - | - |
| | | Other income | - | 9 | 17 |
| | | Other expenses | 25 | 24 | 25 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 136 | 1,482 | 1,267 |
| | | Other current receivables | 2 | 3 | 3 |
| | | Other current payables | 1 | 13 | 1 |
| PTT Global LNG Co., Ltd. | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) | Items from Statement of Income | | | |
| | | Cost of goods purchased and services | 67 | 4,054 | 22 |
| | | Other income | 40 | 59 | 53 |
| | | Interest expenses | - | 1 | 1 |
| | | Items from Statement of Financial Position | | | |
| | | Other current receivables | 15 | 23 | 18 |
| | | Trade payables | 24 | 34 | 5 |
| | | Short-term borrowings | 56 | 33 | 66 |
| Siam Management Holding Co., Ltd. | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) | Items from Statement of Income | | | |
| | | Other income | 1 | 1 | 1 |
| | | Interest expenses | 10 | 16 | 27 |
| | | Items from Statement of Financial Position | | | |
| | | Other current payables | 1 | 2 | 3 |
| | | Short-term borrowings | 1,962 | 1,656 | 2,225 |

| Related Party | Relationship (As of December 31, 2024) | Connected Transactions | Unit: THB million | | |
|-------------------------------------|---|---|-------------------|--------|--------|
| | | | 2022 | 2023 | 2024 |
| ARUN PLUS Co., Ltd. (ARUN PLUS) | <ul style="list-style-type: none"> A subsidiary (Wholly owned by PTT Group) PTT's executive, Dr. Buranin Rattanasombat, is Chairman of the Board of ARUN PLUS. PTT's executives, Miss Pattaralada Sa-ngasang, Dr. Chaya Chandavas, are directors of ARUN PLUS. | Items from Statement of Income | | | |
| | | Other income | 51 | 41 | 72 |
| | | Other expenses | 5 | - | 2 |
| | | Interest income | 2 | - | - |
| | | Interest expenses | 21 | 28 | 28 |
| | | Items from Statement of Financial Position | | | |
| | | Other current receivables | 32 | 5 | 12 |
| | | Other current payables | 1 | 4 | 2 |
| | | Short-term borrowings | 1,957 | 3,195 | 1,411 |
| Andaman Transportation Limited | <ul style="list-style-type: none"> A joint operation (PTT Group owns 80.00% of shares.) | Items from Statement of Income | | | |
| | | Cost of goods purchased and services | 14,037 | 14,159 | 13,551 |
| | | Other income | 1 | 1 | 3 |
| | | Items from Statement of Financial Position | | | |
| | | Trade payables | 2,736 | 2,238 | 1,855 |
| Moattama Gas Transportation Company | <ul style="list-style-type: none"> A joint operation (PTT Group owns 62.96% of shares.) | Items from Statement of Income | | | |
| | | Cost of goods purchased and services | 21,174 | 13,948 | 12,398 |
| | | Items from Statement of Financial Position | | | |
| | | Trade payables | 3,380 | 2,084 | 1,801 |
| Orange Energy Co., Ltd. | <ul style="list-style-type: none"> A joint operation (PTT Group owns 53.95% of shares.) | Items from Statement of Income | | | |
| | | Cost of goods purchased and services | 5,056 | 2,375 | 5,202 |
| | | Items from Statement of Financial Position | | | |
| | | Trade payables | 564 | 164 | 596 |
| B8/32 Partners Ltd. | <ul style="list-style-type: none"> A joint operation (PTT Group owns 25.00% of shares.) | Items from Statement of Income | | | |
| | | Cost of goods purchased and services | 5,056 | 2,375 | 5,202 |
| | | Items from Statement of Financial Position | | | |
| | | Trade payables | 564 | 164 | 597 |

| Related Party | Relationship (As of December 31, 2024) | Connected Transactions | Unit: THB million | | |
|---|--|---|-------------------|-------|-------|
| | | | 2022 | 2023 | 2024 |
| Trans Thai-Malaysia (Thailand) Co., Ltd. | <ul style="list-style-type: none"> A joint venture (PTT Group owns 50.00% of shares.) | Items from Statement of Income | | | |
| | | Cost of goods purchased and services | 1,598 | 1,621 | 1,204 |
| | | Other income | 30 | 14 | 17 |
| | | Other expenses | - | 1 | 2 |
| | | Interest expenses | 38 | 33 | 27 |
| | | Items from Statement of Financial Position | | | |
| | | Other current receivables | 7 | 5 | 6 |
| | | Trade payables | 281 | 290 | 299 |
| | | Current portion of lease liabilities | 451 | 453 | 454 |
| | | Lease liabilities | 2,336 | 1,860 | 1,394 |
| District Cooling System and Power Plant Co., Ltd. | <ul style="list-style-type: none"> A joint venture (PTT Group owns 35.00% of shares.) | Items from Statement of Income | | | |
| | | Sales and service income | 3,279 | 2,693 | 2,173 |
| | | Other income | 7 | 7 | 9 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 256 | 314 | 287 |
| | | Other current receivables | 37 | 3 | 3 |
| PTT Asahi Chemical Co., Ltd. | <ul style="list-style-type: none"> A joint venture (PTT Group owns 50.00% of shares.) | Items from Statement of Income | | | |
| | | Sales and service income | 5,337 | 4,518 | 4,101 |
| | | Other income | 5 | 6 | 6 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 383 | 422 | 4 |
| | | Other current payables | 2 | 3 | 1 |

| Related Party | Relationship (As of December 31, 2024) | Connected Transactions | Unit: THB million | | |
|--|--|---|-------------------|-------|-------|
| | | | 2022 | 2023 | 2024 |
| HMC Polymers Co., Ltd. | <ul style="list-style-type: none"> A joint venture (PTT Group owns 41.44% of shares.) | Items from Statement of Income | | | |
| | | Sales and service income | 7,993 | 3,501 | 4,430 |
| | | Other income | 7 | 3 | 2 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 132 | 225 | - |
| | | Other current payables | 1 | 1 | 1 |
| Nava Nakorn Electricity Generating Co., Ltd. | <ul style="list-style-type: none"> A joint venture (PTT Group owns 30.00% of shares.) | Items from Statement of Income | | | |
| | | Sales and service income | 4,236 | 3,582 | 2,854 |
| | | Other income | 3 | 3 | 3 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 308 | 644 | 367 |
| | | Other current receivables | 199 | - | - |
| PE LNG Co., Ltd. | <ul style="list-style-type: none"> A joint venture (PTT Group owns 50.00% of shares.) | Items from Statement of Income | | | |
| | | Cost of goods purchased and services | - | - | 3,503 |
| | | Other income | - | 1 | 1 |
| | | Items from Statement of Financial Position | | | |
| | | Trade payables | - | - | 419 |
| | | Short-term borrowings | - | 2 | - |
| Bangpa-in Cogeneration Co., Ltd. | <ul style="list-style-type: none"> An associated company (PTT Group owns 25.00% of shares.) | Items from Statement of Income | | | |
| | | Sales and service income | 5,720 | 4,764 | 3,930 |
| | | Other income | 7 | 7 | 7 |
| | | Items from Statement of Financial Position | | | |
| | | Trade receivables | 412 | 530 | 523 |
| | | Other current payables | 7 | 7 | 7 |

9.2.4 PTT's Connected Transactions Resulted from the Following Agreements with Key Conditions Being Summarized below:

(1) Transactions between PTT and State Enterprises

Transactions

- **Sales of natural gas**

PTT signed 2 gas sales agreements (GSAs) with a state enterprise, the Electricity Generating Authority of Thailand (EGAT) as follows:

1. GSA between PTT and EGAT, dated June 19, 2020.
2. GSA for Nam Phong Power Plant between PTT and EGAT, dated September 20, 2021.

Remark:

In 2024, PTT had entered the LNG purchase agreement with EGAT to jointly manage LNG inventory for 3 times as follows: Dated April 11, 2024, June 24, 2024, and September 24, 2024.

- **Sales of fuels and petroleum products**

According to the Ministerial Regulation on Determination of Supply and Procurement Methods of state-promoted or state-supported supply and procurement, B.E. 2563 (2020), Section 6 Supply to Promote Energy and Natural Resources Security, required government agencies (excluding EGAT) to purchase fuels and petroleum products of 10,000 liters or more by specific procurement methods from PTT, or otherwise, they can purchase such supply through bidding or selection method. Currently, PTT sells fuels to the following state enterprises that still intend to purchase fuels from PTT such as Bangkok Mass Transit Authority (BMTA), State Railway of Thailand (SRT), EGAT, and The Transport Co., Ltd., etc. In case that the state enterprises having an outstanding payments for the fuel purchases, PTT could charge interest on the outstanding amount, referring to the terms and conditions of the sales contract.

(2) Transactions between PTT and PTT Exploration and Production Plc. (PTTEP) which is PTT's Subsidiary

Transactions

PTTEP and its subsidiaries produce 4 types of products for sale: crude oil, natural gas, condensate, and liquefied petroleum gas. In 2024, PTT purchased most products of PTTEP and its subsidiaries, accounting for 71% of PTTEP's sales volume. As for natural gas trading, PTT entered into a long-term natural gas purchase agreement with PTTEP, of which period is approximately 15 - 30 years with minimum trading volume to be defined on an annual basis. PTT also signed contracts to purchase crude oil and condensate with PTTEP. Meanwhile, PTT sells natural gas as fuel to PTTEP. The trading prices of petroleum products mentioned above are based on the global market price and the price at which the joint venture of the project sells to PTT or a competitive standard reference price with the same conditions as prescribed for other unrelated persons or entities.

Normal Business Transactions or Those Supporting Normal Business Transactions

| Item | | Amount as of December 31, 2024 | Justification and Sensibility |
|---------------------------------------|-------------------------------|-----------------------------------|--|
| 1.1 Sale of petroleum products | | THB 204,382 million | Pricing of petroleum products aligns with global market prices and is identical to the project partners' selling prices sold to PTT. |
| Natural gas | 892,088.24 million cubic feet | | |
| Crude oil | 12.87 million barrels | | |
| Condensate | 23.46 million barrels | | |
| Liquefied petroleum gas | 61,367.07 metric tons | | |
| 1.2 Natural gas as fuels | | THB 9.39 million | The buying and selling price calculation is as specified by the Energy Regulatory Commission. |
| Natural gas | 27.57 million cubic feet | | |



(3) Transactions between PTT and Petrochemical and Refining Affiliates

Transactions

PTT signed crude oil, condensate, and feedstock supply agreements, refined and petrochemical product purchase agreements, and gas sale agreements for process feedstock with its petrochemical and refining affiliates. PTT also signed an LPG sale agreement, and service agreement for storage and distribution of refined products, leases, and subleases of oil terminals for its subsidiaries in the oil and retail business. The purchase price is the market price.

(4) Transactions between PTT and its Affiliates of the New Business and Sustainability Business Group: Transactions and Contracts with Global Power Synergy Plc. (GPSC)

Transactions

PTT signed a Gas Sale Agreement with GPSC to feed gas for power generation, which is considered a normal business transaction, with prices and conditions based on competitive standard referenced market prices.

9.2.5 Sensibility of Connected Transactions

Procurement of goods, raw materials, and/or services from related entities aims to maximize mutual benefits in business operations within PTT Group and endorse national energy security. Such transactions are regarded as normal business practices. The volume of goods or raw materials bought or sold by PTT or services provided or received by related parties are in accordance with PTT's needs and business operations. Such prices and services are as agreed in contracts, leading to commercial benefits to both PTT and related parties without any benefits transferring or irregular transactions.

9.2.6 Policy Relating to Future Connected Transactions

PTT's future connected transactions will be conducted as part of its normal businesses without special favors or transfers of benefit between PTT, subsidiaries, associated companies, related companies, and shareholders. Pricing policy will continue to be at arm's length which applies to other unrelated persons/ entities, and the prices of products supplied by PTT's subsidiaries will be market-based. Disclosure of connected transactions is according to SEC's and SET's regulations and the accounting standard for related parties/ entities disclosures announced by the Federation of Accounting Professions.

9.2.7 Appraisal Price for Related Transactions

-None-

Section

3

Financial Report

Details of Financial Report
are in 56-1 One Report 2024
(Financial Report)
PTT Public Company Limited



Attachment

PTT's Board of Directors

As of December 31, 2024

| | |
|---|---|
| 1. Mr. Chatchai Phromlert | Independent Director/ Chairman |
| 2. GEN. Teerawat Boonyawat | Independent Director/ Chairman of the Remuneration Committee |
| 3. Mr. Krishna Boonyachai | Independent Director/ Chairman of the Audit Committee |
| 4. Mr. Payong Srivanich | Independent Director/ Chairman of the Nominating Committee |
| 5. Mr. Jatuporn Buruspat | Independent Director/ Chairman of the Corporate Governance and Sustainability Committee/ Authorized Director |
| 6. Mrs. Phongsaward Neelayodhin | Independent Director/ Chairman of the Enterprise Risk Management Committee/ Authorized Director |
| 7. Mr. Chansin Treenuchagron | Independent Director/ Member of the Audit Committee |
| 8. Associate Professor Dr. Narongdech Srukhsit | Independent Director/ Member of the Audit Committee |
| 9. Mr. Lavaron Sangsnit | Director/ Member of the Nominating Committee/ Member of the Remuneration Committee |
| 10. Air Chief Marshal Chanon Mungthanya | Independent Director/ Member of the Nominating Committee/ Member of the Remuneration Committee |
| 11. Dr. Chayatan Phromsorn | Independent Director/ Member of the Enterprise Risk Management Committee |
| 12. Dr. Nattapon Nattasomboon | Independent Director/ Member of the Corporate Governance and Sustainability Committee/ Member of the Enterprise Risk Management Committee |
| 13. Dr. Veerapat Kiatfuengfoo | Director/ Member of the Enterprise Risk Management Committee |
| 14. Miss Choosri Kietkajornkul | Independent Director/ Member of the Corporate Governance and Sustainability Committee |
| 15. Dr. Kongkrapon Intarajang | Director/ Secretary to the Board/ Authorized Director/ Chief Executive Officer and President |



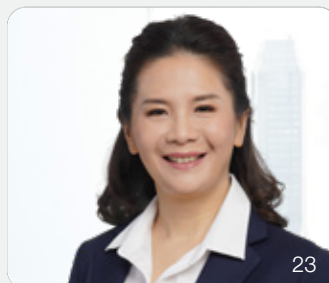
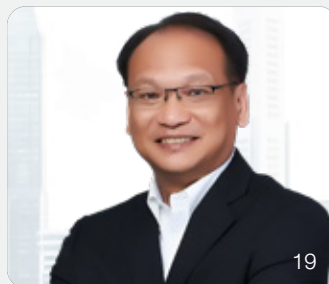
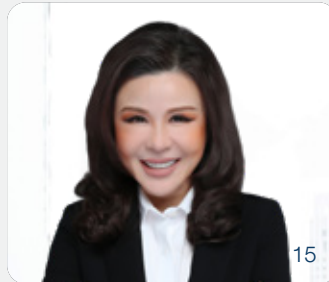
PTT Executives

As of December 31, 2024



- 1. Dr. Kongkrapan Intarajang**
Chief Executive Officer and President
- 2. Mr. Wuttikorn Stithit**
Chief Operating Officer,
Upstream Petroleum and Gas Business Group
- 3. Mr. Kris Imsang**
Chief Operating Officer,
Downstream Petroleum Business Group
- 4. Dr. Buranin Rattanasombat**
Chief New Business and Sustainability Officer
- 5. Miss Pattaralada Sa-ngasang**
Chief Financial Officer
- 6. Dr. Chaya Chandavasu**
Senior Executive Vice President,
Corporate Strategy
- 7. Mr. Chadil Chavanalikhorn**
Senior Executive Vice President,
Organization Effectiveness and Corporate Governance

- 8. Miss Peangpanor Boonklum**
Senior Executive Vice President,
Office of General Counsel
- 9. Mr. Pongpun Amornvivat**
Senior Executive Vice President, Gas Business Unit
- 10. Mr. Prasong Intaranongpai**
Senior Executive Vice President,
Downstream Business Group Alignment
- 11. Mr. Jaturong Worawitsurawatthana**
Senior Executive Vice President,
International Trading Business Unit
- 12. Mr. Cherdchai Boonchoochaay**
Senior Executive Vice President,
Innovation and New Ventures

**13. Mr. Chansak Chuenchom**

Senior Executive Vice President,
Project Engineering and Operational Excellence

14. Mr. Rathakorn Kampanathsanyakorn

Senior Executive Vice President,
Corporate Sustainability

15. Mrs. Nivadee Jaroensitipun

Senior Executive Vice President,
Special Affairs 1 - Government Relations

16. Dr. Rosaya Teinwan

Senior Executive Vice President,
Special Affairs 2 - Business Re-Structuring

17. Mr. Narongsak Jiva kanun

Chief Executive Officer,
PTT Global Chemical Public Company Limited

18. Mr. Bandhit Thamprojamchit

Chief Executive Officer and President,
Thai Oil Public Company Limited

19. Mr. Terdkiat Prommool

President and Chief Executive Officer,
IRPC Public Company Limited

20. Mr. Worawat Pitayasiri

President and Chief Executive Officer,
Global Power Synergy Public Company Limited

21. Mr. Suchat Ramarch

President,
PTT Oil and Retail Business Public Company Limited

22. Miss Tharisswan Thiansawat

Executive Vice President,
Group Corporate Finance and Strategy

23. Miss Numpetch Supharatanasit

Executive Vice President,
Global Business Services

24. Miss Jaroonsri Wankertphon

Executive Vice President,
Group Accounting and Tax Policy

Attachment 1

Information of the Board of Directors,
Executives, the Person Supervising Accounting,
Company Secretary

As of December 31, 2024



Mr. Chatchai Phromlert

Independent Director/ Chairman

Age (Years) 63

| | | |
|--|---------------------------------------|--|
| <ul style="list-style-type: none"> Independent Director (Appointed on December 1, 2023, April 12, 2024 (Re-elected)) Chairman (Appointed on December 23, 2023) | (%) of Share Possession -None- | Family Relationship among Directors and Executives -None- |
|--|---------------------------------------|--|

| Education/ Certification | Board Member/ Management | |
|--|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Arts (Political Science), Chulalongkorn University Master of Public Administration, Chulalongkorn University Certification <ul style="list-style-type: none"> Director Certification Program (DCP 176/2013), Thai Institute of Directors Association (IOD) Chief of District Program (Class 38), Institute of Administration Development Senior Administrator Program (Class 41), Ministry of Interior The Civil Service Executive Development Program (Class 42), Office of the Civil Service Commission (OCSC) Advanced Certificate Course in Public Economics Management for Executives (Class 3), King Prajadhipok's Institute | Board Member/ Management in Listed Companies | |
| | December 23, 2023 - Present | Chairman, PTT Public Company Limited |
| | December 1, 2023 - Present | Independent Director, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | - | - |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | March 22, 2023 - Present | Expert Commission Member, The Police Commission |
| | March 9, 2023 - Present | Chairman, Anti-Money Laundering Office (AMLO) |
| | November 1, 2022 - Present | Executive Chairman, Management of the administrative and capital management unit on Area Based Development, Office of the Ministry of Higher Education, Science, Research and Innovation |

| Education/ Certification | Board Member/ Management | |
|---|--|--|
| | Time Period | Position in Organization/ Company |
| <ul style="list-style-type: none"> • Diploma, The National Defence Course (Class 49), National Defence College • Certificate in Anti-Corruption Strategic Management for Senior Executives (Class 1), Office of the National Anti-Corruption Commission (NACC) • Advanced Certificate Course in Politics and Governance in Democratic Systems for Executives (Class 16), King Prajadhipok's Institute • Executive Program in Urban Development Management (Mahanakhon, Class 2), Bangkok Metropolitan Administration (BMA) • ASEAN Executive Management Program (Class 2), Office of the Civil Service Commission • Executive Program in Capital Market Leader (Class 17), Capital Market Academy (CMA) • The Program for Senior Executives on Justice Administration (Class 19), Judicial Training Institute, National Justice Academy • Advanced Political and Electoral Development Program (Class 7), Political and Electoral Development Institute • Rule of Law for Democracy (Class 5), College of the Constitutional Court • Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 13), Thailand Energy Academy (TEA) | Working Experiences in the 5 Preceding Years | |
| | December 1, 2023 - December 22, 2023 | Chairman of the Enterprise Risk Management Committee, PTT Public Company Limited |
| | October 28, 2020 - September 30, 2021 | Chairman, Provincial Electricity Authority |
| | September 17, 2019 - October 28, 2020 | Chairman, Provincial Waterworks Authority |
| | June 5, 2018 - June 4, 2021 | Chairman, Metropolitan Electricity Authority |
| | October 1, 2017 - September 2021 | Permanent Secretary, Ministry of Interior |
| | May 8, 2015 - October 1, 2021 | Director, The Government Lottery Office |

**GEN. Teerawat Boonyawat**

Independent Director/ Chairman of the Remuneration Committee

Age (Years) 64

| | | |
|--|---------------------------------------|--|
| <ul style="list-style-type: none"> Independent Director (Appointed on April 11, 2019, April 8, 2022 (Re-elected)) Chairman of the Remuneration Committee (Appointed on April 11, 2019) | (%) of Share Possession -None- | Family Relationship among Directors and Executives -None- |
|--|---------------------------------------|--|

| Education/ Certification | Board Member/ Management | |
|---|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Science Program, Chulachomklao Royal Military Academy Master of Business Administration, Kasetsart University Certification <ul style="list-style-type: none"> Director Accreditation Program (DAP 169/2020), Director Certification Program (DCP 303/2021), Board Nomination and Compensation Program (BNCP 13/2022), Role of the Chairman Program (RCP 49/2022) and Director Leadership Certification Program (DLCP 4/2022), Thai Institute of Directors Association (IOD) Diploma, The National Defense Course (Class 58), National Defence College Joint War College (Class 41) Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 17), Thailand Energy Academy (TEA) | Board Member/ Management in Listed Companies | |
| | April 11, 2019 - Present | Independent Director/ Chairman of the Remuneration Committee, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | - | - |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | - | - |
| | Working Experiences in the 5 Preceding | |
| | October 2020 - September 2021 | Deputy Commander-in-Chief, Royal Thai Army |
| | October 2018 - September 2020 | Member of the Board of Directors, Defence Technology Institute |
| | October 2018 - September 2020 | Secretary General, Internal Security Operations Command (ISOC) |
| | October 2018 - September 2020 | Chief of Staff, Royal Thai Army |
| | December 2012 - September 2021 | Royal Guard |

**Mr. Krishna Boonyachai**

Independent Director/ Chairman of the Audit Committee

Age (Years) 60

| | | |
|---|---------------------------------------|--|
| • Independent Director (Appointed on July 3, 2020, April 12, 2023 (Re-elected)) | (%) of Share Possession -None- | Family Relationship among Directors and Executives -None- |
| • Chairman of the Audit Committee (Appointed on April 12, 2023) | | |

| Education/ Certification | Board Member/ Management | |
|---|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Economic, Faculty of Economics, Kasetsart University Graduate Diploma Program of Management Project Management, Muban Chombueng Rajabhat University Certification <ul style="list-style-type: none"> Director Certification Program (DCP 288/2020), Advanced Audit Committee Program (AACP 38/2020), Role of the Chairman Program (RCP 46/2020), Risk Management Program for Corporate Leaders (RCL 22/2021), Ethical Leadership Program (ELP 23/2021), Successful Formulation & Execution of Strategy (SFE 36/2021), and Director Leadership Certification Program (DLCP 3/2021), Thai Institute of Directors Association (IOD) Executive Program in Capital Market Leader (Class 24), Capital Market Academy (CMA) Top Executive Program in Commerce and Trade (TEPCoT) (Class 11), Commerce Academy, The University of the Thai Chamber of Commerce Super Series Batch 3: Leadership & Effective Corporate Culture, Institute of Research and Development for Public Enterprises (IRDP) & Judge Business School, University of Cambridge, UK Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 17), Thailand Energy Academy (TEA) 2024 International Conference Program (The Institute of Internal Auditors 2024) PTT Group AC Forum 2024: "Watch out for the signs," Office of Corporate Audit, PTT | Board Member/ Management in Listed Companies | |
| | April 12, 2023 - Present | Chairman of the Audit Committee, PTT Public Company Limited |
| | July 3, 2020 - Present | Independent Director, PTT Public Company Limited |
| | December 12, 2019 - Present | Independent Director/ Chairman/ Member of the Audit Committee, TQR Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | - | - |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | April 28, 2023 - Present | Director, the Anti-Corruption and Ethics Promotion Committee (2023 - 2024), The Thai Chamber of Commerce |
| | 2020 - Present | Chief Consulting Officer, Nuttabhum Foundation |
| | 2020 - Present | Chief Consulting Officer, TKI Perpetual Company Limited |
| | Working Experiences in the 5 Preceding | |
| | December 14, 2022 - December 13, 2024 | Independent Director/ Chairman of the Audit Committee/ Member of the Nomination and Remuneration Committee, T.R.V. Rubber Products Public Company Limited |
| | May 9, 2022 - February 19, 2024 | Chairman of the Corporate Governance and Sustainability Committee, Euroasia Total Logistics Public Company Limited |
| | May 1, 2021 - February 19, 2024 | Independent Director/ Chairman/ Member of the Audit Committee, Euroasia Total Logistics Public Company Limited |
| | July 3, 2020 - April 12, 2023 | Member of the Audit Committee, PTT Public Company Limited |
| | 2020 - March 2, 2021 | Independent Director/ Member of the Audit Committee, Primo Service Solutions Company Limited |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|---|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding (continued) | |
| | 2020 - July 2020 | Sub-Committee on Corporate Governance and Corporate Social Responsibility, Metropolitan Waterworks Authority |
| | 2020 - 2024 | Sub-Committee on Monitoring National Reform on Economics, Committee on Monitoring National Reform on Economics, Monetary and Finance, Senate |
| | 2019 - 2024 | Advisor of Sub-Committee on Supporting the Affairs of Commerce, Committee of Commerce and Industry, Senate |
| | 2010 - 2020 | Chief Relationship Officer Thai Management Association (TMA) |



Mr. Payong Srivanich

Independent Director/ Chairman of the Nominating Committee
Age (Years) 56

| | | |
|---|-------------------------|--|
| • Independent Director (Appointed on April 9, 2021) | (%) of Share Possession | Family Relationship among Directors and Executives |
| • Chairman of the Nominating Committee (Appointed on October 19, 2023) | -None- | -None- |

| Education/ Certification | Board Member/ Management | |
|---|--|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> BS in Industrial Engineering, University of Arizona, Tucson, Arizona, USA MBA, University of Pittsburgh, Pennsylvania, USA Honorary Doctorate Degree in Business Administration, Khon Kaen University Certification <ul style="list-style-type: none"> Director Certification Program (DCP 223/2016), Thai Institute of Director Association (IOD) Cybersecurity, Cyber Resilience & Privacy Risk in the Era of Digital Transformation 2018, ACIS Professional Center | Board Member/ Management in Listed Companies | |
| | October 19, 2023 - Present | Chairman of the Nominating Committee, PTT Public Company Limited |
| | April 9, 2021 - Present | Independent Director, PTT Public Company Limited |
| | November 8, 2016 - Present | Chief Executive Officer (CEO)/ Executive Director/ Member of the Risk Oversight Committee, Krung Thai Bank Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | 2021 - Present | Director, KTB Advisory Company Limited |
| | 2020 - Present | Chairman, National Digital ID Company Limited |
| | 2017 - Present | Chairman, National ITMX Company Limited |

| Education/ Certification | Board Member/ Management | |
|---|--|---|
| | Time Period | Position in Organization/ Company |
| <ul style="list-style-type: none"> • Training and Development for High Executive Project, Royal Thai Police • TIJ Executive Program on the Rule of Law and Development: RoLD 2019, Thailand Institute of Justice (TIJ) • Security Awareness 2021, Krung Thai Bank Public Company Limited by guest speaker • Cyber Security Awareness 2022, Krung Thai Bank Public Company Limited by guest speaker • Cyber Security Awareness 2023, Krung Thai Bank Public Company Limited by guest speaker • ESG – Related Risk Training Session 2024, Krung Thai Bank Public Company Limited by guest speaker | Other Experiences/ Other Activities/ Other Organizations | |
| | 2023 - Present | Committee, Policy Committee to Support Sports Association from State Enterprises and the Private Sector |
| | 2023 - Present | Committee, the 10,000-baht Digital Wallet Scheme Committee |
| | 2023 - Present | Sub-Committee, the 10,000-baht Digital Wallet Driven Scheme Sub-Committee |
| | 2021 - Present | Director, Board of Special Economic Development Policy |
| | 2021 - Present | Director, Supervisory Board of Minor Population Debt Relief |
| | 2021 - Present | Member, Steering Committee of “Friends in need of (“PA”) Fair 2021” |
| | 2021 – Present | Advisor, Executive Director of Global Compact Network Thailand Association |
| | 2020 - Present | Chairman, Thai Bankers’ Association |
| | 2020 - Present | Private Sector Committee, Board of the Office of SMEs Promotion, The Office of SMEs Promotion |
| | 2020 - Present | Director, National Strategic Committee, Office of the National Economic and Social Development Council |
| | 2020 - Present | Director, Eastern Economic Corridor (EEC) Policy Committee, Eastern Economic Corridor (EEC) |
| | 2020 - Present | Director, Commission Policy on Private Participation in State Affairs, State Enterprise Policy Office |
| | 2020 - Present | Committee, The Board of Anti-Corruption Organization of Thailand Foundation, Anti-Corruption Organization of Thailand Foundation |
| | 2020 - Present | Advisor, Bureaucracy System Development Subcommittee about Studying and Setting Guidelines for the Thailand National Digital Trade Platform, Office of the Public Sector Development Commission |
| | 2020 - Present | Committee, Capital Market Development Commission, Fiscal Policy Office |
| | 2020 - Present | Director, Payment Systems Committee (PSC), Bank of Thailand |
| | 2020 - Present | Board Member, Thailand Board of Investment (BOI) |
| | 2020 - Present | Co-Chairman, The Joint Standing Committee on Commerce, Industry and Banking (JSCCIB) |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|--|
| | Time Period | Position in Organization/ Company |
| | Other Experiences/ Other Activities/ Other Organizations (continued) | |
| | 2020 - Present | Director, The ASEAN Bankers Association (ABA) |
| | 2019 - Present | Senior Expert Committee, The Public Financial Institution Development Board and Chairman, Development of Database Systems and Information Technology in Public Financial Institutions Subcommittee |
| | Working Experiences in the 5 Preceding Years | |
| | April 8, 2022 - October 18, 2023 | Member of the Corporate Governance and Sustainability Committee, PTT Public Company Limited |
| | April 9, 2021 - October 18, 2023 | Member of the Nominating Committee, PTT Public Company Limited |
| | April 9, 2021 - April 8, 2022 | Member of the Remuneration Committee, PTT Public Company Limited |
| | July 8, 2020 - March 9, 2021 | Corporate Secretary, Krung Thai Bank Public Company Limited |
| | | |

**Mr. Jatuporn Buruspat**

Independent Director/ Chairman of the Corporate Governance and
Sustainability Committee/ Authorized Director

Age (Years) 60

| | | |
|--|----------------------------|--|
| • Independent Director (Appointed on April 9, 2021, April 12, 2024 (Re-elected)) | (%) of Share Possession | Family Relationship among Directors and Executives |
| • Chairman of the Corporate Governance and Sustainability Committee (Appointed on April 8, 2022) (Restructured to be the Corporate Governance and Sustainability Committee on October 27, 2022) | -None- | -None- |

| Education/ Certification | Board Member/ Management | |
|---|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> • Bachelor of Arts in Political Science, Chulalongkorn University • Master of Arts in Political Science, Chulalongkorn University • Master of Science (Forest Resource and Environment Administration), Kasetsart University • Honorary Doctorate Degree of Philosophy in Environmental Technology and Management, Kasetsart University • Honorary Doctorate Degree of Philosophy in Political Science, Mahachulalongkornrajavidyalaya University Certification <ul style="list-style-type: none"> • Director Certification Program (DCP 129/2010), Thai Institute of Directors Association (IOD) • Diploma, The National Defence Course (Class 55), National Defence College • Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 15), Thailand Energy Academy (TEA) | Board Member/ Management in Listed Companies | |
| | April 8, 2022 - Present | Chairman of the Corporate Governance and Sustainability Committee, PTT Public Company Limited |
| | April 9, 2021 - Present | Independent Director, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | - | - |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | 2022 - Present | Vice Chairman, Anti-Money Laundering Committee |
| | 2019 - Present | Chairman of the Board, Forest Industry Organization |
| | 2019 - Present | Director, Biodiversity-Based Economy Development Office |
| | 2019 - Present | Director, Thailand Greenhouse Gas Management Organization (Public Organization) |
| | 2019 - Present | Permanent Secretary, Ministry of Natural Resources and Environment |
| | 2019 - Present | Director, Highland Research and Development Institute (Public Organization) |
| | Working Experiences in the 5 Preceding | |
| | May 1, 2021 - April 8, 2022 | Member of the Enterprise Risk Management Committee, PTT Public Company Limited |
| | April 9, 2021 - April 8, 2022 | Member of the Corporate Governance Committee, PTT Public Company Limited |
| | 2017 - 2019 | Director General, Department of Marine and Coastal Resources |
| | August 11, 2015 - January 7, 2021 | Director, TOT Public Company Limited |

**Mrs. Phongsaward Neelayodhin**

Independent Director/ Chairman of the Enterprise Risk Management Committee/

Authorized Director

Age (Years) 57

| | | |
|---|-------------------------|--|
| • Independent Director (Appointed on December 1, 2023) | (%) of Share Possession | Family Relationship among Directors and Executives |
| • Chairman of the Enterprise Risk Management Committee (Appointed on March 21, 2024) | -None- | -None- |

| Education/ Certification | Board Member/ Management | |
|--|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Laws Program, Thammasat University Certification <ul style="list-style-type: none"> Director Accreditation Program (DAP 189/2022), Thai Institute of Directors Association (IOD) Diploma, The National Defence Course (Class 63), National Defence College Executive Development Program (Class 82), Office of the Civil Service Commission Executive Program in Budgeting (Class 6), Budget Bureau Executive Program in Legal Literacy (Class 5), Office of the Council of State Spokesman Program, Office of the Prime Minister Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 20), Thailand Energy Academy (TEA) Advanced Legal Management Program (Class 1), Lawyers Council Under the Royal Patronage Advanced Human Rights Management Executive Program (Class 1), Rights and Liberties Protection Department, Ministry of Justice | Board Member/ Management in Listed Companies | |
| | March 21, 2024 - Present | Chairman of the Enterprise Risk Management Committee, PTT Public Company Limited |
| | December 1, 2023 - Present | Independent Director, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | - | - |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | 2022 - Present | Permanent Secretary for Justice, Ministry of Justice |
| | 2022 - Present | Chairman, the Properties Examination Committee under the Narcotic Code B.E. 2564 (2021) |
| | 2022 - Present | President, Board of Directors of Thailand Arbitration Center (THAC) |
| | 2020 - Present | Member, The National Reform Committee (Administration of State Affairs) |
| | 2019 - Present | Honorary Member of the Buddhist Scripture Education Committee |
| | 2018 - Present | Council of State Committee No. 2 |
| | Working Experiences in the 5 Preceding | |
| | December 1, 2023 - March 21, 2024 | Member of the Corporate Governance and Sustainability Committee, PTT Public Company Limited |
| | November 28, 2022 - November 15, 2023 | Director, Aeronautical Radio of Thailand Limited |
| | February 17, 2021 - November 28, 2023 | Director, Airports of Thailand Public Company Limited |
| | September 15, 2020 - October 26, 2023 | Director, The Expressway Authority of Thailand |
| | 2020 - 2022 | Acting Director, Strategy Transformation Office (STO) |
| | 2018 - 2022 | Deputy Secretary-General, Office of the Council of State |

**Mr. Chansin Treenuchagron**

Independent Director/ Member of the Audit Committee

Age (Years) 64

| | | |
|--|-------------------------|--|
| • Independent Director (Appointed on May 14, 2022) | (%) of Share Possession | Family Relationship among Directors and Executives |
| • Member of the Audit Committee (Appointed on March 21, 2024) | -None- | -None- |

| Education/ Certification | Board Member/ Management | |
|--|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Economics, Thammasat University Master of Economics, Chulalongkorn University Honorary Doctorate of Science (Technology Management), Thammasat University Certification <ul style="list-style-type: none"> Director Certification Program (DCP 85/2007), Financial Statements for Directors (FSD12/2011), Director Accreditation Program (DAP 93/2011), Chartered Director Class (CDC 10/2015), The Role of the Board in IT Governance (2020), IT Governance and Cyber Resilience Program (ITG 18/2021), Role of the Chairman Program (RCP 49/2022), Director Leadership Certification Program (DLCP 4/2022), Successful Formulation & Execution of Strategy (SFE 42/2023), Strategic Board Master Class (SBM 12/2023), Thai Institute of Directors Association (IOD) Law of Democracy Course, (Class 8) Office of The Constitutional Court Certificate Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 7), Thailand Energy Academy (TEA) Diploma, The National Defence Course (Class 57), National Defence College Leadership Development Program 3 (LDP 3) (Class 1/2014), PTT Leadership and Learning Institute (PLLI) | Board Member/ Management in Listed Companies | |
| | March 21, 2024 - Present | Member of the Audit Committee, PTT Public Company Limited |
| | May 14, 2022 - Present | Independent Director, PTT Public Company Limited |
| | June 15, 2021 - Present | Director and Director of the Plan Administrator, Thai Airways International Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | July 22, 2020 - Present | Chairman, Y.S.S. (THAILAND) Company Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | 2019 - Present | President, Thammasat Association under the Royal Patronage |
| | 2018 - Present | Honorary Member of the University Council, Thammasat University |
| | Working Experiences in the 5 Preceding | |
| | December 1, 2023 - March 20, 2024 | Member of the Enterprise Risk Management Committee, PTT Public Company Limited |
| | October 19, 2023 - March 20, 2024 | Member of the Nominating Committee, PTT Public Company Limited |
| | May 14, 2022 - November 30, 2023 | Member of the Remuneration Committee, PTT Public Company Limited |
| | May 25, 2021 - August 1, 2022 | Honorary Member of the University Council, Thaksin University |
| | July 2, 2020 - July 1, 2021 | Acting President, Thai Airways International Public Company Limited |
| | June 4, 2020 - June 15, 2021 | Director/ Plan Administrator, Thai Airways International Public Company Limited |

| Education/ Certification | Board Member/ Management | |
|--|--|--|
| | Time Period | Position in Organization/ Company |
| <ul style="list-style-type: none"> • Advance Senior Executive Program (ASEP-5) (Class 5/2010), KELLOGG & SASIN, Chicago, USA • Senior Executive Program (SEP) (Class 20), Sasin Graduate Institute of Business Administration of Chulalongkorn University • Advanced Certificate Course in Public Economics Management for Executives (Class 10), King Prajadhipok's Institute • Leadership Excellence through Awareness and Practice (LEAP), INSEAD, Singapore and France • Air War College (Class 35) • Executive Relationship Development Course (ERDC) (Class 1), Directorate of Civil Affairs • PTT Executive Leadership, General Electric, GE, New York, USA • 2024 International Conference Program (The Institute of Internal Auditors 2024) • PTT Group AC Forum 2024: "Watch out for the signs," Office of Corporate Audit, PTT | Working Experiences in the 5 Preceding | |
| | 2020 – May 13, 2022 | Independent Director/ Member of the Corporate Governance, PTT Global Chemical Public Company Limited |
| | August 31, 2018 - May 12, 2020 | President and Chief Executive Officer, PTT Public Company Limited |
| | 2018 - 2020 | Chairman, IRPC Public Company Limited |
| | 2018 - 2020 | Director, PTT Exploration and Production Public Company Limited |



Associate Professor Dr. Narongdech Sruckhosit

Independent Director/ Member of the Audit Committee

Age (Years) 47

| | | |
|---|--|--|
| • Independent Director (Appointed on October 8, 2021, April 12, 2023, (Re-elected)) | (%) of Share Possession | Family Relationship among Directors and Executives |
| • Member of the Audit Committee (Appointed on December 1, 2023) | 0.000005 (Own 0; Spouse 0.000005) | -None- |

| Education/ Certification | Board Member/ Management | |
|--|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Law (First Class Honors), Chulalongkorn University LL.M., University of Cambridge, UK Ph.D. (Law), University of Edinburgh, UK Certification <ul style="list-style-type: none"> Director Certification Program (DCP 315/2022), Financial Statements for Directors (FSD 45/2022), and Advance Audit Committee Program (AACP 52/2024), Thai Institute of Directors Association (IOD) M&A in Practice, Chulalongkorn Law School Alumni Association The Cullinan: The Making of the Digital Board (Class 2), Thailand Management Association, in collaboration with the Digital Economy Promotion Agency 2024 International Conference Program (The Institute of Internal Auditors 2024) PTT Group AC Forum 2024: "Watch out for the signs," Office of Corporate Audit, PTT | Board Member/ Management in Listed Companies | |
| | December 1, 2023 - Present | Member of the Audit Committee, PTT Public Company Limited |
| | June 27, 2023 - Present | Independent Director/ Member of the Audit Committee, Quality Houses Public Company Limited |
| | October 8, 2021 - Present | Independent Director, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | 2016 - Present | Director, C & C International Venture Company Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | 2022 - Present | Expert Committee Member on Legal Affairs, Grievance Management Committee attached to the Prime Minister's Office |
| | 2022 - Present | Expert Committee Member on Legal Affairs, Digital Promotion and Development for Economy and Society Committee |
| | 2020 - Present | Director, Board of Student Development Policy, Chulalongkorn University Council |
| | 2019 - Present | Counsel (Administrative Law), The Stock Exchange of Thailand |
| | 2019 - Present | Director, Committee of Evaluation of University Executive Performance, Suan Dusit University Council |
| | 2019 - Present | Subcommittee of Law, Neighboring Countries Economic Development Cooperation Agency |
| | 2018 - Present | Subcommittee of the Regulatory Screening Relating to Political Parties, The Election Commission of Thailand |
| | 2018 - Present | Subcommittee of Appeal Screening, Accounting Professions Governance Committee, Department of Business Development |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|---|
| | Time Period | Position in Organization/ Company |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | 2017 - Present | Director, Committee of Student Complaint and Appeal, Chulalongkorn University |
| | 2001 - Present | Tenured Lecturer (Chair of Public Law), Faculty of Law, Chulalongkorn University |
| | Working Experiences in the 5 Preceding Years | |
| | April 8, 2022 - November 30, 2023 | Member of the Enterprise Risk Management Committee, PTT Public Company Limited |
| | October 8, 2021 - November 30, 2023 | Member of the Corporate Governance and Sustainability Committee, PTT Public Company Limited |

**Mr. Lavaron Sangsnit**

Director/ Member of the Nominating Committee/

Member of the Remuneration Committee

Age (Years) 57

| | | |
|---|-------------------------|--|
| • Director (Appointed on April 12, 2023) | (%) of Share Possession | Family Relationship among Directors and Executives |
| • Member of the Nominating Committee (Appointed on April 12, 2023) | -None- | -None- |
| • Member of the Remuneration Committee (Appointed on December 1, 2023) | | |

| Education/ Certification | Board Member/ Management | |
|--|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Economics, Chulalongkorn University M.S. (Economic Policy and Planning), Northeastern University, USA Certification <ul style="list-style-type: none"> Director Certification Program (DCP 205/2015), Thai Institute of Directors Association (IOD) Diploma, The National Defence Course (Class 58), National Defence College Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 12), Thailand Energy Academy (TEA) Executive Program in Capital Market Leader (Class 25), Capital Market Academy (CMA) Senior Executive Training Program on Administrative Justice (Class 1), Foundation for Research and Development of the Administrative Justice System (FRDA) Rule of Law for Democracy (Class 10), College of the Constitutional Court Security Awareness 2021, Krung Thai Bank Public Company Limited by guest speaker Cyber Security Awareness 2022, Krung Thai Bank Public Company Limited by guest speaker | Board Member/ Management in Listed Companies | |
| | December 1, 2023 - Present | Member of the Remuneration Committee, PTT Public Company Limited |
| | October 11, 2023 - Present | Chairman, Krungthai Bank Public Company Limited |
| | April 12, 2023 - Present | Director/ Member of the Nominating Committee, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | - | - |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | October 2023 - Present | Permanent Secretary, Ministry of Finance |
| | January 5, 2021 - Present | Chairman, The Board of the Government Lottery Office |
| | Working Experiences in the 5 Preceding | |
| | 2022 - September 2023 | Director General, The Revenue Department |
| | 2020 - 2022 | Director General, The Excise Department |
| | 2018 - 2020 | Director General, Fiscal Policy Office Ministry of Finance |
| | 2018 - 2020 | Director, Bank of Thailand |
| | 2018 - 2020 | Member of the Financial Institutions Policy Committee, Bank of Thailand |



Air Chief Marshal Chanon Mungthanya

Independent Director/ Member of the Nominating Committee/

Member of the Remuneration Committee

Age (Years) 60

| | | |
|--|-------------------------|--|
| • Independent Director (Appointed on April 12, 2023) | (%) of Share Possession | Family Relationship among Directors and Executives |
| • Member of the Nominating Committee/ Member of the Remuneration Committee (Appointed on March 21, 2024) | -None- | -None- |

| Education/ Certification | Board Member/ Management | |
|--|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Science, Royal Thai Air Force Academy (Class of 30/1986), Royal Thai Air Force Academy Squadron Officer School (Class 79), Royal Thai Air Force Academy Air Command and Staff College (Class 41), Royal Thai Air Force Academy Certification <ul style="list-style-type: none"> Director Certification Program (DCP 338/2023), Thai Institute of Directors Association (IOD) Diploma, The National Defence Course (Class 60), National Defence College Budget Management Program for Executive (Class 4), Budget Bureau Executive Program in Capital Market Leader (Class 33), Capital Market Academy (CMA) 2024 International Conference Program (The Institute of Internal Auditors 2024) | Board Member/ Management in Listed Companies | |
| | April 11, 2024 - Present | Independent Director/ Chairman, Thai Oil Public Company Limited |
| | March 21, 2024 - Present | Member of the Nominating Committee/ Member of the Remuneration Committee, PTT Public Company Limited |
| | April 12, 2023 - Present | Independent Director, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | - | - |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | December 16, 2022 - Present | Director, The War Veterans Organization of Thailand under the Royal Patronage of His Majesty the King |
| | Working Experiences in the 5 Preceding | |
| | October 1, 2023 - September 30, 2024 | Deputy Chief of Defence Forces, Royal Thai Armed Forces Headquarters |
| | April 12, 2023 - March 20, 2024 | Member of the Audit Committee, PTT Public Company Limited |
| | October 1, 2022 - September 30, 2023 | Director, Thai Aviation Industries Co., Ltd. |
| | October 2022 - September 2023 | Deputy Commander-in-Chief, Royal Thai Air Force |
| | October 2021 - September 30, 2022 | Assistant Commander-in-Chief, Royal Thai Air Force |
| | October 2020 - September 30, 2021 | Chief of the Air Staff, Royal Thai Air Force |
| | April 2020 - September 30, 2020 | Deputy Chief of the Air Staff, Royal Thai Air Force |

**Dr. Chayatan Phromsorn**

Independent Director/ Member of the Enterprise Risk Management Committee

Age (Years) 59

| | | |
|--|-------------------------|--|
| • Independent Director (Appointed on August 15, 2024) | (%) of Share Possession | Family Relationship among Directors and Executives |
| • Member of the Enterprise Risk Management Committee (Appointed on August 28, 2024) | -None- | -None- |

| Education/ Certification | Board Member/ Management | |
|--|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> • B.Eng. (Civil Engineering) (2nd Class Honors), King Mongkut's University of Technology Thonburi • M.Sc. in Civil Engineering (Transportation), The University of Texas at Austin, Texas, USA (Royal Thai Government Scholarship) • Ph.D. in Civil Engineering (Transportation), The University of Texas at Austin, Texas, USA (Royal Thai Government Scholarship) Certification <ul style="list-style-type: none"> • Director Accreditation Program (DAP 176/2020), Thai Institute of Directors Association (IOD) • Diploma, The National Defence Course (Class 56), National Defence College • Programme of Senior Executives of Justice (Class 23), Judicial Training Institute, Ministry of Justice • Executive Development Program, Kellogg, School of Management, Northwestern University, USA • Top Executive Program (Class 51), Interior College | Board Member/ Management in Listed Companies | |
| | August 28, 2024 - Present | Member of the Enterprise Risk Management Committee, PTT Public Company Limited |
| | August 15, 2024 - Present | Independent Director, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | - | - |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | March 2024 - Present | Chairman Board of Director, Port Authority of Thailand |
| | October 2022 - Present | Director, Tourism Authority of Thailand |
| | 2020 - Present | Permanent Secretary, Ministry of Transport |
| | Working Experiences in the 5 Preceding | |
| | 2020 | Director, Airports of Thailand Public Company Limited |
| | 2019 - 2020 | Director General, Office of Transport and Traffic Policy and Planning |
| | 2019 - 2020 | Director, Mass Rapid Transit Authority of Thailand |
| | 2019 - 2020 | Director and Chairman of Strategic Committee, State Railway of Thailand |



Dr. Nattapon Nattasomboon

Independent Director/ Member of the Corporate Governance and Sustainability Committee/ Member of the Enterprise Risk Management Committee
Age (Years) 59

| | (%) of Share Possession | Family Relationship among Directors and Executives |
|--|-------------------------|--|
| <ul style="list-style-type: none"> Independent Director (Appointed on March 21, 2024) Member of the Corporate Governance and Sustainability Committee (Appointed on March 21, 2024) Member of the Nominating Committee/ Member of the Enterprise Risk Management Committee (Appointed on June 28, 2024) | -None- | -None- |

| Education/ Certification | Board Member/ Management | |
|--|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Engineering (Civil Engineering), Chulalongkorn University Master of Science (Civil Engineering), Oregon State University, USA Ph.D. (Industrial Engineering), Oregon State University, USA Certification <ul style="list-style-type: none"> Director Certification Program (DCP 316/2022), Thai Institute of Directors Association (IOD) Corporate Governance Program for Directors and Executives of State Enterprises and Public Organizations (Class 19), King Prajadhipok's Institute The Executive Program in Energy Literacy for a Sustainable Future (Class 18), Thailand Energy Academy (TEA) Digital CEO (Class 5), Digital Economy Promotion Agency Diploma, The National Defence Course (Class 57), National Defence College Politics and Governance in Democratic Systems for Executives (Class 16), King Prajadhipok's Institute The Civil Service Executive Development Program: Visionary and Moral Leadership (Class 38), Office of the Civil Service Commission Justice Administration Advanced Course (Class 7), Ministry of Justice Senior Budget Executive Program (Class 2), Budget Bureau | Board Member/ Management in Listed Companies | |
| | June 28, 2024 - Present | Member of the Enterprise Risk Management Committee, PTT Public Company Limited |
| | March 21, 2024 - Present | Independent Director/ Member of the Corporate Governance and Sustainability Committee, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | August 2024 - Present | Director, Thailand Post Company Limited |
| | December 2023 - Present | Chairman, National Telecom Public Company Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | February 2022 - Present | Deputy Permanent Secretary, Ministry of Digital Economy and Society |
| | Working Experiences in the 5 Preceding | |
| | December 2020 - February 2022 | Director, Thai Meteorological Department, Ministry of Digital Economy and Society |
| | November 2019 - December 2020 | Chief Inspector General, Ministry of Industry |

**Dr. Veerapat Kiatfuengfoo**

Director/ Member of the Enterprise Risk Management Committee

Age (Years) 52

| | | |
|---|-------------------------|--|
| • Director (Appointed on October 17, 2024) | (%) of Share Possession | Family Relationship among Directors and Executives |
| • Member of the Enterprise Risk Management Committee (Appointed on November 5, 2024) | -None- | -None- |

| Education/ Certification | Board Member/ Management | |
|---|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> • Bachelor of Business Administration, Kasetsart University • Master of Economics, Vanderbilt University, USA • Ph.D. Development Studies, University of Melbourne, Australia Certification <ul style="list-style-type: none"> • Director Certification Program (DCP 336/2023), Thai Institute of Directors Association (IOD) • Executive Energy Management Program, Class 10, Ministry of Energy • Executive Development Program, Class 10, Ministry of Education • Executive Development Program, Class 13, Ministry of Finance • The Civil Service Executive Program, Class 13, Office of the Civil Service Commission • The Executive Program on Energy Literacy for a Sustainable Future (Class 18), Thailand Energy Academy | Board Member/ Management in Listed Companies | |
| | November 5, 2024 - Present | Member of the Enterprise Risk Management Committee, PTT Public Company Limited |
| | October 17, 2024 - Present | Director, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | - | - |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | July 28, 2024 - Present | Deputy Permanent Secretary, Office of the Permanent Secretary, Ministry of Energy |
| | Working Experiences in the 5 Preceding | |
| | February 12, 2024 - September 30, 2024 | Director/ Member of the Risk Management Committee, PTT Exploration and Production Public Company Limited |
| | January 3, 2024 - July 27, 2024 | Advisor, Institute of Industrial Energy, Federation of Thai Industry |
| | January 3, 2024 - July 27, 2024 | Director, Thailand Automotive Institute |
| | January 3, 2024 - July 27, 2024 | Director General, Energy Policy and Planning Office, Ministry of Energy |
| | March 18, 2023 - January 2, 2024 | Deputy Permanent Secretary, Office of the Permanent Secretary, Ministry of Energy |
| | February 1, 2023 - January 4, 2024 | Director/ Member of the Risk Management Committee, Thai Oil Public Company Limited |
| | May 21, 2021 - March 17, 2023 | Deputy Director General, Energy Policy and Planning Office, Ministry of Energy |
| | April 2, 2018 - May 20, 2021 | Executive Director of Power Policy Bureau, Energy Policy and Planning Office, Ministry of Energy |



Miss Choosri Kietkajornkul

Independent Director/

Member of the Corporate Governance and Sustainability Committee

Age (Years) 61

| | | |
|---|-------------------------|--|
| • Independent Director (Appointed on May 28, 2024) | (%) of Share Possession | Family Relationship among Directors and Executives |
| • Member of the Corporate Governance and Sustainability Committee (Appointed on June 20, 2024) | -None- | -None- |

| Education/ Certification | Board Member/ Management | |
|--|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Commerce and Accountancy, Chulalongkorn University Master of Commerce and Accountancy (Accounting), Chulalongkorn University Certification <ul style="list-style-type: none"> Director Certification Program (DCP 308/2021), Director Leadership Certification Program (DLCP 4/2022), Thai Institute of Directors Association (IOD) Leadership for Inspiration for Senior Management, King Prajadhipok's Institute Financial and Fiscal Management Program for Senior Executive, Public Fiscal and Accounting Personnel Development Institute Chief Financial Officer Certification Program, Federation Accounting Professions Under The Royal Patronage of His Majesty The King Accounting of Non-Accountants (2015), Faculty of Commerce and Accountancy, Chulalongkorn University Postgraduate Certificate in Finance and Management, London School of Business and Finance, United Kingdom EGAT Executive Development EGAT New Leader Development Program (ENLP) EGAT Enhancing Program (EEP) EGAT Get Ready Program (EGRP) EGAT Leadership Development Program (ELDP) | Board Member/ Management in Listed Companies | |
| | July 11, 2024 - Present | Independent Director/ Member of the Audit Committee, Thanulux Public Company Limited |
| | June 20, 2024 - Present | Member of the Corporate Governance and Sustainability Committee, PTT Public Company Limited) |
| | May 28, 2024 - Present | Independent Director, PTT Public Company Limited) |
| | Board Member/ Management in Non-Listed Companies | |
| | - | - |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | - | - |
| | Working Experiences in the 5 Preceding | |
| | 2022 - 2024 | Director, Hongsa Power Company Limited |
| | 2022 - 2024 | Director, Phu Fai Mining Company Limited |
| | 2021 - 2022 | Chairman, Hongsa Power Company Limited |
| | 2021 - 2022 | Chairman, Phu Fai Mining Company Limited |
| | 2021 - 2024 | Director and Chief Executive Officer, RATCH Group Public Company Limited |
| | 2021 - 2024 | Vice Chairman/ Member of the Nomination and Remuneration Committee, Ratch Pathana Energy Public Company Limited, formerly named (Sahacogen (Chonburi) Public Company Limited) |
| | 2021 - 2024 | Director, Bangkok Aviation Fuel Services Public Company Limited |
| | 2021 - 2024 | Chairman, Hin Kong Power Company Limited |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|---|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding (continued) | |
| | 2021 - 2024 | Chairman, Ratchaburi Electricity Generating Company Limited |
| | 2021 - 2024 | Chairman, RATCH-Australia Corporation Pty Ltd and other subsidiaries company of RATCH-Australia Corporation Pty Ltd |
| | 2021 - 2024 | Chairman, PT Medco Ratch Power Riau |
| | 2021 - 2023 | Deputy Governor - Governor's Office, Electricity Generating Authority of Thailand (EGAT), appointed as Chief Executive Officer, RATCH Group Public Company Limited |
| | 2021 - 2022 | Chairman, Hin Kong Power Holding Company Limited |
| | 2021 | Member of the Investment Committee, RATCH Group Public Company Limited |
| | 2020 - 2021 | Director/ Investment Committee Member, Electricity Generating Public Company Limited |
| | 2020 - 2021 | Director/ Member of Audit Management Committee, EGAT International Company Limited |
| | 2020 - 2021 | Deputy Governor - Finance and Accounting (Chief Financial Officer), Electricity Generating Authority of Thailand (EGAT) |
| | 2018 - 2020 | Assistant Governor - Finance, Electricity Generating Authority of Thailand (EGAT) |

**Dr. Kongkrapan Intarajang**

Director/ Secretary to the Board/ Authorized Director/

Chief Executive Officer and President

Age (Years) 57

| | | |
|--|-------------------------|--|
| • Director and Secretary to the Board (Appointed on May 13, 2024) | (%) of Share Possession | Family Relationship among Directors and Executives |
| • Authorized Director (Appointed on May 13, 2024) | -None- | -None- |
| • Chief Executive Officer and President (Appointed on May 13, 2024) | | |

| Education/ Certification | Board Member/ Management | |
|--|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Engineering (Chemical Engineering) (Second Class Honors), Chulalongkorn University Doctor of Philosophy (Ph.D.) in Chemical Engineering, University of Houston, USA Certification <ul style="list-style-type: none"> Director Certification Program (DCP 119/2009), Role of the Chairman Program (RCP 21/2009), Thai Institute of Directors Association (IOD) Breakthrough Program for Senior Executives, IMD Business School Diploma, The National Defence Course (Class 60), National Defence College The Executive Program in Energy Literacy for a Sustainable Future, (Class 14), Thailand Energy Academy (TEA) Leadership Development Program 3 (LDP 3) (Class 4/2019), PTT Leadership and Learning Institute (PLLI) Capital Market Academy Leader Program, (Class 30), Capital Market Academy (CMA) Executive Development Training Program, The Royal Thai Police | Board Member/ Management in Listed Companies | |
| | May 21, 2024 - Present | Director, PTT Exploration and Production Public Company Limited |
| | May 13, 2024 - Present | Director/ Secretary to the Board/ Authorized Director/ Chief Executive Officer and President, PTT Public Company Limited |
| | October 1, 2019 - Present | Director, PTT Global Chemical Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | - | - |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | October 21, 2024 - Present | Energy Sources Inspection Committee |
| | October 21, 2024 - Present | Working Committee on Coordination and Progress Monitoring under the Memorandum of Understanding between the Ministry of Energy of the Kingdom of Thailand and the Ministry of Energy of Saudi Arabia in the Field of Energy |
| | October 3, 2024 - Present | Committee on the Solar PV for the Public |
| | September 30, 2024 - Present | Committee of the 7 th Anniversary of the Passing of His Majesty King Bhumibol Adulyadej the Great, "Sattamawatt" Ceremony and of 72 nd Anniversary Celebration of His Majesty the King's Accession to the Throne Ceremony, His Majesty King Maha Vajiralongkorn Phra Vajiraklaochaoyuhua |
| | September 19, 2024 - Present | Chairman of the Council Board and Chairman of the Executive Committee of Thailand Carbon Neutral Network (TCNN) for the year 2024 - 2025 |
| | September 19, 2024 - Present | Council Member, World Business Council for Sustainable Development (WBCSD) |
| | September 19, 2024 - Present | Founding Member, UN Global Compact Network Thailand (UNGCNT) |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|---|
| | Time Period | Position in Organization/ Company |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | September 19, 2024 - Present | Honorary Member, CONNEXT ED Foundation |
| | July 30, 2024 - Present | Chairman, Power of Innovation Foundation |
| | July 30, 2024 - Present | Chairman, Power for Sustainable Future Foundation |
| | July 30, 2024 - Present | Social Cooperation Promotion Committee, Princess Maha Chakri Award Foundation |
| | July 24, 2024 - Present | Working Committee on the gathering of information, coordination, and monitoring its operations according to the MOU between Thailand and Saudi Arabia |
| | May 16, 2024 - Present | Member of the Steering Committee of Public Service Center, Ministry of Energy |
| | May 15, 2024 - Present | Vice Chairman, Thailand Energy Academy |
| | May 13, 2024 - Present | Member of the Policy Committee of State Enterprises and Private Sector Support for Sports Associations |
| | May 13, 2024 - Present | Co-Founder, Thailand Supply Chain Network (TSCN) |
| | May 8, 2024 - Present | Committee, Chulalongkorn University Alumni Association under the Royal Patronage of His Majesty the King |
| | October 22, 2020 - Present | Director, Association of Capital Market Academy Alumni |
| | September 30, 2020 - Present | Director, The Federation of Thai Industries |
| | January 30, 2020 - Present | Member of Vidyasirimedhi Institute Council, Vidyasirimedhi Institute of Science and Technology (VISTEC) |
| | October 30, 2019 - Present | Member of Trustee, The Petroleum and Energy Institute of Thailand (PEIT) |
| | October 3, 2019 - Present | Council of Trustee, Thailand Business Council of Sustainable Development (TBCSD) |
| | August 15, 2019 - Present | Director, Kamnoetvidya Science Academy (KVIS) |
| | July 2017 - Present | Co-Chairman, France-Thailand Business Forum |
| | Working Experiences in the 5 Preceding Years | |
| | May 20, 2024 - August 14, 2024 | Sub-committee of 72 nd Anniversary Celebration of His Majesty the King's Accession to the Throne Ceremony, His Majesty King Maha Vajiralongkorn Phra Vajiraklaochaoyuhua |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|---|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding Years (continued) | |
| | July 25, 2022 - March 25, 2024 | Advisor of Small and Medium Industrial Institute (SMI), The Federation of Thai Industries |
| | December 29, 2021 - May 12, 2024 | Chairperson of Advisory Committee in relation to its investment in Allnex, PTTGC International (Netherlands) B.V. |
| | December 8, 2021 - May 12, 2024 | Chairman, PTTGC International (Netherlands) B.V. |
| | June 14, 2021 - May 27, 2024 | Director/ Member of the Nomination Committee and Remunerating Committee, Thai Institute of Directors Association |
| | October 21, 2020 - May 12, 2024 | Chairman, Global Green Chemicals Public Company Limited |
| | October 1, 2020 - March 31, 2022 | Advisor of the Member Relations, The Federation of Thai Industries |
| | September 1, 2020 - May 12, 2024 | Chairman, PTTGC International Private Limited |
| | September 1, 2020 - February 15, 2022 | Chairman, GC International Corporation |
| | August 24, 2020 - March 25, 2021 | Director, Power for Sustainable Future Foundation |
| | March 11, 2020 - May 13, 2024 | Vice President (Supporting), Thailand Swimming Association |
| | November 6, 2019 - October 20, 2020 | Director, Global Green Chemicals Public Company Limited |
| | November 2019 - September 2020 | Director, Power of Innovation Foundation |
| | October 31, 2019 - August 31, 2020 | Director, GC International Corporation |
| | October 1, 2019 - May 12, 2024 | Executive Director, Thailand Energy Academy |
| | October 1, 2019 - May 12, 2024 | Senior Executive Vice President reporting to Chief Operating Officer, Downstream Petroleum Business Group, PTT Public Company Limited, working on secondment as Chief Executive Officer and President, PTT Global Chemical Public Company Limited |
| | October 1, 2019 - May 12, 2024 | Director to the Risk Management Committee/ Secretary to the Board, PTT Global Chemical Public Company Limited |
| | October 2019 - September 2020 | Director, Power of Learning Foundation |
| | August 15, 2019 - May 12, 2024 | Director/ Member of the Risk Management Committee, Global Power Synergy Public Company Limited |
| | May 2017 - January 2020 | Director, Thai Tank Terminal Company Limited |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|---|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding Years (continued) | |
| | April 2017 - September 30, 2019 | Chief Operating Officer - Upstream Petrochemical Business, PTT Global Chemical Public Company Limited |
| | January 23, 2017 - May 9, 2024 | Board Member, National Energy Technology Center, National Science and Technology Development Agency (NSTDA) |
| | July 1, 2015 - February 15, 2022 | Chairman, PTTGC America Corporation |
| | July 1, 2015 - February 15, 2022 | Chairman, PTTGC America LLC |
| | July 2015 - September 2019 | Director/ President & CEO, PTTGC America Corporation |
| | April 2015 - September 2019 | Director, GC America Sustainability Corporation |
| | February 2015 - September 2019 | Director, PTTGC International (Netherlands) B.V. |
| | January 2015 - September 2019 | Director, Vencorex Holding |
| | November 2008 - September 2019 | Director, Emery Oleochemicals (M) Sdn. Bhd. |
| | November 2008 - September 2019 | Director, Emery Specialty Chemicals Sdn. Bhd. |
| | September 9, 2008 - August 31, 2020 | Director, PTTGC International Private Limited |

**Mr. Wuttikorn Stithit**

Chief Operating Officer, Upstream Petroleum and Gas Business Group

Age (Years) 60

| | (%) of Share Possession | Family Relationship among Directors and Executives |
|--|--|--|
| <ul style="list-style-type: none"> Chief Operating Officer Upstream Petroleum and Gas Business Group (Appointed on October 1, 2022) | 0.000812 (Own 0.000494; Spouse 0.000318) | -None- |

| Education/ Certification | Board Member/ Management | |
|--|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Engineering (Electrical Engineering), King Mongkut's Institute of Technology Ladkrabang Master of Science (Industrial and System Engineering), Ohio University, USA Master of Business Administration (Finance and Banking), Kasetsart University Certification <ul style="list-style-type: none"> Director Certification Program (DCP 158/2012), Thai Institute of Directors Association (IOD) Leadership Development Program 3 (LDP 3), PTT Leadership and Learning Institute (PLLI) Leadership Succession Program (LSP), (Class 9), Institute of Research and Development for Public Enterprises (IRDP) Senior Executive Education Program, (SIBA) 2017, College of Management, Mahidol University Power of the Kingdom (Bhumipalung Phandin) (Class 4), Chulalongkorn University Leadership Development Program 2 (LDP 2), PTT Leadership and Learning Institute (PLLI) Senior Executive Program (SEP) 2011, Sasin Graduate Institute of Business Administration of Chulalongkorn University Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 16), Thailand Energy Academy (TEA) Diploma, The National Defence Course (Class 62), National Defence College | Board Member/ Management in Listed Companies | |
| | February 1, 2023 - Present | Member of the Nomination and Remuneration Committee, Global Power Synergy Public Company Limited |
| | January 1, 2023 - Present | Director/ Member of the Risk Management Committee, PTT Exploration and Production Public Company Limited |
| | October 1, 2022 - Present | Chief Operating Officer, Upstream Petroleum and Gas Business Group, PTT Public Company Limited |
| | April 1, 2019 - Present | Director, Global Power Synergy Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | January 11, 2023 - Present | Chairman, PTT LNG Company Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | October 1, 2022 - Present | Executive Director, Thailand Energy Academy |
| | Working Experiences in the 5 Preceding | |
| | July 20, 2021 - December 31, 2022 | Chairman B.GRIMM Power LNG JV Company Limited |
| | September 30, 2019 - December 31, 2022 | Chairman PTT Natural Gas Distribution Company Limited |
| | April 24, 2019 - December 31, 2022 | Chairman PTT Global LNG Company Limited |
| | February 1, 2019 - September 30, 2022 | Senior Executive Vice President, Gas Business Unit PTT Public Company Limited |
| | November 1, 2015 - January 31, 2019 | Executive Vice President, Natural Gas Supply and Trading PTT Public Company Limited |
| | March 30, 2015 - 2019 | Chairman Trans Thai-Malaysia (Thailand) Company Limited |

**Mr. Kris Imsang**

Chief Operating Officer, Downstream Petroleum Business Group

Age (Years) 59

- Chief Operating Officer, Downstream Petroleum Business Group
(Appointed on October 1, 2024)

(%) of Share Possession0.000350
(Own 0.000350;
Spouse 0)**Family Relationship among Directors and Executives**

-None-

| Education/ Certification | Board Member/ Management | |
|---|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Engineering (Civil Engineering), Chulalongkorn University Certification <ul style="list-style-type: none"> The Role of the Board in IT Governance, Year 2020, Director Certification Program (DCP 139/2010), and Director Refreshment Training Program (REP 1/2021), Thai Institute of Directors Association (IOD) Leadership Development Program 3 (LDP 3) (Class 2/2014), PTT Leadership and Learning Institute (PLLI) Certificate, Top Executives in the Bhumipalung Phandin Program, (Class 3), Chulalongkorn University Executive Program in Capital Market Leader (Class 23), Capital Market Academy (CMA) Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 9), Thailand Energy Academy (TEA) Diploma, The National Defence Course (Class 62), National Defence College Certificate, Good Governance for Medical Executives (Class 9), King Prajadhipok's Institute and the Medical Council of Thailand | Board Member/ Management in Listed Companies | |
| | November 21, 2024 - Present | Chairman of the Risk Management Committee, Thai Oil Public Company Limited |
| | November 1, 2024 - Present | Director, Thai Oil Public Company Limited |
| | November 1, 2024 - Present | Director, Global Power Synergy Public Company Limited |
| | October 1, 2024 - Present | Chief Operating Officer, Downstream Petroleum Business Group PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | October 31, 2024 - Present | Chairman, PTT Tank Terminal Company Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | July 6, 2023 - Present | Executive Committee, Chulalongkorn University Alumni Association under the Royal Patronage |
| | December 16, 2022 - Present | Member of Vidyasirimedhi Institute of Science and Technology Council (VISTEC) |
| | October 1, 2022 - Present | Director, Thailand Business Council for Sustainable Development (TBCSD) |
| | September 14, 2022 - Present | Director and Secretary General, Foundation for Industrial Development |
| | May 31, 2022 - Present | Advisor, Industrial Promotion and Support The Federation of Thai Industries |
| | April 22, 2022 - Present | Secretary-General The Federation of Thai Industries |
| | February 25, 2021 - Present | Board of Trustees, Sirindhorn International Institute of Technology (SIIT) |
| | June 1, 2020 - Present | Executive Director, Thailand Energy Academy |
| | August 22, 2019 - Present | Honorary Board Member, Social Enterprise Promotion Board (OSEP) |

| Education/ Certification | Board Member/ Management | |
|--------------------------|---|---|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding | |
| | November 1, 2024 - November 20, 2024 | Member of the Risk Management Committee, Thai Oil Public Company Limited |
| | October 15, 2022 - September 30, 2024 | Director, IRPC Polyol Company Limited |
| | October 4, 2022 - December 31, 2022 | Director, IRPC A&L Company Limited |
| | October 1, 2022 - September 30, 2024 | Chief Operating Officer reporting to Chief Operating Officer, Downstream Petroleum Business Group, PTT, working on secondment as President and Chief Executive Officer, IRPC Public Company Limited |
| | October 1, 2022 - September 30, 2024 | Member of Council of Trustees, Petroleum and Energy Institute of Thailand |
| | October 1, 2022 - October 1, 2024 | Member of the Risk Management Committee, IRPC Public Company Limited |
| | October 1, 2022 - October 1, 2024 | Secretary to the Board/ President and Chief Executive Officer IRPC Public Company Limited |
| | October 1, 2022 - March 15, 2023 | Director, UBE Chemicals (Asia) Public Company Limited |
| | October 1, 2022 - December 29, 2022 | Chairman, PTT Energy Solutions Company Limited |
| | April 5, 2022 - September 8, 2022 | Chairman of the Nomination and Remuneration Committee, IRPC Public Company Limited |
| | January 21, 2021 - September 29, 2022 | Member of the Nomination and Remuneration Committee, PTT Oil and Retail Business Public Company Limited |
| | January 21, 2021 - September 29, 2022 | Director, PTT Oil and Retail Business Public Company Limited |
| | January 19, 2021 - April 5, 2022 | Chairman, IRPC Public Company Limited |
| | September 11, 2020 - September 30, 2022 | Chairman, PTT Tank Terminal Company Limited |
| | August 20, 2020 - April 22, 2022 | Vice President FTI Academy Board Jobs, The Federation of Thai Industries (Term 2020 - 2022) |
| | June 1, 2020 - September 30, 2022 | Chief Operating Officer, Downstream Petroleum Business Group PTT Public Company Limited |
| | November 1, 2019 - May 31, 2020 | Senior Executive Vice President, Downstream Business Group Alignment, PTT Public Company Limited |
| | August 9, 2019 - October 31, 2019 | Executive Board, Green Globe Institute |
| | August 9, 2019 - October 31, 2019 | Board Member, Green Globe Institute |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|---|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding (continued) | |
| | July 18, 2019 - October 31, 2019 | Sustainable OUR Khung BangKaChao Working Team (Green Area Development), OUR Khung BangKachao |
| | July 3, 2019 - October 31, 2019 | Sustainable OUR Khung BangKaChao Advisory Board, OUR Khung BangKachao |
| | July 2, 2019 - October 31, 2019 | Director, Board of Anti-Corruption and Good Governance Enhancement, Thai Chamber of Commerce (Term 2019 - 2020) |
| | March 1, 2019 - January 18, 2021 | Member of the Nomination and Remuneration Committee, IRPC Public Company Limited |
| | February 28, 2019 - July 13, 2020 | Executive Board, Vidyasirimedhi Institute of Science and Technology |
| | January 23, 2019 - February 5, 2020 | First Vice Chairman, Power for Sustainable Future Foundation |
| | December 2018 - October 31, 2019 | Director, Sport Services Alliance Company Limited |
| | November 8, 2018 - October 31, 2020 | Chairman, State Enterprise for Community Club |
| | October 1, 2018 - October 31, 2019 | Senior Executive Vice President, Corporate Governance and Regulatory Affairs, PTT Public Company Limited |
| | March 1, 2018 - October 31, 2019 | Chairman, Water Resource Management Committee, Thailand Business Council for Sustainable Development (TBCSD) |
| | December 2, 2017 - September 8, 2022 and October 1, 2022 - October 1, 2024 | Director, IRPC Public Company Limited |
| | December 2, 2017 - February 28, 2019 | Member of the Corporate Governance Committee, IRPC Public Company Limited |
| | September 8, 2017 - October 31, 2019 | Chairman, Sarn Palung Social Enterprise Company Limited |
| | 2017 - 2019 | Member of the Central Committee, Chulalongkorn University Alumni Association under the Royal Patronage |
| | March 30, 2016 - August 31, 2019 | Member of the Executive Committee, Kamnoetvidya Science Academy |
| | February 23, 2015 - November 30, 2019 | Chairman, Energy Complex Company Limited |

**Dr. Buranin Rattanasombat**

Chief New Business and Sustainability Officer

Age (Years) 57

| | | |
|--|---|---|
| <ul style="list-style-type: none"> Chief New Business and Sustainability Officer (Appointed on October 1, 2022) | (%) of Share Possession 0.00075 (Own 0.00075; Spouse 0) | Family Relationship among Directors and Executives -None- |
|--|---|---|

| Education/ Certification | Board Member/ Management | |
|--|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Science, Faculty of Agro-Industry, Prince of Songkhla University Master of Business Administration (MBA), Chulalongkorn University Ph.D. (Management), Silpakorn University Certification <ul style="list-style-type: none"> Director Certification Program (DCP 174/2013), Director Leadership Certification Program (DLCP 4/2022), Thai Institute of Directors Association (IOD) Executive Program in Capital Market Leader (Class 30), Capital Market Academy (CMA) Advanced Security Management Program (Class 10), The National Defence College Association of Thailand (NDCAT) PTT Leadership Development Program (IMD Business School), PTT Leadership and Learning Institute (PLLI) Foreign Affairs Executive Program (Class 7), Devawongse Varopakarn Institute of Foreign Affairs, Ministry of Foreign Affairs PTT Leadership Development Program, Harvard Business School, USA Diploma, The National Defence Course (Class 64), National Defence College Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 17), Thailand Energy Academy (TEA) | Board Member/ Management in Listed Companies | |
| | September 1, 2024 - Present | Director/ Chairman of the Risk Management Committee/ Member of the Nomination and Remuneration Committee, Global Power Synergy Public Company Limited |
| | August 2024 - Present | Director/ Member of the Risk Management Committee, IRPC Public Company Limited |
| | October 1, 2022 - Present | Chief New Business and Sustainability Officer (The Position name was changed to Chief New Business and Infrastructure Officer with effect from September 1, 2024), PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | September 4, 2024 - Present | Chairman, ARUN PLUS Company Limited |
| | August 8, 2024 - Present | Chairman, FT1 Corporation Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | December 21, 2023 - Present | Member, Networking Research Development and Synchrotron Technology Utilization Subcommittee |
| | December 2023 - Present | Expert Committee Member, Board of the Office of SMEs Promotion, The Office of SMEs Promotion |
| | October 2022 - Present | Executive Director, Thailand Energy Academy |
| | April 2022 - Present | President, Marketing Association of Thailand |
| | April 2022 - Present | Board Member, National Metal and Materials Technology Center |
| | December 2021 - Present | Advisor, Synchrotron Light Research Institute |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|--|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding Years | |
| | April 29, 2022 - August 23, 2024 | Member of the Risk Management Committee, Thai Oil Public Company Limited |
| | April 2022 - May 2024 | Director, Federation of Thai Industries |
| | January 2022 - February 2024 | Chairman, HORIZON PLUS Company Limited |
| | January 2022 - August 2024 | Chairman, NUOVO PLUS Company Limited |
| | October 27, 2021 - August 13, 2024 | Member of the Enterprise Risk Management Committee, PTT Oil and Retail Business Public Company Limited |
| | October 8, 2021 - August 13, 2024 | Director, PTT Oil and Retail Business Public Company Limited |
| | October 1, 2021 - September 30, 2022 | Senior Executive Vice President, Innovation and New Ventures (The Position name was changed to Senior Executive Vice President, Innovation and Digital with effect from October 1, 2021), PTT Public Company Limited |
| | August 25, 2021 - October 8, 2021 | Chairman, Nutra Regenerative Protein Company Limited |
| | May 19, 2021 - April 7, 2022 | Chairman of the Risk Management Committee, Thai Oil Public Company Limited |
| | April 23, 2021 - May 19, 2021 | Member of the Risk Management Committee, Thai Oil Public Company Limited |
| | December 2020 - August 2024 | Chairman, Innobic (Asia) Company Limited |
| | September 18, 2020 - August 23, 2024 | Director, Thai Oil Public Company Limited |
| | September 18, 2020 - April 23, 2021 | Member of the Nomination and Remuneration Committee, Thai Oil Public Company Limited |
| | June 1, 2020 - September 30, 2021 | Senior Executive Vice President, Downstream Business Group Alignment, PTT Public Company Limited |
| | November 2019 - October 2020 | Chairman, Thai Petroleum Pipeline Company Limited |
| | July 2019 - May 2020 | Chairman, PTT (Cambodia) Limited |
| | 2019 - May 2020 | Senior Executive Vice President, Corporate Strategy, Innovation and Sustainability and Chief Transformation Officer (CTO), PTT Oil and Retail Business Public Company Limited |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|---|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding (continued) | |
| | 2018 - 2020 | Secretary-General, Marketing Association of Thailand |
| | August 2018 - June 1, 2019 | Chairman, PTTOR China (Shanghai) Company Limited |
| | 2018 - 2019 | Senior Executive Vice President, Lubricant Business PTT Oil and Retail Business Public Company Limited |
| | April 2017 - October 1, 2021 | Director, Thai Petroleum Pipeline Company Limited |
| | October 2015 - March 2019 | Chairman, Thai Lube Blending Company Limited |



Miss Pattaralada Sa-NGASANG

Chief Financial Officer

Age (Years) 58

| | | |
|---|-------------------------|--|
| • Chief Financial Officer (Appointed on October 1, 2024) | (%) of Share Possession | Family Relationship among Directors and Executives |
| • The person supervising Finance and Accounting | -None- | -None- |

| Education/ Certification | Board Member/ Management | |
|--|--|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Accounting (Commerce and Accountancy), Thammasat University Master of Business Administration, Thammasat University Certification <ul style="list-style-type: none"> Director Certification Program (DCP 151/2011), Role of the Chairman Program (RCP 38/2016), Strategic Board Master Class (SBM 1/2017), Thai Institute of Directors Association (IOD) | Board Member/ Management in Listed Companies | |
| | November 1, 2024 - Present | Director/ Member of the Risk Management Committee, Thai Oil Public Company Limited |
| | October 22, 2024 - Present | Director/ Member of the Enterprise Risk Management Committee, PTT Oil and Retail Business Public Company Limited |
| | October 1, 2024 - Present | Chief Financial Officer, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | October 18, 2024 - Present | Director, ARUN PLUS Company Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | October 1, 2024 - Present | Executive Subcommittee on Finance and Budget, Vidyasirimedhi Institute of Science and Technology (VISTEC) |

| Education/ Certification | Board Member/ Management | |
|--|--|---|
| | Time Period | Position in Organization/ Company |
| <ul style="list-style-type: none"> Subsidiary Governance, Business and Legal Issues for Directors and Executives and Transformative Leadership for Global Enterprise 2022, Director's Legal Liabilities, Ethical Leadership for new Era and High Performing Board & Board Effectiveness 2021 (In-house Programs by GC) Advanced International Trade Law (IT Bar 2022), The Central Intellectual Property and International Trade Court Mini Master of Business Administration, The National Institute of Development Administration (NIDA) PTT-HBS Leadership Development Program (Class 2), Harvard Business School, USA Global Leadership Business (Class 2), Cornell University, USA IMD - TLCA Leadership Development Program (LDP), Class 1, organized by Thai Listed Companies Association (TLCA) and IMD Business School, Switzerland Executive Development Program (EDP), (Class 5), Thai Listed Companies Association (TLCA) Capital Market Leader Program (Class 22), Capital Market Academy Diploma, National Defence College, The National Defence Course (Class 61), National Defence College of Thailand Leadership Succession Program (Class 11), Institute of Research and Development for Public Enterprises (IRDP) Treasury Management Program (Class 2), Fiscal Policy Research Institute Foundation, Ministry of Finance The Executive Program in Energy Literacy for a Sustainable Future (Class 17), Thailand Energy Academy (TEA) Advanced Insurance Program (Class 12), Office of Insurance Commission "Senior Justice Administration Program" (Class 29), Judicial Training Institute | Other Experiences/ Other Activities/ Other Organizations (continued) | |
| | October 1, 2024 - Present | Finance and Budget Subcommittee, Kamnoetvidya Science Academy (KVIS) |
| | 2023 - Present | Board Member and Public Relations, The Federation of Accounting Professions Under the Royal Patronage of His Majesty the King |
| | 2023 - Present | Advisor of the Management Accounting Profession Committee, The Federation of Accounting Profession under the Royal Patronage of His Majesty the King |
| | 2023 - Present | Subcommittee of Sustainability Committee, Thailand Management Association (TMA) |
| | Working Experiences in the 5 Preceding Years | |
| | January 15, 2021 - November 1, 2021 | Director, Emery Oleochemicals (M) Sdn. Bhd. |
| | January 15, 2021 - November 1, 2021 | Director, Emery Specialty Chemicals Sdn. Bhd. |
| | January 11, 2021 - March 29, 2023 | Director, GC Oxirane Company Limited |
| | January 1, 2021 - September 30, 2024 | Executive Vice President, PTT Public Company Limited working on secondment as Executive Vice President - Finance and Accounting, PTT Global Chemical Public Company Limited |
| | January 1, 2021 - January 31, 2022 | Director, PTTGC Innovation America Corporation |
| | August 22, 2020 - August 21, 2023 | Board Member and Chairman of the Management Accounting Profession Committee, The Federation of Accounting Professions Under the Royal Patronage of His Majesty the King |
| | May 2017 - December 31, 2020 | Chairman, Thailoil Treasury Center Company Limited |
| | March 2017 - December 31, 2020 | Director, Thailoil Energy Services Company Limited |
| | April 2016 - December 31, 2020 | Director, Thailoil Ethanol Company Limited |
| | December 2015 - December 31, 2020 | Director, Saphthip Company Limited |
| | October 1, 2015 - December 31, 2020 | Executive Vice President, PTT Public Company Limited working on a secondment as Executive Vice President - Finance and Accounting, Thai Oil Public Company Limited |
| | January 2010 - December 31, 2020 | Director, Ubon Bio Ethanol Public Company Limited |

**Dr. Chaya Chandavas**

Senior Executive Vice President, Corporate Strategy

Age (Years) 51

| | (%) of Share Possession | Family Relationship among Directors and Executives |
|--|---------------------------------------|--|
| <ul style="list-style-type: none"> Senior Executive Vice President, Corporate Strategy (Appointed on October 1, 2024) | 0.00002 (Own 0.00002; Spouse 0) | -None- |

| Education/ Certification | Board Member/ Management | |
|---|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Science (Chemistry), (First-Class Honors), Mahidol University Master of Chemical Engineering, New Jersey Institute of Technology, USA Doctor of Chemical Engineering, New Jersey Institute of Technology, USA Certification <ul style="list-style-type: none"> Director Certification Program (DCP) (152/2011), Subsidiary Governance and Transformative Leadership for Global Enterprise, 2022, Director's Legal Liabilities, Ethical Leadership for New Era and High Performing Board & Board Effectiveness, 2021 (In-house Programs by GC), Thai Institute of Directors Association (IOD) Climate Action Leaders Forum (CAL Forum) (Class 2/2023), Thailand Greenhouse Gas Management Organization (Public Organization) The Executive Program in Energy Literacy for a Sustainable Future (Class 16), Thailand Energy Academy (TEA) Advanced Senior Executive Program, Sasin & Kellogg School of Management, 2008 | Board Member/ Management in Listed Companies | |
| | October 22, 2024 - Present | Director/ Member of the Corporate Governance and Sustainability Committee, PTT Oil and Retail Business Public Company Limited |
| | October 1, 2024 - Present | Senior Executive Vice President, Corporate Strategy, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | October 31, 2024 - Present | Chairman, PTT Digital Solutions Company Limited |
| | October 21, 2024 - Present | Chairman, Mekha V Company Limited |
| | October 18, 2024 - Present | Director, ARUN PLUS Company Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | October 1, 2024 - Present | Director, Thailand Energy Academy |
| | June 21, 2022 - Present | Member of the Board of Directors, Marketing Association of Thailand (MAT) |
| | Working Experiences in the 5 Preceding Years | |
| | June 1, 2024 - September 30, 2024 | Director, GC America Corporation |
| | September 21, 2023 - September 30, 2024 | Director, GC America Sustainability Corporation |
| | May 15, 2023 - September 30, 2024 | Chairman, Solution Creation Company Limited |
| | March 23, 2022 - September 30, 2024 | Director, GC Ventures Company Limited |
| | March 16, 2022 - September 30, 2024 | Director, GC Ventures America Corporation |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|--|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding (continued) | |
| | March 9, 2022 - December 31, 2023 | Chairman of the Sub-Committee on Climate Change Policy under the Executive Committee of Thailand Carbon Neutral Network (TCNN) |
| | March 9, 2022 - December 31, 2023 | Director, Thailand Carbon Neutral Network |
| | February 28, 2022 - May 15, 2023 | Director, Solution Creation Company Limited |
| | February 1, 2022 - September 30, 2024 | Executive Vice President - Sustainability, PTT Global Chemical Public Company Limited |
| | October 2021 - February 2022 | Director, Emery Oleochemicals UK Limited |
| | October 22, 2020 - November 1, 2021 | Director, Emery Oleochemicals (M) Sdn. Bhd. |
| | October 22, 2020 - November 1, 2021 | Director, Emery Specialty Chemicals Sdn. Bhd. |
| | September 27, 2019 - September 30, 2024 | Director, Sarn Palung Social Enterprise Company Limited |
| | October 1, 2019 - January 31, 2022 | Senior Vice President - Sustainability and Corporate Branding PTT Global Chemical Public Company Limited |
| | May 23, 2018 - October 30, 2019 | Director, GC Ventures Company Limited |
| | January 27, 2016 - September 30, 2019 | Director, Solution Creation Company Limited |
| | 2016 - 2019 | Director, GC America Sustainability Corporation |
| | November 1, 2015 - September 30, 2019 | Senior Vice President - Science and Innovation, PTT Global Chemical Public Company Limited |
| | 2013 - 2019 | Chairman, Auria BioChemicals Company Limited |

**Mr. Chadil Chavanalikhikorn**

Senior Executive Vice President,
Organization Effectiveness and Corporate Governance
Age (Years) 58

| | (%) of Share Possession | Family Relationship among Directors and Executives |
|---|-------------------------|--|
| • Senior Executive Vice President, Organization Effectiveness and Corporate Governance (Appointed on October 1, 2022) | -None- | -None- |
| • The person supervising Compliance Unit | | |

| Education/ Certification | Board Member/ Management | |
|---|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Engineering, Kasetsart University Master of Business Administration, Kasetsart University Certified Internal Auditor (CIA): The Institute of Internal Auditors Certification <ul style="list-style-type: none"> Successful Formulation & Execution of Strategy (SFE 17/2013), Anti-Corruption the Practical Guide (ACPG 2/2013), Company Secretary Program (CSP 65/2015), Independent Observer Program (IOP 1/2016) Director Certification Program (DCP 340/2023) Thai Institute of Directors Association (IOD) Senior Energy Executive, Thailand Energy Academy, Ministry of Energy Administrative Psychological Operation: Institute of Security Psychology, National Defence Studies Institute High-Level Anti-Corruption Strategy Executives Senior Executive Program (SEP): SASIN Graduate Institute of Business Administration Leadership Development Program 2, PTT-Harvard Business School PTT Leadership and Learning Institute (PLLI) Leadership Development Program 3, PTT-IMD, PTT Leadership and Learning Institute (PLLI) Leadership Succession Program (LSP): IRDP | Board Member/ Management in Listed Companies | |
| | October 22, 2024 - Present | Member of the Enterprise Risk Management Committee, PTT Oil and Retail Business Public Company Limited |
| | May 21, 2024 - Present | Director, PTT Oil and Retail Business Public Company Limited |
| | October 1, 2022 - Present | Senior Executive Vice President, Organization Effectiveness and Corporate Governance, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | August 30, 2024 - Present | Chairman, Business Services Alliance Company Limited |
| | August 29, 2024 - Present | Chairman, Energy Complex Company Limited |
| | October 26, 2023 - Present | Director, Energy Complex Company Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | February 23, 2023 - Present | Member of the Human Resource Committee, Vidyasirimedhi Institute of Science and Technology |
| | January 23, 2023 - Present | Advisor, PTT Savings Cooperative Limited Management Committee |
| | Working Experiences in the 5 Preceding Years | |
| | December 19, 2022 - May 11, 2024 | Director/ Member of the Corporate Governance and Sustainability Committee, PTT Global Chemical Public Company Limited |
| | December 13, 2022 - August 29, 2024 | Director, Business Services Alliance Company Limited |
| | November 4, 2022 - August 12, 2024 | Chairman, Business Professional Recruitment Solutions Company Limited |
| | July 1, 2019 - September 30, 2022 | Executive Vice President, Office of Corporate Audit PTT Public Company Limited |

| Education/ Certification | Board Member/ Management | |
|---|---|---|
| | Time Period | Position in Organization/ Company |
| <ul style="list-style-type: none"> Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 18), Thailand Energy Academy (TEA) Executive Program in Capital Market Leader (Class 34), Capital Market Academy (CMA) | Working Experiences in the 5 Preceding Years | |
| | October 1, 2018 - June 30, 2019 | Executive Vice President, Corporate Governance PTT Public Company Limited |

**Miss Peangpanor Boonklum**

Senior Executive Vice President, Office of General Counsel

Age (Years) 58

- Senior Executive Vice President, Office of General Counsel
(Appointed on October 1, 2017)

(%) of Share Possession

-None-

Family Relationship among Directors and Executives

-None-

| Education/ Certification | Board Member/ Management | |
|---|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Laws (Second Class Honor), Chulalongkorn University Master of Laws (Business Law), Chulalongkorn University Master of Laws (LL.M.), Columbia University School of Law, New York, USA Certification <ul style="list-style-type: none"> Director Certification Program (DCP 7/2001), Anti-Corruption: The Practical Guide (ACPG 38/2017), Ethical Leadership Program (ELP 15/2019), Risk Management Program for Corporate Leaders (RCL 18/2019), Board Nomination and Compensation Program (BNCP 7/2019), Thai Institute of Directors Association (IOD) The Rule of Law and Development (RoLD), Thailand Institute of Justice (TIJ) | Board Member/ Management in Listed Companies | |
| | October 1, 2024 - Present | Member of the Corporate Governance and Sustainability Committee, Thai Oil Public Company Limited |
| | September 1, 2024 - Present | Director, Thai Oil Public Company Limited |
| | October 1, 2017 - Present | Senior Executive Vice President, Office of General Counsel, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | November 8, 2021 - Present | Director, CU Engineering Enterprise Company Limited* |
| | November 8, 2021 - Present | Director, Primates Enterprise Company Limited** |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | September 18, 2024 - Present | Member, Regulatory Reform Committee for Ease of Doing Business, Office of the Public Sector Development Commission, Office of the Prime Minister |

Remarks:

* 99.97% is owned by CU Enterprise Co., Ltd., and CU Enterprise Co., Ltd. is 99.99% owned by Chulalongkorn University.

** Owned by CU Enterprise Co., Ltd., and CU Enterprise Co., Ltd. is 99.99% owned by Chulalongkorn University.

| Education/ Certification | Board Member/ Management | |
|---|---|--|
| | Time Period | Position in Organization/ Company |
| <ul style="list-style-type: none"> Corporate Governance (Online) Columbia Business School Executive Education Executive Program in Capital Market Leader (Class 33), Capital Market Academy (CMA) The Cullinan: The Making of the Digital Board (Class 2), Thailand Management Association Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 15), Thailand Energy Academy (TEA) Leadership Development Program 3 (LDP3) (Class 4/2019), PTT Leadership and Learning Institute (PLLI) TIJ Executive Program on The Rule of Law and Development (RoLD) (Class 3), Thailand Institute of Justice (TIJ) TIJ Workshop for Emerging Leaders on the Rule of Law and Policy (Class 3), Thailand Institute of Justice (TIJ) Certificate in Anti-Corruption Strategic Management for Senior Executives (Class 9/2018), Office of the National Anti-Corruption Commission TLCA Executive Development Program (Class 1/2008), Thai Listed Companies Association (TLCA) | Other Experiences/ Other Activities/ Other Organizations (continued) | |
| | June 1, 2023 - Present | Member of the Nomination and Remuneration Committee, Thai Institute of Directors Association (IOD) |
| | May 31, 2023 - Present | Director, Thai Institute of Directors Association (IOD) |
| | February 23, 2023 - Present | Chairman (second term), PTT Savings and Credit Cooperative Limited |
| | 2022 - Present | Lecturer, University Holding Company Directorship Certification Program, Chulalongkorn University |
| | 2022 - Present | Facilitator, "Subsidiary Governance Program", Thai Institute of Directors Association (IOD) |
| | 2019 - Present | Panelist, Anti-Corruption Strategic Management for Senior Executives, Sanya Dhamasakti Anti-Corruption Institute, Office of the National Anti-Corruption Commission (NACC) |
| | Working Experiences in the 5 Preceding Years | |
| | April 24, 2024 - August 14, 2024 | Chairman of the Corporate Governance and Sustainability Committee, IRPC Public Company Limited |
| | August 8, 2022 - 2024 | Vice President, Chulalongkorn Law School Alumni Association |
| | October 28, 2021 - February 22, 2023 | Chairman (first term), PTT Savings and Credit Cooperative Limited |
| | October 21, 2021 - October 15, 2024 | Chairman, Global Renewable Power Company Limited |
| | April 1, 2021 - April 23, 2024 | Member of the Risk Management Committee, IRPC Public Company Limited |
| | January 20, 2021 - August 14, 2024 | Director, IRPC Public Company Limited |
| | January 20, 2021 - March 31, 2021 | Member of the Corporate Governance Committee, IRPC Public Company Limited |
| | December 4, 2019 - January 9, 2023 | Director, Energy Complex Company Limited |
| | December 4, 2019 - November 23, 2021 | Chairman, Energy Complex Company Limited |
| | May 14, 2019 - December 31, 2020 | Member of the Enterprise Risk Management Committee, PTT Oil and Retail Business Public Company Limited |
| | October 24, 2018 - December 31, 2020 | Member of the Nomination and Remuneration Committee, PTT Oil and Retail Business Public Company Limited |
| | March 9, 2018 - December 31, 2020 | Director, PTT Oil and Retail Business Public Company Limited |
| | April 3, 2017 - December 31, 2019 | Director, Global Power Synergy Public Company Limited |

**Mr. Pongpun Amornvivat**

Senior Executive Vice President, Gas Business Unit

Age (Years) 53

- Senior Executive Vice President, Gas Business Unit
(Appointed on December 12, 2024)

(%) of Share Possession

0.000028
(Own
0.000028;
Spouse 0)

Family Relationship among Directors and Executives

-None-

| Education/ Certification | Board Member/ Management | |
|--|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Engineering (Civil Engineering), Carnegie Mellon University, USA Master of Engineering (Civil and Environmental Engineering), Massachusetts Institute of Technology (MIT), USA Master of Arts, Economic Law, Chulalongkorn University Master of Business Administration, Sloan School of Management, Massachusetts Institute of Technology (MIT), USA Certification <ul style="list-style-type: none"> Director Certification Program (DCP) (Class 225/2559), Thai Institute of Directors Association (IOD) Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 16), Thailand Energy Academy (TEA) Diploma, The National Defence Course (Class 67), National Defence College Executive Program in Capital Market Academy Leader Program (Class 29), Capital Market Academy (CMA) Executive Program in Good Governance for Sustainable Development (Class 1), Office of the Public Sector Development Commission Young Executive Program in Energy Literacy for a Sustainable Future (YTEA) (Class 1), Thailand Energy Academy | Board Member/ Management in Listed Companies | |
| | December 12, 2024 - Present | Senior Executive Vice President, Gas Business Unit PTT Public Company Limited |
| | August 23, 2024 - Present | Director/ Member of the Risk Management Committee, IRPC Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | - | - |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | - | - |
| | Working Experiences in the 5 Preceding Years | |
| | June 1, 2023 - December 12, 2024 | Chairman, PTT International Trading Pte. Ltd. |
| | January 1, 2023 - December 11, 2024 | Senior Executive Vice President, International Trading Business Unit, PTT Public Company Limited |
| | June 1, 2022 - September 1, 2024 | Director, PTT Global LNG Company Limited |
| | December 1, 2021 - May 31, 2023 | Director, PTT International Trading Pte. Ltd. |
| | December 1, 2021 - May 31, 2023 | Director, PTT International Trading London Ltd. |
| | October 1, 2021 - December 31, 2022 | Executive Vice President, International Trading Business Unit PTT Public Company Limited |
| | April 28, 2021 - September 30, 2021 | Member of the Corporate Governance Committee, Global Power Synergy Public Company Limited |
| | April 2, 2021 - September 30, 2021 | Director, Global Power Synergy Public Company Limited |
| | 2020 - 2021 | Director, Thai Oil Power Company Limited |
| | 2020 - 2021 | Director, TOP SPP Company Limited |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|--|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding Years (continued) | |
| | 2019 - 2021 | Director, TOP Ventures Hong Kong Limited |
| | 2019 - 2021 | Director, TOP Ventures America Limited |
| | 2018 - 2021 | Director, PTT Digital Solutions Company Limited |
| | 2018 - 2020 | Acting Executive Vice President, Innovation and Digitalization Thai Oil Public Company Limited |
| | 2017 - 2021 | Executive Vice President, Strategy, Thai Oil Public Company Limited |
| | 2017 - 2021 | Director, Ubon Bio Ethanol Public Company Limited |
| | 2017 - 2021 | Director, Sapthip Company Limited |
| | 2017 - 2020 | Director, Sak Chaisidhi Company Limited |
| | 2017 - 2020 | Director, TOP Solvent Company Limited |
| | 2016 - 2020 | Director/ Executive Director, Thai Petroleum Pipeline Company Limited |
| | 2015 - 2021 | Director, Thaioil Ethanol Company Limited |
| | 2554 - 2020 | Director, Thaioil Marine International Pte. Ltd. |

**Mr. Prasong Intaranongpai**

Senior Executive Vice President, Downstream Business Group Alignment

Age (Years) 56

- Senior Executive Vice President, Downstream Business Group Alignment
(Appointed on October 1, 2023)

(%) of Share Possession0.000073
(Own 0.000073;
Spouse 0)**Family Relationship among Directors and Executives**

-None-

| Education/ Certification | Board Member/ Management | |
|--|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Engineering (Industrial Engineering), Chiang Mai University Bachelor of Laws, Sukhothai Thammathirat Open University Master of Business Administration (General Management), Kasetsart University Certification <ul style="list-style-type: none"> Director Certification Program (DCP 287/2019), Financial Statement for Directors (FSD 38/2019), Subsidiary Governance Program (SGP 8/2024), Thai Institute of Directors Association (IOD) Advanced Strategic Management (ASM) - Advanced SMCP (Class 1/2018), PTT Leadership and Learning Institute (PLLI) Advanced Management Program (AMP) (Class 3/2018), PTT Leadership and Learning Institute (PLLI) Leadership Development Program 3 (LDP 3), (Class 4/2019), PTT Leadership and Learning Institute (PLLI) Director Development Program (DDP) (2021), PTT Leadership and Learning Institute (PLLI) Advanced Certificate Course in Politics and Governance in Democratic Systems for Executives (Class 27), King Prajadhipok's Institute Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 20), Thailand Energy Academy (TEA) | Board Member/ Management in Listed Companies | |
| | October 1, 2024 - Present | Member of the Risk Management Committee, Thai Oil Public Company Limited |
| | September 1, 2024 - Present | Director, Thai Oil Public Company Limited |
| | October 1, 2023 - Present | Senior Executive Vice President, Downstream Business Group Alignment, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | February 24, 2023 - Present | Director, PTT Tank Terminal Company Limited |
| | December 21, 2022 - Present | Director, GPC International Terminal Company Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | 2024 - Present | Vice President, Federation of Thai Industries |
| | 2024 - Present | Chairman, The Institute of Industrial Energy |
| | Working Experiences in the 5 Preceding Years | |
| | January 1, 2023 - September 30, 2023 | Executive Vice President, Acting Senior Executive Vice President, Downstream Business Group Alignment, PTT Public Company Limited |
| | December 1, 2022 - August 13, 2024 | Director/ Member of the Risk Management Committee, IRPC Public Company Limited |
| | October 1, 2022 - December 31, 2022 | Executive Vice President, Acting Senior Executive Vice President, Downstream Business Group Alignment PTT Public Company Limited (and assigned to work for ARUN PLUS Company Limited until December 31, 2022) |
| | April 1, 2022 - November 30, 2022 | Chairman, Sport Services Alliance Company Limited |
| | January 6, 2022 - December 13, 2022 | Director, NUOVO PLUS Company Limited |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|--|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding Years (continued) | |
| | October 26, 2021 - November 30, 2022 | Director, Alpha Com Company Limited |
| | October 25, 2021 - November 30, 2022 | Chairman, PTT Raise Company Limited |
| | October 21, 2021 - November 30, 2022 | Director, Global Renewable Power Company Limited |
| | July 22, 2021 - November 30, 2022 | Chairman, EVME PLUS Company Limited |
| | 2021 - September 30, 2022 | Executive Vice President, New Venture Development, (PTT Public Company Limited and assigned to work for ARUN PLUS Company Limited) |
| | October 12, 2020 - October 1, 2021 | Director, PTT Energy Resources Company Limited |
| | May 2020 - October 2021 | Chairman, PTT Global Management Company Limited |
| | September 27, 2019 - November 30, 2022 | Director, Sport Services Alliance Company Limited |
| | 2017 - 2021 | Executive Vice President, Strategy & Portfolio Management PTT Public Company Limited |



Mr. Jaturong Worawitsurawatthana

Senior Executive Vice President, International Trading Business Unit

Age (Years) 54

| | | |
|---|---|---|
| <ul style="list-style-type: none"> Senior Executive Vice President, International Trading Business Unit (Appointed on December 12, 2024) | (%) of Share Possession 0.000035 (Own 0.000035; Spouse 0) | Family Relationship among Directors and Executives -None- |
|---|---|---|

| Education/ Certification | Board Member/ Management | |
|---|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Engineering, Plastic Technology, Rajamangala University of Technology, Thewet Campus Master of Business Administration, Chiang Mai University Certification <ul style="list-style-type: none"> Director Certification Program (DCP 231/2016), Thai Institute of Directors Association (IOD) KU Change Agent Readiness Executive Program (KU CARE The Class One) (Class 2) Wealth of Wisdom: WOW#1, The Nation Group, (Bangkokbiznews Newspaper) Security Management and Leadership for Executive Program (Class 3), The Association of National Defence College of Thailand Under the Royal Patronage of His Majesty the King (Received a certificate of honor for an individual academic article.) Asia Pacific Government Leadership Program (AGLP) GE Croton Ville, USA Leadership Development Program (LDP 3), PTT Leadership and Learning Institute (PLLI) Leadership Development Program 3 (LDP 3) Digital Leadership, IMD Singapore Advanced Master of Management Program (Class 2), Faculty of Public Administration, National Institute of Development Administration MDP 3 People Management and MDP 3 Business Management, PTT | Board Member/ Management in Listed Companies | |
| | December 12, 2024 - Present | Senior Executive Vice President, International Trading Business Unit, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | 2021 - Present | Director, Thai Petroleum Pipeline Company Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | 2023 - Present | Distinguished Board Members, Faculty of Engineering, Thammasat University |
| | Working Experiences in the 5 Preceding Years | |
| | October 1, 2021 - October 11, 2024 | Executive Vice President, Downstream Business Group Planning, PTT Public Company Limited |
| | 2021 - 2024 | Chairman, Nutra Regenerative Protein Company Limited |
| | 2021 - 2023 | Chairman, PTT International Trading USA Inc. |
| | 2020 - 2021 | Chairman and Acting Managing Director, PTT International Trading USA Inc. |
| | 2019 | Director, Sakari Resources Limited |
| | 2019 | Director, International Trading DMCC |
| | October 1, 2018 - September 30, 2021 | Executive Vice President, International Trading Business Unit, PTT Public Company Limited |
| | 2018 - 2021 | Director, PTT International Trading Pte. Ltd. |
| | 2018 - 2021 | Director, PTT International Trading London Ltd |

| Education/ Certification | Board Member/ Management | |
|--|--------------------------|-----------------------------------|
| | Time Period | Position in Organization/ Company |
| <ul style="list-style-type: none">• PTT-Harvard Business School Leadership Development Program 2• Senior Executive Program (SEP) (Class 29/2015), SASIN Graduate Institute of Business Administration of Chulalongkorn University• Advanced Diploma in Public Economics Management for Senior Executives, King Prajadhipok's Institute• Certificate Course in Thailand and AEC (AEC1), King Prajadhipok's Institute• PTT Group VP Leadership Level (GLDP)• Business Concept Development for Division Manager, PTT | | |

**Mr. Cherdchai Boonchoochaey**

Senior Executive Vice President, Innovation and New Ventures

Age (Years) 57

- Senior Executive Vice President, Innovation and New Ventures
(Appointed on October 1, 2022)

(%) of Share Possession

-None-

Family Relationship among Directors and Executives

-None-

| Education/ Certification | Board Member/ Management | |
|---|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Science (Chemical Technology), Chulalongkorn University Master of Engineering (Chemical Engineering), Chulalongkorn University Master of Business Administration, Chulalongkorn University Certification <ul style="list-style-type: none"> Director Certificate Program (DCP 320/2022), Thai Institute of Directors Association (IOD) | Board Member/ Management in Listed Companies | |
| | September 1, 2024 - Present | Director, Global Power Synergy Public Company Limited |
| | October 1, 2022 - Present | Senior Executive Vice President, Innovation and New Ventures, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | September 13, 2024 - Present | Chairman, Innobic (Asia) Company Limited |
| | August 22, 2024 - Present | Chairman, NUOVO PLUS Company Limited |
| | April 1, 2024 - Present | Chairman, EVME PLUS Company Limited |
| | March 11, 2024 - Present | Chairman, HORIZON PLUS Company Limited |
| | March 4, 2024 - Present | Chairman, Neo Mobility Asia Company Limited |
| | October 2, 2023 - Present | Chairman, Aionex Company Limited |
| | December 7, 2022 - Present | Chairman, ExpresSo NB Company Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | - | - |
| | Working Experiences in the 5 Preceding Years | |
| | February 1, 2023 - October 20, 2024 | Chairman, Mekha V Company Limited |
| | December 22, 2022 - August 16, 2024 | Director, ARUN PLUS Company Limited |
| | December 19, 2022 - August 19, 2024 | Director/ Director of the Risk Management Committee, PTT Global Chemical Public Company Limited |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|---|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding Years (continued) | |
| | September 21, 2022 - March 1, 2023 | Chairman, PTT Energy Resources Company Limited |
| | November 1, 2021 - March 7, 2023 | Chairman, Sakari Resources Ltd. |
| | October 11, 2021 - February 10, 2023 | Chairman, PTT Global Management Company Limited |
| | October 8 2021 - March 1, 2023 | Director, PTT Energy Resources Company Limited |
| | August 1, 2021 - September 30, 2022 | Executive Vice President, Strategy and Portfolio Management, PTT Public Company Limited |
| | October 1, 2019 - July 30, 2021 | Executive Vice President, Natural Gas Supply and Trading, PTT Public Company Limited |
| | September 12, 2019 - September 27, 2021 | Director, Trans Thai-Malaysia (Thailand) Limited |
| | September 12, 2019 - September 27, 2021 | Director, Trans Thai-Malaysia (Malaysia) Limited |
| | August 13, 2019 - September 27, 2021 | Director, TTM Sukuk Berhad |
| | April 29, 2019 - October 1, 2021 | Director, PTT Natural Gas Distribution Company Limited |
| | October 1, 2018 - September 30, 2019 | Executive Vice President, Strategic Planning, Gas Business Unit, PTT Public Company Limited |

**Mr. Chansak Chuenchom**

Senior Executive Vice President, Project Engineering and Operational Excellence

Age (Years) 57

| | (%) of Share Possession | Family Relationship among Directors and Executives |
|--|-------------------------|--|
| <ul style="list-style-type: none"> Senior Executive Vice President, Project Engineering and Operational Excellence (Appointed on October 1, 2021) | -None- | -None- |

| Education/ Certification | Board Member/ Management | |
|---|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Engineering (Mechanical Engineering), Khon Kaen University Master of Business Administration, Kasetsart University Certification <ul style="list-style-type: none"> Director Certification Program (DCP 211/2015), Thai Institute of Directors Association (IOD) Strategy and Innovation for Businesses in Asia (SIBA) (Class 9), The College of Management, Mahidol University, in Collaboration with Sloan School of Management, Massachusetts Institute of Technology (MIT) Training course for senior anti-corruption strategists (NYPD 10), Office of the National Anti-Corruption Commission (NACC) Leadership Development Program, (MDP 3) Business Management, (MDP 3) People Management, Advanced Management Program 3 (AMP 3) - Business and People Management, PTT Leadership and Learning Institute (PLLI) Leadership Development Program 2 (LDP 2), China, PTT Leadership and Learning Institute (PLLI) Diploma, The National Defence Course (Class 65), National Defence College | Board Member/ Management in Listed Companies | |
| | December 1, 2022 - Present | Chairman of the Nomination and Remuneration Committee, IRPC Public Company Limited |
| | October 1, 2021 - Present | Senior Executive Vice President, Engineering and Infrastructure (The Position name was changed to Senior Executive Vice President, Project Engineering and Operational Excellence with effect from September 1, 2024), PTT Public Company Limited |
| | October 1, 2021 - Present | Director, IRPC Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | November 4, 2024 - Present | Chairman, P-Dictor Company Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | May 14, 2024 - Present | Vice Chairman, ASEAN and Logistics, The Federation of Thai Industries |
| | June 14, 2023 - Present | Director, Anti Corruption Foundation |
| | November 23, 2021 - Present | Executive Director, Vidyasirimedhi Institute of Science and Technology |
| | Working Experiences in the 5 Preceding Years | |
| | September 29, 2022 - September 30, 2024 | Chairman, Global Multimodal Modal Logistics Company Limited |
| | April 5, 2022 - November 30, 2022 | Member of the Risk Management Committee, IRPC Public Company Limited |
| | November 23, 2021 - August 16, 2024 | Chairman, Energy Complex Company Limited |
| | October 1, 2021 - April 5, 2022 | Member of the Nomination and Remuneration Committee, IRPC Public Company Limited |

| Education/ Certification | Board Member/ Management | |
|--------------------------|---|---|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding Years (continued) | |
| | December 21, 2020 - November 30, 2021 | Director, Veolia Sustainable Solutions (Thailand) Company Limited (Former company name: "Suez Environmental Services Company Limited", changed to the current name on June 6, 2022) |
| | April 23, 2019 - August 16, 2024 | Director, Energy Complex Company Limited |
| | April 23, 2018 - October 14, 2021 | Director, Combined Heat and Power Company Limited |
| | March 14, 2016 - February 25, 2021 | Director, Thai Oil Power Company Limited (Liquidation on February 25, 2021) |
| | October 1, 2015 - September 30, 2021 | Executive Vice President, Engineering and Project Management, PTT Public Company Limited |



Mr. Rathakorn Kampanathsanyakorn

Senior Executive Vice President, Corporate Sustainability

Age (Years) 52

| | (%) of Share Possession | Family Relationship among Directors and Executives |
|--|--|--|
| <ul style="list-style-type: none"> Senior Executive Vice President, Corporate Sustainability (Appointed on October 1, 2024) | 0.000795 (Own 0.000420; spouse 0.000375) | -None- |

| Education/ Certification | Board Member/ Management | |
|---|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Engineering, Chulalongkorn University M.S. (Science), International UK Management, King's College London, UK M.S. (Science), Chemical Engineering, Imperial College London, UK Certification <ul style="list-style-type: none"> Director Certification Program (DCP 324/2022), Thai Institute of Directors Association (IOD) | Board Member/ Management in Listed Companies | |
| | October 1, 2024 - Present | Senior Executive Vice President, Corporate Sustainability (New Position, Senior Executive Vice President, Corporate Sustainability with effective from October 1, 2024), PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | October 31, 2024 - Present | Director, PTT Digital Solutions Company Limited |
| | October 31, 2024 - Present | Director, ExpresSo NB Company Limited |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|--|
| | Time Period | Position in Organization/ Company |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | 2024 - Present | Director, Thailand Carbon Neutral Network (TCNN) |
| | Working Experiences in the 5 Preceding Years | |
| | October 1, 2021 - September 30, 2024 | Executive Vice President, PTT, working on secondment as Senior Executive Vice President, Corporate Strategy, Thai Oil Public Company Limited |
| | November 16, 2018 - September 30, 2021 | Executive Vice President, Downstream Business Group Planning, PTT Public Company Limited |



Mrs. Nivadee Jaroensitipun

Senior Executive Vice President, Special Affairs 1 - Government Relations
Age (Years) 58

| | | |
|--|-------------------------|--|
| <ul style="list-style-type: none"> Senior Executive Vice President, Special Affairs 1 - Government Relations (Appointed on September 1, 2024) | (%) of Share Possession | Family Relationship among Directors and Executives |
| | -None- | -None- |

| Education/ Certification | Board Member/ Management | |
|--|--|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Business Administration, Rajamangala Institute of Technology Master of Arts (Political Science), Kasetsart University Master of Arts (Communication Arts and Information), Kasetsart University Certification <ul style="list-style-type: none"> Director Certification Program (DCP 316/2022), Thai Institute of Directors Association (IOD) | Board Member/ Management in Listed Companies | |
| | October 21, 2024 - Present | Director to the Corporate Governance and Sustainability Committee, PTT Global Chemical Public Company Limited |
| | September 1, 2024 - Present | Senior Executive Vice President, Special Affairs 1 - Government Relations (The position was changed to Senior Executive Vice President, Special Affairs 1 - Government Relations with effect from September 1, 2024) PTT Public Company Limited |
| | August 26, 2024 - Present | Director, PTT Global Chemical Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | October 28, 2024 - Present | Director, PTT Natural Gas Distribution Company Limited |
| | November 1, 2021 - Present | Director, Business Services Alliance Company Limited |

| Education/ Certification | Board Member/ Management | |
|---|--|--|
| | Time Period | Position in Organization/ Company |
| <ul style="list-style-type: none"> Executive Training Program on Administrative Justice (Class 1) The Rule of Law for Democracy, (Class 8), College of the Constitutional Court Advanced Certificate Course in Public Economics Management for Executives (PEM) (Class 5), King Prajadhipok's Institute Certificate, Good Governance for Medical Executives (Class 7), King Prajadhipok's Institute and the Medical Council of Thailand Leadership Development Program 1 (LDP 1) for EVP Pool by Development Dimensions International (DDI) Senior Process Administrators Course (Class 28) | Other Experiences/ Other Activities/ Other Organizations | |
| | September 1, 2024 - Present | Executive Director, Thailand Energy Academy |
| | Working Experiences in the 5 Preceding Years | |
| | May 1, 2024 - August 31, 2024 | Senior Executive Vice President, Government Relations, PTT Public Company Limited |
| | February 28, 2023 - May 31, 2023 | Director, Energy Complex Company Limited |
| | February 28, 2023 - May 31, 2023 | Director, Energy Complex Company Limited |
| | November 1, 2022 - August 31, 2024 | Executive Vice President Acting Senior Executive Vice President, Government Relations, PTT Public Company Limited |
| | November 25, 2021 - June 9, 2023 | Director, Business Professional Recruitment Solutions Company Limited |
| | November 25, 2021 - March 31, 2023 | Director, Sport Services Alliance Company Limited |
| | November 1, 2021 - October 31, 2022 | Executive Vice President attached to Senior Executive Vice President, Organization Effectiveness and Corporate Governance, PTT secondment as Managing Director, Business Services Alliance Company Limited |
| | June 1, 2021 - October 31, 2021 | Vice President, PTT Oil and Retail Business Public Company Limited, working on secondment as Senior Executive Vice President, Service Business Business Services Alliance Company Limited |
| | July 1, 2018 - May 31, 2021 | Vice President, Oil and Retail Business Academy, PTT Oil and Retail Business Public Company Limited |

**Dr. Rosaya Teinwan**

Senior Executive Vice President, Special Affairs 2 - Business Re-Structuring

Age (Years) 55

| | (%) of Share Possession | Family Relationship among Directors and Executives |
|---|--------------------------------------|--|
| <ul style="list-style-type: none"> Senior Executive Vice President, Special Affairs 2 - Business Re-Structuring (Appointed on September 1, 2024) | 0.000651 (Own 0.000651; Spouse 0) | -None- |

| Education/ Certification | Board Member/ Management | |
|--|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Engineering, Kasetsart University Master of Business Administration, Rangsit University Doctor of Business Administration (D.B.A), King Mongkut's University of Technology North Bangkok Certification <ul style="list-style-type: none"> Advanced Audit Committee Program (AACP 12/2013), Role of the Chairman Program (RCP 31/2013), Director Certification Program (DCP 169/2013), Anti-Corruption for Executive Program (ACEP 6/2013) Thai Institute of Directors Association (IOD) Strategist Course 17 Strategic Studies Center, National Defence Studies Institute (2024) Leadership Program on Trade and Development Strategy (Class 1), The International Institute for Trade and Development (Public Organization) and Sasin Graduate Institute of Business Administration of Chulalongkorn University (2024) | Board Member/ Management in Listed Companies | |
| | September 1, 2024 - Present | Senior Executive Vice President, Special Affairs 2 - Business Re-Structuring (Senior Executive Vice President, Special Affairs 2 - Business Re-Structuring was set up effective from September 1, 2024) PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | November 1, 2024 - Present | Chairman, PTT Green Energy Pte. Ltd. |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | June 12, 2024 - Present | Director, The Institute of Industrial Energy, The Federation of Thai Industries |
| | Working Experiences in the 5 Preceding Years | |
| | September 16, 2023 - August 31, 2024 | Executive Vice President, Technology Development for Future Energy PTT Public Company Limited |
| | September 16, 2019 - September 15, 2023 | Executive Vice President, PTT working on secondment as Global Power Synergy Public Company Limited, as Senior Executive Vice President, Business Development and Strategy and Board of PTT Green Energy Pte. Ltd. |
| | May 1, 2016 - September 15, 2019 | Executive Vice President, PTT Public Company Limited, working on secondment as PTT Energy Resources Company Limited acting Executive Vice President, acting Chief Executive Officer of Sakari Resources Limited, acting Chief Executive Officer of PTTGE, acting President of Tiger Energy Trading Pte., Ltd. |

| Education/ Certification | Board Member/ Management | |
|---|--------------------------|-----------------------------------|
| | Time Period | Position in Organization/ Company |
| <ul style="list-style-type: none">• New International Commerce Course for Executives: NIC2E (2/2023), Department of Trade Negotiations, Ministry of Commerce• Peking University Thailand New Era Leadership Elite Training Course, Peking University (2023)• Thai-Chinese Leadership Science Program (SCT) (Class 4,) Thai-Chinese Leader Institute (2022)• Management of Public Economics for Executives (Class 18), King Prajadhipok's Institute, (2020)• Public and Private Sector Joint Administration Course (Class 6), Police College Education Headquarters, Royal Thai Police (2019)• Senior Executive Program Sasin Graduate Institute of Business Administration of Chulalongkorn University | | |

**Mr. Narongsak Jivakanun**

Chief Executive Officer, PTT Global Chemical Public Company Limited

Age (Years) 55

| | (%) of Share Possession | Family Relationship among Directors and Executives |
|--|-------------------------|--|
| • Chief Executive Officer, PTT Global Chemical Public Company Limited (Appointed on May 13, 2024) | -None- | -None- |

| Education/ Certification | Board Member/ Management | |
|--|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Engineering (Chemical Engineering), Chulalongkorn University Master of Science (Chemical Engineering) Oregon State University, Oregon, USA Certification <ul style="list-style-type: none"> Director Certification Program (DCP 165/2012), Thai Institute of Directors Association (IOD) Subsidiary Governance and Business and Legal Issues for Directors and Executives 2022, Director's Legal Liabilities, Ethical Leadership for New Era and High Performing Board & Board Effectiveness 2021 (In-house Programs of GC), Thai Institute of Directors Association (IOD) IMD - TLCA Leadership Development Program (LDP) (Class 1) 2013, Thai Listed Companies Association (TLCA) and IMD Business School, Switzerland The Executive Program in Energy Literacy for a Sustainable Future (Class 8), Thailand Energy Academy (TEA) | Board Member/ Management in Listed Companies | |
| | May 15, 2024 - Present | Chairman, Global Green Chemicals Public Company Limited |
| | May 13, 2024 - Present | Senior Executive Vice President, PTT, reporting to Chief Operating Officer, Downstream Petroleum Business Group, working on secondment as Chief Executive Officer and Acting Chief Operating Officer - International Business, PTT Global Chemical Public Company Limited |
| | May 13, 2024 - Present | Director and Secretary to the Board Director to the Risk Management Committee, PTT Global Chemical Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | June 1, 2024 - Present | Chairman and Chairperson of the Advisory Committee, PTTGC International (Netherlands) B.V. |
| | June 1, 2024 - Present | Chairman, PTTGC International Private Limited |
| | February 16, 2022 - Present | Chairman, PTTGC America Corporation |
| | February 16, 2022 - Present | Chairman, PTTGC America LLC |
| | December 8, 2021 - Present | Member of Advisory Committee, PTTGC International (Netherlands) B.V. |
| | September 1, 2020 - Present | Chairman, GC America Sustainability Corporation |
| | October 1, 2019 - Present | Director, GC America Sustainability Corporation |
| | October 1, 2019 - Present | Director, PTTGC International Private Limited |
| | October 1, 2019 - Present | Director, PTTGC International (Netherlands) B.V. |
| | July 1, 2015 - Present | Director, PTTGC America Corporation |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|--|
| | Time Period | Position in Organization/ Company |
| | Board Member/ Management in Non-Listed Companies (continued) | |
| | July 1, 2015 - Present | Director, PTTGC America LLC |
| | Present | Director, Sermkij Textile Company Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | - | - |
| | Working Experiences in the 5 Preceding Years | |
| | November 24, 2023 - May 31, 2024 | Chairman, Emery Oleochemicals UK Limited |
| | January 1, 2023 - May 31, 2024 | Chairman, NatureWorks LLC |
| | April 22, 2022 - May 31, 2024 | Director, Kuraray GC Advanced Materials Company Limited |
| | February 16, 2022 - May 31, 2024 | Chairman, GC International Corporation |
| | February 1, 2022 - May 12, 2024 | Chief Operating Officer - International Business, PTT Global Chemical Public Company Limited |
| | December 8, 2021 - May 31, 2024 | President, PTTGC International (Netherlands) B.V. |
| | October 15, 2021 - March 31, 2022 | Treasurer, GC International Corporation |
| | October 12, 2021 - May 31, 2024 | Director, Emery Oleochemicals UK Limited |
| | October 12, 2021 - November 23, 2023 | Chairman of Executive Committee/ Chairman of Audit and Risk Committee Emery Oleochemicals UK Limited |
| | November 24, 2020 - October 31, 2021 | Executive Chairman/ Chairman of Audit and Risk Committee, Emery Oleochemicals (M) Sdn. Bhd. |
| | November 24, 2020 - October 31, 2021 | Executive Chairman, Emery Specialty Chemicals Sdn. Bhd. |
| | October 1, 2020 - February 15, 2022 | Chief Executive Officer/ President/ Secretary to the Board PTTGC America LLC |
| | September 2, 2020 - December 31, 2021 | Chairman, NatureWorks LLC |
| | September 2, 2020 - June 30, 2024 | Chairman, Vencorex Holding |
| | October 3, 2019 - May 31, 2024 | Director, NatureWorks LLC |
| | October 1, 2019 - February 15, 2022 | President and Company Secretary, PTTGC America Corporation |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|--|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding Years (continued) | |
| | October 1, 2019 - May 31, 2024 | Director, GC International Corporation |
| | October 1, 2019 - March 31, 2022 | President and Company Secretary, GC International Corporation |
| | October 1, 2019 - May 31, 2024 | Managing Director, PTTGC International Private Limited |
| | October 1, 2019 - June 30, 2024 | Director, Vencorex Holding |
| | October 1, 2019 - January 31, 2022 | Executive Vice President, International Business Operations, PTT Global Chemical Public Company Limited |
| | October 1, 2019 - October 31, 2021 | Director, Emery Oleochemicals (M) Sdn. Bhd. |
| | October 1, 2019 - October 31, 2021 | Director, Emery Specialty Chemicals Sdn. Bhd. |
| | May 31, 2018 - May 31, 2024 | Chairman, GC Ventures America Corporation |
| | May 22, 2018 - May 31, 2024 | Chairman, GC Ventures Company Limited |
| | January 23, 2018 - October 14, 2019 | Chairman, GC Estate Company Limited |
| | September 21, 2017 - November 21, 2019 | Director/ Vice Chairman/ Director to the Nomination and Remuneration Committee Vinythai Public Company Limited |
| | June 2, 2017 - November 9, 2019 | Director, GC Polyols Company Limited |
| | February 18, 2016 - October 14, 2019 | Director/ Director to the Risk Management Committee, Global Green Chemicals Public Company Limited |

**Mr. Bandhit Thamprajamchit**

Chief Executive Officer and President, Thai Oil Public Company Limited

Age (Years) 54

| | (%) of Share Possession | Family Relationship among Directors and Executives |
|---|---|--|
| <ul style="list-style-type: none"> Chief Executive Officer and President, Thai Oil Public Company Limited (Appointed on January 1, 2023) | 0.000424 (Own 0; Spouse 0.000424) | -None- |

| Education/ Certification | Board Member/ Management | |
|---|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Engineering (Chemical Engineering) (First Class Honors, Gold Medal), Chulalongkorn University M.Sc. in Advanced Chemical Engineering (Distinction), Imperial College, University of London, UK Master of Business Administration (Executive), SASIN Graduate Institute of Business Administration of Chulalongkorn University Certification <ul style="list-style-type: none"> Director Certification Program (DCP 187/2014), Ethical Leadership Program (ELP 27/2022), Role of the Chairman Program (RCP 52/2022), Financial Statements for Directors (FSD 53/2024), Thai Institute of Directors Association (IOD) Diploma, The National Defence Course (Class 63), National Defence College Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 14), Thailand Energy Academy (TEA) Executive Program in Capital Market Leader (Class 27), Capital Market Academy (CMA) Leadership Development Program 3 (LDP 3) (Class 4/2019), PTT Leadership and Learning Institute (PLLI) Leadership Development Program 2 (LDP 2) (with INSEAD) Thailand & Singapore, PTT Leadership and Learning Institute (PLLI) Young Executive Program in Energy Literacy for a Sustainable Future (YTEA) (Class 2), Thailand Energy Academy (TEA) | Board Member/ Management in Listed Companies | |
| | January 1, 2024 - Present | Acting Executive Vice President Corporate Governance and Affairs, Thai Oil Public Company Limited |
| | February 2023 - Present | Director, Global Power Synergy Public Company Limited |
| | January 1, 2023 - Present | Senior Executive Vice President, PTT, reporting to Chief Operating Officer, Downstream Petroleum Business Group working on a secondment as Chief Executive Officer and President, Thai Oil Public Company Limited |
| | January 2023 - Present | Director/ Member of the Risk Management Committee/ Chief Executive Officer and President/ Secretary to the Board, Thai Oil Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | June 2023 - Present | Chairman, TOPNEXT International Company Limited |
| | April 2023 - Present | Director, TOPNEXT International Company Limited |
| | March 2023 - Present | Chairman, Thai Paraxylene Company Limited |
| | March 2023 - Present | Chairman, LABIX Company Limited |
| | March 2023 - Present | Director, Sapthip Company Limited |
| | March 2020 - Present | Director, LABIX Company Limited |
| | December 2015 - Present | Director, Thai Paraxylene Company Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | June 2024 - Present | Advisor, Industrial Promotion and Support, The Federation of Thai Industries |

| Education/ Certification | Board Member/ Management | |
|--|--|---|
| | Time Period | Position in Organization/ Company |
| <ul style="list-style-type: none"> Executive Development Program (EDP), Thai Listed Companies Association Executive Development Program, Fiscal Policy Research Institute Foundation, Thailand NIDA - Wharton Executive Development Program, Thailand & USA Lectures and experience sharing for 2023 corporate strategy plan <ul style="list-style-type: none"> “Global Trends in Energy” by Boston Consulting Group (BCG) “Global & Thailand Economic Outlook” by Bangkok Bank Public Company Limited Lectures and experience sharing for 2024 corporate strategy plan <ul style="list-style-type: none"> “Outlook and Trends in Net Zero Transition” by ADL “AI Adoption in Oil & Gas Industry” by Boston Consulting Group (BCG) “Global & Thailand Economic Outlook” by Siam Commercial Bank Public Company Limited (SCB) Risk Expert Session 2024 on “Generative AI: Opportunities, Risk and Challenges” by AFON Precious Company Limited | Other Experiences/ Other Activities/ Other Organizations (continued) | |
| | June 2024 - Present | Industry Advisory Board, Bachelor of Engineering Program, Chemical and Process Engineering (International curriculum), Chulalongkorn University |
| | April 2024 - Present | Member of Vidyasirimedhi Institute of Science and Technology Council (VISTEC) |
| | February 2024 - Present | Advisor, Petroleum Refining Industry Club, The Federation of Thai Industries |
| | May 2023 - Present | Vice President, Thailand Swimming Association |
| | May 2023 - Present | Member of the Central Committee, Chulalongkorn University Alumni Association under the Royal Patronage |
| | April 2023 - Present | Director, Thai Listed Companies Association |
| | January 2023 - Present | Executive Committee, Thailand Energy Academy |
| | January 2023 - Present | Member of Council of Trustees, Petroleum and Energy Institute of Thailand |
| | January 2023 - Present | Director, Thailand Business Council for Sustainable Development |
| | Working Experiences in the 5 Preceding Years | |
| | January 2024 - December 2024 | Chief Executive Officer and President, Acting Executive Vice President - Corporate Governance and Affairs, Thai Oil Public Company Limited |
| | January 2023 - September 2023 | Acting Executive Vice President – Hydrocarbon/ Acting Executive Vice President – Manufacturing, Thai Oil Public Company Limited |
| | January 2023 - March 2023 | Acting Managing Director, LABIX Company Limited |
| | January 2021 - December 2022 | Senior Executive Vice President – Hydrocarbon/ Acting Executive Vice President – Manufacturing, Thai Oil Public Company Limited |
| | May 2020 - January 2023 | Chairman, Thai Lube Base Public Company Limited |
| | February 2020 - December 2020 | Senior Executive Vice President – Refining and Petrochemical, Thai Oil Public Company Limited |
| | February 2019 - 2024 | Chairman, Petroleum Refining Industry Club, The Federation of Thai Industries |

**Mr. Terdkiat Prommool**

President and Chief Executive Officer, IRPC Public Company Limited

Age (Years) 59

| | (%) of Share Possession | Family Relationship among Directors and Executives |
|--|-------------------------|--|
| <ul style="list-style-type: none"> President and Chief Executive Officer IRPC Public Company Limited (Appointed on October 1, 2024) | -None- | -None- |

| Education/ Certification | Board Member/ Management | |
|--|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Engineering (Chemical Engineering), Chulalongkorn University Master of Engineering (Industrial & Manufacturing Systems Engineering), The University of Missouri, Columbia, USA Certification <ul style="list-style-type: none"> Director Certification Program (DCP 223/2016), Thai Institute of Directors Association (IOD) Leadership Succession Program (LSP), (Class 10), Institute of Research and Development for Public Enterprises (IRDP) | Board Member/ Management in Listed Companies | |
| | October 1, 2024 - Present | Senior Executive Vice President reporting to Chief Operating Officer, Downstream Petroleum Business Group working on secondment as President and Chief Executive Officer, IRPC Public Company Limited |
| | October 1, 2024 - Present | Director/ Member of the Risk Management Committee, IRPC Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | - | - |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | October 1, 2024 - Present | Director, Thailand Business Council for Sustainable Development |
| | June 2023 - Present | Secretary-General, Chulalongkorn University Alumni Association under the Royal Patronage |
| | November 23, 2021 - Present | Member of the Executive Committee, Vidyasirimedhi Institute of Science and Technology |
| | Working Experiences in the 5 Preceding Years | |
| | December 26, 2022 - October 1, 2024 | Director/ Member of the Nomination and Remuneration Committee, PTT Oil and Retail Business Public Company Limited |
| | August 10, 2022 - November 30, 2022 | Director, Inter Pharma Company Limited |
| | November 3, 2021 - July 31, 2022 | Chairman, Alpha Com Company Limited |
| | October 1, 2021 - September 30, 2024 | Executive Chairman, Thailand Energy Academy |
| | October 1, 2021 - September 30, 2024 | Senior Executive Vice President, Corporate Strategy and Sustainability (The position was changed to Senior Executive Vice President, Corporate Strategy with effect from October 1, 2021), PTT Public Company Limited |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|---|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding Years (continued) | |
| | August 10, 2021 - September 30, 2024 | Director, Thai Renewable Energy Association |
| | April 23, 2021 - August 23, 2024 | Member of the Nomination and Remuneration Committee, Thai Oil Public Company Limited |
| | April 1, 2021 - October 1, 2024 | Chairman, PTT Digital Solutions Company Limited |
| | March 3, 2021 - November 17, 2021 | Member of the Human Resource Committee, Vidyasirimedhi Institute of Science and Technology (VISTEC) |
| | October 1, 2020 - September 30, 2024 | Executive Director, Global Compact Network Association of Thailand (GCNT) |
| | October 1, 2020 - August 23, 2024 | Director, Thai Oil Public Company Limited |
| | October 1, 2020 - January 31, 2022 | Chairman, Business Services Alliance Company Limited |
| | October 1, 2020 - January 31, 2021 | Chairman, Business Professional Recruitment Solutions Company Limited |
| | October 1, 2020 - September 30, 2021 | Senior Executive Vice President, Organization Management and Sustainability, PTT Public Company Limited |
| | October 1, 2018 - September 30, 2020 and February 1, 2018 - October 1, 2024 | Director, PTT Digital Solutions Company Limited |
| | October 1, 2018 - September 30, 2020 | Executive Vice President, PTT, working on a secondment as Managing Director PTT Digital Solutions Company Limited |

**Mr. Worawat Pitayasiri**

President and Chief Executive Officer,
Global Power Synergy Public Company Limited
Age (Years) 58

| | (%) of Share Possession | Family Relationship among Directors and Executives |
|--|-------------------------|--|
| <ul style="list-style-type: none"> President and Chief Executive Officer, Global Power Synergy Public Company Limited (Appointed on December 1, 2020) | -None- | -None- |

| Education/ Certification | Board Member/ Management | |
|---|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Engineering (Chemical Engineering), Chulalongkorn University Master of Business Administration (Management), Thammasat University Certification <ul style="list-style-type: none"> Director Certification Program (DCP 158/2012), Thai Institute of Directors Association (IOD) Asia Petrochemical Industry Conference (APIC) (Class 2), Japan Petrochemicals Industry Association PTT Group VP Leadership Development Program, PTT Public Company Limited NIDA-Wharton Executive Leadership Program (Class of 2009), The Wharton School of the University of Pennsylvania, USA Senior Executive Program (SEP), (Class 26), Sasin Graduate Institute of Business Administration, Chulalongkorn University Advanced Certificate Course Politics and Governance in Democratic Systems for High-Level Executives, (Class 22), King Prajadhipok's Institute Diploma, The National Defence Course (Class 64), National Defence College | Board Member/ Management in Listed Companies | |
| | December 1, 2020 - Present | Senior Executive Vice President, PTT, reporting to Chief New Business and Sustainability Officer working on a secondment as President and Chief Executive Officer, Global Power Synergy Public Company Limited |
| | December 1, 2020 - Present | Director/ Secretary to the Board/ Member of the Risk Management Committee/ President and Chief Executive Officer, Global Power Synergy Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | January 6, 2022 - Present | Director, NUOVO PLUS Company Limited |
| | December 1, 2020 - Present | Director, Glow Energy Public Company Limited |
| | December 1, 2020 - Present | Director, Xayaburi Power Company Limited |
| | December 1, 2020 - Present | Director, Ratchaburi Power Company Limited |
| | December 1, 2020 - Present | Director, Glow Company Limited |
| | December 1, 2020 - Present | Director, Glow SPP 2 Company Limited |
| | December 1, 2020 - Present | Director, Glow SPP 3 Company Limited |
| | December 1, 2020 - Present | Director, Glow IPP 2 Holding Company Limited |
| | December 1, 2020 - Present | Director, Glow SPP 11 Company Limited |
| | December 1, 2020 - Present | Director, Glow IPP Company Limited |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|---|
| | Time Period | Position in Organization/ Company |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | June 12, 2024 - Present | Advisor, Committee of the Institute of Industrial Energy (Term 2024 - 2026) |
| | May 14, 2024- Present | Director/ Executive Director, The Federation of Thai Industries (Term 2024 - 2026) |
| | July 6, 2023 - Present | Chairman, Innovation and New Activities, Chulalongkorn University Alumni Association under the Royal Patronage |
| | May 8, 2023 - Present | Executive Committee, Chulalongkorn University Alumni Association under the Royal Patronage |
| | December 1, 2020 - Present | Executive Director, Thailand Energy Academy |
| | Working Experiences in the 5 Preceding Years | |
| | June 13, 2022 - 2024 | Vice President, Committee of the Institute of Industrial Energy (Term 2022 - 2024) |
| | May 30, 2022 - 2023 | Advisor to Executive Board and Board of Directors, IEEE Power & Energy Society (Thailand) (IEEE PES) (Term 2022 - 2023) |
| | April 22, 2022 - 2024 | Director/ Executive Director, The Federation of Thai Industries (Term 2022 - 2024) |
| | March 2022 - December 31, 2023 | Council Board, Thailand Carbon Neutral Network |
| | July 13, 2021 - October 7, 2022 | Director, Avaada Energy Private Limited |
| | January 4, 2021 - October 16, 2024 | Director, Global Renewable Power Company Limited |
| | December 1, 2020 - October 4, 2021 | Advisor to the Board, Alpha Com Company Limited |
| | March 3, 2020 - November 29, 2020 | Director, Alpha Com Company Limited |
| | February 27, 2020 - November 29, 2020 | Chairman, PTT Raise Company Limited |
| | November 11, 2019 - November 29, 2020 | Chairman, PTT Digital Solutions Company Limited |
| | November 2019 - February 17, 2020 | Director, InnoSpace (Thailand) Company Limited |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|---|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding Years (continued) | |
| | September 3, 2019 - November 11, 2019 | Director, PTT Digital Solutions Company Limited |
| | June 2019 - August 16, 2019 | Director, PTT Energy Solutions Company Limited |
| | February 28, 2019 - November 30, 2020 | Member of the Executive Board, Vidyasirimedhi Institute of Science and Technology (UISTEC) |
| | September 19, 2018 - November 30, 2020 | Director/ Member of the Risk Management Committee, IRPC Public Company Limited |
| | September 16, 2018 - November 30, 2020 | Senior Executive Vice President, Innovation and Digital, PTT Public Company Limited |
| | November 27, 2017 - November 4, 2019 | Committee, Community Partnership Association |

**Mr. Suchat Ramarch**

President, PTT Oil and Retail Business Public Company Limited

Age (Years) 56

| | (%) of Share Possession | Family Relationship among Directors and Executives |
|--|--------------------------------------|--|
| <ul style="list-style-type: none"> President, PTT Oil and Retail Business Public Company Limited (Appointed on October 1, 2022) | 0.000563 (Own 0.000563; Spouse 0) | -None- |

| Education/ Certification | Board Member/ Management | |
|---|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Engineering, Rajamangala University of Technology Krungthep Master of Arts (Social Development Administration), National Institute of Development Administration Certification <ul style="list-style-type: none"> Director Certification Program (DCP 176/2017), Thai Institute of Directors Association (IOD) Corporate Governance for Directors and Senior Executives of Regulators, State Enterprises and Public Organizations (PDI) (Class 22), King Prajadhipok's Institute Executive Program in Capital Market Leader (Class 28), Capital Market Academy (CMA) Leadership Development Program 3 (LDP3), PTT Leadership and Learning Institute (PLLI) Advance Certificate Course in Public (Class 13) Administration and Law for Executives, King Prajadhipok's Institute Management Development Program 3 (MDP3), PTT Leadership and Learning Institute (PLLI) Advance Management Program 2 (AMP2), PTT Leadership and Learning Institute (PLLI) Executive Development Program (2011), The Stock Exchange of Thailand (SET) Diploma, The National Defence Course (Class 64), National Defence College Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 17), Thailand Energy Academy (TEA) | Board Member/ Management in Listed Companies | |
| | October 1, 2022 - Present | Senior Executive Vice President, PTT, reporting to Chief Operating Officer, Downstream Petroleum Business Group working on secondment as President, PTT Oil and Retail Business Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | - | - |
| | Working Experiences in the 5 Preceding Years | |
| | May 25, 2023 - Present | Member of the Retail and Service Committee, The Thai Chamber of Commerce and Board of Trade of Thailand |
| | April 28, 2023 - Present | Member of the Business Matching Committee, The Thai Chamber of Commerce and Board of Trade of Thailand |
| | Working Experiences in the 5 Preceding Years | |
| | April 10, 2023 - August 22, 2024 | Member of the Corporate Governance and Sustainability Committee, Thai Oil Public Company Limited |
| | November 4, 2022 - August 31, 2024 | Chairman, PTT Retail Management Company Limited |
| | February 4, 2022 - August 22, 2024 | Chairman, Business Services Alliance Company Limited |
| | November 26, 2021 - October 31, 2022 | Chairman, Business Professional Recruitment Solutions Company Limited |
| | November 23, 2021 - October 31, 2022 | Member of Human Resource Committee Vidyasirimedhi Institute of Science and Technology (VISTEC) |
| | October 1, 2021 - August 22, 2024 | Director, Thai Oil Public Company Limited |

| Education/ Certification | Board Member/ Management | |
|--------------------------|--|---|
| | Time Period | Position in Organization/ Company |
| | Working Experiences in the 5 Preceding Years (continued) | |
| | October 1, 2021 - September 30, 2022 | Senior Executive Vice President, Organization Effectiveness and Corporate Governance (The position name was changed from Senior Executive Vice President, Organization Management and Sustainability with effect from October 1, 2021), PTT Public Company Limited |
| | March 29, 2021 - September 29, 2021 | Director, Pluk Phak Praw Rak Mae Company Limited |
| | November 20, 2020 - September 29, 2021 | Chairman, Peaberry Thai Company Limited |
| | October 29, 2020 - April 5, 2021 | Chairman, PTT Retail Management Company Limited |
| | September 30, 2020 - September 29, 2021 | Chairman, PTTOR China (Shanghai) Company Limited |
| | April 25, 2019 - February 3, 2022 | Director, Business Services Alliance Company Limited |
| | April 25, 2019 - November 25, 2021 | Director, Business Professional Recruitment Solutions Company Limited |
| | 2019 - September 30, 2021 | Senior Executive Vice President, Non-Oil Retail Business PTT Oil and Retail Business Public Company Limited |
| | 2018 - 2019 | Senior Executive Vice President, Non-Oil Retail Business PTT Oil and Retail Business Public Company Limited |
| | 2016 - 2020 | Director, PTT Retail Management Company Limited |



Miss Thariswan Thiansawat

Executive Vice President, Group Corporate Finance and Strategy

Age (Years) 48

| | (%) of Share Possession | Family Relationship among Directors and Executives |
|---|---|--|
| <ul style="list-style-type: none"> Executive Vice President, Group Corporate Finance and Strategy (Appointed on October 1, 2024) | 0.000977 (Own 0.000977; Spouse 0) | -None- |

| Education/ Certification | Board Member/ Management | |
|---|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Accountancy, Kasetsart University Master in Business Administration (Finance), Old Dominion University Certification <p>-</p> | Board Member/ Management in Listed Companies | |
| | October 1, 2024 - Present | Executive Vice President, Group Corporate Finance and Strategy, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | December 17, 2024 - Present | Chairman, PTT Treasury Center Company Limited |
| | October 21, 2024 - Present | Chairman, Alvogen Emerging Markets Holdings Limited |
| | October 21, 2024 - Present | Director, Lotus Pharmaceutical Company Limited |
| | October 21, 2024 - Present | Director, Innobic (Asia) Company Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | - | - |
| | Working Experiences in the 5 Preceding Years | |
| | June 1, 2023 - September 30, 2024 | Vice President, Equity Capital Market and Investment Management Department, PTT Public Company Limited |
| | June 1, 2022 - May 31, 2023 | Vice President, Equity Capital Market and Investment Management Department (Assisting at PTT International Holdings Limited), PTT Public Company Limited |
| | January 1, 2022 - May 31, 2022 | Vice President, Equity Capital Market and Investment Management Department, PTT Public Company Limited |
| | January 1, 2019 - December 31, 2021 | Vice President, Group Financial Structure and Funding Department, PTT Public Company Limited |



Miss Numpetch Supharatanasit

Executive Vice President, Global Business Services

Age (Years) 55

| | (%) of Share Possession | Family Relationship among Directors and Executives |
|--|-------------------------|--|
| <ul style="list-style-type: none"> Executive Vice President, Global Business Services (Appointed on December 1, 2023) (The person supervising Accounting) | -None- | -None- |

| Education/ Certification | Board Member/ Management | |
|--|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Accountancy (Cost Accounting), University of the Thai Chamber of Commerce Master of Science (Business Information Technology), Chulalongkorn University Certification <ul style="list-style-type: none"> Director Certificate Program (DCP 370/2024), Thai Institute of Directors Association (IOD) Leadership Development Program 2 (LDP 2), PTT Leadership and Learning Institute (PLLI) Advanced Management Program 2 (AMP 2) Business and People Management, PTT Leadership and Learning Institute (PLLI) Advanced Master of Management Program (Class 11), National Institute of Development Administration Financial and Fiscal Management Program for Senior Executives (FME Class 12), Public Fiscal and Accounting Personnel Development Institute, Comptroller General's Department Continuing Professional Development 2021 (accounting) <ul style="list-style-type: none"> Cloud Accounting the Future of Work Life for Accountants Financial Reporting Trends 2021 Breaking through the Disruption Trend: Challenges for Accountants in the Digital Age | Board Member/ Management in Listed Companies | |
| | December 1, 2023 - Present | Executive Vice President, Global Business Services, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | August 30, 2024 - Present | Director, Business Services Alliance Company Limited |
| | August 29, 2024 - Present | Director, Energy Complex Company Limited |
| | August 19, 2024 - Present | Director, Business Professional Recruitment Solutions Company Limited |
| | July 31, 2024 - Present | Director, PTT Green Energy Pte. Ltd. |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | October 18, 2024 - Present | Director and Treasurer, Power For Sustainable Future Foundation |
| | Working Experiences in the 5 Preceding Years | |
| | October 1, 2020 - November 30, 2023 | Vice President, Managerial Accounting Department, PTT Public Company Limited |
| | 2020 - 2023 | Member of the Board of Accounting Professions on Management Accounting, Federation of Accounting Professions Under the Royal Patronage |
| | January 1, 2017 - September 30, 2020 | Vice President, Accounts Receivable and Costing Management Department, PTT Public Company Limited |

| Education/ Certification | Board Member/ Management | |
|--|--------------------------|-----------------------------------|
| | Time Period | Position in Organization/ Company |
| Continuing Professional Development 2022 (accounting) <ul style="list-style-type: none"> • The Impact of the Use of Social Media on the Code of Ethics of Accounting Practitioners • Cryptocurrencies and Digital Assets Accounting Continuing Professional Development 2023 (accounting) <ul style="list-style-type: none"> • Data Analysis: Management and analysis of corporate data for accounting • Risk Accounting and Risk Management for Accountants Continuing Professional Development 2024 (accounting) <ul style="list-style-type: none"> • ESG Risk Management: Sustainability Risk Management • Comprehensive Cost Accounting • TLCA CFO Professional Development Program 2024 | | |



Miss Jaroonsri Wankertphon

Executive Vice President, Group Accounting and Tax Policy

Age (Years) 59

| | (%) of Share Possession | Family Relationship among Directors and Executives |
|---|----------------------------|--|
| <ul style="list-style-type: none"> Executive Vice President, Group Accounting and Tax Policy (Appointed on December 1, 2023) | 0.000091 (Own 0.000091) | -None- |

| Education/ Certification | Board Member/ Management | |
|---|---|--|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Business Administration (Business Administration), Chulalongkorn University Bachelor of Business Administration (Accounting), Krirk University Master of Science (Financial Accounting), Thammasat University Certification <ul style="list-style-type: none"> Director Certification Program (DCP 220/2016), Thai Institute of Directors Association (IOD) TLCA Executive Development Program, Thai Listed Companies Association Financial & Fiscal Management Program for Senior Executive, (Class 6), The Comptroller General's Department EP LEAD 3 Leadership Development Program, IMD Advanced Master of Management Program (Class 8), National Institute of Development Administration (NIDA) Continuing Professional Development 2020 (accounting) <ul style="list-style-type: none"> TFRSs Financial instruments: Implementation and analysis of non-financial institutions' financial statement - CPD (Accounting) Continuing Professional Development 2021 (accounting) <ul style="list-style-type: none"> Shared Service Centre Evolution - Key to Agility after the Pandemic Recognizing and evaluating the value of trade accounts receivable in the "Looking forward Concept" and differentiation between PAEs and NPAEs in practice | Board Member/ Management in Listed Companies | |
| | December 1, 2023 - Present | Senior Vice President, attached to Executive Vice President, PTT Exploration and Production Public Company Limited, working on secondment as Executive Vice President, Group Accounting and Tax Policy, PTT Public Company Limited |
| | April 26, 2023 - Present | Director, Dhipaya Group Holdings Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | September 18, 2024 - Present | Director, PTT Global Management Company Limited |
| | August 29, 2024 - Present | Director, Global Multimodal Logistics Company Limited |
| | August 29, 2024 - Present | Director, EVME PLUS Company Limited |
| | August 26, 2024 - Present | Director, A C Energy Solution Company Limited |
| | August 22, 2024 - present | Director, NUOVO PLUS Company Limited |
| | March 28, 2023 - Present | Director, Dhipaya Insurance Public Company Limited |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | - | - |
| | Working Experiences in the 5 Preceding Years | |
| | October 1, 2022 - November 30, 2023 | Senior Vice President, attached to Executive Vice President, PTT Exploration and Production Public Company Limited, working on secondment as Executive Vice President, Global Business Services Acting Executive Vice President, Group Accounting and Tax Policy, PTT Public Company Limited |
| | June 1, 2022 - September 13, 2024 | Director, PTT International Trading Pte. Ltd. |

| Education/ Certification | Board Member/ Management | |
|---|---|---|
| | Time Period | Position in Organization/ Company |
| <ul style="list-style-type: none"> Estimation of discounted cash-flow for impairment according to TAS36 after relief measurement TFRS9 IBOR Reformation Phase 2 and Related Disclosure RPA for Digital Accounting F&A Knowledge Sharing: "M&A: Purchase Price Allocation (PPA) in Practices" PTT New Core Competencies: PTT New Vision Mentoring Guidelines & Process Continuing Professional Development 2022 (accounting) <ul style="list-style-type: none"> Strategic Management Accounting, (Class 2/2022) Internal control of legal compliance for business sustainability Derivatives and Hedging Accounting, An Accountant with Criteria Specified by the Department of Business Development Continuing Professional Development 2023 (accounting) <ul style="list-style-type: none"> Collaborative Practice Dialogue on ERM and ESG Related Risks and Opportunities in accordance with COSO's international guidelines The Development of Accounting Systems in the Digital Age (Class 2/2023) Continuing Professional Development 2024 (accounting) <ul style="list-style-type: none"> Principles and Points to Know about of Land and Building Taxes (Class 1/2024) Principles for Diagnosing Disciplinary Actions for Senior Executives (Class 1/2024) Liabilities of Directors and Executives of Group Companies in the Corporate Law (Class 1/2024) | Working Experiences in the 5 Preceding Years (continued) | |
| | October 2020 - September 30, 2022 | Senior Vice President, attached to Executive Vice President, PTT Exploration and Production Public Company Limited, working on secondment as Executive Vice President, Global Business Services, PTT Public Company Limited |
| | February 28, 2019 - September 23, 2020 | Director, Energy Complex Company Limited |
| | January 1, 2019 - September 30, 2020 | Senior Vice President Accounting Division, PTT Exploration and Production Public Company Limited |
| | January 1, 2018 - October 1, 2020 | Director, PTTEP Holding Company Limited |
| | July 1, 2016 - September 30, 2018 | Senior Vice President, Accounting Division, PTT Exploration and Production Public Company Limited |
| | March 20, 2015 - October 1, 2020 | Director, PTTEP HK Holding Limited |
| | April 22, 2011 - October 1, 2020 | Director, PTTEP Sadang Limited |



Mrs. Pilasphan Udomjarumanee

Executive Vice President, Company Secretary and Corporate Relation

Age (Years) 59

| | (%) of Share Possession | Family Relationship among Directors and Executives |
|--|--------------------------------------|--|
| <ul style="list-style-type: none"> Executive Vice President, Company Secretary and Corporate Relation (Appointed on May 16, 2024) | 0.000403 (Own 0.000403; Spouse 0) | -None- |

| Education/ Certification | Board Member/ Management | |
|---|---|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Arts (English), Silpakorn University Post Graduate Diploma Degree in Business Administration, Victoria University, Melbourne, Australia Master's Degree of Business Administration (Finance), Royal Melbourne Institute of Technology, Melbourne, Australia Certification <ul style="list-style-type: none"> Anti-Corruption Practical Guide (ACPG 64/2023), Board Nomination & Compensation Program (BNCP 16/2023), Ethical Leadership Program (ELP 27/2022), Company Secretary Refreshment Training Program (RFP 4/2021), Subsidiary Governance, Business and Legal Issues for Directors and Executives and Transformative Leadership for Global Enterprise, 2022 Director's Legal Liabilities, Ethical Leadership for New Era and High Performing Board & Board Effectiveness, 2021 (In-house Programs of GC), Board Reporting Program (BRP 35/2020), Company Reporting Program (CRP 26/2020), Company Secretary Program (CSP 107/2020), Corporate Governance for Executives (CGE 16/2020), Director Certification Program (DCP 287/2019), Thai Institute of Directors Association (IOD) Leadership Development Program 2 (LDP 2) (with INSTEAD), PTT Leadership and Learning Institute (PLLI) Supply Chain and Supply Sourcing, McKinsey | Board Member/ Management in Listed Companies | |
| | May 16, 2024 - Present | Executive Vice President, PTT Global Chemical Public Company Limited, working on secondment as Executive Vice President, Company Secretary and Corporate Relation, PTT Public Company Limited |
| | Board Member/ Management in Non-Listed Companies | |
| | - | - |
| | Other Experiences/ Other Activities/ Other Organizations | |
| | October 21, 2024 - Present | Vice Chairman, Power of Innovation Foundation |
| | October 18, 2024 - Present | Vice Chairman, Power for Sustainable Future Foundation |
| | 2024 - Present | Member of the Executive Committee, Vidyasirimedhi Institute of Science and Technology |
| | October 1, 2019 - Present | Committee Member of Thai Company Secretary Club, Thai Listed Companies Association |
| | Working Experiences in the 5 Preceding Years | |
| | October 1, 2019 - May 15, 2024 | Senior Vice President - Corporate Secretary and Legal and Company Secretary, PTT Global Chemical Public Company Limited |
| | September 1, 2016 - September 30, 2019 | Vice President - Strategy and Planning Department, PTT Global Chemical Public Company Limited |

| Education/ Certification | Board Member/ Management | |
|--|--------------------------|-----------------------------------|
| | Time Period | Position in Organization/ Company |
| <ul style="list-style-type: none">• Strategy Management Program 2018, Fiscal Policy Research Institute Foundation, Ministry of Finance• M&A Training for Senior Leadership 2018 Institute for Merger, Acquisition & Alliance• Leadership Development Program (LDP 2) 2015, Sasin Graduate Institute of Business Administration, Chulalongkorn University | | |

Details of Directors of Subsidiaries

[illegible]

[illegible]

Remarks:

- Symbol X = Chairman - = Vice Chairman * = CEO O = President /= Director //= Executive
- The first four executives, excluding the CEO & President, under SEC's Announcement are Mr. Wuttikorn Stithit, Mr. Noppadol Pinsupa, Dr. Buranin Rattanasombat and Miss Pannalin Mahawongtikul.

Attachment 3

Details of Head of the Office of Corporate Audit



Miss Piyaporn Thanangteerapong

Executive Vice President, Office of Corporate Audit

Age (Years) 55

| Education/ Certification | Working Experiences | |
|--|--|---|
| | Time Period | Position in Organization/ Company |
| Education <ul style="list-style-type: none"> Bachelor of Science (B.Sc.), King Mongkut's University of Technology of Technology North Bangkok Bachelor of Laws, Sukhothai Thammathirat Open University Master of Engineering, Chulalongkorn University Training <ul style="list-style-type: none"> Strategy Implementation Course, Basic Course on Personal Data Protection Act B.E. 2562 (2019), Course on Public Companies and Companies Limited, Business Contracts and Taxes Course under the Revenue Code, Procurement Risk Course, PTT Leadership and Learning Institute (PLLI) Principles and Techniques of Fact-Finding Investigation and Disciplinary Investigation, Provincial Electricity Authority Investigation and Investigation Principles and Techniques, Investigation Process for Executives, Office of the National Anti-Corruption Commission Observations on Procurement from the Audit of the State Audit Office, The State Audit Office Appeal and Complaint Course, Comptroller General's Department Leadership Development Program I, PTT-Harvard Business School, PTT Leadership and Learning Institute (PLLI) Advanced Management Program 2 (AMP 2) - Business & People Management, PTT Leadership and Learning Institute (PLLI) Executive Occupational Safety Officer Course, Department of Labor Protection and Welfare Management Program for Senior Executives, Class 12, National Institute of Development Administration (NIDA) | Working Experiences (Past 10 years) | |
| | 2024 – Present | Executive Vice President, Office of Corporate Audit, PTT Public Company Limited |
| | 2018 – 2024 | Vice President, Strategic Procurement and Administration Department, PTT Public Company Limited |
| | 2017 - 2018 | Senior Analysis, Project Management Unit, Wang Chan Valley Development Project (EECi), PTT Public Company Limited |
| | 2015 - 2017 | Manager, Property Development Business Division, PTT Public Company Limited |
| | 2011 - 2015 | Manager, Procurement Policy and Strategic Sourcing Division, PTT Public Company Limited |
| | Key Related Directorship | |
| | - | - |
| | Relations with the Management | |
| | - | - |

Attachment 4

Business Assets and Details on Asset Valuation

-None-

Business Assets

Details are listed under **Section 1.2 Nature of Business.**

Details of Asset Valuation

-None-

Attachment 5

Corporate Governance, Ethical Standards and Code of Business Ethics Handbook of PTT Public Company Limited

1. Corporate Governance, Ethical Standards and Code of Business Ethics Handbook of PTT Public Company Limited

PTT has announced its corporate governance principles and formulated the Corporate Governance, Ethical Standards and Code of Business Ethics Handbook (CG Handbook) for the acknowledgement and adoption of the Board of Directors, all executives, and employees as their practical guidelines at work to promote PTT as a company with efficient business operations, excellent corporate governance and management, integrity, transparency, and auditability. The Handbook is publicized on PTT's Intranet and web site.

Further details related to PTT's CG Handbook can be studied from PTT's Website www.pttplc.com.



Further details related to PTT's CG Handbook can be studied from PTT's Website www.pttplc.com.
<https://www.pttplc.com/th/About/Corporate-Governance.aspx> and
https://www.pttplc.com/uploads/CG/Publication/CGHandbookforOneReport/PTTCGHandbook_Revision5.2_EN.pdf

2. Charter of the Board of Directors and Charters of Specific Committees of PTT Public Company Limited

2.1 Charter of the Board, PTT Public Company Limited

(Details are reported under Section 2 **"7.2.3 Roles and Duties of the Board."**)

2.2 Charters of the Audit Committee/ Nominating Committee/ Remuneration Committee/ Corporate Governance and Sustainability Committee and Enterprise Risk Management Committee

(Details are reported under Section 2 **"7.3 Information about Specific Committees."**)

Attachment 6

Report of the Audit Committee

Details are reported on pages 328 - 331.

About This Report

Subsection 3: Driving Business towards Sustainability Section 1: Business Operations and Performance

In 2024, PTT announced sustainability performance to stakeholders through the “Form 56-1 One Report”, which integrates the annual report and sustainability report for the 5th consecutive year. Sustainability performance is disclosed under Subsection 3: Driving Business towards Sustainability, Section 1: Business Operations and Performance, covering all 3 dimensions: Environmental, Social, and Governance. As in previous years, this information continues to be disclosed via the website www.pttplc.com under the Sustainability section.

Scope of the Report

The information presented in Subsection 3: Driving Business towards Sustainability, Section 1: Business Operations and Performance, in this “Form 56-1 One Report”, covers sustainability performance data from January 1, 2024 to December 31, 2024, for all business groups of PTT, including the Upstream Petroleum and Natural Gas Business Group, Downstream Petroleum Business Group, New Business and Sustainability Group, and support functions, as well as the performance of companies within PTT Group as specified in each section. Additionally, the scope of operations under the C³ approaches include PTT and flagship companies; PTT Exploration and Production Public Company Limited (PTTEP), PTT Global Chemical Public Company Limited (GC), Thai Oil Public Company Limited (TOP), IRPC Public Company Limited (IRPC), Global Power Synergy Public Company Limited (GPSC), and PTT Oil and Retail Business Public Company Limited (OR), as well as direct and indirect Greenhouse Gas Emissions, covering companies in which PTT as a major shareholder, holds direct equity exceeding 20% and those where it has 100% both direct and indirect equity, including joint venture companies with equal equity shares, and companies that are part of the same scope. Sustainability reporting guidelines at both national and international levels are applied to present essential information and performance outcomes as follows:



**56-1
ONE REPORT**

The handbook for preparing the Securities and Exchange Commission (SEC)'s Annual Registration Statements: 56-1 One Report

GRI

Reporting on sustainability according to the Global Reporting Initiative (GRI) Standards, ensuring alignment with current relevant indicators (GRI Standards 2021: Universal Standards and Topic Standards) and the Sector Standard Project for Oil and Gas (GRI 11: Oil and Gas Sector 2021), with comprehensive content adherence to the criteria outlined in "Reporting in accordance with the GRI Standards"

IFRS

Reporting on sustainability linked to the International Financial Reporting Standards (IFRS) Sustainability Disclosure Standards (S) of the International Sustainability Standards Board (ISSB) encompasses IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information, which integrates with GRI Standards, reporting on organizational value creation according to the Integrated Reporting (IR) framework of the International Integrated Reporting Council (IIRC), and the Sustainability Accounting Standards Board (SASB). It includes IFRS S2 Climate-related Disclosures, which aligns reporting on climate-related performance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

UNGC

Reporting on progress in operations according to the ten principles of the United Nations Global Compact (UNGC) at the Advanced level

UN SDGs

Reporting on the progress of operations supporting the United Nations Sustainable Development Goals (UN SDGs)

WEF

Reporting on sustainable value creation by the core metrics outlined in the Measuring Stakeholder Capitalism: Towards Common Metrics and Consistent Reporting of Sustainable Value Creation framework by the World Economic Forum (WEF)

CHRB

Ranking of corporate human rights performance according to the Corporate Human Rights Benchmark (CHRB)

Report Assurance

The sustainability performance data disclosed in Subsection 3: Driving Business towards Sustainability, Section 1: Business Operations and Performance of the "Form 56-1 One Report" for the year 2024 has been approved by senior management of relevant departments and PTT's Board of Directors. Furthermore, it has undergone continuous external verification by independent agencies for the 14th consecutive year to ensure stakeholders' confidence in the accuracy, completeness, reliability, and business alignment of the disclosed information. Readers can access further details of each topic and track PTT's sustainability performance in Subsection 3: Driving Business towards Sustainability, Section 1: Business Operations and Performance of Form 56-1 One Report for the year 2024 by clicking or scanning the QR code provided on the right hand side.



INDEPENDENT ASSURANCE STATEMENT**To: The Stakeholders of PTT Public Company Limited****Introduction and objectives of work**

Bureau Veritas Certification (Thailand) Ltd. has been engaged by PTT Public Company Limited ("PTT") to conduct an independent assurance of its the 56-1 One Report (Driving Business towards Sustainability Section) (the "Report") or referred to in the Report of PTT's corporate website ("the Website"). This Assurance Statement applies to the related information included within the scope of work described below.

This information and its presentation in the 56-1 One Report (Driving Business towards Sustainability Section) or referred to in the Report of PTT's corporate website ("the Website") are the sole responsibility of the management of PTT Public Company Limited. Bureau Veritas was not involved in the drafting of the Report. Our sole responsibility was to provide independent assurance on its content.

Intended Users of this Assurance Statement

This assurance statement is provided with the intention of being used by all of PTT's stakeholders.

Scope of work

The assurance process was conducted in line with the requirements of the **AA1000 Assurance Standard (AA1000AS v3)**, released in August 2020, Type 2 assurance at a **Moderate level**. The scope of work included:

- Data and information included in the 56-1 One Report for the sustainability performance data from January 1, 2024 to December 31, 2024 (the 'Selected Information'), subject to the limitations and exclusions listed in the section below, our review included:
 - Statements, information and performance data contained within the Report and the Website; and
 - PTT Public Company Limited's management approach to its material issues and the performance indicators, as detailed on the following page.
- Appropriateness and robustness of underlying reporting systems and processes, used to collect, analyse and review the information reported;
- Evaluation of the Report against the main principles of the AccountAbility Principles, AA1000AP (2018)¹
 - Inclusivity
 - Materiality

- Responsiveness
- Impact

- Evaluation of the Report against the principles of reporting process as defined in the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards) including GRI 1: Foundation 2021 (report quality), GRI 2: General Disclosure 2021 (reporting practices and organizational detail), GRI 3: Material Topics 2021 (process of determining material topics) ("criteria");
- Verification of the identified aspects of the following data expressed in numerically or in descriptive text for the year ended 31 December 2024 as listed below:

Environmental Performance Indicators

- 302-1 Energy consumption within the organization (2016)
- 302-3 Energy intensity (2016)
- 303-3 Water withdrawal (2018)
- 303-4 Water discharge (2018)
- 305-1 Direct (Scope 1) GHG emissions (2016)
- 305-2 Energy indirect (Scope 2) GHG emissions (2016)
- 305-3 Other indirect (Scope 3) GHG emissions (2016)
- 305-4 GHG emissions intensity (2016)

¹ Published by AccountAbility. For more information visit website:

<https://www.accountability.org/>

305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions (Volatile Organic Compounds: VOCs) (2016)

306-3 Waste generated (2020)

306-4 Waste diverted from disposal (2020)

306-5 Waste directed to disposal (2020)

306-3 Significant spills (2016)

308-1 New suppliers that were screened using environmental criteria (2016)

308-2 Negative environmental impacts in the supply chain and actions taken (2016)

Social Performance Indicators

403-9 Work-related injuries (2018)

403-10 Work-related ill health (2018)

404-1 Average hours of training per year per employee (2016)

405-2 Ratio of basic salary and remuneration of women to men (2016)

414-1 New suppliers that were screened using social criteria (2016)

414-2 Negative social impacts in the supply chain and actions taken (2016)

Economic Performance Indicator

201-1 Direct economic value generated and distributed – community investments (2016)

Methodology

As part of its independent assurance, Bureau Veritas undertook the following activities:

1. Interviews with relevant personnel of PTT Public Company Limited;
2. Interviews to company representatives from various functions and levels, including top management;
3. Review of documentary evidence produced by PTT Public Company Limited;
4. Review of performance data, a % sample of which back to source;
5. On-site visits to Sriracha Oil Terminal, Chonburi Operation Center, and Region 1 Pipeline Operations Center, which were selected on the basis of risk analysis including the consideration of both quantitative and qualitative criteria;
6. Review of PTT Public Company Limited data and information systems for collection, aggregation, analysis and review;

7. Review of stakeholder engagement activities by gathering of objective evidence, reviewing documents and data, and conducting management interviews with the teams responsible for stakeholder engagement.

Our work was conducted against Bureau Veritas' standard procedures and guidelines for external Assurance of Sustainability Reports, based on current best practice in independent assurance.

The work was planned and carried out to provide limited, rather than reasonable assurance and we believe it provides a limited basis for our conclusions.

Alignment with the principles of AA1000AP (2018)

Inclusivity

PTT Public Company Limited has processes in place for engaging with a range key stakeholders including Public Sector, Society and Communities, Investors, Customers, Suppliers and Partners, and Directors and Employees and has undertaken a number of formal stakeholder engagement activities in 2024 covering a range of topics such as Supply Chain, Human Rights and Environment.

Materiality

The Report addresses the range of environmental, social and economic issues of concern that PTT Public Company Limited has identified as being of highest material importance. The identification of material issues has considered both internal assessments of risks and opportunities to the business, as well as stakeholders' views and concerns. Fourteen material issues identified through stakeholder engagement.

Responsiveness

PTT Public Company Limited is responding to those issues it has identified as material and demonstrates this in its policies, objectives, indicators and performance targets. The reported information can be used by the organisation and its stakeholders as a reasonable basis for their opinions and decision-making.

Impact

PTT Public Company Limited is monitoring, measuring and accountable for how their actions affect their broader ecosystems. Identified impacts is incorporated into both stakeholder engagement and the periodic materiality assessment process to inform organisational governance, strategy, goal-setting and operations.

Evaluation against the Reporting Principles, as defined in the GRI 1: Foundation 2021, the Universal Standard of the GRI Sustainability Reporting Standards (GRI Standards)

Bureau Veritas undertook an evaluation of PTT Public Company Limited the Report against the Reporting Principles, as defined in the GRI 1: Foundation 2021. This included cross checking the GRI index table against all the reference documents to provide an opinion on the self-declared GRI application level.

Based on our work, it is our opinion that the Report and the Website has been prepared in accordance with the GRI Sustainability Reporting Standards (GRI Standards) including appropriate consideration of the Reporting Principles and necessary indicators to meet the requirements of GRI Application Level.

Limitations and Exclusions

Excluded from the scope of our work is any assurance of information relating to:

- Activities outside the defined assurance period;
- Positional statements (expressions of opinion, belief, aim or future intention by PTT Public Company Limited) and statements of future commitment;

This independent statement should not be relied upon to detect all errors, omissions or misstatements that may exist within the Report.

Conclusion

Based on the procedures performed and evidence obtained, no matter(s) has come to the attention of the assurance team that causes Bureau Veritas to believe that the subject matter information is not prepared, in all material respects, in accordance with the applicable criteria.

Statement of independence, impartiality and competence

Bureau Veritas is an independent professional services company that specialises in Quality, Health, Safety, Social and Environmental management with almost 200 years history in providing independent assurance services, and an annual turnover in 2024 of Euros 6.24 billion.

Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day to day business activities. We are particularly vigilant in the prevention of conflicts of interest.

No member of the assurance team has a business relationship with PTT Public Company Limited, its Directors or Managers beyond that required of this assignment. We have conducted this verification independently, and there has been no conflict of interest.



Bureau Veritas Certification (Thailand) Ltd.
Bangkok
6 March 2025



Reader Feedback Survey

Reader can click or scan the QR Code for feedback survey on the 2024 Annual Registration Statement/ Annual Report (56-1 One Report) and Subsection 3: Driving Business towards Sustainability Section 1: Business Operations and Performance. For further information, please visit www.pttplc.com



This report uses environmentally friendly paper.



PTT Public Company Limited

555 Vibhavadi Rangsit Rd., Chatuchak,
Bangkok 10900, Thailand
Tel. 66 (0) 2537-2000
www.pttplc.com

