

Supplementary of
Form 56-1 One Report
for Year

2024



*Together for
Sustainable Thailand,
Sustainable World*

Supplement Information for 56-1 One Report 2024

Nature of Business/Marketing/Competition of Businesses invested through PTT Group

Details of businesses invested by PTT through PTT Group as listed below provide additional information to Item 1.2.2 Nature of Business, Marketing and Competition in the 56-1 One Report 2024.

1. Upstream Businesses Invested through PTT Group

1.1 Gas related Business

PTT has operated businesses related to natural gas through its affiliates. For example, Liquefied Natural Gas (LNG) business operates LNG receiving services, LNG storage, and LNG regasification to support LNG import to the country, as well as investment expansion and the operation of integrated LNG business. Its portfolio has even included the development and construction of gas transmission pipelines systems and gas transportation, etc. in order to support PTT Group's status as the fully integrated natural gas business operator in which PTT has invested in the following companies:

- 1.1.1 [PTT Natural Gas Distribution Company Limited \(PTTNGD\)](#)
- 1.1.2 [Trans Thai-Malaysia \(Thailand\) Limited \(TTM\(T\)\) and](#)
[Trans Thai-Malaysia \(Malaysia\) Sdn.Bhd. \(TTM\(M\)\)](#)
- 1.1.3 [PTT LNG Company Limited \(PTTLNG\)](#)
- 1.1.4 [Map Ta Phut Air Products Company Limited \(MAP\)](#)

1.2 Petroleum Exploration and Production Business

PTT has conducted petroleum exploration and production business through [PTT Exploration and Production Public Company Limited \(PTTEP\)](#), which is PTT Group's flagship company in the petroleum exploration and production. PTTEP has operated domestic and international petroleum E&P as well as invested in midstream petroleum businesses and transmission pipeline systems overseas so as to procure sources of crude oil and gas to ensure Thailand's energy security and distribute petroleum outputs from domestic and regional projects, mostly natural gas, primarily to the domestic market. As of 31 December 2024, PTTEP has more than 50 petroleum exploration and production projects in 12 countries.

1.3 Investments in Other Upstream Businesses

PTT has made investments via the following companies:

- 1.3.1 [PTT Energy Resources Company Limited \(PTTER\)](#)
- 1.3.2 [PTT Green Energy Company Limited \(PTTGE\)](#)

2. Downstream Businesses Invested through PTT Group

2.1 International Trading Business

PTT invested in international trading business to undertake full-scale international trading transactions by expanding a strong international trade network. The investments aimed to seek business opportunities from sourcing raw materials and products at competitive prices and creating added value from international trade for the PTT Group, and to ensure energy security for the country. The International Trading Business was done through 3 companies in the group:

2.1.1 [PTT International Trading Pte Ltd \(PTTT\)](#)

2.1.2 [PTT International Trading London Ltd \(PTTT LDN\)](#)

2.1.3 [PTT International Trading USA Inc. \(PTTT USA\)](#)

2.2 Petrochemical & Refining, Oil and Retail Businesses

PTT has invested in refining business in 3 out of 6 refineries in Thailand, with the total refining capacity of 770,000 barrels per day that accounted for 62% of the country's total capacity (as of 31 December 2024). Moreover, PTT has operated an integrated petrochemical business from upstream to downstream, from production to distribution of fuel oil, as well as upstream, midstream and downstream of petrochemical products in both olefins and aromatics fields, which focus on value creation, including marine terminal and tank services. In this regard, PTT is responsible for procuring crude oil and purchasing fuels and petrochemical products from the PTT Group to supply both domestic and overseas markets. Performance of oil, petrochemical and refining businesses mainly subject to economic situation and the spreads between crude oil and feedstock to petroleum and petrochemical products in global market, which fluctuate according to global demand and supply together with year-end inventories. For the PTT Group, PTT Global Chemical Public Company Limited (GC) is the petrochemical flagship. Thai Oil Public Company Limited (TOP) is the refinery flagship. IRPC Public Company Limited (IRPC) is the integrated petrochemical and refinery flagship. PTT Oil and Retail Business Public Company Limited (OR) is the oil and retail business flagship. Additionally, PTT Tank Terminal Company Limited (PTT TANK) operates the business of receiving, storing, and transferring of products to PTT Group.

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

Unit: barrels per day

Product Type	2022	2023	2024
Gasoline	223,203	228,202	230,470
Diesel	481,972	489,332	494,974
Aviation Fuel	71,447	92,256	115,684
Fuel Oil	99,308	86,760	93,064
Kerosene	33,086	34,405	36,779
LPG	130,116	129,832	142,705
Total	1,039,132	1,060,787	1,113,676

Source: Department of Energy Business, Ministry of Energy

In 2024, Thailand's average fuel demand increased by 5.0% compared to 2023. Diesel demand rose by 1.2%, aviation fuel by 25.4%, fuel oil by 7.2%, and LPG (including its use as a petrochemical feedstock) by 10.0%. Gasoline demand increased by 1.0%, while kerosene demand jumped by 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.

The overall petrochemical industry in Thailand in 2024 slightly contracted 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 amid 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.

Oil and Retail Businesses

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

Oil sales in Thailand is a free market, with constant competition based on market mechanisms in terms of prices, product and service quality enhancements, supply chain cost management, new business model development to increase revenue. In 2024, oil consumption in Thailand rose from 2023 due to economic recovery, higher travel activity, and a rising energy demand. The details of Thailand's fuel consumption for 2022–2024 are as follows:

Unit: million liters

Product Type	2022	2023	2024
LPG ^{1/}	6,705	6,743	6,849
Gasoline	11,180	11,559	11,585
Kerosene	5	4	4
Aviation Fuel	3,337	5,006	5,940
Diesel	26,664	25,153	25,165
Fuel Oil ^{2/}	1,992	1,832	1,823
Lubricants	468	465	469
Total	50,351	50,762	51,835

Source: Department of Energy Business and OR

Notes: ^{1/} Excluding Propane and Butane

^{2/} Excluding fuel oil sold to the Electricity Generating Authority of Thailand (EGAT)

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

Oil traders' market shares from 2022–2024 is detailed as follows:

Unit: %

Company Name	2022	2023	2024
OR ^{1/}	43.22	42.17	39.2
Bangchak	11.15	11.96	13.0
ESSO ^{2/}	10.53	9.95	9.20
Shell	7.13	6.72	6.30
Small traders	27.97	29.20	32.3

Source: Department of Energy Business

Note: Excluding LPG used as the petrochemical feedstock

^{1/} Including PTT's and OR's market share

^{2/} Name changed to Bangchak Sriracha Plc. on 15 November 2023

Oil Price Structure

The oil price structure consists of 2 components: the ex-refinery wholesale price and the retail price. The ex-refinery wholesale price includes the ex-refinery price, excise tax, municipal tax, contributions to the Oil Fuel Fund and the Energy Conservation Promotion Fund, and value-added tax (VAT). The retail price comprises the ex-refinery wholesale price, marketing margin, and VAT.

Given Thailand's oil importer status mostly in crude oil and partially refined products, and a free market trade system, the determination of oil price at refinery is benchmarked against global oil price on the import parity principle, decided by the authority. Additionally, pricing is also subject to foreign exchange rates (value of Thai Baht) which directly affects import parity cost calculation.

As for the excise tax, municipal tax, VAT, and contributions to the Oil Fuel Fund and the Energy Conservation Promotion Fund, the state determines tariffs which differ with each category of oils. Producers are responsible to remit the taxes and contributions to the relevant funds at the rates fixed by the state.

Since the prices of refined products in the global market fluctuate based on market conditions, and the government fixed different rates for different fuel categories resulted in continuous adjustments of retail oil prices. The following table shows the oil price structure as of 27 December 2024:

Oil Price Structure in Bangkok Metropolis as of 27 December 2024

Unit: THB per liter

	Benzene 95	Gasohol 95 E10	Gasohol 91	Gasohol 95 E20	Gasohol 95 E85	Diesel B7
Ex-refinery Price	18.5939	19.2300	18.8052	19.7827	25.2564	20.6169
Excise Tax	6.5000	5.8500	5.8500	5.2000	0.9750	5.9900
Municipal Tax	0.6500	0.5850	0.5850	0.5200	0.0975	0.5990
Oil Fuel Fund	10.6800	4.6000	4.6000	2.6100	1.1600	1.3600
Energy Conservation Promotion Fund	0.0500	0.0500	0.0500	0.0500	0.0500	0.0500
Ex-refinery Wholesale Price	36.4739	30.3150	29.8902	28.1627	27.5389	28.6159
VAT	2.55328	2.1221	2.0923	1.9714	1.9277	2.0031

	Benzene 95	Gasohol 95 E10	Gasohol 91	Gasohol 95 E20	Gasohol 95 E85	Diesel B7
Ex-refinery Wholesale Price Inclusive of VAT	39.0271	32.4371	31.9825	30.1341	29.4666	30.6190
Marketing Margin	5.1522	3.5635	3.6425	3.7438	4.1340	2.1692
VAT	0.3607	0.2494	0.2550	0.2621	0.2894	0.1518
Retail Price	44.54	36.25	35.88	34.14	33.89	32.94

Source: Energy Policy and Planning Office

Notes:

- The ex-refinery price is benchmarked against refined oil price in the global market under the import parity principle.
- The rates of taxes and contributions to the relevant funds are determined by the state.

LPG Distribution Industry

In 2024, Thailand's demand for LPG averaged at 18.26 million kilograms per day, increased 3.75% from 2023. Of the total LPG consumption, the transport sector accounted for 2.33 million kilograms per day (increased 2.6%), the industrial sector for 2.00 million kilograms per day (unchanged from 2023), the petrochemical sector for 8.13 million kilograms per day (increased 7.0%), and the household sector for 5.80 million kilograms per day (increased 1.0%).

LPG Price Structure

LPG price structure consists of 2 components:

(1) The ex-refinery wholesale price, consisting of:

- Ex-refinery price
- Excise tax, municipal tax, contribution to the Oil Fuel Fund, and VAT

(2) The retail price, consisting of:

- The ex-refinery wholesale price
- Marketing margin and VAT

LPG Price Structure as of 27 December 2024

	THB/kilogram
Ex-refinery Price	22.9960
Excise Tax	2.17
Municipal Tax	0.2170
Oil Fuel Fund	(4.4651)
Ex-refinery Wholesale Price	20.9179
VAT	1.4643
Ex-refinery Wholesale Price Inclusive of VAT	22.3822
Marketing Margin	3.2566
VAT	0.2280
Retail Price	25.87

Source: Energy Planning and Policy Office

PTT exercises direct and indirect governance of its affiliates through representatives that serve as directors and secondments.

PTT has invested in Petrochemical & Refining, Oil and Retail Businesses through 5 companies as follows:

- 2.2.1 [PTT Global Chemical Public Company Limited \(GC\)](#)
- 2.2.2 [Thai Oil Public Company Limited \(TOP\)](#)
- 2.2.3 [IRPC Public Company Limited \(IRPC\)](#)
- 2.2.4 [PTT Oil and Retail Business Public Company Limited \(OR\)](#)
- 2.2.5 [PTT Tank Terminal Company Limited \(PTT TANK\)](#)

3. New Business and Sustainability Operated through PTT Group

The following PTT Group companies are under New Business and Sustainability:

- 3.1 [Global Power Synergy Public Company Limited \(GPSC\)](#)
- 3.2 [District Cooling System and Power Plant Company Limited \(DCAP\)](#)
- 3.3 [PTT Energy Solutions Company Limited \(PTTES\)](#)

Power Business: Currently, power business is a main business under New Business and Sustainability. PTT Group has engaged in the power business through GPSC, PTT Group's Power Flagship, which conducts its business primarily in the production and distribution of electricity, steam, industrial water, and other public utilities, both 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 battery.

Marketing of Power Business

As of November 2024, Thailand has an installed electricity generation capacity of 55,474 MW, 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 MW, 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 Net Zero Emissions target by 2065.

Competition in 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. PTT 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.

Electric Vehicle (EV) 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 & Infrastructure Business: Focuses only on related business 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), the company has established a direction for seeking partners with expertise in business operation, while also creating benefits for Thailand and self-funding growth. Currently, INBA engages in pharmaceutical, nutrition, medical equipment and diagnosis businesses, etc., as well as enhances PTT's capability in life science and create added value for the country, including an investment in Lotus Pharmaceutical Company Limited (LOTUS),

a listed company in Taiwan Stock Exchange whose core business is research and development (R&D), manufacturing, and distribution of the generic drugs that cover various therapeutic areas especially oncology, central nervous system, etc.

4. Other Businesses

- 4.1 [PTT Treasury Center Company Limited \(PTT TCC\)](#) 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.
- 4.2 [PTT Global Management Company Limited \(PTTGM\)](#) 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.
- 4.3 [PTT Digital Solution Company Limited \(PTT DIGITAL\)](#) 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.
- 4.4 [Energy Complex Company Limited \(EnCo\)](#) provides comprehensive services in 3 main businesses: Property Management Business, Facility Management Business, and Property Development Business.

**Details of Businesses Invested through
PTT Group
2024**

1. Upstream Businesses invested through PTT Group

1.1 Gas-related businesses

PTT has operated gas-related businesses via the PTT Group affiliates in order to support the group's role as the fully integrated natural gas business operator. Details are as follows:

1.1.1 PTT Natural Gas Distribution Company Limited (PTTNGD)

PTTNGD was founded on 24 June 1996 to operate the development and constructions of gas distribution pipeline systems for gas transport and distribution. Its current shareholders are (1) PTT; (2) Gulf Energy Development Plc.; and (3) Gulf LNG Co., Ltd. The company has developed and constructed distribution pipeline systems for gas transmission and distribution to customers in industrial zones around Bangkok, its perimeter, and Rayong. As of 31 December 2024, the company has a registered and paid-up capital of THB 500 million in which PTT holds 58% and Gulf Energy Development Plc.'s group holds 42% of PTTNGD registered and paid-up shares.

PTTNGD invests in the construction of distribution pipeline systems, using steel and High Density Polyethylene (HDPE) pipe branching off from PTT's transmission pipelines to customers located in industrial zones around Bangkok Metropolis, its perimeter, and Rayong. Additionally, PTT has assisted PTTNGD in procuring land as well as right to utilize the land for the constructions of gas distribution pipelines. PTTNGD has also expanded its business and investment to address customers' demand by providing energy services, cogeneration business, and alternative-energy businesses along with other business activities such as providing additional services related to the transmission pipeline systems.

1) Procurement

PTT procured all gas for PTTNGD through sale and purchase agreements that are valid for 5-10 years. The gas price structure includes the price of natural gas as regulated by the Energy Regulatory Commission (ERC), pipeline tariff, remuneration for the gas supply, marketing and distribution of gas, and gas price structure under the Energy Pool Price.

2) Distribution

As of 31 December 2024, PTTNGD's distribution pipeline system delivered gas to the industrial customers. Currently, the distribution pipeline system covers the following areas; Phraeksa and Bang Poo Mai subdistricts of Samut Prakan's Mueang district, the Lat Krabang Industrial Estate, the Bang Plee Industrial Estate, the industrial zone in Rangsit, the Rojana Industrial Park, the Nava Nakorn Industrial Estate, the Bang Pa-In Industrial Estate, the Bangkadi Industrial Estate, the WHA Eastern Seaboard Industrial Estate 1, the Eastern Seaboard Industrial Estate, the Bangpoo Industrial Estate, M-Thai Industrial Estate, Amata City Chonburi, Amata City Rayong, WHA Eastern Seaboard Industrial Estate 2, WHA Eastern Seaboard Industrial Estate 4, the 304 Industrial Park, the IP7 Phases 3 and 5, Amata City Rayong Industrial Estate 2, Amata City Chon Buri Industrial Estate 2, and Amata Smart City Chonburi Industrial Estate. The gas sale and purchase agreements with customers are valid for 5-7 years with gas price set at a rate that could compete against alternative fuels namely fuel oil or LPG. In 2024, PTTNGD recorded the gas sales volume of 48.44 MMSCFD, decreased 1.24% from 2023, with a total of 257 customers. The gas sales and number of customers between 2022 and 2024 are as follows:

Sales	2022	2023	2024
Volume (MMSCFD)	56.47	49.05	48.44
Number of customers	253	258	257

In addition, PTTNGD expanded its gas distribution channels by co-investing with 80.00% holding in Amata Natural Gas Distribution Co., Ltd.'s (AMATA NGD) shares to construct of distribution pipeline system for customers in the Amata City Chonburi Industrial Estate and the Amata City Rayong Industrial Estate.

3) Management

As of 31 December 2024, PTTNGD's Board of Directors has 10 members, 5 of them are appointed by PTT (including chairperson). In addition, PTT has assigned its executives to take a position of the PTTNGD's management, including the president.

4) Finance

The operating results of PTTNGD between 2022 and 2024 are as follows:

Unit: THB million

Financial statements	2022	2023	2024
Revenue from sales and services	11,042	9,163	8,885
Total revenue	11,240	9,574	10,048
Total expenses (taxes included)	11,140	8,449	7,110
Net profit (loss)	100	1,125	2,938

Unit : THB million

Financial statements	2022	2023	2024
Total assets	3,105	3,222	3,371
Total liabilities	1,300	1,292	1,358
Shareholders' equity	1,805	1,930	2,013

1.1.2 Trans Thai – Malaysia (Thailand) Company Limited (TTM(T)) and Trans Thai-Malaysia (Malaysia) Sdn. Bhd. (TTM(M))

PTT and Petronas, Malaysia's National oil company, jointly established Trans Thai-Malaysia (Thailand) Co., Ltd. (TTM(T)) in Thailand on 4 February 2000 and Trans Thai-Malaysia (Malaysia) Sdn. Bhd. (TTM(M)) in Malaysia on 21 March 2000. TTM(T) provides a service of natural gas transportation via the transmission pipelines from the Malaysia-Thailand Joint Development Area (JDA) for utilization within Thailand and also to Thai – Malaysia border as well as providing gas separation services in Songkhla and transporting LPG via pipelines from Songkhla to Thai – Malaysia border. TTM(M), meanwhile, provides a service of natural gas transportation and LPG via pipelines from Thai – Malaysia border to Malaysia for utilization within the country. As of 31

December 2024, TTM(T) has a registered and paid-up capital of THB 6,343.6 million while TTM(M) has a registered and paid-up capital of MYR 187.8 million plus redeemable preference shares amounting to MYR 15 million, in which PTT and Petronas own a 50 % of paid-up shares each in both companies.

1) Services

TTM(T) has provided gas and LPG transmission services as well as gas separation services to only 2 companies which are PTT and Petronas, in which both companies are the shareholders of TTM(T). TTM(M), meanwhile, has provided gas and LPG transmission services to Petronas and its wholly owned subsidiary, which is Petronas Energy & Gas Trading Sdn. Bhd. (PEGT). The services are provided under a mutual service agreement. The companies have been providing gas transmission services (onshore and offshore) since January 2006 with gas being processed through carbon dioxide separation units. Gas separation and LPG transmission services started on 14 April 2006. Additionally, TTM(T) expanded a commercial gas delivery for PTT to Chana Power Plant with a capacity of 131 MMSCFD since the third quarter of 2008 and subsequently increased the capacity by 7 MMSCFD from June 2011 to deliver to the NGV mother station in Thailand's southern region. The installation of gas pipeline from the MTJDA-A18 gas field, which is connected to PTT's third gas pipeline, began in December 2006, with the delivery capacity of 300 MMSCFD, and started its gas transmission in late 2008. Consequently, the commercial service from MTJDA-B17, which is connected to PTT's third gas pipeline, started on 1 June 2010, boosting the delivery capacity by 300 MMSCFD.

Moreover, the gas transmission pipeline from MTJDA-B17 field was connected with Petronas' pipeline at the edge of the JDA for further delivery to Kerteh, Malaysia, started from 1 May 2015. Such expansion not only generates additional revenue, but it also helps PTT procure sufficient gas supply to support its customers' demand. This move has also stabilized and strengthened Thailand's energy security.

As of 31 December 2024, service details were as follows:

• Natural-gas production (Feed Gas) (Block A18)	638	MMSCFD
• Natural-gas production (Feed Gas) (Block B17)	290	MMSCFD
• Gas Delivery (Sales Gas)	242	MMSCFD
• LPG Delivery	126,819	metric tons per year
• NGL Delivery	31,194	metric tons per year

2) Management

As of 31 December 2024, the Boards of Directors of TTM(T) and TTM(M) comprised 6 members each; 3 appointed from PTT and another 3 appointed from Petronas. Currently, the directors appointed by PTT have served as the chairman of the boards for both companies with a 3-year term and then alternating this position with Petronas's appointee.

3) Finance

TTM(T)'s operating results between 2022 and 2024 are as follows:

Unit: THB million

Financial statements	2022	2023	2024*
Revenue from sales and services	3,407	3,439	3,849
Total revenue	3,612	3,714	4,025
Total expenses (taxes included)	2,001	2,332	2,243
Net profit (loss)	1,611	1,382	1,782

Unit: THB million

Financial statements	2022	2023	2024*
Total assets	12,730	11,238	9,150
Total liabilities	4,886	3,603	1,365
Shareholders' equity	7,844	7,635	7,785

* 2024 data are unaudited.

TTM(M)'s operating results between 2022 and 2024 are as follows:

Unit: Ringgit million

Financial statements	2022	2023	2024*
Revenue from sales and services	56	49	59
Total revenue	73	51	64
Total expenses (taxes included)	40	40	61
Net profit (loss)	33	11	3

Unit: Ringgit million

Financial statements	2022	2023	2024*
Total assets	549	446	353
Total liabilities	290	187	100
Shareholders' equity	259	259	253

* 2024 data are unaudited

1.1.3 PTT LNG Company Limited (PTTLNG)

PTT established PTTLNG on 30 August 2004 to operate an LNG receiving terminal and provide LNG storage and regasification services. As of 31 December 2024, PTTLNG has a registered capital of THB 27,748 million and a paid-up capital of THB 27,748 million.

1) Nature of Business

PTTLNG operates the LNG Map Ta Phut Terminal 1 (LMPT1), which consists of LNG receiving terminal, LNG storage tanks, and LNG regasification unit with total capacity of 11.5 million tons per annum. Of the total capacity, 5 million tons per annum achieved in Phase 1 and ramp up to 10 million tons per annum in Phase 2 and an additional expansion of Phase 2 of 1.5 million tons per annum. Moreover, it also transports LNG by truck up to 182,500 tons of LNG a year.

Also, PTTLNG has a subsidiary namely PE LNG Co., Ltd. (PE LNG) which was established on 16 June 2023. PE LNG provides and manages services related to the operation and maintenance of the LNG receiving terminal, LNG storage, and LNG regasification unit, as well as other related businesses. PTTLNG and EGAT equally hold a stake in PE LNG at 50.00%.

PE LNG operates the LNG Map Ta Phut Terminal 2 (LMPT2), which is consisted of LNG receiving terminal, 2 LNG storage tanks with capacity to store 250,000 cubic meters of LNG, and an LNG regasification unit with the capacity of 7.5 million tons of LNG per annum.

2) Services

PTTLNG provides services and management of LNG receiving terminal and collect terminal tariffs service; where LNG is supplied and imported by clients.

- Demand Charge (Ld): Ld rate is at THB 17.7598 per MMBTU for both LMPT1 and LMPT2, started from 1 March 2024 until there will be a new rate approved by the ERC.
- Commodity Charge (Lc): Lc rate is THB 0.8646 per MMBTU for both LMPT1 and LMPT2, started from 1 April to 31 December 2024.
- Current customers of LMPT1: PTT, Global LNG Co., Ltd. (PTTGL), and B. Grimm LNG Co., Ltd. (BGLNG)
- Current customers of LMPT2: PTT, EGAT, and Hinkong Power Holding Co., Ltd. (HKH)

3) Management

As of 31 December 2024, PTTLNG's Board of Directors consists of 7 members. Of them, 6 are PTT's executives and another is a representative of the Ministry of Finance, nominated by PTT as an expert.

4) Finance

PTTLNG's operating results between 2022 and 2024 are as follows:

Unit : THB million

Financial statements	2022	2023	2024
Revenue from sales and services	9,949	13,073	12,000
Total revenue	9,988	13,258	21,180
Total expenses (taxes included)	4,212	6,873	5,309
Net profit (loss)	5,776	6,385	15,871

Unit : THB million

Financial statements	2022	2023	2024
Total assets	79,643	83,058	58,622
Total liabilities	22,371	21,704	1,375
Shareholders' equity	57,272	61,353	57,247

1.1.4 Map Ta Phut Air Products Company Limited (MAP)

PTT Board of Directors, at its meeting on 16 November 2018, issued a resolution for PTT to establish MAP, in which PTT Group holds 51.00% and Bangkok Industrial Gas Co., Ltd. (BIG) holds 49.00% of MAP's shares. In response to the resolution, PTT registered MAP on 15 January 2019 to operate a business that utilizes excess cold energy from LNG and reduces operating cost in Air Separation Unit (ASU) Project for the production and distribution of industrial gas namely nitrogen, oxygen, liquid nitrogen, liquid oxygen, and liquid argon. The construction of ASU plant was completed on 1 September 2021 and started its commercial operation since 1 October 2021.

1) Nature of Business

- Joint venture with BIG in ASU project as a production JVC to produce industrial gas with approximately 0.67 million tons of excess cold energy from LNG per year.
- ASU project utilizes excess cold energy from LNG. It has constructed a cold air-duct system that links to PTT LNG Receiving Terminal in order to transport LNG to its facilities that will take cold energy out from LNG. Following the usage, the ASU will send natural gas via ducts back to PTT LNG Receiving Terminal, which will forward it to gas users. PTT LNG has invested in the project's air-duct system.
- The parent company of BIG, Air Products and Chemicals, Inc. (APC), provides manufacturing technologies to ASU project.
- ASU project located on 9.5 rai of land in the Map Ta Phut Industrial Port in Rayong, which is operated by the Industrial Estate Authority of Thailand (IEAT). Its location is about 1 kilometer away from PTT LNG Receiving Terminal.

2) Distribution

MAP distributes industrial gas products to BIG, PTT Group, and other users in various industries. Its gases are priced based on cost-plus pricing structure which will change according to the production cost. BIG is responsible for the retail marketing to distribute the gases to end users in different economic sectors, such as frozen industry, electronic industry, metal-welding industry, and hospitals which will be delivered through pipelines and transport trucks.

3) Management

MAP's Board of Directors consists of 4 members. Of them, 2 are PTT's executives and 2 others are BIG's executives.

4) Finance

MAP's operating results between 2022 and 2024 are as follows:

Unit : THB million

Financial statements	2022	2023	2024
Revenue from sales and services	747	870	822
Total revenue	748	871	823
Total expenses (taxes included)	570	638	596
Net profit (loss)	178	233	227

Unit : THB million

Financial statements	2022	2023	2024
Total assets	1,668	1,545	1,603
Total liabilities	1,116	883	733
Shareholders' equity	552	662	870

1.2 Petroleum Exploration and Production

PTT has operated its petroleum exploration and production business through its subsidiary PTTEP, which was established on 20 June 1985 with an initial registered capital of THB 400,000 as the E&P Flagship Company. On 10 June 1993, PTTEP was listed on the Stock Exchange of Thailand (SET). As of 31 December 2024, PTTEP has the registered capital of THB 3,969,985,400 with PTT holding 63.79 % of PTTEP's registered and paid-up capital.

To operate its petroleum exploration and production businesses in Thailand and overseas, PTTEP must comply with conditions and laws of relevant countries, which could be in forms of (1) Production Sharing Contracts (PSC) (2) Concessions, or (3) Services Agreements. In Thailand, PTTEP's petroleum exploration and production are under 2 laws namely the Petroleum Act B.E. 2514 and the Petroleum Income Tax Act B.E. 2514 (and amendments) as well as other applicable laws.

PTTEP has mainly operated in Southeast Asia namely Thailand, Myanmar, Malaysia, Vietnam, and Indonesia. However, PTTEP has also invested in other regions including in Oman, the United Arab Emirates, Algeria, Mozambique, and Kazakhstan. As of 31 December 2024, PTTEP conducted more than 50 petroleum exploration and production projects in 12 countries with proved reserves of 1,637 million barrels of oil equivalent consisting of crude oil and condensate: 488 million barrels of LPG, and 6,999 billion cubic feet of gas. Moreover, the Probable Reserves had the volume of 931 million barrels of oil equivalent. The total proven reserves of PTTEP and its subsidiaries on 31 December 2022 – 2024 were as follows:

Unit: million barrel of oil equivalent

Proved reserves	2022	2023	2024
Indigenous Thailand	712	746	758
International	730	690	879
Total	1,442	1,436	1,637

PTTEP, moreover, has invested in new businesses outside petroleum exploration and production field in pursuit of long-term growth. These investments focus on the development of its current technologies and R&D capabilities that support its current

businesses. For example, PTTEP has urgently expedited the growth of its Artificial Intelligence (AI) and robotics businesses via AI & Robotics Ventures Company Limited (ARV). Also, it has developed Carbon Capture as a Service (CCS as a Service) business and explored opportunities to invest in offshore renewable energy businesses, hydrogen businesses, etc.

PTTEP has entered into joint ventures for its investments outside petroleum exploration and production field. For instance, it has co-invested in gas pipeline projects in Myanmar namely the Zawtika Project and the Yadana Project. For midstream petroleum products, it has co-invested in the Oman LNG Project (OLNG), the ADNOC Gas Processing (AGP), and the HyDuqm Project that operates a comprehensive hydrogen business in Oman. PTTEP has even made an investment in Scotland's Seagreen Offshore Wind Farm Project. In addition, there is an investment with PTT Group which is a joint investment between PTT and PTTEP, with an equal shareholding of 50.00% each in Energy Complex Co., Ltd. to operate office-space rental business.

Marketing

PTTEP operates petroleum exploration and production businesses both domestically and internationally. The target markets are both domestic and overseas where the company has invested. In 2024, the total sales ratio of domestic to overseas was 68:32. PTTEP sells its outputs from domestic and ASEAN primarily to the Thai market through PTT, the major buyer and processor of all products. PTT then turns the processed products into the power sector, petrochemical sector, transportation sector, industry sector, and household sector.

Marketing of petroleum products varies with their characteristics and field location which results in differentiating the market and sales price structures as summarized herewith.

1) Natural Gas

Due to capital-intensive investment in developing oil and gas exploration business, gas sales agreements (GSAs) must be agreed upon or signed between the buyer and seller before any major investment is made. GSAs are typically long-term contracts, ranging from 15 to 30 years. Prices, volumes, and points of sale are stipulated for each of the contracts. Gas prices are mostly linked to fuel oil prices or Dubai crude prices as well as several key economic indices and exchange rate to reflect the investment costs and be competitive compared with other fuels along the GSAs period.

2) Condensate and Crude Oil

Condensate and crude oil prices are determined by their properties and benchmarked with condensate prices and crude oil prices of Regional Benchmark Price. Contracts are either short-term or long-term, and some are sold in spot markets.

3) Naphtha

PTTEP sells naphtha from its investment in the AGP project, the largest gas processing complex located onshore of Abu Dhabi, UAE, which is sold by Abu Dhabi National Oil Company (ADNOC) and represents as a Marketing Agent. The selling price followed the official selling price in the region and naphtha is sold under a short-term contract.

4) Liquefied Petroleum Gas (LPG)

PTTEP sells LPG produced from S1 Project to PTT under a long-term contract with a price in line with the government's policy and announcements of the Joint Committee on Energy Policy Administration. In addition, LPG produced by AGP is sold under a short-term contract in which the selling price refers to the official selling price in the region.

Competition

Thailand's E&P industry is oligopolistic due to high petroleum demand compared with production, resulting from the business' relatively high investment and advanced technology required. The GSAs, especially natural gas, are predominantly long-term contracts coupled with take-or-pay clauses to attract new investments to the market and reduce the risk of investors investing in this business.

Based on estimated data of 2024 production petroleum of PTTEP from domestic sources accounted for 73% of total domestic production.

As of 2023-year-end, the total amount of the natural gas reserves in Thailand and the Malaysia-Thailand Joint Development Area (MTJDA) are as follows:

Petroleum Reserves	Natural Gas (Billion Cubic Feet: bcf)	Crude Oil (Million Barrels: MMbbl)	Condensate (Million Barrels: MMbbl)
Proved Reserves	4,585.78	111.99	127.89
Probable Reserves	3,619.34	92.02	123.52
Possible Reserves	2,721.85	43.56	133.88

Source: Department of Mineral Fuels' 2023 Annual Report

In Thailand, there are many large operators in petroleum exploration and production such as PTT Exploration and Production Plc., Chevron Thailand Exploration and Production Co., Ltd., Chevron Offshore (Thailand) Co., Ltd., Hess (Thailand) Co., Ltd., and Mitsui Oil Exploration Co., Ltd. In 2024, the average domestic gas production was 2,504 million cubic feet per day, a 14% increase from the previous year. Crude oil production was 80,571 barrels per day, a 17% increase from the previous year, and condensate production was 66,211 barrels per day, a 9% increase from the year earlier.

The petroleum production volumes in Thailand from 2013 to 2024 are as follows:

Years	Natural Gas (Million Cubic Feet per Day)	Crude Oil (Barrels per Day)	Condensate (Barrels per Day)
2013	4,045	149,482	91,159
2014	4,073	138,552	94,330
2015	3,852	152,387	95,629
2016	3,777	163,527	94,489
2017	3,620	141,248	98,572
2018	3,527	129,201	99,010
2019	3,623	125,889	102,332
2020	3,262	117,029	84,835
2021	3,204	97,620	79,549
2022	2,192	78,793	58,630
2023	2,192	69,012	60,668
2024	2,504	80,571	66,211

Source: Website of the Energy Policy and Planning Office, the Ministry of Energy (www.eppo.go.th)

PTTEP's operating results largely depend on global crude oil prices, success in petroleum exploration and petroleum source development, continuous enhancement of operational efficiency and cost management, as well as additional investment opportunities. Details of the operating results are as follows:

1) Production

As of 31 December 2024, the total production capacity of PTTEP and its subsidiaries was 696,257 barrels of oil equivalent per day (BOED). The total annual production for 2022 - 2024 is summarized as follows:

Unit : BOED

Production volume	2022	2023	2024
All projects	585,244	638,319	696,257

2) Distribution

PTTEP and its subsidiaries have produced 4 types of products namely natural gas, condensate, crude oil and LNG for distribution with most products sold to PTT and its subsidiaries (71% of PTTEP's 2024 sales). Regarding natural gas sales and purchases, PTT and PTTEP have signed long-term contracts that are valid for 15 to 30 years. There is also a minimum purchase requirement in each year. For crude oil and condensate, the prices under sale / purchase agreements between PTT and PTTEP are made in reference to the global crude oil prices, which have similar qualification in order to reflect the value of its product at the rate as close as possible to market price. PTT has signed sale / purchase agreement on crude oil and condensate with PTTEP.

As of 31 December 2024, the total sales volume of all 4 types of products by PTTEP and its subsidiaries was approximately 488,794 BOED, an increase of 6% when compared to 462,007 BOED in 2023. The bigger sales mainly owed to PTTEP becoming the operator of G1/61 Project, which has raised natural gas production capacity to 800 million standard cubic feet per day (MMSCFD) since March 2024. Another key factor was PTTEP's higher stake in Yadana Project after a co-investor withdrew from the project in April 2024. Sales of PTTEP and its subsidiaries by product type for 2022 - 2024 are as follows:

Products	2022	2023	2024
Crude oil (thousand barrel per day)	72	75	74
Natural gas (MMSCFD)	2,079	2,039	2,197
Liquefied Petroleum Gas (metric tons per day)	177	163	168
Condensate (thousand barrel per day)	53	52	57
All products (BOED)	468,130	462,007	488,794
Average selling prices (USD per barrel of oil equivalent)	53	48	47

3) Management

PTT has managed its investments in PTTEP by joining the latter's Board of Directors so as to have the power and duty to formulate and supervise PTTEP's operations in line with the principles of good corporate governance. As of 31 December 2024, PTTEP's Board of Directors has 15 members. Of them, 2 are PTT executives.

4) Finance

PTTEP's operating results between 2022 and 2024 are as follows:

Unit: THB million

Financial statements *	2022	2023	2024
Revenue from sales and services	331,350	300,694	312,310
Total revenue	339,902	315,216	327,415
Total expenses (taxes included)	269,668	239,988	249,915
Net profit (loss)	70,901	76,705	78,817

Unit : THB million

Financial statements *	2022	2023	2024
Total assets	869,864	902,821	965,301
Total liabilities	402,744	403,378	429,425
Shareholders' equity	467,120	499,443	535,876

* From 1 January 2011, PTTEP has chosen USD as functional currency. Any figure in THB in financial statements therefore is converted from USD.

5) Project progress and projects under development

In 2024, the total sales volume by the PTTEP Group's domestic projects averaged 334,205 barrels of oil equivalent per day (BOED), accounting for 68% of total sales. Projects in other Southeast Asian countries, meanwhile, had the average sales volume of 88,625 BOED, representing 18% of total sales.

The PTTEP Group's petroleum exploration and production business progressed as planned. Notably, the G1/61 Project has successfully increased its natural gas production capacity to 800 million cubic feet per day from 20 March 2024 or well ahead of schedule. To alleviate energy impacts on the public and strengthen the country's energy security, the project also plans to install additional wellhead platforms and drill more production wells to sustain output levels efficiently. Regarding overseas projects, progress was as follows: (1) A co-investor in the Yadana Project, Myanmar, expressed an intention to withdraw. PTTEP's stake in the project, as a result, has risen from 37.0842% to 62.9630% from 1 April 2024; (2) Abu Dhabi Offshore 2 Project, located in the northwestern offshore area of Abu Dhabi, the United Arab Emirates, has received development plan approval from authorities. A final investment decision (FID) is expected by 2025. (3) PTTEP has successfully acquired a 10% stake in Ghasha Concession, the United Arab Emirates. The acquisition was completed on 11 June 2024. As Ghasha Concession offers a large gas source in development stage, the acquisition immediately increased PTTEP's petroleum reserves; and (4) The PTTEP Group acquired a 34% stake in E&E Algeria Touat B.V. from ENGIE International Corporation B.V. (ENGIE). Upon completion of contractual conditions, the PTTEP Group will hold an indirect 22.1% stake in Touat. Located in Algeria, Touat has produced natural gas since 2019. Therefore, it immediately offered returns on investment to the PTTEP Group upon the completion of acquisition.

Regarding progress in new businesses that support energy transition, the Green Hydrogen Project in Oman is in the stage of assessing wind and solar resource and conducting a feasibility study to evaluate investment value and profitability before beginning engineering design in 2025. This project is expected to start production in 2030. Also, ROVULA (Thailand), a subsidiary of AI and

Robotics Ventures Company Limited (ARV), successfully conducted a paid trial of XPLORER underwater robot in collaboration with leading energy companies. This trial marked Asia’s first application of XPLORER together with non-contact corrosion inspection technology, achieving 155 km of subsea pipeline inspection in Malaysia. For their Carbon Capture and Storage (CCS) Project, PTTEP and the PTT Group had meetings with relevant government agencies to seek guidance on developing CCS initiatives in Thailand. PTTEP’s investment in Seagreen Offshore Wind Farm was finalized on 31 May 2024, with the company holding an indirect 25.5% stake in the project.

For additional details, visit PTTEP website: pttep.com/en/investor-relations/document/annual-reports

1.3 Investments in Other Upstream Businesses

1.3.1 PTT Energy Resources Company Limited (PTTER)

PTTER, a wholly owned subsidiary of PTT, was established in October 2007. PTTER provided management services to PTT’s coal business. As of 31 December 2024, PTTER has a registered capital of THB 34,483 million (3,448,300,000 common shares that have the par value of THB 10 each) and a paid-up capital of THB 33,703 million.

1) Business Operations

PTTER sold all its 25-per-cent stake in East Mediterranean Gas S.A.E. (EMG) to Snam S.p.A. (Snam) (a listed company in Italy) or its wholly owned subsidiary along with all related obligations, at the price of approximately USD 50 million. The sale was completed on 2 December 2021.

In February 2023, PTT withdrew from the coal-business investment. As a result, PTTER has no longer operated a core business. On 14 December 2023, the PTTER’s extraordinary annual general meeting of shareholders No. 2/2566 issued a resolution to dissolve and liquidate PTTER. The termination of PTTER was registered with the Department of Business Development, the Ministry of Commerce, on 28 December 2023. The ongoing liquidation is expected to be completed by 2026.

2) Management

-

3) Finance

PTTER’s operating results between 2022 and 2024 are as follows:

Unit : THB million

Financial statements	2022	2023*	2024
Revenue from sales and services	-	-	
Other revenues	189	390	N/A
Total expenses (taxes included)	70	67	
Net profit (loss)	119	323	

Unit : THB million

Financial statements	2022	2023*	2024
Total assets	3,324	1,860	
Total liabilities	34	7	N/A
Shareholders' equity	3,290	1,853	

*Accounting period from 1 January 2023 to 28 December 2023 (Company dissolution date).

1.3.2 PTT Global Management Company Limited (PTTGE)

PTT Green Energy Company Limited (PTTGE) was registered as a wholly owned subsidiary of PTT on 14 September 2007, with an initial capital of THB 833 million. Currently, PTTGE's registered capital has risen to THB 12,403 million. Its primary founding objective was to invest in palm plantation and crude palm oil production. However, the assets under PTTGE are not appropriate for palm plantations of international standard. The performance as a result failed to meet business targets and expenses to maintain the assets were high. By business standard, it was not cost-effective to continue the operations. As a result, in 2014, the PTT Board of Directors decided at Board Meeting No. 5/2557 to liquidate the projects under PTTGE. The liquidation was completed in 2019.

1) Business Operations

Currently, PTTGE has two subsidiaries: PTT Green Energy Pte. Ltd. (a Singaporean registered company) and PTT Green Energy (Thailand) Co., Ltd. (a Thai registered company).

2) Management

As of 31 December 2024, PTTGE board had 4 members while PTTGE TH board had 2 members.

3) Finance

PTTGE's operating results between 2022 and 2024 are as follows:

Unit: USD million

Financial Statements	2022	2023	2024
Total revenue	-	0.7	0.8
Total expenses (taxes included)	1	0.8	0.8
Net profit (loss)	(1)	(0.1)	0

Financial Statements	2022	2023	2024
Total assets	17	17	17
Total liabilities	-	-	-
Shareholders' equity	17	17	17

2. Downstream Businesses Invested through PTT Group

2.1 International Trading Business

2.1.1 PTT International Trading Pte. Ltd. (PTTT)

PTTT was established on 1 December 2000, in Singapore, with a registered and paid-up capital of SGD 6.1 million. This wholly owned subsidiary of PTT aims to undertake full-scale international trading through commodity storage, blending, distribution management, chartering service and price risk management for crude oil, condensate, LNG, petroleum products, petrochemicals, biofuels, carbon credits, products related to energy, and other commodities to generate revenue, create added value, serves as a platform for transaction expansion in the Eastern region, and contribute to Thailand's energy security.

PTTT has one subsidiary, PTT MEA Ltd. (PTT MEA), located in Abu Dhabi, the U.A.E., PTT MEA was established on 21 February 2021 to invest in ICE Futures Abu Dhabi (IFAD) and expand its trade network in the Middle East and Africa. PTTT also has a representative office in Shanghai, China, which is PTT International Trading Shanghai Representative Office to coordinate for trading activities and market data related to China and neighboring regions.

1) Trading and Services

PTTT conducts full-scale international trading activities, including storage, blending, management, and distribution to expand overseas trade. It therefore purchases and sells commodities, provides chartering service and manages price risks using derivatives. PTTT primarily focuses on Asian and intercontinental markets associated with other subsidiaries of the International Trading Business unit and PTT Group.

2) Management

As of 31 December 2024, PTTT's Board of Directors consists of 6 members. Of them, 5 are PTT executives and the other is a representative of the Ministry of Finance.

3) Finance

PTTT and its subsidiary's operating results between 2022 and 2024 are as follows:

Unit: USD million

Financial statements	2022	2023	2024*
Revenue from sales and services	24,468	26,533	25,242
Total revenue	24,469	26,693	25,272
Total expenses (taxes included)	24,388	26,593	25,197
Net profit (loss)	81	100	75

Unit: USD million

Financial statements	2022	2023	2024*
Total assets	2,297	2,732	2,586
Total liabilities	2,054	2,396	2,200
Shareholders' equity	243	336	386

*2024 data are unaudited.

2.1.2 PTT International Trading London Ltd. (PTTT LDN)

PTTT LDN was established on 24 October 2016 in London, U.K., with a registered capital of USD 26.5 million and a paid-up capital of USD 10.5 million. This wholly owned subsidiary of PTT focuses on expanding the trading network in the Western region together with the aspiration to pursue opportunities and create added value through new transactions from West to East. Its transactions include trading of crude oil and petroleum products together with chartering service and price risk management.

In addition, PTTT LDN's other key role is to pursue trading and price movement data in the Western region, providing PTT with worldwide product data around the clock. Also, its strategic location in U.K., the world's major derivatives market, to enhance trading efficiency and price risk management.

1) Trading and Services

PTTT LDN has conducted trading activities outside Thailand. Its business involves the purchases and sales of commodities, providing of chartering service, and price-risk management services through derivatives. Treating Europe and Africa as its major markets, PTTT LDN has also conducted intercontinental trading activities with other subsidiaries in the International Trading Business unit and PTT Group.

2) Management

As of 31 December 2024, PTTT LDN's Board of Directors consists of 6 members. Of them, 5 are PTT executives, and the other is a representative of the Ministry of Finance.

3) Finance

PTTT LDN's operating results between 2022 and 2024 are as follows:

Unit: USD million

Financial statements	2022	2023	2024*
Revenue from sales and services	3,103	3,026	2,721
Total revenue	3,104	3,034	2,719
Total expenses (taxes included)	3,062	3,019	2,712
Net profit (loss)	42	15	7

Unit: USD million

Financial statements	2022	2023	2024*
Total assets	392	870	580
Total liabilities	305	771	478
Shareholders' equity	87	99	102

*2024 data are unaudited.

2.1.3 PTT International Trading USA Inc. (PTTT USA)

PTTT USA was established on 2 April 2020 in Houston, U.S., with a registered capital of USD 15 million and a paid-up capital of USD 5 million. PTTT USA, a wholly owned subsidiary of PTT, focuses on expanding its trading network in the Americas (North, Central, and South America), including pursuing opportunities to create added value and enlarge trading transactions in the Americas and intercontinental, and also to procure feedstock for PTT Group's refineries and/or petrochemical plants, which reduce dependence on the Middle East, where political risks are relatively high. Its transactions cover crude oil, LNG, petroleum products, petrochemical products, chartering service, and price risk management.

Moreover, PTTT USA's key role is to seek trade data and price movement of products in the Americas and the world's key derivative market in the U.S., contributing to PTT's efficiency of trading and hedging, thanks to around-the-clock product data availability.

1) Trading and Services

PTTT USA expands overseas trading by purchasing and selling commodities and providing chartering and hedging services through derivatives. PTTT USA focuses on its primary markets in North and South America, including intercontinental trading associated with other subsidiaries under PTT's International Trading Business unit and PTT Group.

2) Management

As of 31 December 2024, PTTT USA's Board of Directors has 6 members. Of them, 5 are PTT executives while the other is a representative of the Ministry of Finance.

3) Finance

PTTT USA's operating results between 2022 and 2024 are as follows:

Unit: USD million

Financial statements	2022	2023	2024*
Revenue from sales and services	1,660	1,061	1,064
Total revenue	1,661	1,063	1,066
Total expenses (taxes included)	1,638	1,040	1,058
Net profit (loss)	23	23	9

Unit: USD million

Financial statements	2022	2023	2024*
Total assets	64	53	122
Total liabilities	34	3	67
Shareholders' equity	30	50	56

*2024 data are unaudited.

2.2 Petrochemical, Refining, Oil and Retail businesses

2.2.1 PTT Global Chemical Public Company Limited (GC)

GC is involved in integrated petrochemical and refining with total production capacity of approximately 14 million tons per year for petrochemical and chemical products and total refining capacity of 280,000 barrels per day for crude oil and condensate. GC is the PTT Group's petrochemical flagship which PTT holds 45.18% of shares in GC as of 31 December 2024.

GC has 5 core business groups, as follows:

- 1) Upstream petrochemical products
- 2) Intermediate petrochemical products
- 3) Polymers & Chemicals
- 4) Bioplastics & Circularity
- 5) Special chemical products

In addition to the aforementioned 5 major business groups, GC offers various services namely product marketing & distribution services, logistics services, port services, utilities, technical support, engineering services, and plant-maintenance services including other businesses. As of 31 December 2024, GC's installed capacities were as follows:

Installed Capacity

(tons per year except when stated otherwise)

Business Group	
1) Upstream petrochemical products	
Refinery ⁽¹⁾	280,000
Aromatics plants	2,419,000
Olefins plants.....	3,829,000
2) Intermediate petrochemical products ⁽²⁾	
Ethylene Oxide	423,000
Phenol.....	954,000
Other intermediate petrochemical products...	1,408,000
3) Polymers & Chemicals ⁽²⁾	
Polymers.....	2,855,000
Chemicals	198,000
4) Bioplastics & Circularity ⁽²⁾	905,000
5) Special chemical products ⁽²⁾	1,418,000

Notes:

(1) Raw materials entering the crude distillation unit (CDU) are measured in barrels per day, including about 145,000 barrels per day for crude distillation and 135,000 barrels per day for condensate distillation.

(2) As for intermediate petrochemical products, polymer products & chemicals, bioplastics & circularity, and special chemical products, capacities are calculated from companies in which GC holds at least 25.00% stake as of 2024.

Production capacity and utilization rates of GC refinery, olefins plants and aromatics plants in recent years are as follows:

	Production capacity	2022 ¹	2023 ²	2024 ³
		Utilization rate (%)	Utilization rate (%)	Utilization rate (%)
Refinery	280 thousand barrels per day	89	104	102
Olefins plant	3,829 thousand tons per year	80	80	82
Aromatics plant	2,419 thousand tons per year	88	83	88

¹ In 2022, aromatics production unit 1 and olefins production unit 3 were closed for planned maintenance during 2Q2022. Also, olefins production unit 2 and refinery were closed for maintenance in 4Q2022.

² In 2023, olefins production unit 2 was closed for planned maintenance in 1Q2023, aromatics production unit 2 in 3Q2023 and olefins production unit 1 in 4Q2023.

³ In 2024, olefins production unit 2 was closed for planned maintenance in 1Q2024 and 3Q2024.

1) Procurement

For upstream petrochemical products, the procurement of raw materials for refined products focuses on low-cost crude oil from domestic and overseas to achieve economic cost benefit in the production process. Regarding aromatics, condensate has been mainly procured from domestic-based sources. GC has also sought condensate from new overseas sources in order to give alternatives to its aromatics plants. The procurement of raw materials for olefins production focuses on enhancing competitiveness through raw-material diversity. Key raw materials are ethane, propane, LPG and NGL that are made of gas. It is also possible to use light naphtha and LPG that are by-products from GC's own refinery and aromatic plants. GC has procured the aforementioned raw materials via PTT under long-term agreements.

For intermediate petrochemical products, polymer products, and chemical products, GC has used aromatics-and olefins-based products from its operations as raw materials for production, upgrade, and value-adding with the aim to enhance its business potential and secure a competitive edge.

For bioplastics & circularity products, GC has mainly procured raw materials from local suppliers to support Thailand's agricultural sector and related industries. Such procurement has contributed to both supply-chain sustainability and local development. For special chemical products, GC has procured raw materials from manufacturers through both short-term and long-term sales and purchases agreements for efficient feedstock management.

2) Distribution

Regarding upstream petrochemical products, GC has sold refined product mainly to the domestic market under long-term agreements with PTT Oil and Retail Business Public Company Limited (OR) as its major customer. It has also emphasized selling its products to CLMV (Cambodia, Laos, Myanmar and Vietnam) so as to continuously expand its market base. GC's aromatics, meanwhile, is not only used for its production of intermediate petrochemical products but is also sold under short-term and long-term agreements to domestic customers. While GC's olefins is mainly used for its production of downstream petrochemicals, GC has also sold olefins to other companies in GC Group as well as other domestic customers.

Regarding intermediate petrochemical products, GC has sold them mainly to domestic customers. The distribution focuses on major customers and agents, which help distribute the products to retail customers. After domestic demand is fulfilled, the remaining volume of products is exported.

Regarding polymer products, GC has produced and distributed them under its trademarks. It, moreover, has engaged in the production and distribution of various key polymer products via subsidiaries and joint ventures. Additionally, GC has comprehensively marketed and sold its products to overseas customers in order to maximize trading opportunities.

Regarding bioplastics & circularity products, GC has only sold bioplastics to specific customers who are major manufacturers with production and customer bases in various regions. Circularity products, meanwhile, have been sold mainly in the domestic market.

Regarding special chemical products, GC mainly distributes directly to customers and dealers which operate through subsidiaries and joint ventures.

3) Management

As of 31 December 2024, GC's Board of Directors has 14 members. Of them, 4 are PTT executives. PTT has also assigned its executives to serve in GC management, including in the position of chief executive officer.

4) Finance

GC's comparative performance results between 2022 and 2024 are as follows:

Unit: THB million

Consolidated financial statements	2022	2023	2024
Revenue from sales and services	683,954	621,631	608,549
Total revenue	668,873	632,346	606,084
Total expenses (taxes included)	677,625	631,347	635,895
Net profit (loss) *	(8,752)	999	(29,811)
Net profit (loss) of the major shareholder	(7,636)	865	(8,213)**

Unit: THB million

Consolidated financial statements	2022	2023	2024
Total assets	719,965	719,005	645,844
Total liabilities	421,138	422,824	377,251
Shareholders' equity	298,827	296,181	268,593

* Profit (loss) of the major shareholder after deducting the portion of non-controlling interests. The profit (loss) of the non-controlling interests totaled THB (1,116) million in 2022, THB 134 million in 2023, and THB 204 million in 2024.

** Profit (loss) of the parent company totaled THB 21,801 million excluding loss from impairment/restructuring.

5) Projects

5.1) Development of allnex's production hubs in various continents

According to the success of allnex's China Hub, which was developed to meet the growing demand in the Chinese market, GC has expanded this achievement by establishing production hubs in high-growth potential countries. One of them is the Mahad plant in Maharashtra, India. The construction has already commenced to expand production capacity to support the growth of the coatings industry in India and South Asia. Additionally, a new plant in Map Ta Phut, Thailand, is planned to serve as the production hub in Southeast Asia, reinforcing its role as a central manufacturing base for the region in the future.

5.2) Construction of a new integrated polylactic acid (PLA) production plant

NatureWorks LLC, a joint venture between GC International Corporation, a subsidiary of GC, and Cargill, Incorporated (Cargill), USA, has decided to expand its production capacity by constructing a second plant at the Nakhon Sawan Biocomplex in Thailand. This fully integrated facility will produce lactic acid, lactide, and polylactic acid (PLA) with a production capacity of 75,000 tons per year. The plant is currently under construction, with commercial operations scheduled to begin in 2025.

5.3) Sustainable Aviation Fuel (SAF) production project

GC has expanded its business operation to the Sustainable Aviation Fuel (SAF) production to support the goal of achieving of Net Zero greenhouse gas emissions by 2050. For SAF production, GC has upgraded its crude oil refinery with advanced refining technology to process waste-derived raw materials, transforming used cooking oil into low-carbon SAF. As a form of Renewable & Sustainable Energy, SAF reduces environmental impact. The project has a planned production capacity of 20,000 tons per year, with commercial operations set to begin in 2025.

For additional details, visit the company's website, at: pttgcgroup.com/en/investor-relations/document/annual-filings

2.2.2 Thai Oil Public Company Limited (TOP)

TOP is Thailand's leading business operator in refinery and petroleum distribution. Its refinery also ranks among the most efficient in Asia-Pacific. The company's main business is petroleum oil refining. Presently, its production capacity is 275,000 barrels per day, or 22.1% of the country's overall refinery nameplate capacity. Domestic distribution accounts for approximately 85% of the total capacity. The company has also expanded its investment into aromatics-production business with the current annual production capacity of 838,000 tons. Moreover, it has engaged in the businesses of surface-active agent (LAB), olefins, electricity generation, alternative energy, and solvent. As of 31 December 2024, PTT holds 45.03% of TOP's shares.

The following is TOP's production capacity and utilization rate of its refinery and aromatics plant for the periods indicated:

	Production capacity	2022 ¹	2023	2024
		Utilization rate (%)	Utilization rate (%)	Utilization rate (%)
Refinery	275,000 barrels per day	107	112	111
Aromatics plant	838,000 tons per year	71	73	80

¹ In 2022, there was a major maintenance shutdown at Thai Lube Base Public Company Limited's production unit from early October to mid-November.

1) Procurement

TOP's production uses crude oil supplied from both domestic and international sources. Most of the imported crude oil is shipped from the Middle East, transported by sea freight. Domestic crude oil, meanwhile, is transported by rail and ships. The selection of crude oil is based on prices and expected returns. PTT is responsible for procuring crude oil for TOP under a crude supply agreement with a price structure that is based on market prices.

2) Distribution

In 2024, TOP distributed 86% of its products in the domestic market and exported the remaining 14%. OR, the main distributor of PTT Group's refined products, is responsible for purchasing TOP's oil products under a product offtake agreement at market prices.

2022	2023	2024
Proportion of domestic/international sale (%)	Proportion of domestic/international sale (%)	Proportion of domestic/international sale (%)
85/15	86/14	86/14

3) Management

As of 31 December 2024, TOP's Board of Directors has 15 members. Of them, 5 are PTT executives. PTT also assigned its executives to serve in TOP management, including in the posts of its chief executive officer and president.

4) Finance

TOP's performance results between 2022 and 2024 are as follows:

Unit: THB million

Consolidated financial statements	2022	2023	2024
Revenue from sales and services	505,703	459,402	455,857
Total revenue *	547,273	470,879	470,201
Total expenses **	514,167	451,294	460,220
Net profit (loss) ***	33,106	19,585	9,981
Net profit (loss) of the major shareholder	32,668	19,443	9,959

Unit: THB million

Consolidated financial statements	2022	2023	2024
Total assets	444,581	419,993	409,010
Total liabilities	285,924	251,681	242,825
Shareholders' equity	158,657	168,312	166,185

* Includes share of profit (loss) from investments in joint ventures and associates: THB (513) in 2022, and THB 84 million in 2023, and THB (132) million in 2024.

The total revenue in 2024, including profit from debenture redemption was THB 1,134 million.

** Includes income tax items (income tax credit) of THB 8,918 million in 2022, THB 4,672 million in 2023, and THB 2,283 million in 2024, as well as the financial costs of THB 3,860 million in 2022, THB 4,089 million in 2023, and THB 4,052 million in 2024.

*** Profits attributable to equity holders of the company; the profit attributable to non-controlling interests amounted to THB 438 million in 2022, THB 142 million in 2023, and THB 22 million in 2024.

5) Projects

5.1 Clean Fuel Project (CFP)

TOP has invested in CFP to increase its crude oil refining capacity from the existing 275,000 barrels per day to 400,000 barrels per day. This expansion will enhance the overall value of the Company's products, improve production efficiency, and help achieve economies of scale. Additionally, the new refinery design will allow for the processing of a wider range of crude oil, which are typically higher in value and more environmentally friendly. This investment will promote stability and sustainability in the petroleum refining industry, contribute to the country's energy security, and support long-term economic growth.

The CFP Project investment was approved by the Extraordinary General Meeting of Shareholders No. 1/2018 on 27 August 2018 with the investment value of approximately USD 4,825 million and the interest during construction of approximately USD 151 million. In this regard, the sale of the Energy Recovery Unit (ERU) reduced the CFP Project's investment budget by approximately USD 757 million. However, the COVID-19 pandemic, which severely impacted global operations from 2020 to 2022, disrupted the procurement of equipment, materials and construction activities at the site. As a result, operational plans had to be adjusted to address the challenges faced and ensure the continued progress of the CFP Project. These resulted in an increase of the CFP Project costs by approximately USD 550 million and increase of the interest during construction of the CFP Project of USD 422 million, and the time for completion was extended by 2 years.

Currently, the company remains committed to expediting the completion of CFP in alignment with its strategy to build long-term growth and profitability. At present, the Hydrodesulfurization Unit 4 or HDS-4 construction has been successfully completed and commenced test-run for the production of Euro 5 Standard diesel in February 2024 – in time for the Thai Government's policy of promoting Euro 5 Standard diesel which came into effect in early 2024. However, the failure of the Main Contractor to pay overdue payments to its subcontractors working on the CFP Project resulted in work stoppages or reduction of workforce, causing the construction of the CFP Project in accordance with the EPC Contract to be delayed. Accordingly, the Special Board of Directors Meeting No. 6/2024, held on 19 December 2024, considered to convene the Extraordinary General Meeting of Shareholders No. 1/2025 to propose to the Extraordinary General Meeting of Shareholders to consider and approve an increase of the investment cost in the CFP Project in an amount of approximately THB 63,028 million or approximately USD 1,776¹ million equivalent, with the interest during construction of approximately THB 17,922 million or approximately USD 505² million equivalent. The additional investment costs in the CFP Project will be utilised for the construction of the CFP Project, procurement of remaining equipment and materials and payment of other expenses related to the development of the CFP Project, e.g. advisory fees, etc., to support the development of the CFP Project until completion and enable the commercial operation to be commenced in order to achieve the objectives of the CFP Project and deliver value to the company and its shareholders, while also considering the interests of relevant stakeholders.

¹ Based on the daily average selling rate for USD as announced by the Bank of Thailand from 1 January to 11 December 2024, the exchange rate is THB 35.4885 per USD 1. However, the exchange rate may fluctuate according to market conditions.

5.2 Olefins Business Co-Investment project

TOP has invested in PT Chandra Asri Petrochemical Tbk (CAP), which is Indonesia's largest producer of integrated chemical products, with years of experience and expertise in the petrochemical sector. TOP investment is made through a new subsidiary set up in the Republic of Indonesia, PT TOP Investment Indonesia (TII). On 29 July 2021, TII entered into agreements with the original major shareholders and CAP to acquire 15% of CAP's shares, at the total price of no more than USD 914 million, or about THB 30,222 million. TII, moreover, has planned to acquire 0.38% more of CAP's shares if CAP approves the investment in the development and construction of CAP2 petrochemical plant within 5 years since the share-subscription transaction based on right offering was completed under conditions that the purchase of additional shares shall cost no more than USD 270 million or about THB 8,928 million. However, if investment approval is not granted within five years, the purchase of additional shares shall cost no more than USD 3.9 million or about THB 129 million with both parties agreeing to specify investment methods in such event later but under conditions that the methods must receive approval from both CAP shareholders and relevant authorities in Indonesia. The additional share purchase is designed to ensure that TII shall hold 15.38% of CAP's shares. This project is consistent with TOP's long-term strategy of diversifying investments towards the growing petrochemical market. Business expansion into the petrochemical sector is executed through extension of its existing hydrocarbon business's downstream supply chain, for example by producing Chlor-Alkali (CA) and Ethylene Dichloride (EDC).

For additional details, visit the company's website, at: investor.thaioilgroup.com/en/downloads/one-report

2.2.3 IRPC Public Company Limited (IRPC)

IRPC Public Company Limited (IRPC) is involved in an integrated petrochemical business. Its refinery has the production capacity of 215,000 barrels per day, accounting for 17.32% of the country's total refinery capacity. As of 31 December 2024, PTT holds 45.05 % of IRPC's shares.

IRPC's refinery is capable of producing various petroleum products, including naphtha and LPG. The company is able to produce 320,000 tons of lubricant oil per year and 600,000 tons of asphalt per year. Also, IRPC is a producer of petrochemical products such as olefins and aromatics, with the production capacity of 1,221,000 and 367,000 tons per year, respectively. These upstream petrochemical products are feedstocks in the production of different plastic pellets, including HDPE and PP, with the production capacity of 915,000 tons per year, as well as styrenics (ABS, SAN, PS, and EPS), with the production capacity of 352,000 tons per year. These products are sold to operators in the plastics industry to use as raw materials in the production of numerous plastic wares, and purchase orders are from both domestic and overseas customers. Moreover, IRPC has utilities to support its operation, including deep-sea port, oil depot and power plant, thus having an edge in management and the economy of scale. For example, it has advantages when it comes to the cost of feedstock transportation.

IRPC's production capacity and utilization rate of its refinery, olefins plant, and aromatics and styrenics plant for the periods indicated are as follows:

	Production capacity	2022 ¹	2023 ²	2024 ³
		Utilization rate (%)	Utilization rate (%)	Utilization rate (%)
Refinery	215,000 barrels per day	81	91	93
Olefins plant	1,611,000 tons per year	86	73	78
Aromatics and styrenics plants	1,194,000 tons per year	86	74	81

¹ In 2022, main production units – ADU1 & 2 plants – were shut down for planned maintenance for 37 days.

² In 2023, there was no planned maintenance shutdown.

³ In 2024, there was no planned maintenance shutdown.

1) Procurement

The company's major raw material, crude oil, accounts for 84% of its feedstock. Most of the crude oil used in the production process is imported from the Middle East by sea freight. The company has the policy to acquire the feedstocks from sources that provide maximum returns. PTT is responsible for procuring most of the crude oil under the crude oil supply agreement, with the price structure based on the market prices.

2) Distribution

In 2024, IRPC sold 75% of its products in the domestic market and exported 25% as calculated from the net petroleum-product sales revenue. For petrochemical products, IRPC sold 68% of its products in the domestic market and exported the remaining 32% as calculated from the net petrochemical-product sales revenue. The distribution of petrochemical products was executed through distributors and direct sales. For exports, sales were managed through trade representatives based overseas.

3) Management

As of 31 December 2024, IRPC's Board of Directors has 14 members. Of them, 4 are PTT executives. PTT has assigned its executives to serve in IRPC management, including in the position of president and chief executive officer.

4) Finance

IRPC's operating results between 2022 and 2024 are as follows:

Unit: THB million

Consolidated financial statements	2022	2023	2024
Revenue from sales and services	324,800	319,047	314,833
Total revenue	326,622	320,154	316,633
Total expenses (including taxes) *	330,986	323,077	321,826
Net profit (loss)**	(4,364)	(2,923)	(5,193)
Net profit (loss) of the major shareholder	(4,360)	(2,912)	(5,229)

Unit: THB million

Consolidated financial statements	2022	2023	2024
Total assets	198,187	192,661	184,555
Total liabilities	118,509	116,539	114,447
Shareholders' equity	79,678	76,122	70,108

[†]Includes income taxes: THB 1,142 million in 2022, THB 772 million in 2023, and THB 1,474 million in 2024.

^{**}Net profit (loss) of the major shareholder after deducting those of minority shareholders; the profit (loss) shares of non-controlling interests amounted to THB (4) million in 2022, THB (11) million in 2023 and THB 36 million in 2024.

5) Projects

5.1) Ultra Clean Fuel (UCF) project

The objective of the UCF Project is to increase refinery plant's efficiency and upgrade diesel quality to Euro-5 standard, given that Ministry of Energy has issued the policy to require the distribution of Euro-5 diesel in Thailand from 1 January 2024 onward. Under the Euro-5 standard, the permitted sulfur level will decline to 10 parts per million (PPM) from 50 PPM (under Euro-4 standard). The project increases the company's competitiveness in light of the growing demand for low sulfur diesel in the domestic market as well as ASEAN Economic Community (AEC). The UCF project promises to strengthen the company that has diesel as its main product, and also fosters environmental friendliness and resonates with the company's Modern Eco Factory policy. The UCF project started its commercial production in April 2024. Upon the completion of the project, IRPC has the capacity to convert all its high-sulfur diesel into low-sulfur diesel based on Euro-5 standards.

For additional details, visit the company's website: irpc.co.th/en/annualreport_post/annual-report/

2.2.4 PTT Oil and Retail Business Public Company Limited (OR)

OR, a flagship company in the PTT Group, has engaged in the integrated petroleum product and non-oil retailing businesses both domestically and internationally. For example, it has sold petroleum products and other products in retail and commercial markets. Its operations also involve coffee business, food and beverage, convenience stores, and space management. OR has operated its businesses based on "Empowering All toward Inclusive Growth" vision. Its 4 missions are to strengthen integrated energy businesses with Seamless Mobility; to create alternatives for All Lifestyles; to successfully expand businesses in Global Market; and to solve social and environmental problems with OR Innovation. The goal is to achieve Triple Bottom Line growth, which attaches importance to not just business performance but also Society, People and the Planet.

OR has 4 core businesses: Mobility Business, Lifestyle Business, Global Business, and Innovation Business.

1) Nature of Business

Mobility Business: OR is committed to strengthening its integrated energy business to enable seamless mobility. The company has conducted petroleum products marketing through retail and commercial sectors. Its oil retail business has distributed various fuel products (including gasoline, diesel and LPG) and lubricants mainly to motorists and other small customers via PTT Station both COCO (Company Owned Company Operated) and DODO (Dealer Owned Dealer Operated). As for commercial marketing business, OR has distributed petroleum and other products to a wide range of commercial customers both in Thailand

and overseas. Its lubricants are exported to over 40 countries worldwide. Additionally, OR operates FIT Auto and FIT Express automotive service centers. OR's commercial marketing business also provides a comprehensive range of services in line with its positioning as an energy solution provider. Its offerings feature diverse products tailored to various industry needs, along with quality and reliable customer services.

Lifestyle Business: OR pursues the mission of presenting comprehensive alternatives in response to all lifestyles by expanding its retail business both inside and outside PTT stations nationwide, taking up the customer-centric approach. Lifestyle business consists of: 1) Food & Beverage business namely Café Amazon, others food and beverage developed by OR namely “Pearly Tea”, and those invested by OR such as “Ohkajhu” healthy-food restaurant chain, “Pacamara” specialty coffee and “Kamu Tea” tea shop chain, etc. Moreover, OR expands its Lifestyle business by investing in companies related to food and beverage to respond to consumers’ various needs. Its investment in Drink Enterprise Company Limited paves the way for it to enter the ready-to-drink beverage sector while its investment in Dusit Foods Company Limited enhances its Lifestyle business potential, diversifies its food businesses, and fosters mutual growth both in Thailand and overseas; and 2) Other retail businesses, including convenience stores and laundromats under Otteri Wash & Dry brand.

Global Business: To expanding its business base for success and acceptance in the global market, OR has operated Global business. Revenue for Global business comes from sales generated by OR’s overseas-based subsidiaries that engage in Mobility business and Lifestyle business. Petroleum products sold by OR’s overseas-based subsidiaries cover diesel, gasoline, aviation fuel, fuel oil, lubricants, and other petroleum products, etc. Also, OR has taken care of communities and societies where it has operated its businesses. At present, OR’s overseas businesses cover many countries including the Philippines, Cambodia, Laos, Myanmar, and Vietnam, etc.

Innovation Business: OR embraces digital to revenue mission by increasing revenue and customer bases via digital platforms. The mission materializes in the forms of Online to Offline (O2O) business as well as the enhanced utilization of OR’s digital assets. Moreover, the company upgrades its personalized marketing to reach out and respond to customers’ demand. Also, it creates new selling opportunities online via its collaborations with partners.

2) Procurement

Procurement of petroleum products is mainly executed through procurement or offtake contracts with refineries owned by the PTT Group as well as others. OR has long-term agreements with TOP, GC, SPRC, IRPC, Bangchak, and Bangchak Sriracha. These agreements are separately entered. OR has also imported some products. Petroleum products imported by OR are directly delivered through pipelines, ships, trucks, and rail to OR’s storage.

LPG is procured mainly by PTT, with OR purchasing directly from PTT’s gas separation plant. However, OR also has other LPG suppliers apart from the gas separation plant namely TOP, IRPC, and SPRC.

Condensate and methanol are procured for the specific groups of customers. Ethanol, biodiesel (B100), and fuel additives are purchased from selected distributors under procurement agreements as raw materials for gasohol and diesel blending for further distribution to customers.

For lubricant, OR procures base oil lubricants from Thai Lube Base Public Co., Ltd., IRPC and other domestic and overseas distributors. Additives for lubricants are acquired from domestic and overseas distributors.

Coffee beans for Café Amazon shops are procured from local producers in Thailand, including farmers, the Royal Project Foundation, Sam Palung Social Enterprise Co., Ltd., community enterprises and cooperatives, in support of coffee-growing communities and farmers as well as coffee-beans distributors. OR assigns relevant staff to audit the selection and procurement of coffee beans whose quality meets roastery standards set by Café Amazon.

Regarding 7-Eleven convenience stores, OR's business partner is the procurer and owner of all goods available at 7-Eleven outlets located within the OR network. For Jiffy convenience stores, OR generally does not sign long-term agreements with suppliers because it has other alternatives sourcing for most of products.

3) Distribution

Distribution channels cover all regions of Thailand and areas in Cambodia, the Philippines, Laos, Japan, Oman, Singapore, Myanmar, Malaysia, China, Vietnam and Saudi Arabia. OR's retail network consists of PTT Station, OR Space, LPG stations, cooking gas shops, FIT Auto service centers, FIT Express EV Station, Café Amazon outlets, food and drink shops, and convenience stores.

4) Projects

Mobility Business: Its major plan is to expand the network of oil stations under "PTT Station" brand by choosing high-potential locations. Also, there is a plan to continuously improve existing service stations as well as oil products' quality, in order to raise customer confidence and competitiveness. Moreover, OR has pursued an expansion plan for commercial market, storage terminals and distribution centers. In addition, OR embraces clean energy with an investment plan to expand EV Station network both inside and outside PTT service stations, and also to promote various types of clean energy and solutions for energy efficiency. Furthermore, OR seeks to develop its network of commercial space or OR Space by chosen a good potential location, supported by high travelling and dense communities. Geo Analytic is used to choose a location for integrated service business as OR focuses on keeping pace with energy transition as well as consumers' changing needs and behaviors.

Lifestyle Business: A major plan calls for a continued expansion of the network of retail outlets to meet the growing demand in the market. There is a plan to open new Café Amazon, convenience stores, as well as other shops. OR also seeks opportunities for joint ventures (JV) or mergers and acquisitions (M&A) to meet the rapidly changing customer needs. In addition to the food and beverage business, OR has also set its sight on other growing sectors, including tourism and health & wellness. For example, it has set up found & found brand that distributes healthcare and beauty products, etc.

Global Business: The company has a plan to expand the network of oil stations and retail shops overseas. Also, it seeks to expand its business-growth foundation by offering new products, services, and business models. Moreover, OR will explore business opportunities and to co-invest alongside strong partners in new markets that have good potential. OR has a strategy to expand its

businesses in Cambodia as the 2nd home base by focusing on the investment in solid infrastructure. Additionally, OR has a strategy to empower its business with technology as a part of Digital Transformation.

Innovation Business: OR officially launched xplORe application in August 2023, initially offering just basic features and integrating various OR applications that deliver interconnected experiences, such as blueplus+ and e-wallet, etc. OR plans to develop more features to enhance attractiveness, boost engagement, and optimize existing functionalities for greater efficiency. Currently, xplORe focuses on serving customers in mobility-related businesses as well as food & beverage, aligning with OR’s expertise. In the future, OR aims to expand xplORe’s offerings further to its target businesses, such as lifestyle, tourism, health, and beauty, etc.

5) Management

As of 31 December 2024, OR’s Board of Directors has 15 members. Of them, 3 are PTT executives. PTT has assigned its executives to serve in OR management.

6) Finance

OR’s performance results between 2022 and 2024 are as follows:

Unit: THB million

Consolidated financial statements	2022	2023	2024
Revenue from sales and services	789,785	769,741	723,958
Total revenue	795,020	774,250	727,114
Total expenses (taxes included)	784,647	763,154	719,465
Net profit (loss)	10,373	11,096	7,649
Net profit (loss) of the major shareholder	10,370	11,094	7,650

Unit: THB million

Consolidated financial statements	2022	2023	2024
Total assets	225,504	220,236	207,492
Total liabilities	121,743	110,728	98,531
Shareholders’ equity	103,761	109,508	108,961

For additional details, visit the company’s website: investor.pttor.com/th/document/annual-reports

2.2.5 PTT Tank Terminal Company Limited (PTT TANK)

PTT TANK was established on 6 March 2009 with a registered and paid-up capital of THB 3,887.50 million (at THB 100 per share). Its objective is to operate the business of providing services of storing and transporting liquid chemical products, oil and gas for PTT and its affiliates. As of 31 December 2024, PTT owned 100% of the company’s shares.

On 30 June 2009, PTT TANK was handed over 2 contracts that PTT signed with the Industrial Estate Authority of Thailand (IEAT) namely an agreement on permission for the use of a 57.8-rai land plot for construction of a liquid storage warehouse at the Map Ta Phut Industrial Estate 1 extension zone, and an agreement on joint development of the Map Ta Phut Industrial Port.

PTT TANK provides dock service and receiving-storing-distributing products for PTT and companies in the PTT group. Commercial services began on 21 April 2011, with 2 terminals for the maximum cargo size of 60,000 Deadweight Tonnage (DWT). Maximum cargo volume is 2,000,000 tons per year. The throughput rate is about 900,000 tons per year (with 45% utilization rate) and there are 10 storage tanks for liquid products available. Currently, there are products including sulfuric acid, propylene, methyl methacrylate, acrylonitrile, ammonia, LPG, solvent and nitrogen.

1) Management

As of 31 December 2024, PTT TANK's Board of Directors has 5 members. Of them, 4 are PTT executives. PTT assigned its representatives to serve in PTT TANK management, including in the position of president.

2) Finance

PTT TANK's performance results between 2022 and 2024 are as follows:

Unit: THB million

Financial statements	2022	2023	2024*
Revenue from sales and services	967	989	986
Total revenue	1,220	1,338	1,380
Total expenses (taxes included)	805	822	816
Net profit (loss)	415	516	564

Unit: THB million

Financial statements	2022	2023	2024*
Total assets	7,106	7,498	7,764
Total liabilities	409	420	434
Shareholders' equity	6,697	7,078	7,330

*2024 data are unaudited.

3) Projects

3.1 Map Ta Phut Industrial Port Phase 3 (Section 1)

On 1 October 2019, PTT TANK and Gulf Energy Development (GED) established a new joint venture company under the name of Gulf MTP LNG Terminal Company Limited (GMTP) with a registered capital of THB 3,500 million. PTT TANK and GED respectively hold 30% and 70% of shares in GMTP. The company's objective is to conduct business related to the LNG value chain and logistics to support other future investments consistent with the PTT Group's strategy. On 1 October 2019, GMTP entered into a Public Private Partnership (PPP) contract with Industrial Estate Authority of Thailand (IEAT) for the development of Map Ta Phut Industrial Port Phase 3 (Section 1) with joint investments including: 1) Design and construction of the infrastructure with an investment of THB 12,900 million, and 2) Design, construction and operation of LNG superstructure on a reclaimed area covering about 200 rai and having the capacity to handle at least 5 million tons of LNG cargoes per year (for the first section of gas port), and up to 10.8 million tons per year in the extension stage. This part requires an investment of about THB 28,000 million. The project's total investment is approximately THB 40,900 million and the commercial operation is expected to start in 2028. Currently,

the project has been in the process of land reclamation for infrastructure construction. As of 31 December 2024, the progress was at 99.02%.

3.2 Laem Chabang Port Phase 3, Terminal F

Laem Chabang port phase 3, Terminal F is a project that the Port Authority of Thailand (PAT) allows the private sector to take part in the development of Terminal F1 and Terminal F2, under a Public Private Partnership (PPP) agreement with a 35-year concession. PTT TANK established a new joint venture with Gulf Energy Development Public Company Limited (GED) and CHEC OVERSEA INFRASTRUCTURE HOLDING PTE. LTD (CHEC OVERSEA) under the name of GPC International Terminal Company Limited (GPC) with a registered capital of THB 4,000 million. PTT Tank, CHEC OVERSEA, and GED will hold 30%, 30%, and 40% of this joint investment's shares respectively. The investment objectives are to operate a seaport and to provide services covering mooring, docking, loading, unloading of goods for container vessels as well as to conduct warehouse business with the capacity to handle containers of at least 4,000,000 TEU/year (TEU is equivalent to 20 Foot Unit of container) to meet the expected demand increase for Laem Chabang Port's services and to enable logistics businesses that use up-to-date technology. Not only that this joint venture is in line with PTT's strategy and vision on Logistics & Infrastructure business, but it also supports infrastructure growth in Thailand. On 25 November 2021, GPC entered into a 35-year PPP contract with PAT for the above project with the investment cost of THB 30,871 million. Terminal F1 is expected to start construction in 2025 and commercial operation in 2027, and Terminal F2 will then start its construction in 2029 with an expected commercial operation in 2031.

Currently, the project is in the process of being reclaimed by PAT before handing over the area to GPC in 2025.

3. New Business and Sustainability Group

3.1 Global Power Synergy Public Company Limited (GPSC)

GPSC was registered from the consolidation of related partnership entities at the Department of Business Development, Ministry of Commerce, on 10 January 2013. The company later transformed into a public company limited and was listed on SET with the first trading date on 18 May 2015. The objective is to support future business growth under a primary mission to pursue power businesses expansion both in Thailand and overseas while fostering synergies and become a power flagship for PTT Group. Additionally, GPSC focuses on the investment in renewable energy power plants and integrated energy storage systems, both domestically and internationally. As of 31 December 2024, GPSC's registered capital at THB 28,197.29 million with PTT holding 47.27% of GPSC's issued and paid-up shares.

1) Fuel Procurement

GPSC's power and steam production uses natural gas as its feedstock. PTT is the sole supplier of natural gas to GPSC under the long-term gas sales and purchase agreements that are valid from 15 to 25 years.

2) Distribution

GPSC has 2 main client groups, categorized based on product-usage characteristics.

- 1) Distribution to the Electricity Generating Authority of Thailand (EGAT), the Provincial Electricity Authority (PEA), and the Metropolitan Electricity Authority (MEA): GPSC and its subsidiaries have entered into

agreements to supply electricity to EGAT, PEA, and MEA. In particular, electricity sales to EGAT include reserve power purchase agreements, which enhance the stability and reliability of the power generation system for power plants.

- 2) Direct Distribution to industrial customers: GPSC sells power to industrial customers as a public-utilities producer. Its products include electricity, steam, chilled water, and industrial water. Most of GPSC's customers are in the petrochemical industry. Additionally, GPSC sells nitrogen to companies within the PTT Group as part of its comprehensive services.

3) Management

As of 31 December 2024, GPSC's Board of Directors has 14 members. Of them, 7 are PTT executives. PTT has assigned its executives to serve in GPSC management, including in the position of president and chief executive officer.

4) Finance

GPSC's operating results between 2022 and 2024 are as follows:

Unit: THB million

Consolidated financial statements	2022	2023**	2024
Revenue from sales and services*	123,083	90,636	90,452
Total revenue	123,685	91,079	90,730
Total expenses (taxes included)	122,228	86,309	85,960
Net profit (loss)	1,457	4,770	4,770
Net profit (loss) of the parent company	891	3,694	4,062

Unit: THB million

Consolidated Financial statements	2022	2023**	2024
Total assets	288,810	285,889	288,136
Total liabilities	173,710	167,150	168,994
Shareholders' equity	115,100	118,739	119,142

* Excluding revenue from financial lease

** The financial statements have been adjusted after GPSC acquired all of GRP's shares.

5) Project progress and projects under development

In 2024, GPSC completed the construction and commercial operations of several projects as follows:

- Glow SPP2 Replacement Project: Following the completion of construction, Unit 1 and Unit 2 began commercial operation on 29 March 2024 and 26 April 2024 respectively. This project has the capacity to produce 100 MW of power and 230 tons per hour of steam.

The following projects of GPSC are still in the investment stage or under construction:

- Energy Recovery Unit Project (ERU): ERU is a part of TOP's Clean Fuel Project (CFP) which has capacity to generate 250 MW of power and 175 tons per hour of steam. ERU will retrieve oil residue, which is a byproduct of CFP's distillation units, to use as main fuel in generating power and steam which are sold directly to CFP. Construction for the project was

already completed by 95.74%. Currently, the construction of the Cooling Tower and the installation of underground electrical wiring for the power and signal systems are ongoing to connect to the substation building and equipment within the power plant area. The ownership of the ERU project will be transferred to GPSC upon the completion of construction and receipt of the Provisional Acceptance Certificate (PAC).

- Avaada Energy Private Limited (AEPL) in India: Global Renewable Synergy Company Limited (GRSC) (a subsidiary of GPSC) holds 42.93% of shares in AEPL, a major renewable energy company in India. Currently, there were an operation for commercial renewable power plants with a total capacity of 4,696 MW. Additionally, power plants under construction have a capacity of 2,052 MW, while development-stage projects have an estimated capacity of 13,651 MW. Altogether, they will have the total production capacity of 20,399 MW and GPSC's total equity capacity will be 8,757 MW.
- Changfang and Xidao (CFXD) Project in Taiwan: Global Renewable Synergy Taiwan Company Limited (GRSC TW) has invested 25.00% in CI Changfang Limited and CI Xidao Limited, which are developing offshore wind power projects in Taiwan. This project has the total production capacity of 595 MW, which GPSC's equity capacity accounting for 149 MW. The construction for the project was already completed by 99.9%, with all major equipment installed and power supply to the grid completed. As of now, 60 out of 62 Wind Turbine Generators (WTGs) have been delivered by the contractor. CFXD expects to complete the acceptance of all WTGs from the contractor by January 2025.

For additional details, visit the company's website: gpscgroup.com/en/investor-relations/downloads/one-reports

3.2 District Cooling System and Power Plant Company Limited (DCAP)

DCAP is a joint venture of PTT, EGAT, and MEA which hold 35.00%, 35.00%, and 30.00% of shares respectively. The company was established on 2 April 2003 with a registered capital of THB 1,670 million. The objective of the company is to engage in the productions and sales of power and chilled water for the Airports of Thailand Plc. (AOT) and other customers in Suvarnabhumi Airport. Details are as follows:

The District Cooling System and Power Plant Project for Suvarnabhumi Airport is a value-added initiative that optimizes the utilization of natural gas as a fuel for electricity generation. The project enhances energy efficiency by utilizing the residual heat from power generation to produce steam, which is then used to generate additional electricity. Any remaining steam is further utilized to produce chilled water for the airport's air conditioning system. This integrated energy approach maximizes resource efficiency while also contributing to the reduction of air pollution.

DCAP's utilities units are as follows:

- A combined-cycle cogeneration power plant with a total capacity of about 95 MW
- A solar rooftop power generation system over the Suvarnabhumi Airport's passenger terminal with a total capacity of 4.4 MW
- A Steam Absorption Chiller (SAC) unit with a total chilled-water capacity of about 21,300 refrigeration tons (RT)
- An electric chiller with a total chilled-water capacity of about 20,480 RT
- An electric chiller for the Satellite Airport Terminal-1 (SAT-1) with a capacity of about 12,000 RT

1) Procurement

DCAP's power and chilled water production uses natural gas as its main feed. PTT is sole supply of natural gas to DCAP under a gas supply agreement which containing a minimum purchase per day of about 7 MMSCFD for 25 years.

2) Distribution

DCAP's product distribution is as follows:

- Electricity sold to AOT under a power purchase agreement (PPA) of 50 MW. The surplus electricity sold to EGAT under a non-firm PPA of up to 65 MW.
- Chilled water for air-conditioning and steam systems of the following customers:
 - AOT's passenger terminals, Airport Operation Building (AOB), Airport Information Management System building (AIMS) under a purchase agreement for 21,500 RT
 - Satellite Terminal 1 (SAT-1) under a purchase agreement for 9,000 RT
 - Catering building of Thai Airways International Plc. under a purchase agreement for 6,600 RT of chilled water and 8.6 tons/hour of steam
 - Suvarnabhumi Airport Hotel Company Limited under a purchase agreement for 1,500 RT of chilled water and about 2 tons/hour of steam
 - Electric train station at the Suvarnabhumi Airport under a purchase agreement for 700 RT of chilled water

3) Management

As of 31 December 2024, DCAP's Board of Directors has 7 members. Of them, 2 are PTT executives.

4) Finance

DCAP's operating results between 2022 and 2024 are as follows:

Unit: THB million

Financial statements	2022	2023	2024*
Revenue from sales and services	4,409	4,075	3,428
Total revenue	4,410	4,077	3,431
Total expenses (taxes included)	4,282	3,658	3,248
Net profit (loss)	128	419	183

Unit: THB million

Financial statements	2022	2023	2024*
Total assets	3,296	3,452	3,815
Total liabilities	1,267	1,203	1,583
Shareholders' equity	2,029	2,249	2,232

* 2024 data are unaudited.

3.3 PTT Energy Solutions Company Limited (PTTES)

PTT and its subsidiaries established PTT Energy Solutions Company Limited (PTTES) on 10 June 2011, with a registered capital of THB 150 million to provide consultancy services on technical engineering and operation to PTT Group and external customers. The shareholding structure consists of PTT holding 40.00%, while TOP, GC, and IRPC each hold 20.00% of the shares.

However, due to continuous financial losses, PTTES faced challenges in achieving its business objectives as the transition towards a low-carbon society, driven by the reduction of greenhouse gas emissions and a global shift toward clean energy, significantly impacted the demand for PTTES's services. As a result, at the Extraordinary General Meeting of Shareholders No. 1/2022 on August 29, 2022 approved the dissolution of PTTES. The termination of its business was registered with the Department of Business Development on 29 December 2022. PTTES is now in the process of liquidation, which is expected to complete within year 2025.

1) Services

-

2) Management

-

3) Finance

PTTES's operating results of PTTES between 2022 and 2024 are as follows:

Unit: THB million

Financial statements	2022	2023	2024*
Revenue from sales and services	308	0	0
Total revenue	312	0	0
Total expenses (taxes included)	371	4	1
Net profit (loss)	(59)	(4)	(1)

Unit: THB million

Financial statements	2022	2023	2024*
Total assets	117	102	101
Total liabilities	11	0	0
Shareholders' equity	106	102	101

* 2024 data are unaudited.

4. Other Businesses

4.1 PTT Treasury Center Company Limited (PTT TCC)

PTT established PTT TCC on 11 May 2018, with a registered capital of THB 20 million. The company, wholly owned by PTT, serves as the treasury center for PTT and PTT Group. PTT TCC was authorized to operate as a treasury center on 31 July 2018.

1) Services

The company 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.

2) Management

As of 31 December 2024, PTT TCC's Board of Directors has 4 members. Of them, 3 are PTT executives and another is a representative from the Ministry of Finance. PTT has assigned its executives to serve in PTT TCC's management, including in the position of president.

3) Finance

PTT TCC's operating results of between 2022 and 2024 are as follows:

Unit: THB million

Financial statements	2022	2023	2024
Interest income	4,913	6,444	5,563
Total revenue	4,938	6,474	5,591
Total expenses	4,618	6,159	5,427
Net profit (loss)	320	315	164

Unit: THB million

Financial statements	2022	2023	2024
Total assets	136,746	134,649	120,042
Total liabilities	136,009	133,609	118,924
Shareholders' equity	737	1,040	1,118

4.2 PTT Global Management Company Limited (PTTGGM)

PTTGGM was established as a holding company to support investment in PTT's businesses both domestically and internationally. PTT holds 100% in registered and paid-up shares of PTTGGM. As of 31 December 2024, PTTGGM has the registered capital of THB 76,159 million and the paid-up capital of THB 69,209 million.

1) Business Operations

PTTGGM acts as a holding company to support investment in PTT's businesses such as EV and Life Science businesses, etc.

2) Management

As of 31 December 2024, PTTGM's Board of Directors has 3 members. All of them are PTT executives.

3) Finance

PTTGM's operating results between 2022 and 2024 are as follows:

Unit: THB million

Financial statements	2022	2023	2024
Revenue from sales and services	49,229	29,294	24,525
Total revenue	51,637	35,078	35,598
Total expenses (taxes included)	40,918	29,292	26,525
Net profit (loss)	10,719	5,786	9,073

Unit: THB million

Financial statements	2022	2023	2024
Total assets	171,530	163,558	143,594
Total liabilities	58,113	46,910	47,862
Shareholders' equity	113,417	116,648	95,732

4.3 PTT Digital Solutions Company Limited (PTT DIGITAL)

PTT and its subsidiaries established PTT DIGITAL on 7 July 2006 with a registered capital of THB 150 million. The objectives of the company are to foster collaborations and enhance added value to PTT Group's operations through integrated management and the investments in information and communication technologies. PTT DIGITAL's shareholders consist of 5 entities which are PTT, PTTEP, TOP, GC, and Modulus Venture Co., Ltd. (a wholly-owned subsidiary of OR) that held equally at 20.00%.

1) Services

PTT DIGITAL operates a comprehensive digital service 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. Leveraging a diverse range of expertise, PTT Digital is backed by a team of experienced specialists and prioritizes personnel development to enhance professionalism, systematic services, and advanced technology in support of the growing in demands following PTT Group's business growth, while maintaining cybersecurity. Moreover, PTT DIGITAL has earned international certifications such as ISO 9001:2015, ISO/IEC 20000-1:2018, ISO/IEC 27001: 2013, ISO 22301:2019, and CSA STAR Certification 2021, etc.

2) Management

As of 31 December 2024, PTT DIGITAL's Board of Directors has 7 members. Of them, 3 are PTT executives. PTT has assigned its executives to serve in PTT DIGITAL's management including in the position of managing director.

3) Finance

PTT DIGITAL's operating results of between 2022 and 2024 are as follows:

Unit: THB million

Financial statements	2022	2023	2024
Sales and services revenue	6,613	8,049	8,791
Total revenue	6,627	8,067	8,841
Total expenses (taxes included)	6,068	7,456	8,367
Net profit (loss)	559	611	474

Unit: THB million

Financial statements	2022	2023	2024
Total assets	6,656	7,629	8,336
Total liabilities	3,281	3,800	4,217
Shareholders' equity	3,375	3,829	4,119

4.4 Energy Complex Company Limited (EnCo)

EnCo was established on 11 August 2004 as a joint venture of PTT and PTTEP, which hold 50% of its shares each. With a registered capital of THB 1,800 million, EnCo was founded in response to the increasing demand for office space among PTT, PTTEP, and other companies in PTT Group as well as the Ministry of Energy's intention to consolidate its agencies into one centralized location. This led to the development of Energy Complex Project with EnCo being assigned responsibility for its construction and project management. The Complex was designed as a central hub for energy-related businesses, with a focus on functional efficiency, energy conservation, and environmental sustainability. The construction was completed in late 2009. Currently, EnCo has expanded its services across 3 core businesses: Property Management Business, Facility Management Business, and Property Development Business.

1) Services

1.1) Property Management Business (PM Business): EnCo has operated PM Business at properties it has owned. EnCo has developed Energy Complex on a land plot on Vibhavadi-Rangsit Road with an aim to lease space to PTT Group and the Ministry of Energy. This property has been designed to respond to tenants' demand as well as service users' lifestyles, by offering an office experience that goes beyond conventional office spaces. Energy Complex is positioned as the facilities with sustainable world-class service standards, enabled by modern technology and its concept of "SMART Lifestyle Building". Also, PM Business developed a property project in the Eastern Economic Corridor of Innovation (EECi) in Wang Chan district, Rayong province, known as THE EnCony Residential Hotel (THE EnCony). This project features apartments, serviced apartments, and hotel accommodations, designed to enhance the well-being of residents and guests under the "Well-being Asset" concept. In addition, EnCo has developed

a new office building, EnCo Terminal (EnTer), to expand its rental services in northern Bangkok, specifically in the Lak Si district. This project aims to accommodate tenants from both within and outside PTT Group.

1.2) Facility Management Business (FM Business): EnCo has provided facility management services to PTT Group companies and external clients, together with offering a comprehensive facility and office management solutions (Total Service Solutions), along with value-added services that complement its core business. The primary focus is on maximizing space utilization while ensuring customer satisfaction. EnCo is committed to addressing clients' needs by integrating advanced and high-potential technologies into its operations or collaborating with strategic partners to develop new technologies tailored to its FM Business services. This approach enhances customer loyalty, leverages EnCo's expertise to expand into related business areas, and differentiates its services and products.

1.3) Property Development Business (PD Business): This business segment focuses on real estate development within EnCo-owned properties, construction management services for external projects, and related construction services for project development. EnCo provides end-to-end solutions, from the design phase to construction, with a customer-centric approach while expanding its client base beyond PTT Group as well as committed to ensuring on-time delivery of products and services that meet customer requirements and quality standards. By integrating advanced and sustainable technologies, EnCo aims to enhance the excellence and efficiency of its PD Business services.

2) Management

As of 31 December 2024, EnCo's Board of Directors had 8 members. Of them, 4 were PTT's executives. PTT has assigned its executives to serve in EnCo management including in the position of president.

3) Finance

EnCo's operating results between 2022 and 2024 are as follows:

Unit: THB million

Financial statements	2022	2023	2024
Revenue from sales and services	2,289	2,426	2,394
Total expenses (taxes included)	1,670	1,855	1,901
Net profit (loss)	619	571	493

Unit: THB million

Financial statements	2022	2023	2024
Total assets	8,723	8,346	7,997
Total liabilities	4,033	3,232	2,524
Shareholders' equity	4,690	5,114	5,473

4) Projects

4.1) Holiday Inn Express Rayong Project

EnCo and Origin Hotel Company Limited (Origin Hotel) established a joint venture under the name of One Origin EnCo Company Limited (One Origin EnCo), each holding a 50% stake, to jointly develop and manage Holiday Inn Express Rayong Project, which is a 8-story hotel building with a total of 204 rooms. The hotel is designed to cater to the business and investment demands within the Eastern Economic Corridor and accommodate the tourism sector. The hotel officially opened in December 2023.

4.2) THE EnCony @ TU Project

EnCo has been granted the operating rights for leased land and residential buildings within the 5-rai development project at Thammasat University's Rangsit Campus. The project involves the construction development and management of three 8-story residential buildings to accommodate the growing number of university personnel. EnCo is committed to completing the development within 3 years from the start of construction, in line with the project timeline. The construction officially began on 1 October 2024.

For additional details, visit the company's website: <https://www.energycomplex.co.th/about-annual-reports.php>

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