



# Thai Energy *Thai Pride*



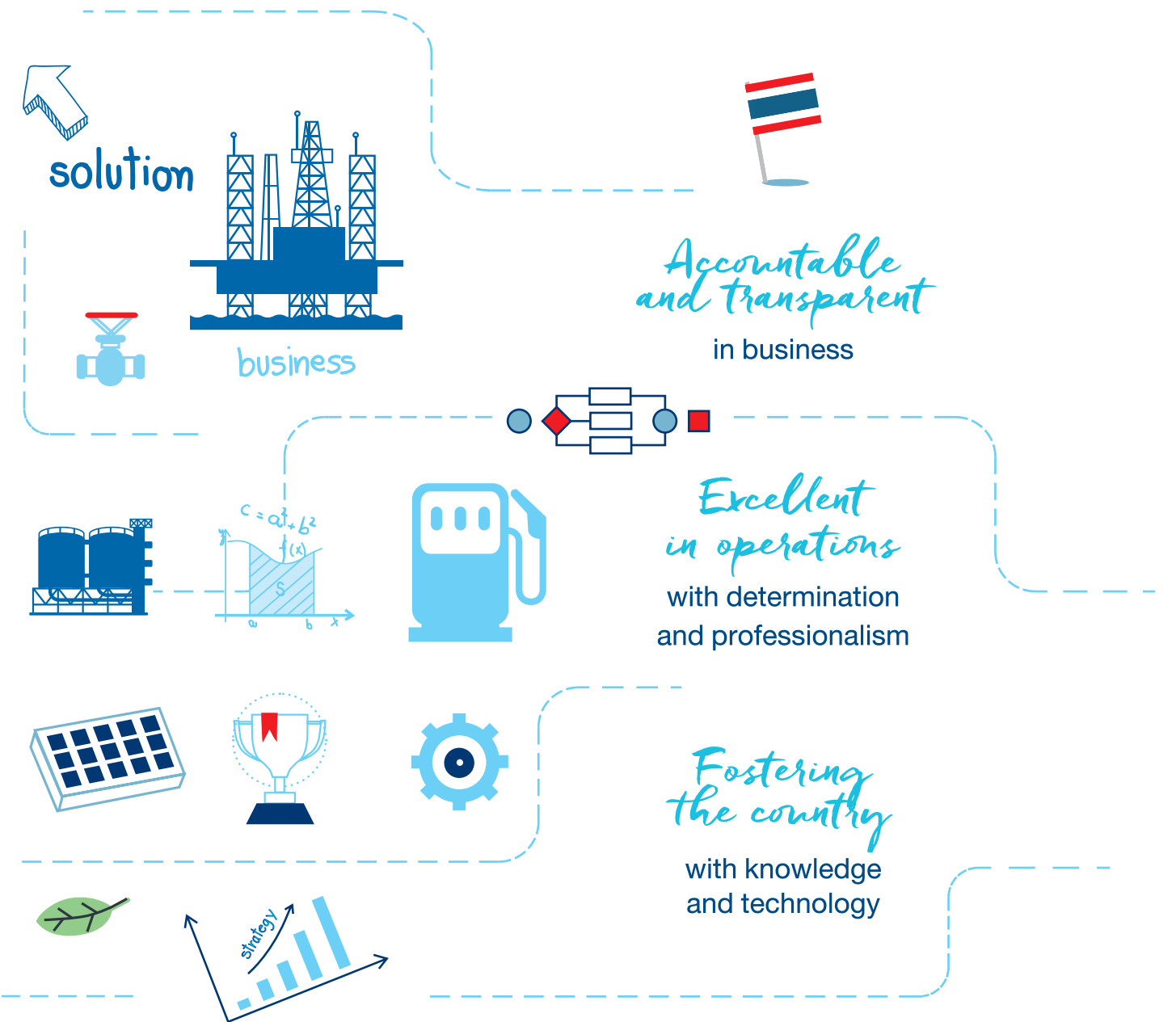
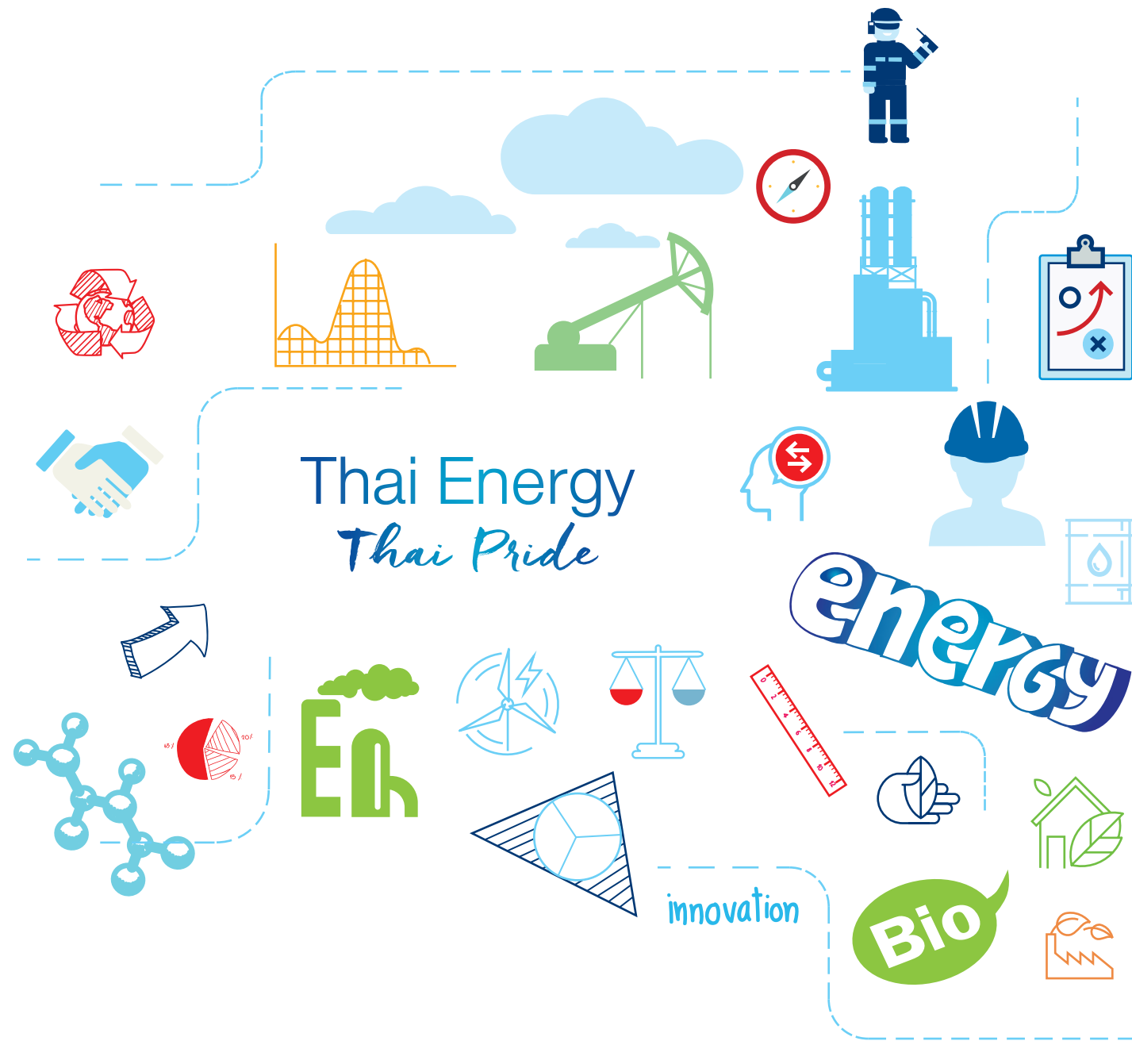




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In consideration of efficiency, accessibility and equitability in energy management, PTT Group is firmly committed to enhancement of national energy security. Ultimately, every sector contributes a better quality of life, and the preservation of natural fertility for sustainable social development.

## PTT Group Vision

# Thai Premier Multinational Energy Company

## PTT Group Mission

To conduct integrated energy and petrochemical business as the nation's energy company whose mission to equally respond to all stakeholders through the following aspects



## PTT Group Values

Synergy

Performance  
Excellence

Innovation

Responsibility  
for Society

Integrity &  
Ethics

Trust &  
Respect



# SPIRIT

## PTT Strategic Framework



# Financial Highlights

2014

2015

## Statement of income

(THB million)

Sales and Service Income	2,605,062	2,026,912
Earnings before Finance Costs, Income Taxes, Depreciation, and Amortization including Other Non-operating Income and Expenses (EBITDA)	275,450	284,828
Net Income (Loss)	58,678	19,936

## Statement of Financial Position

(THB million)

Total Assets	2,250,351	2,173,996
Total Liabilities	1,195,657	1,086,309
Total Equity	371,408	390,540
Total Equity Attributable to Equity Holders of the Company	683,287	697,147

## Shares or Information about Common Shares

Shares and Fully Paid-up Share Capital	(Million Shares)	2,856	2,856
Book Value per Share <sup>1/</sup>	(THB)	239.22	244.07
Earnings per Share <sup>1/</sup>	(THB)	20.34	6.73
Dividend per Share	(THB)	11.00	10.00 <sup>2/</sup>
Dividend Payout Ratio to Net Income	(%)	54.1	148.6
Share Price at the End of Financial Period	(THB)	324.00	244.00

## Financial Ratios

Net Income to Net Revenues <sup>3/</sup>	(%)	2.60 <sup>3/</sup>	1.52 <sup>3/</sup>
Return on Equity	(%)	8.69	2.89
Return on Total Assets	(%)	3.02	1.39
Net Debt to Equity	(Times)	0.69	0.61
Debt to Equity	(Times)	0.39	0.29
Net Debt to EBITDA	(Times)	1.50	1.10
Interest Coverage	(Times)	10.99	9.50

### Remarks:

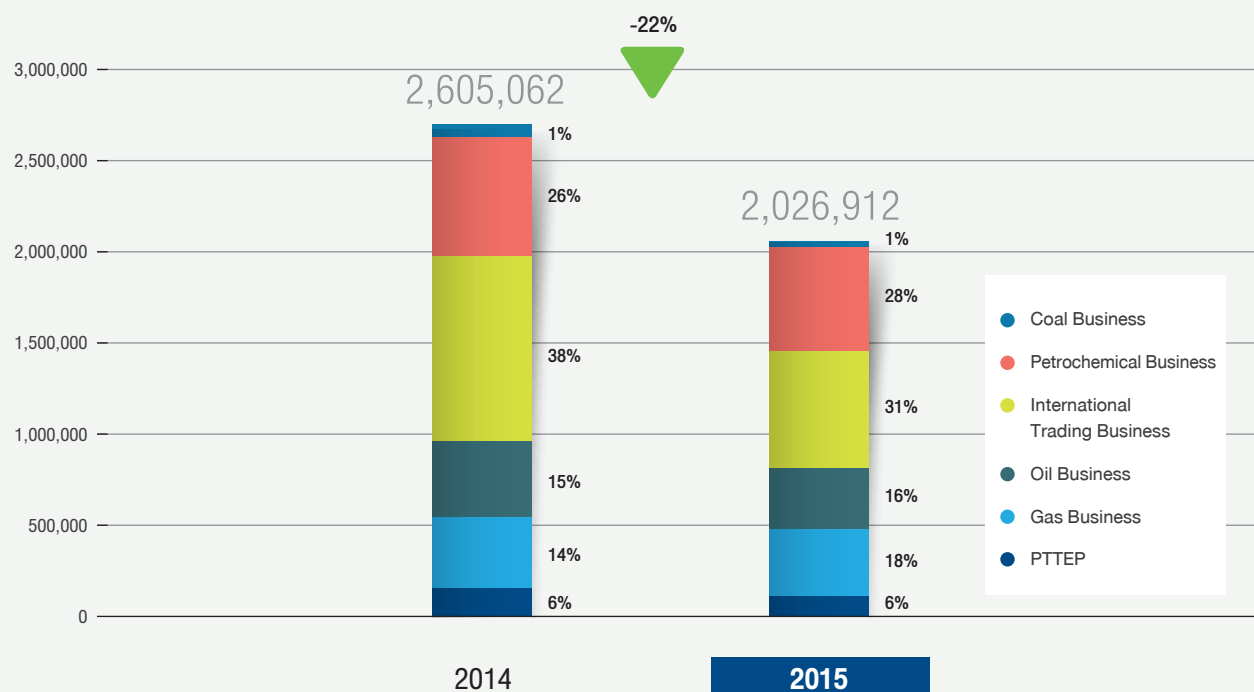
1/ Based on the weighted common shares of 2,856.30 million (as of 31 December 2014) and 2,856.30 million (as of 31 December 2015).

2/ The Board of Directors on 19 February 2016, approved the rate of dividend paid to the shareholders, which will be tabled for the 2016 AGM's approval on 11 April 2016.

3/ Net profit margin = Net profit/ Sales and service income. However, the formula has adjusted from original, which Net profit margin = Net profit/ Net Sales, in order to compare the truly normal performance in each period (excluding non-recurring income).

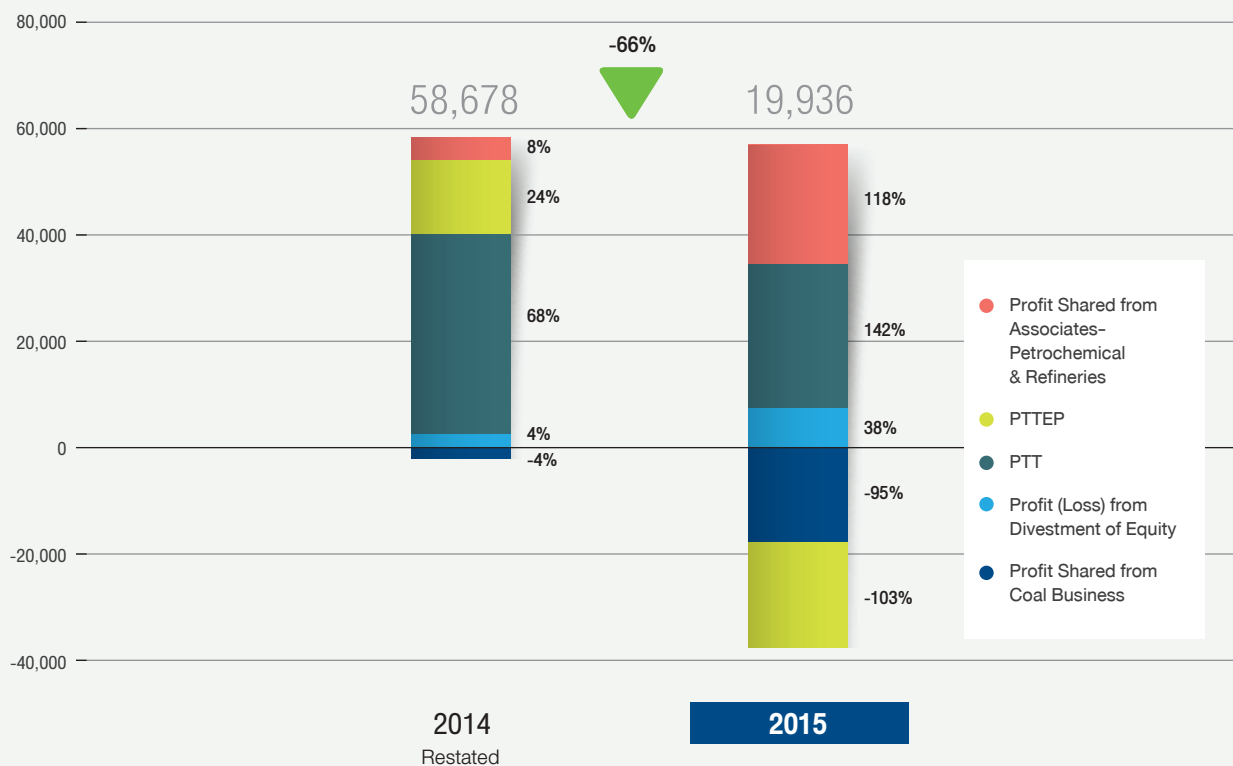
## Sale and Service Income

Unit: THB million



## Net Income

Unit: THB million

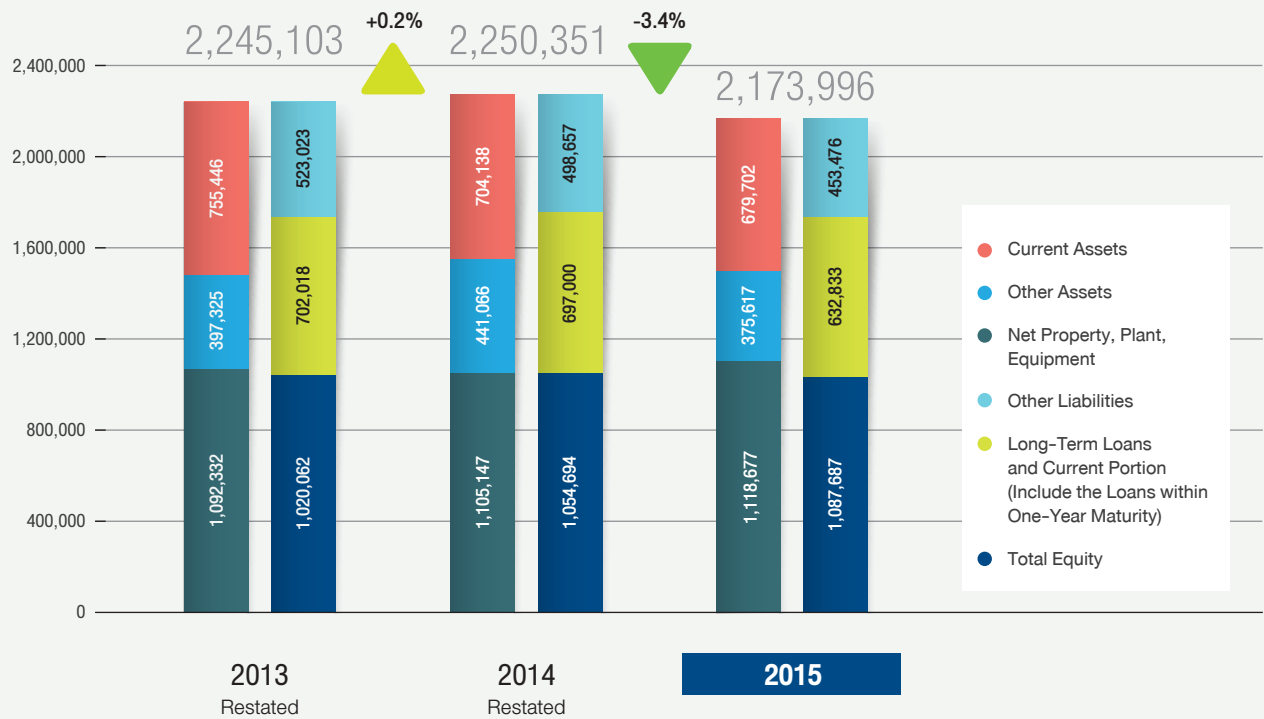


1/ Year 2014 not restated under new accounting policy pack 5

2/ Year 2015 restated under new accounting policy pack 5

## Statement of Financial Position

Unit: THB million



## Financial Ratios

Return on Equity (%)



Return on Equity (%)



Debt to Equity (Times)



Net Debt to Equity (Times)



Net Debt to EBITDA (Times)



Interest Coverage (Times)



2014

2015

2014

2015



## Accounting Policies

The Group has adopted Thai Financial Reporting Standards (TFRSs) which are effective in current year and changed its accounting policy since 1 January 2015. Consequently, the Group has restated and presented the financial statements for 2015 and 2014. According to TFRSs, the Group also presented the brought forward balances of the statement of financial position in 2014.

Since 1 January 2015, the Group has determined whether it controls subsidiaries based on consideration of whether the facts and circumstances indicate that the criteria of Thai Financial Reporting Standard No. 10 “Consolidated Financial Statements” are met and has determined whether joint arrangements are a joint operation or a joint venture by considering the rights and obligations in conformity with Thai Financial Reporting Standard No. 11 “Joint Arrangements”. Based on the analysis performed, the Group found that there was an impact on the way in which the group accounts for interest in some entities, which were considered to be associates and accounted by using the equity method in the preparation of financial statements from the date that significant influence was assumed until 31 December 2014 in conformity with Thai Accounting Standard No. 28 (revised 2012) “Investments in Associates”. Moreover, interests in some entities, which were considered to be jointly controlled entities and accounted by using the proportionate consolidation method in the preparation of financial statements from the date that jointly control was assumed until 31 December 2014 in conformity with Thai Accounting Standard No. 31 (revised 2012) “Interests in Joint Ventures”. Details are as follows.

Associates that changed to be subsidiaries of the Company and have to be included in the consolidated financial statements from the date in which the Group assumed control are as follows:

- PTT Global Chemical Public Co., Ltd. (PTTGC) and its subsidiaries
- Thai Oil Public Co., Ltd. (TOP) and its subsidiaries
- IRPC Public Co., Ltd. (IRPC) and its subsidiaries
- Global Power Synergy Public Co., Ltd. (GPSC) and its subsidiaries
- Thai Oil Power Co., Ltd. (TP)
- PTT Energy Solutions Co., Ltd. (PTTES)
- PTT Maintenance & Engineering Co., Ltd. (PTTME)
- PTT ICT Solutions Co., Ltd. (PTTICT)

Affiliates that are joint ventures which have to change the accounting method from proportionate consolidation to the equity method are as follows:

- Trans Thai-Malaysia (Thailand) Co., Ltd. (TTM(T))
- Trans Thai-Malaysia (Malaysia) Sdn. Bhd. (TTM(M))
- District Cooling System and Power Plant Co., Ltd. (DCAP)
- PTT MCC Biochem Co., Ltd. (PTTMCC)
- PTT Asahi Chemicals Co., Ltd. (PTTAC)
- HMC Polymers Co., Ltd. (HMC)

## PTT Information

<b>Name</b>	PTT Public Company Limited
<b>Initial</b>	PTT
<b>Registered Number</b>	0107544000108
<b>Type of Business</b>	PTT's core businesses concern petroleum, petrochemicals, power generation, and coal. PTT invests in subsidiaries, joint ventures, and associates (collectively known as PTT Group) that engage in upstream and downstream petroleum businesses, coal business, power business, and infrastructure businesses.
<b>Registered Capital</b>	THB 28,572,457,250, including 2,857,245,725 common shared, THB 10 per share (as of 31 December 2015)
<b>Paid of Capital</b>	THB 28,562,996,250, including 2,856,299,625 common shares, THB 10 per share (as of 31 December 2015)

**Location** 555 Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900, Thailand

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**Corporate Communication Department**

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Telefax: 66 (0) 2537-2572, 66 (0) 2537-2171

E-mail: corporate@pttplc.com

**Investor Relation Department**

Telephone: 66 (0) 2537-3518-9

Telefax: 66 (0) 2537-3948

E-mail: ir@pttplc.com

**Office of the President and Corporate Secretary**

Telephone: 66 (0) 2537-3885-6

Telefax: 66 (0) 2537-3883, 66 (0) 2537-3887

E-mail: corporatesecretary@pttplc.com

### References

- **Share Register**

Thailand Securities Depository Company Limited

1<sup>st</sup> Floor, SET Building, 93 Ratchadapisek Road, Dindaeng, Bangkok 10110, Thailand

Telephone: 66 (0) 2009-9999

Telefax: 66 (0) 2009-9991

- **Auditor**

Office of the Auditor General

Rama VI Road, Phayathai, Bangkok 10400, Thailand

Telephone: 66 (0) 2271-8000

Telefax: 66 (0) 2618-5769

- **Registrar**

Siam Commercial Bank Plc.

Registrar 1, Markets Operations Division

2<sup>nd</sup> Building, 3<sup>rd</sup> Floor, 1060 Petchaburi Road, Ratchathawee, Bangkok 10400, Thailand

Telephone: 66 (0) 2256-2323-7

Telefax: 66 (0) 2256-2406

Corporate Trust Sale, Corporate Trust

9 Ratchadapisek Road, Chatuchak, Bangkok 10900, Thailand

Telephone: 66 (0) 2544-3937, 66 (0) 2544-2923

Telefax: 66 (0) 2937-7662



## Message from the Board of Directors

### Dear Shareholders,

To drive PTT and Thailand onto the world stage, PTT is committed to growing its businesses in parallel with its sustainable stewardship of society, communities, and the environment. PTT believes in the virtue of a strong human capital, whose knowledgeability and capability are key to successful national development. We treasure a knowledge-based society, which leads to sustainable development. This year, we scored resounding success in laying down a foundation to equip people with scientific and technological knowledge with an educational institution to turn the Thai society into an “intellectual society” to extend national

development onto the world stage. On 6 August 2015, HRH Princess Maha Chakri Sirindhorn graciously inaugurated PTT Group’s Kamnoetvidya Science Academy (KVIS) and Vidyasirimethi Institute of Science and Technology (VISTEC), both located at Wang Chan, Rayong. Both academies were graciously named by the princess, meaning an academy of science and an institute of science experts, respectively.

PTT’s overall business has followed a sustainable growth strategy in pursuit of a High-Performance Organization (HPO) with relentless development of technology, innovation, and knowledge of the management of work processes, production, sale, and services; strict Good Corporate Governance (CG) and focusing on transparency, fairness, and accountable business conduct; and Corporate Social Responsibility (CSR) in its mission of becoming a high-performance organization. We are striving for national energy security while supplementing business value throughout our supply chain to help the corporation grow steadily. This year, PTT achieved a 20-year agreement on LNG supply with Qatar Liquefied Gas Company Limited and completed laying the onshore Fourth Gas Transmission Pipeline linking Rayong to Kaeng Khoi, Saraburi, which connected our pipeline network at the LNG terminal with the Central Region (Nakhon Sawan) and the Northeast (Nakhon Ratchasima); the launch of the 500<sup>th</sup> NGV service station to cover 54 provinces

nationwide; the inauguration of PTT’s Platinum Service Stations under the PTT Life Station concept in Laos, Cambodia, and the Philippines to accommodate AEC (ASEAN Economic Community); the expansion of retail, non-oil businesses in and outside service stations, including the Texas Chicken restaurant brand, the joint venture with Daddy Dough, and the expansion of the Café Amazon franchise. All these have contributed to our retail oil market leadership for 23 consecutive years. Finally, to accommodate the power business expansion of PTT Group, we succeeded in the IPO (initial public offering) of GPSC as a public limited company to mobilize funds.



To underscore the image of a national energy company that relies on good governance and anti-corruption, PTT has always stressed corporate governance through assorted activities. This year, we organized the PTT Group CG Day to turn our practices into corporate cultures. We supported Anti-Corruption Organization of Thailand (ACT)'s "Active Citizen...Fight Corruption" event, with PTT Group executives and staff participating in a show of force with ACT, while supporting the anti-corruption policy ("Together against Corruption").

Another crucial mission of PTT is to actively promote and support local community security and self-reliance, particularly in energy consumption, mostly based on their available natural resources and on PTT's emphasis on instituting management through a participatory process integrating the capability of communities, social capital, and cultural capital with PTT's skills and experience so as to establish a strong society and communities. Also, this year we launched a successful community energy development project involving a biogas system from a pig farm at Tha Manao, Lop Buri. Here, we applied our expertise of the management of natural gas production and distribution so that communities may apply renewable

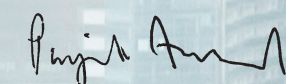
energy for the generation of electricity and LPG in households. Our transfer of knowledge for communities' self-management of such a system has led to a prototype project for energy self-reliance and a learning center housing innovation and a truly participatory alternative-energy management system. This undertaking won PTT an Energy Award presented by the Ministry of Energy along with an Outstanding State Enterprise Award (outstanding socio-environmental operation), presented by the State Enterprise Policy Office.

All these success also led to numerous other awards, including our ranking for the fourth consecutive year among the world's top 100 major corporations by Fortune Magazine at No. 93, comparable to last year; ranking for the fourth consecutive year on DJSI; Green Rankings 2015 at No. 111 worldwide (against No. 136 last year) and No. 2 in the energy group worldwide (against No. 10 last year); and The Asset Corporate Award 2015 (Platinum Award Winner). Incidentally, PTT was the only Thai company to have won such platinum awards for seven straight years, a result of hard work by PTT Group's executives and staff in addition to the management capability of the Boards and the excellent support of shareholders and stakeholders.

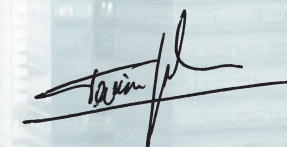
However, this was another year of grave challenges for the worldwide petroleum industry, as the world oil prices have been plunging, a situation that is expected to continue until 2016 because of market gluts brought about by the rise in shale oil production in the US. Meanwhile, the OPEC continued to keep their outputs high to preserve their market shares. Equally important, the achievement of the agreement (with the World Powers) concerning Iran's nuclear project capability-downgrading and the global economy in which China's economy shrank, which lowered crude oil demand so much that the surplus supply had to be kept in stock, thus keeping a lid on prices in the near term. This oil price crisis has spared no one in the oil business, particularly the upstream petroleum business, where the bulk of business performances are tied to the world oil price. It is no doubt then that PTT Group suffered losses due to the impairment of assets and accounting currency exchange rates (which had no bearing on the cash flow). For the year, PTT and its affiliates derived THB 2,026,911.57 million in sales revenue and THB 19,936.42 million in net profit, including THB 74,155.15 million in accounting impairment of assets. To survive, PTT has leveraged cost reduction measures, productivity improvement, value addition, and portfolio management of the Group for maximum flexibility and efficiency. Finally, PTT has developed scenario planning to accommodate future oil price volatility.

As PTT grows, we remain committed to our vision of becoming a Thai Premier Multinational Energy Company by 2020, while striking a balance among all stakeholders. We will adhere to our mission of supplying sufficient volumes of oil and natural gas for Thais to satisfy Thailand's demand; develop petroleum infrastructure for consumers; manage fair prices to sustainably strengthen national energy security while galvanizing Thais' faith and pride of their national energy company; and, finally, fulfill key business mechanisms in driving Thailand.

On behalf of the Board of Directors, we wish to express our sincere appreciation to all our stakeholders for their excellent support and trust in PTT Group over the years. Please rest assured that the Board, executives, and all employees will remain committed to dedicating themselves to their missions so that PTT may remain The Pride and Treasure of Thailand.



**Mr. Piyasvasti Amranand**  
Chairman



**Mr. Tevin Vongvanich**  
President & Chief Executive Officer



## Report of the Audit Committee



**Mr. Kittipong Kittayarak**  
Chairman of the Audit Committee

### Dear Shareholders

The current Audit Committee of PTT Public Company Limited is made up of three knowledgeable directors: Mr. Kittipong Kittayarak (Chair), Ms. Nuntawan Sakuntanaga, and Mr. Vichai Assarasakorn. Ms. Nitaya Direksathapon, Executive Vice President, Office of Corporate Audit, serves as secretary to the committee.

This year, the committee performed its Board-assigned duties in line with its own charter, with priority given to the design of a systematic structure and work process. It ensured PTT's conformance to corporate governance, sufficient risk management system, and efficient internal control system and internal audit.

- Valued an adequate, efficient internal control system that can lead PTT to good governance and drove the Three Lines of Defense concept by educating the management on implementing anti-corruption policy moves, together with developing the structure of the Office of Corporate Audit to handle risks in a more comprehensive and prompt manner.

- Oversaw risk mitigation associated with key issues significantly affecting PTT, including volatile oil prices, energy supply, development of alternative energy, and cybersecurity risks. Also, encouraged the management's stress test to assess the impacts on PTT Group's businesses by severe oil price shocks to ensure that PTT commands systematic, efficient, and prompt monitoring processes.

- Assigned a systematic, proactive audit policy, developed audit technologies, including the application of IT systems in audit and fraud prevention, and exploited IT system audits employed by each business unit.

- Continuously drove improvement and elevation of PTT Group's internal audit, particularly continuous personnel development, since this is regarded as the heart of business, including support to the Internal Audit Academy establishment to provide training development for audit personnel so that they may competently and efficiently audit operations.

This year the committee held 17 meetings, with consultations held with the management, the internal auditor, and the external auditor, as highlighted below:

**1. Review of financial reports:** In conjunction with the management, the Office of Corporate Audit, and the external auditor, the committee reviewed PTT's quarterly and annual financial statements and consolidated financial statements this year, including connected transactions and items with potential conflicts of interest. The committee asked the external auditor about the accuracy and completeness of the financial statements, adjustment of key journal entries and estimates affecting the statements, adequacy and suitability of journal recording, audit scope, information disclosure that was accurate, complete, and adequate, as well as the external auditor's freedom. All this ensured that their preparation followed legal requirements and accounting standards under generally accepted accounting principles that are credible and timely, and that adequate information was disclosed in such statements for the benefit of users.



**2. Review of risk management:** Each quarter, with the management, the committee reviewed the efficiency and suitability of comprehensive risk management processes, including the risk management policy, plans and approach that affect PTT Group's operations and investment plans, as well as the sourcing of energy, development of alternative energy, and other event risks. The committee provided recommendations for improvement of risks arising from oil price volatility, for which the committee encouraged the management to undergo a stress test to ensure preparedness for unexpected events.

**3. Review of the effectiveness of internal control:** The committee valued compliance with the law and relevant regulations, together with management by the Three Lines of Defense concept, with a focus on professionalism and systematic work every quarter, it reviewed PTT's internal control system with the external auditor and the head of the Office of Corporate Audit by reviewing operation; resource consumption; stewardship of properties; prevention or reduction of errors or damage, losses, waste, or frauds; credibility of financial reports; compliance with laws, regulations, and Cabinet resolutions. The external auditor agreed that no significant problems or shortcomings were found.

This year's assessment outcomes of internal control under the Audit Commission Regulations concerning the Definition of Internal Audit Standard, B.E. 2544 (2001) were that PTT's internal control was adequate and effective to its businesses. This year, the committee added questions focusing on anti-corruption in units engaged in key processes under the anti-corruption policy and procurement. To this, all executives cooperated by responding to the internal control assessment forms.

**4. Review of good governance:** The committee focused on the management policy supporting systematic corporate governance and the formulation of a compliance framework to prevent law-breaking or violations of PTT's regulations. It drove an awareness campaign for the prevention and resistance to corrupt practices among executives and employees through regular seminars and training. The committee reviewed compliance with relevant laws and regulations, and defined business processes. Related and connected transactions among PTT Group were also reviewed to ensure that PTT commanded sensible conformance to normal business conditions. Finally, the committee reviewed the process of complaint-handling and whistleblowing to ensure alignment with PTT's corporate governance and business philosophy.

**5. Review of internal audit:** This year the committee commented on the structural development of the Office of Corporate Audit to engage in proactive audit to accommodate other risks, on top of the annual audit plans. It defined the scope of setting up internal audit units within the PTT Group with more clarity in roles for the benefit of audit efficiency and effectiveness. It oversaw the quality assessment of internal audit and supported personnel development and the formal founding of an Internal Audit Academy to develop internal-audit personnel and equip them with professional knowledge and skills. Finally, it improved the CCMS (Continuous Control Monitoring and Auditing System) to aid screening and monitoring of abnormal actions and frauds in the Procure to Pay process.

The committee reviewed the Office of Corporate Audit's strategic plans, annual and long-term internal audit plans, and conformance to the plans and findings of audits. To this end, it commented on and monitored corrective actions for significant aspects for good governance and adequate internal control. It considered amending the charter for internal audit and reviewed the annual budget of the Office of Corporate Audit, its personnel development, recruitment, rotation, and training plans. Also reviewed were the office's adequacy and suitability of resource consumption, KPIs, and the annual merit consideration for the executive vice president.

**6. Appointment of the external auditor for 2016:** The committee endorsed the Office of the Auditor General of Thailand (OAG) as PTT's external auditor for 2016 for the Board's concurrence and the shareholders' approval at the AGM 2016, together with its audit fees. Also, the committee reviewed with the external auditor the scope, approach, and annual plans of the external auditor in the absence of the management.

In summary, the Audit Committee performed the duties and responsibilities stated in its charter with competence, care, prudence, and adequate freedom, while providing creative views and recommendations for the equitable benefit of stakeholders. Its opinion is that PTT's financial reports are accurate, credible, and in line with generally accepted accounting standards. In addition, PTT commands practices that comply with relevant laws and business obligations, together with good governance, adequate risk management and a suitable, effective internal control system and internal audit.





## Report of the Nominating Committee



**Mr. Watcharakiti Watcharothai**  
Chairman of the Nominating Committee

### Dear Shareholders

The current Nominating Committee of PTT Public Company Limited is made up of 3 directors: Mr. Watcharakiti Watcharothai (Chair), AM Boonsuib Prasit, and Mr. Chanvit Amatamatucharti. The Vice President, Office of the President and Corporate Secretary, served as secretary.

Since 2003, PTT Plc. has announced its corporate governance principles for its directors, executives, and employees to acknowledge and observe. These principles have been regularly reviewed and revised compatibility with laws and international practices, including The Organization for Economic Cooperation and Development (OECD), ASEAN Corporate Governance Scorecard, guidelines of The Stock Exchange of Thailand (SET), the Securities and Exchange Commission (SEC), and the Thai Institute of Directors Association (IOD). Under PTT's corporate governance principles and PTT Regulations, the Nominating Committee is to be appointed by the Board, containing a minimum of three directors, at least one of whom is an independent director. For transparency, the

committee is authorized to nominate and select suitable persons to be appointed as PTT's directors, as stipulated in the selection criteria and procedures.

In 2015, the Board appointed the Nominating Committee, made up of three independent directors, and amended its authority to embrace more current duties, including;

- Nomination of directors to perform duty as Sub-Committees, taking into account the compositions of committees in question, qualifications, competencies, and suitability. Then, purpose such nomination to the Board for approval, except for the Nominating Committee which is being appointed directly by the Board.
- Possess direct responsibility to the Board as its duties. The Board is ultimately responsible for PTT's business matters to all its stakeholders.
- Selection of suitable directors, based on the composition of the Board, competencies, and useful experiences to PTT (known as "Board Skill Matrix") and possess no conflicts of interest to PTT. In addition, the nomination must be compatible with PTT's business strategies.

Throughout 2015, the committee held a total of five meetings and performed its duties prudently, cautiously, and sensibly, with the following highlights:

- Selection of directors from various professions with a suitable qualifications as required by related laws and regulations, namely the Standard Qualifications of Directors and State Enterprise Employees Act, Public Companies Limited Act, the Securities and Exchange Act, the Regulations of the Office of the Prime Minister on Policy and Supervision of State Enterprises, together with PTT's Article of Association and corporate governance principles. Nominated candidates, based on Board skill matrix analysis, must be suitably competent for PTT's businesses. Also,

the consideration must be compatible with PTT's business strategies and the guideline of IOD and the Director's Pool of the State Enterprise Policy Office. With aforementioned, nominated candidates must have a clean record with unblemished background and free of conflicts of interest with PTT.

- Appointment of new directors to replace those who are due to retire by rotation. The committee, then, proposes to the Board for approval and forward to the AGM for formal designation.
- Appointment of directors to succeed those resigning during the year. This committee tabled names for the Board to appoint.

The list of candidates must also get approval from the State Enterprise Policy Committee according to the Regulations of the Office of the Prime Minister on Policy and Supervision of State Enterprises. Nominated directors, based on knowledge and skills relevant to their duties, to act as Sub-Committee and purpose to the Board.

Finally, this year the Board allowed minority shareholders the opportunity to nominate directors, but none of them nominating any names for the 2016 AGM. More details are appeared in this annual report.





## Report of the Remuneration Committee



**Mr. Areepong Bhoocha-oom**

Chairman of the Remuneration Committee  
(1 November 2015 - 7 February 2016)

### Dear Shareholders

The current Remuneration Committee of PTT Public Company Limited is made up of 3 directors: Mr. Areepong Bhoocha-oom as the chairman (resigned from the board, effective from 8 February 2016), Mr. Watcharakiti Watcharothai, and Mr. Somchai Sujjapongse. The Vice President, Office of the President and Corporate Secretary, served as secretary.

Because compensation not only plays a significant role in inducing competent personnel to serve PTT Plc., but also motivates them to exert efficiency work, the Remuneration Committee's duties is to review guidelines for the compensation paid to directors and the CEO & President, and to define fair, sensible procedures and criteria for compensation-setting. As a rule, in deliberating the pays for directors and the President & CEO, the committee exercises prudent, sensible consideration with comparison of performance outcomes against their goals, corporate performance outcomes, and related factors like practical guidelines for peer listed companies, leading corporations worldwide, and listed state enterprises together with good governance.

This year the committee amended its authority to embrace work aspects to make them more current and concise so as to screen and provide comments before tabling them for the Board, including;

- Proposing an approach for assessment and compensation of the CEO & President to the Board for approval
- Acknowledging and commenting on organizational restructuring and job levels, as well as assessment and decisions on the senior executive vice presidents
- Being directly accountable to the Board for its roles, while the Board is accountable for PTT's business to all stakeholders
- Reporting its performance outcomes in the annual report.

This year the committee held one meeting, summarized below.

- Decided the compensation for the Board and committees for this year, based on PTT's performance outcomes and business size, practices of peer-industry listed companies and leading companies (domestic and international), and Board responsibilities in conjunction with the Board assessment outcomes by topic, as defined in the annual assessment forms. The compensation was tabled for the Board for proposing to the 2015 AGM.

- Assessed the CEO & President's performance to decide his new compensation, based on factors linked to the annual performance assessment agreement for state enterprises, made between the State Enterprise Policy Office and PTT, as well as his managerial ability and leadership, in addition to his own assessment. In late 2015, the committee required that all directors assess his performance and submit their views to the committee.

Finally, for the benefit of inspection transparency, the Remuneration Committee has disclosed the compensation of all directors and committee members, together with PTT executives' compensation, in this annual report.





## Report of the Corporate Governance Committee



**Gen. Chatchalerm Chalermsook**

Chairman of the Corporate Governance Committee

### Dear Shareholders

The current Corporate Governance Committee of PTT Public Company Limited is made up of 3 directors: Gen. Chatchalerm Chalermsook (Chair), Mr. Don Wasantapruet, and Mr. Somsak Chotrattanasiri. The Vice President, Office of the President and Corporate Secretary, served as secretary.

The Board of Director has always valued and stood for business conduct with integrity, transparency and accountability, and thus stress PTT's firm commitment to corporate governance (CG), high ethical standards, the code of business conduct, and PTT Group's scope of sustainability management in order to develop and enhance PTT's CG system for continual efficiency which will bolster confidence among all its stakeholders and lead to PTT's sustainable growth. To this end, the Board has assigned the Corporate Governance Committee, consisting of three independent directors, to propose CG guidelines and steer the conduct of directors as well as the management to ensure CG principles, SET's CG principles, and the international principles of

The Organization for Economic Cooperation and Development (OECD) together with the ASEAN CG Scorecard. The committee's mandate also embraces the management of sustainability and scope formulation for the steering of PTT's anti-corruption tasks.

In 2015, this committee held four meetings as planned, quarterly meetings, to track CG and anti-corruption tasks, together with those under social, community, and environmental responsibility and sustainable development plans, as detailed below:

#### Information disclosure and transparency

- Completed the annual information disclosure form (Form 56-1), the annual report and disclosed quarterly performances as well as essential information for shareholders, investors, and the public. The disclosed information shall be adequate, credible, essential, and prompt details through assorted channels, including SET's publicity channels and [www.pttplc.com](http://www.pttplc.com). The core units responsible for information distribution were Investor Relations and Corporate Communications.

- Developed the annual sustainability report for 2015 on the basis of Sustainability Reporting Guidelines and Oil and Gas Sector Disclosure (OGSD), version 4 (G4) of Global Reporting Initiative (GRI), with information disclosure at the Core level and a goal to pass reviews by external parties. The report is due for completion concurrently with the annual report.

- Issued the quarterly PTT Bizway newsletter for common-stock holders to keep them informed and maintain good understanding.

- Issued the quarterly Happiness Newsletter for debenture holders to keep them informed and keep trustworthy relations.

#### Rights of the shareholders

- Arranged the Annual General Meeting of Shareholders (AGM) and provide in advance adequate and timely information on the date, time, venue, and agenda as well as all data relevant to matters which is necessary for shareholders to make decisions at the meeting.



### Equitable treatment of shareholders

- Allowed all shareholders to propose additional agenda items and nominate directors in advance from 1 September to 30 November 2015, as required by PTT.
- Required all directors and executives to disclose vested interests about themselves and related parties for the year so that the Board may review PTT's transactions with potential conflicts of interest and decide in PTT's best interests.
- Required all directors, executives, and employees to electronically report their conflicts of interest for the year on the PTT intranet. No significant conflict was detected this year.
- Required all directors and executives to report their stock portfolios as required by law and assigned the Corporate Secretary to compile and report these to the Board every quarter.

### Responsibilities of the Board

- Assessed its own performance in four ways (overall, self-assessment, cross-assessment, and subcommittee assessment), with excellent outcomes again this year.
- Attended essential training courses hosted by the Thai Institute of Directors (IOD), including Director Accreditation Program, Anti-Corruption for Executive Program, and Role of the Nomination & Governance Committee Program. Joined the "Re-energizing Growth through Better Governance, Thailand CG Forum: Governance as a driving force for business sustainability, Thailand's 6<sup>th</sup> National Conference on Collective Action against Corruption" and "Anti-corruption in Thailand: Sustaining the Momentum" seminars. Finally, attended senior executive training at the Thai Energy Academy.

- Joined a PTT Group site-visiting as well as business activities relating to energy in and outside Thailand.
- Requested the management to perform a presentation of business data apart from monthly meetings, in order to strengthen business and investment comprehension to directors, namely a financial study on the splitting of the oil business, ship-vetting system, approach to the formation of a National Enterprise Corporation, and international anti-corruption.
- Held one meeting among the independent directors.
- Held one meeting in the absence of the management.

### Recognition of stakeholders

- Endorsed an action plan on PTT's annual CG and anti-corruption together with the annual goals for cascading to all so that PTT's business may align with good governance and its CG practices may be on a par with international peers; promoted confidence among shareholders and all stakeholders; stressed and cultivated values for strict conformance to CG principles, ethics standards, and code of business conduct and form a corporate culture.
- Required that all PTT Group companies implement the anti-corruption policy for their personnels to use in conducting business. Stressed that PTT Group management must be standardized and uniform.
- Enlisted as a member of Partnership against Corruption for Thailand: PACT Network, founded by Thaipat Institute.
- Rolled out the "No-Gift Policy" to forge a high operating standard under which all personnel give their best without expecting anything in return, which agrees with PTT's CG policy and anti-corruption policy.

## Social responsibility and sustainable development

- Defined social responsibility guidelines in support of PTT Group's sustainability management scope by committing to corporate citizenship that is responsible everywhere PTT operates and in society at large, as required by international practices; valuing participation by all sectors to show stewardship of the environment and ecology; and sustainably improving lives of communities and society through the conservation of natural resources and the environment, social and community development, and human resource development. PTT currently undertakes 40 social projects.

- Passed assessment by RobecoSAM Corporate Sustainability Assessment and was ranked as a member for a fourth consecutive year - one of the 13 companies out of 97 on DJSI World (Dow Jones Sustainability Indices), and one of the five companies on DJSI Emerging Markets in the Oil and Gas Industry (OIX) category out of 33.

## Awards of pride

Thanks to its firm commitment to operating businesses constantly with CG, social responsibility practices, and sustainability management. This year, PTT, again, earned extensive recognition from domestic and international entities. Awards included an "Excellent" ranking of its CG practices based on a survey of listed companies in 2015 (Corporate Governance Report of Thai Listed Companies 2015); Level 5 outcomes for Anti-Corruption Progress Indicator, extended to related parties, regarded as the ultimate recognition; SET Sustainability Awards 2015; Thailand Sustainability Investment 2015, a first for the Thai capital

market; Sustainability Report Awards 2015; a Top 50 ASEAN PLC against the ASEAN CG Scorecard criteria; Corporate Governance Asia Annual Recognition Awards 2015: Icon on Corporate Governance (for 11 consecutive years); Corporate Awards 2015 (Platinum), presented by The Asset magazine (for seven consecutive years), among others.

The Corporate Governance Committee remains committed to improving its efficiency in steering PTT's CG, social responsibility, and sustainable development practices to align with PTT's business strategies in pursuit of the Pride & Treasure of Thailand organization that fosters business confidence with transparency and fairness, while cultivating among its employees job performance filled with ethics, code of business conduct, and integrity for the best interests of all stakeholders. These will benefit Thailand as a whole.





## Report of the Enterprise Risk Management Committee



**Mr. Chanvit Amatamatucharti**

Chairman of the Enterprise Risk Management Committee  
(30 January 2015 - Present)

### Dear Shareholders

The current Enterprise Risk Management Committee of PTT Public Company Limited is made up of 3 directors: Mr. Chanvit Amatamatucharti (Chair), Mr. Prasert Bunsumpun, and Mr. Chavalit Pichalai. The Senior Executive Vice President, Corporate Strategy as Chief Risk Officer (CRO) served as the secretary.

One might say that 2015 was another year in which PTT Plc. faced stiff challenges, both domestic and abroad, with substantial impacts on its businesses. Recognizing this, in support of the Board's responsibility, the Enterprise Risk Management Committee performed its duties of supervising and managing corporate risks to acceptable levels under corporate governance. The committee strictly followed the management risk processes to give PTT's risk management high efficiency and enable it to achieve overall business goals while bolstering confidence among all its shareholders.

To date, the committee has received excellent support from the PTT's Risk Management, which has made its tasks more proactive, with significant progress. The highlights of our performance are captured below.

**1. Reviewed the risk mitigation framework and amended the enterprise risk mitigation to accommodate uncertainty:** To this end, risk indicators that serve as alarms are applied in case of significant risk severity change so that PTT can promptly adjust its risk response measures, apart from measurement of overall risk mitigation effectiveness.

**2. Screened and provided recommendations on risk mitigation plans:** The committee focused on quality improvement of risk mitigation plans to incorporate various circumstances leading to risks. It oversaw risk mitigation that effective control was in place and defined additional measures to accommodate uncertain business circumstances so that overall risks are in manageable level.

**3. Monitored the progress of risk mitigation and trends that could significantly affect PTT:** This prepared PTT to handle various potential situations, including oil price volatility, so that the impacts of risks might be manageable and that the shareholders' confidence might be bolstered with PTT's effective risk mitigation, supporting achievement of business goals.

**4. Screened the corporate risk lists of 2016:** This move aligned with PTT's business directions, goals and strategies under the uncertainty of the global economy and ever-changing energy contexts. The committee also provided recommendations for the formulation of risk mitigation plans that could yield repercussions on PTT's long-term growth, like the stress on efficiency improvement, operating cost reduction, continuous productivity improvement and investment administration efficiency improvement.

Finally, the Board has amended the Enterprise Risk Management Committee's authority by assigning it to screen and comment on items that imply long-term obligations, or those that contain business complexities and risks that could significantly affect PTT, before tabling those items for the Board's review.





# World Economic, Petroleum, and Petrochemical Review

## 2015 World Economic, Petroleum, and Petrochemical Developments



### World Economic Development

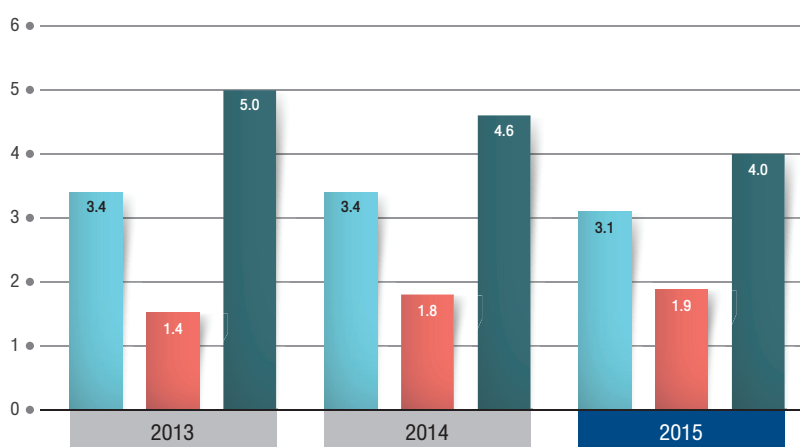
The world economic growth in 2015 dropped from the 2014 level. The emerging markets and developing economics, particularly China as well as oil and commodity exports, declined for the fifth consecutive year. Meanwhile, a slight pickup in growth was seen in advanced economics, especially the US where the labor market recovery was notable. As for the euro area, the economy continued to recover gradually. In its January 2016 report, the International Monetary Fund (IMF) projected the world economic growth at 3.1% for 2015 (Figure 1).

**Figure 1:**  
World's  
Economic Growth  
Rate during  
2013 – 2015

Unit: % YoY

Source: IMF as of January 2016

- World Economy
- Advanced Economies
- Emerging Market and Developing Economies



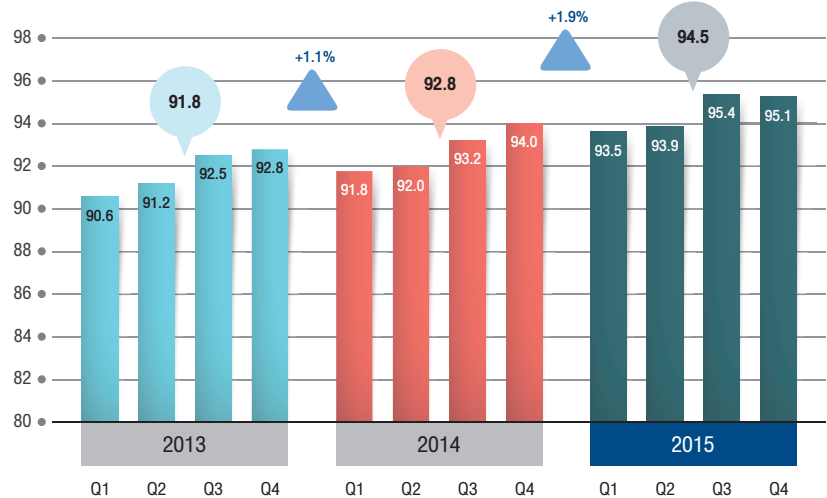
### World Petroleum and Petrochemical Developments

Dictated by the sharp fall in the world oil price, demand for oil this year rose by 1.7 million bbls per day from last year. The International Energy Agency (IEA) reported in its January 2016 issue that the world's oil demand this year totaled 94.5 million bbls per day (Figure 2).

**Figure 2:**  
World Oil Demand  
2013 – 2015

Unit: million bbls per day

Source: IEA as of January 2016

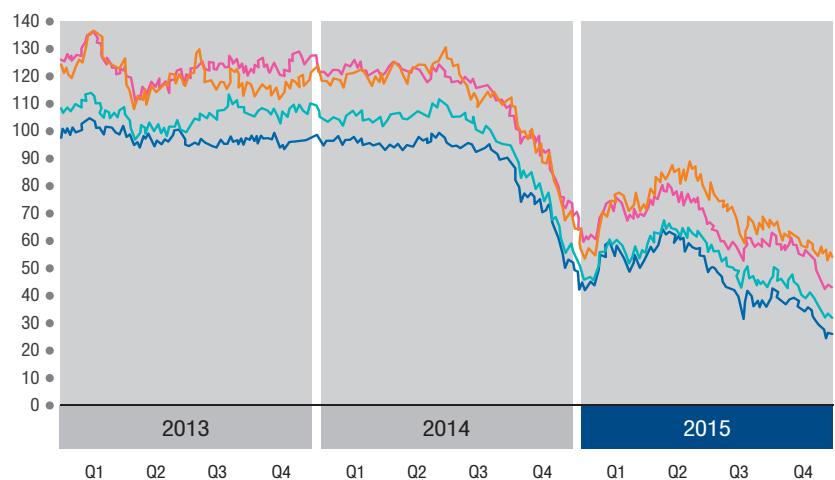


The world's oversupply of crude oil was primarily driven by massive output from US shale oil and OPEC's production pegging above 30 million bbls per day, pushing the average Dubai crude price to USD 51.0 per bbl, significantly dropping from last year's average of USD 96.7 per bbl. The overall price of refined products this year fell in line with the crude price but to a smaller degree, mainly because the refining industry was relatively in balance. The average gasoline 95 price this year fell to USD 69.3 per bbl, thus keeping demand high. The average diesel price this year fell to USD 64.6 per bbl, lower than the average gasoline price, indicating weaker global economic activities. The average fuel oil price also dropped, but at a slower pace, to USD 46.0 per bbl as a result of more demand for global marine transport, while supply from the West was falling. Following the same trend, the average price of cooking gas (LPG CP) dropped to USD 424 per ton (Figure 3).

**Figure 3:**  
The Dubai  
Crude Prices  
and Petroleum  
Products during  
2013 – 2015

Unit: USD per bbl

	2013	2014	2015
Dubai	105.5	96.7	51.0
Gasoline 95	119.2	111.0	69.3
Diesel	123.4	112.7	64.6
Fuel oil	97.5	88.4	46.0



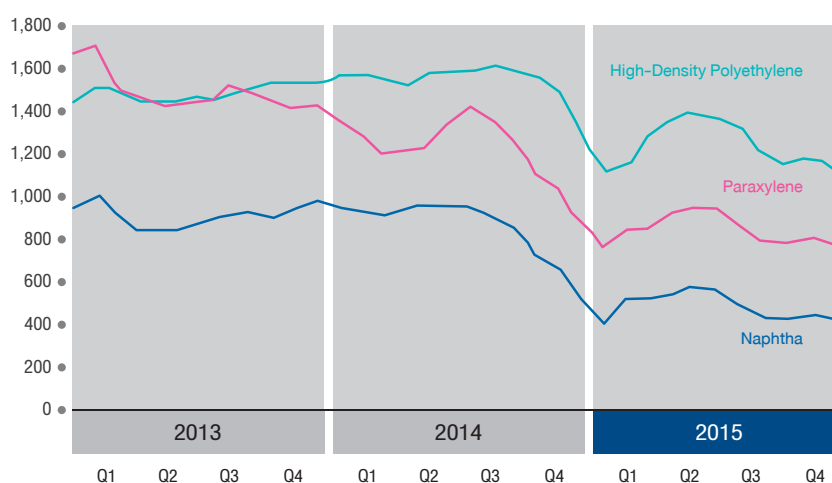
Amid the severe, continuous drop in the world oil price, the demand for refined products was still high. The prices of refined products, therefore, dropped by slower and smaller degrees, leading the cracker's average refining margin in Singapore this year up from USD 5.8 per bbl last year to USD 7.7 per bbl.

This year's petrochemical product prices fell in line with those of crude oil, naphtha and the lower demand from subdued global economic activity. Because of the bearish plastic market in Asia and the new capacities started up in the United Arab Emirates, China, India and Iran, this year's average price of HDPE dropped to USD 1,236 per ton. Similar to the paraxylene (PX) market, where demand sentiment fell from the sluggish economy of China and supply was way excessive, this year's average price took a dive to USD 843 per ton (Figure 4).

**Figure 4:**  
Average Prices  
of Petrochemical  
Products in Asian  
Market during  
2013 - 2015

Unit: USD per ton  
Source: ICIS

	2013	2014	2015
High-Density Polyethylene	1,487	1,544	1,236
Paraxylene	1,498	1,222	843
Naphtha	910	849	477



## 2015 Thai Economic and Petroleum Developments

### Thai Economic Developments

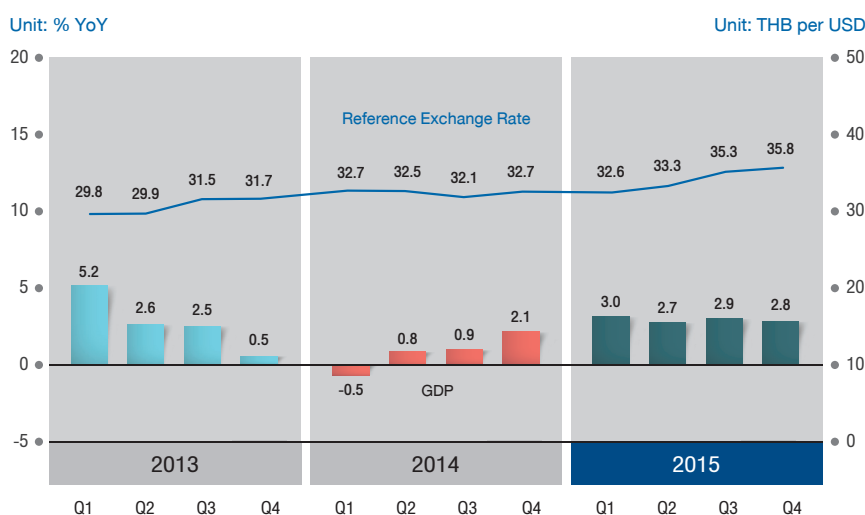
The Thai economy improved in 2015 on the back of high public spending and government's measures to boost growth, as well as higher-than-expected foreign tourist arrivals, which helped offset weak exports and private investments. The Office of the National Economic and Social Development Board (NESDB), in February 2016, reported a 2015 economic growth at 2.8%. The Thai Baht averaged THB 34.3 per USD in 2015, weakening due to surging outflows from the emerging markets and developing economies (Figure 5).

**Figure 5:**  
Thai Economic  
Growth  
2013 - 2015

Unit: % YoY

Source: Office of the National  
Economic and Social Development  
Board and Bank of Thailand

	2013	2014	2015
GDP (% YoY)	2.7	0.8	2.8
Reference	30.7	32.5	34.3
Exchange Rate (THB per USD)			



## Thai Petroleum Developments

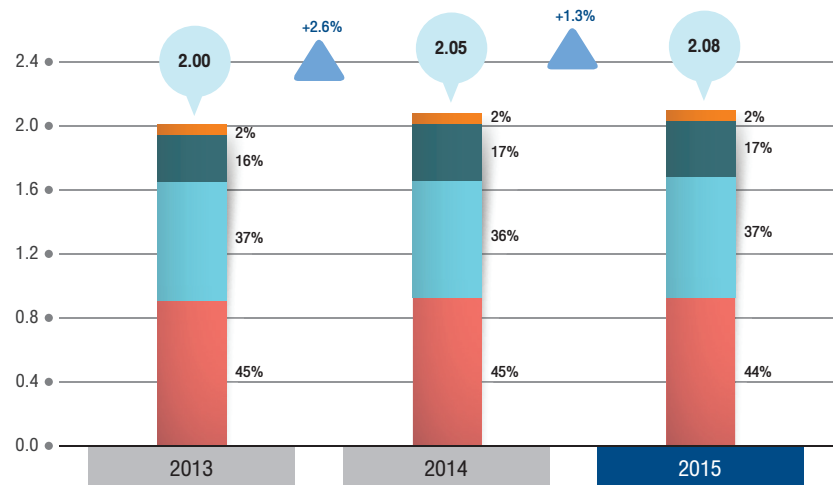
The primary commercial energy consumption this year, excluding renewables, rose by 1.3% year-on-year to 2.08 million bbls per day (Figure 6). The consumption of oil and natural gas was up by 4.5% and 0.3%.

**Figure 6:**  
Thailand's Primary  
Commercial Energy  
Consumption during  
2013 - 2015

Unit: million barrels per day

Remark: Excluding renewable energy  
Source: Energy Policy  
and Planning Office

- Hydro/ Imported Electricity
- Coal/ Lignite
- Oil
- Natural Gas



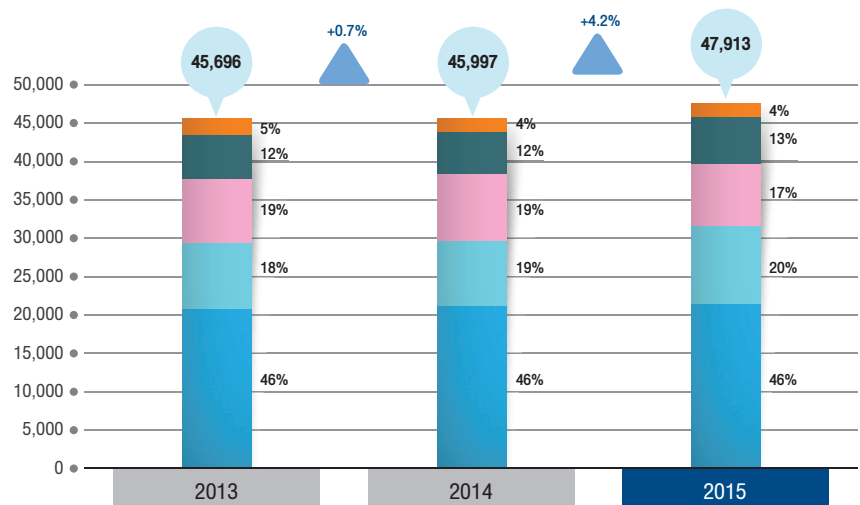
Consumption of refined petroleum products in Thailand this year rose by 4.2% (Figure 7), led by the 13.2% rise in gasoline consumption as a result of the severe drop in the oil price and government economic stimulus program. Consumption of diesel, meanwhile, rose only by 4.0%, due to sluggish industrial growth. Consumption of aviation jet fuel was up by 9.4% due to the higher influx of foreign tourists. On the contrary, LPG consumption dropped by 6.8%, following the state policy to gradually back off the subsidy to put the LPG price in line with the world market.

**Figure 7:**  
Thailand's  
Consumption of  
Refined Petroleum  
Products during  
2013 - 2015

Unit: million liters

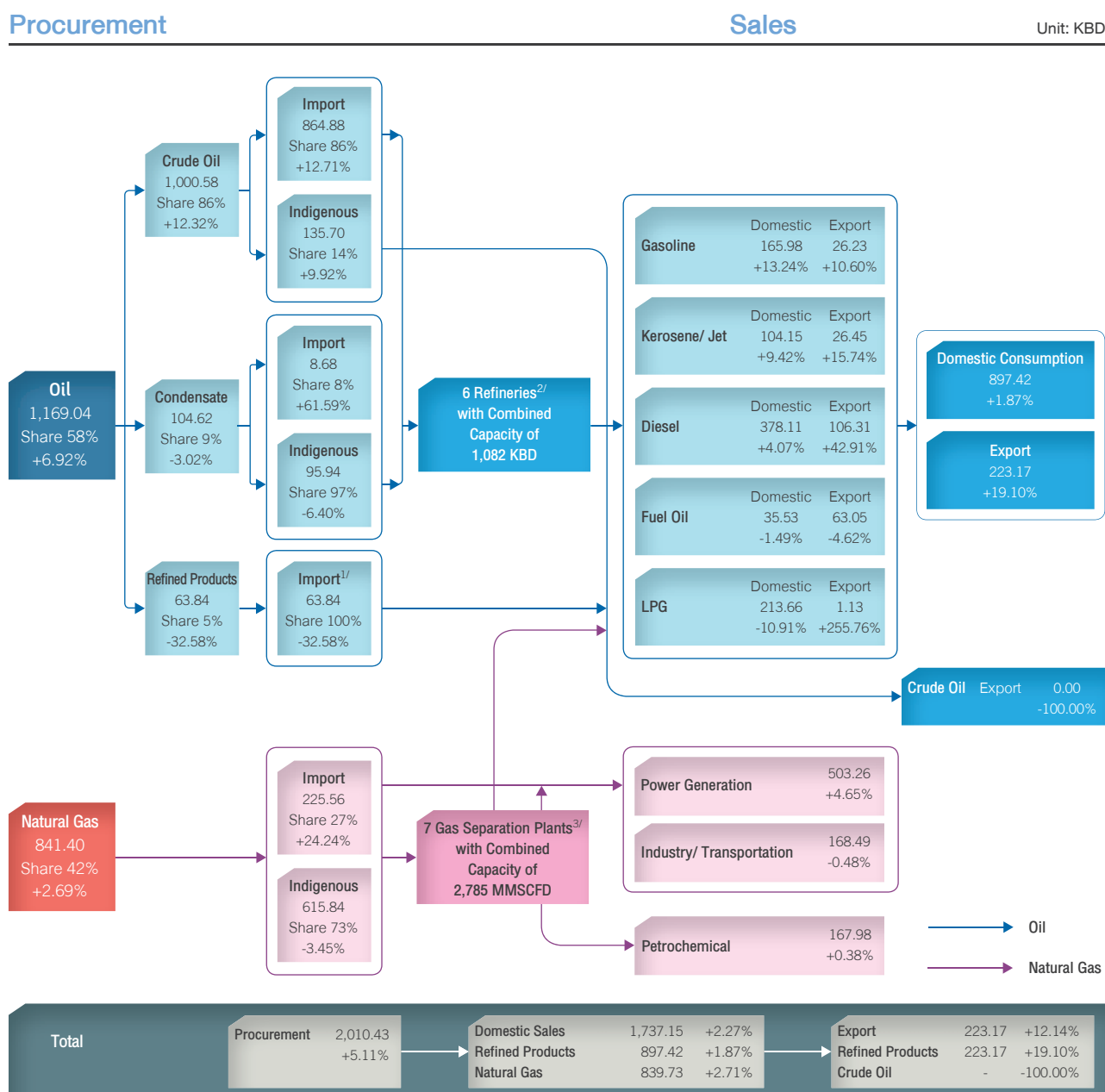
Remark: \* Excluding volume used  
by petrochemical industry  
Source: Department of Energy  
Business

- Fuel Oil
- Jet Fuel/ Kerosene
- LPG\*
- Gasoline
- Diesel



The overall petroleum procurement this year amounted to 2,010.43 KBD, a rise of 5.11% (Figure 8). Oil and natural gas accounted for 58% and 42%. Most of the oil procurement was in the form of crude, accounting for 86%, and 27% of the natural gas procurement was imported. The domestic sale of petroleum totaled 1,737.15 KBD, a jump of 2.27% year-on-year with comparable shares of oil sale and natural gas sale. The export of petroleum products this year totaled 223.17 KBD, up by 12.14%. No export of crude oil, however, was made this year following a call for cooperation from the Department of Mineral Fuels for all petroleum concessionaires to refrain from crude oil export.

Figure 8: Thailand Petroleum Procurement and Sales in 2015



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

Remarks:

1/ Including LPG

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

3/ Capacity includes those of PTT GSP 1 - 6, PTT ESP and PTTEP Siam/ Phalang Phet. The Petroleum Procurement Balance excludes Bitumen.

## 2016 World Economic, Petroleum, and Petrochemical Outlook

### World Economic Outlook

The world economy is set to recover in 2016, primarily reflecting forecasts of a gradual improvement of growth rates in countries currently in economic distress such as Brazil and Russia. In advanced economies, particularly the US, the recovery is expected to continue. As for the euro area, easy financial conditions and low oil prices are expected to help strength private consumption and boost economic grow. Nevertheless, the slowdown and rebalancing of china's economy as wall as low commodity prices are expected to continue to weigh on the region's growth prospects. In its January 2016 report, the IMF projected world economic growth at 3.4% for 2016.

### World Petroleum & Petrochemical Outlook

The global demand for oil should rise by 1.2 million bbls a day in 2016, leading to a total of 95.7 million bbls a day, according to the IEA report of January 2016. The rise in demand will be from developing and emerging markets, led by China, India and the Middle East. The oil demand in advanced economies is likely to stay put. The global oil demand-supply is expected to approach equilibrium, as supply will likely fall, led by reduction of oil production from the non-OPEC bloc. However, additional crude supplies from Iran and Iraq will continue to put pressure on the rising oil price. The oil price next year is likely to stay

around USD 35 - 45 per bbl. This will keep the consumption of refined products high, driving the average refining margin in Singapore to around USD 8 - 9 per bbl next year.

The overall prices of petrochemical products in 2016 tend to slip further as a result of oversupply. The HDPE price is likely to fall to USD 1,091 per ton pressured by low cost coal-to-olefins (CTO) production in China and the more competitive technology of shale gas. Similarly, the paraxylene (PX) price tends to fall further to USD 743 per ton, as a lower growth in purified terephthalic acid (PTA) and polyester demand is expected amid a continuing supply glut.

## 2016 Thai Economic and Petroleum Outlook

### Thai Economic Outlook

The Thai economy in 2016 is expected to improve from 2015, driven mainly by stimulus measures and government's investments, particularly those in mega-infrastructure projects. These will boost private sector's confidence and could stimulate more private investment. The tourism sector, meanwhile, is set to rise continuously. Moreover, the depreciation of Thai Baht tends to be advantageous to the country's exports. The NESDB in February 2016 projected that the Thai Baht will range between THB 35.5 - 36.5 per USD. In 2016, risks to growth include the recovery of trading partners' economies, the drought and the delay of government budget disbursement. The NESDB also projected the Thai economy in 2016 will grow 2.8 - 3.8%.

### Thai Petroleum Outlook

The primary commercial energy consumption next year, excluding renewables, is predicted to grow by 2.0 - 3.0% from 2015 as a result of domestic economic expansion. According to the Ministry of Energy, as of January 2016, the oil prices are likely to remain low next year; therefore, the demand for refined petroleum products is expected to rise by 3.0%, with consumption growth of gasoline, diesel and jet fuel by 9.7%, 1.8% and 4.5% respectively. The consumption of LPG, however, is anticipated to contract by 2.5%.

In 2015,  
the world's oil  
consumption totaled  
**94.5**  
million barrels per day.

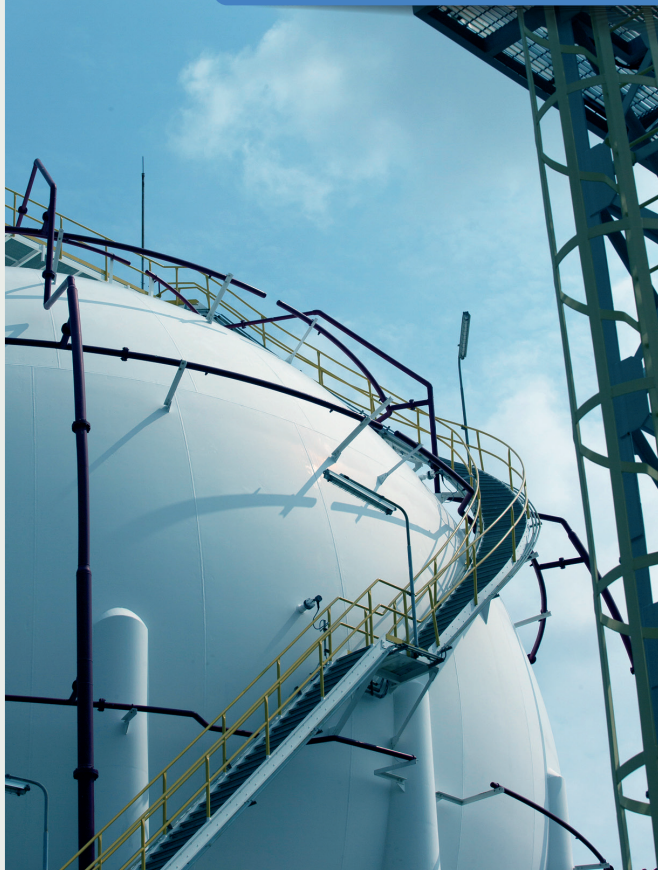


In 2016,  
the global demand  
for oil is expected  
to rise to  
**95.7**  
million barrels per day.





## Nature of Business & Performance Summary



### Nature of Business

PTT is a fully integrated national petroleum and petrochemical company with a mission to foster national energy security, economic prosperity, and corporate sustainability in parallel with the stewardship of the environment and the Thai society.

PTT's operations cover the entire business value chain with a focus on incremental value addition in tandem with the introduction of innovation. As an operating and holding company, PTT features business conducted by itself and through PTT Group companies, as summarized below.



## PTT-Operated Businesses



### Gas Business Unit

The business unit is responsible for natural gas supply, transmission, distribution, and processing, as well as gas-related value-added businesses through affiliates. Supply includes indigenous gas and imports from neighboring countries, sufficient to meet the spiraling demand plus liquefied natural gas (LNG). Its distribution network includes major power producers through transmission pipelines, industrial users through PTT-invested distribution pipelines, and the transport sector to promote the consumption of natural gas as an option for gasoline and diesel through PTT's investment by the Infrastructure Business Group in NGV distribution through NGV service stations. PTT also invests in gas separation plants (GSPs) to supplement business value by extracting a variety of valuable chemical components from the gas to provide petrochemical feedstocks, which in turn represents essential elements of all other subsequent industries driving national economic growth. One of these products is LPG, used in the household, industrial, and transport sectors.

In importing LNG, PTTLNG Co., Ltd., a wholly owned subsidiary of PTT under the supervision of the Gas Business Unit, invested in LNG receiving terminals, LNG storage, and LNG regasification.

About 73% of the gas supply comes from indigenous sources, and the rest from piped gas from Myanmar and LNG imports from around the world.

The business performance of natural gas supply and wholesale hinges on the fees for supply and pipeline tariffs, supervised under the Energy Industry Act, B.E. 2550 (2007), by the Energy Regulatory Commission (ERC). The performance of the gas distribution business to industrial users mostly varies with the prices of world fuel oil, which represents their common alternative fuel. For GSPs, performance outcomes depend on the prices of their products sold as petrochemical

feedstocks, which are tied to world markets. As for the LPG sold domestically as a fuel, the public sector made it a policy to adjust domestic LPG sales prices to reflect the true costs of supply and production, effective from February 2015. The public sector requested help from PTT to temporarily help LPG users in the household group, who were low-income users and vendors so that they could buy LPG at the same prices and ease the impacts of LPG price rises.



### Oil Business Unit

The business unit is in charge of the distribution of quality petroleum products at fair and suitable prices for three core products. First, petroleum products, consisting of liquids and LPG. Second, lubricating oil and other lubricating products. Third, non-oil, retail business products. All these are sold through three major distribution channels.

1. Retail business through service stations and outlets outside service stations, marked by relentless quality development of products and services at PTT Life Stations that can satisfy modern consumers' lifestyles favoring one-stop service. In addition, new retail businesses are conceived and operated by PTT, and business allies are sought to jointly develop products and services. This year, PTT concluded a deal with Texas Chicken, under which PTT would serve as a master franchise. The first branch was launched at Central Plaza West Gate, another novel experience carefully selected by PTT for Thai consumers. To enable PTT to constantly upgrade its consumer engagement and apply technologies to sales promotion, PTT continued its PTT Blue Card, designed to foster relations with consumers. The card membership has now risen to more than 1,200,000 customers with extraordinary engagement with PTT. Also, PTT Blue Card Mobile Application was launched for both the Android and iOS systems, under which members earn privileges at leading stores through their smartphones and enjoy ongoing special activities.





2. The commercial market, sold to government and, state enterprise agencies, industries, aircraft, ocean liners, fishing vessels, and exports.

3. Sales of products to customers under Article 7 and Article 10 of the Fuel Trade Act.

Moreover, oil business unit manages investments in businesses as well as related domestic and overseas businesses through PTT Group companies, most of which are wholly owned by PTT, and is engaged in domestic and overseas oil businesses, such as retail sales and service stations, lubricating oil blending and bottling, and the business of receiving, storing, and dispensing fuel products and petrochemicals.

The oil business has become more liberalized and highly competitive. Its performance outcomes depend on consumers' demand, marketing margins, and income from retail businesses, whose growth is continually impressive.

### International Trading Business Unit

The business unit operates fully integrated international trading businesses under a strategic framework designed to enhance national energy security in tandem with the expansion of trading bases to all regions of the world, covering procurement, import and export of crude oil, condensate, petroleum products, LPG, petrochemical products, solvents and chemicals, and palm products like crude palm oil and palm kernel shells. The business unit is also in charge of providing price risk management and international shipment in support of businesses whose aims are to become a leading multinational trading company, enhance energy security for the Kingdom, and strive for national prosperity.

Since PTT International Trading transactions are considerable in value, it needs a three-dimensional risk control system, managed by several panels for checks and balances, and information technology for assorted transactions to enable quick, transparent, and efficient control.

The business unit has appointed companies and representative offices in several countries, including Singapore, Dubai of United Arab Emirates, Shanghai, the People's Republic of China, and Jakarta of Indonesia. As a result, today the business unit is managing business transactions in more than 50 countries covering all regions of the world.

### Infrastructure Business Group

The Infrastructure Business Group engages in natural gas delivery systems (natural gas transmission and NGV delivery system), power and cogeneration businesses, land development businesses, standards and operating systems for sustainability, engineering and construction project management businesses, engineering and maintenance services, and office building service businesses to maximize infrastructural asset management efficiency and promote proficiency in professional project management excellence to accommodate PTT's burgeoning domestic and overseas business growth.

Performance in this area hinges mostly on natural gas pipeline tariffs, throughput volumes, and other fees.

## Businesses invested through PTT Group companies



### Petroleum exploration and production (E&P) business

This is done through PTT Exploration and Production Plc (PTTEP). E&P activities and domestic petroleum pricing structures are governed by the Petroleum Act, B.E. 2514 (1971), under the supervision of the Petroleum Committee.

PTTEP operates domestic and international petroleum E&P and invests in associated businesses to explore for petroleum sources that are competitively priced to ensure Thailand's energy security and sells petroleum outputs of domestic and regional projects, most of which in the form of natural gas, mostly to the domestic market.

PTTEP's performance primarily depends on the world oil prices, petroleum exploration and field development success, efficient cost management of E&P projects, investment opportunities, and organizational competency development.



### Power business

PTT is engaged in the power business through Global Power Synergy Public Company Limited (GPSC), its power-business flagship, which today produces public utilities (electricity, steam, and demineralized water) for industrial users and EGAT. Also, GPSC is an investment leader in promoting cogeneration and district cooling systems for projects along gas pipeline routes in pursuit of maximum energy efficiency. Investments are in the form of IPPs, SPPs, joint ventures, and business partnerships, domestic and international.

GPSC's performance hinges largely on natural gas prices, power and steam supply and demand, base power tariffs and variable power tariffs in each operated country, power stability, availability payment, efficient cost and operating expense management, investment opportunities, and corporate capability development.



### Coal business

PTT Energy Resources Co., Ltd. (PTTER) invests in the coal business and coal mining business in Indonesia for sale to China, Korea, Japan, and Taiwan.

Performance outcomes in this business varies with the world coal prices and demand, as well as efficiency cost management associated with coal mining.



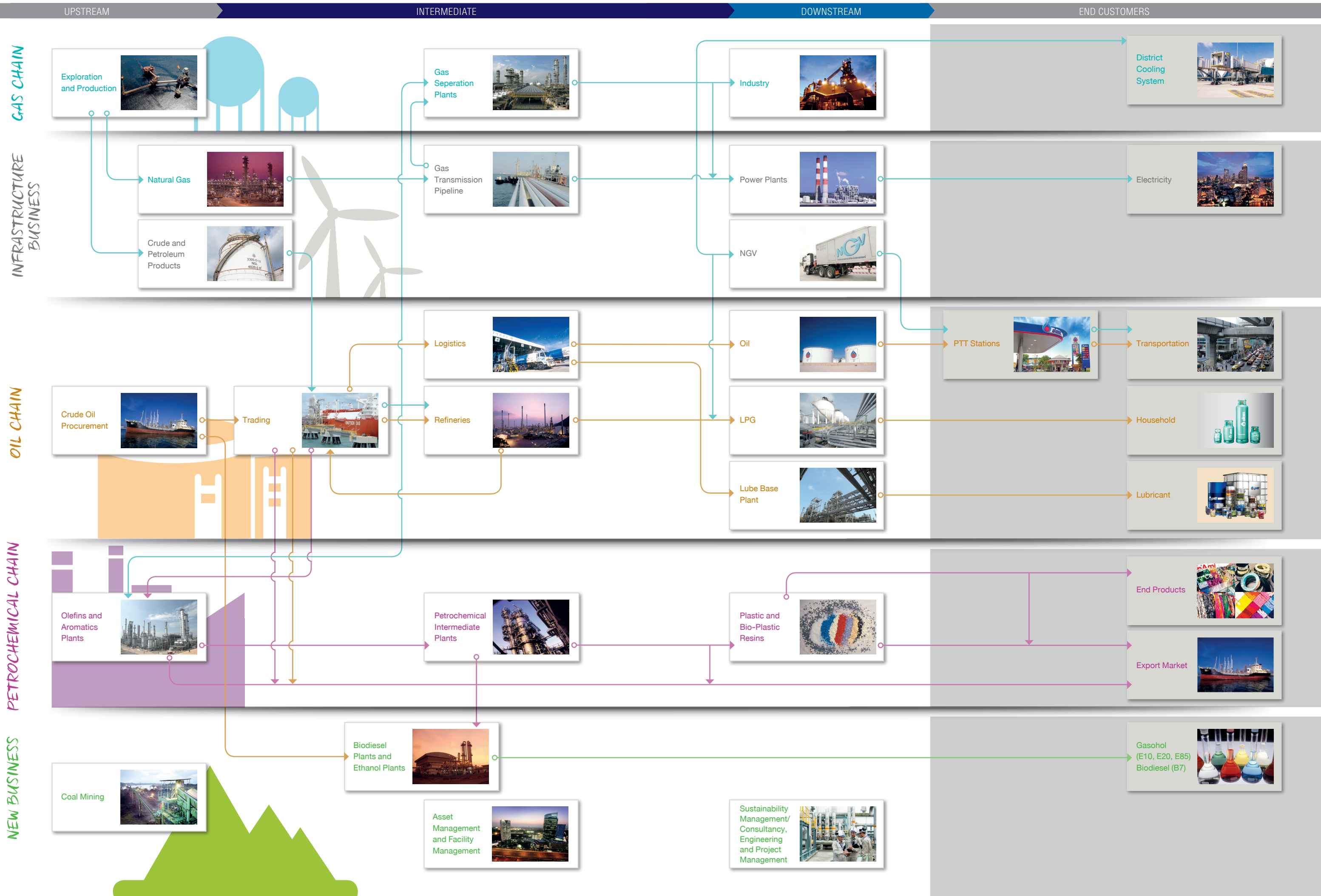
### Petrochemical and refining business

PTT invests in these businesses through 11 PTT Group companies, namely Thai Oil Plc (TOP), IRPC Plc (IRPC), Star Petroleum Refining Co., Ltd. (SPRC), Bangchak Petroleum Plc (BCP) (until April 2015), PTT Global Chemical Plc (PTTGC), HMC Polymers Co., Ltd. (HMC), PTT Asahi Chemical Co., Ltd. (PTTAC), PTT MCC Biochem Co., Ltd. (PTTMCC), PTT PMMA Co., Ltd. (PTTPMMA), PTT Polymer Marketing Co., Ltd. (PTTPM), and PTT Polymer Logistics Co., Ltd. (PTTPL). The scope is from fuel processing, production and sales of upstream, intermediate, and downstream petrochemicals, together with various polymers, worldwide marketing business, and integrated logistical services.

Performance is primarily dictated by the world economy, feedstock prices, and product prices in the world market, which are a function of world supply and demand and year-end inventories. Performance is primarily subject to world petrochemical prices, supply and demand, and the year-end inventory prices.



# Creates Value Through Business Chain





## 2015 Performance

This year, PTT focused on business efficiency improvement, cost reduction, and financial discipline. In place is strict price risk management. To generate revenue, innovative products are presented to the market. Due to the sliding prices of oil toward the year-end, PTT and its affiliates suffered stock losses (crude oil and feedstock) and losses due to impairment of assets, altogether THB 54,698 million, particularly in its E&P and coal businesses. As a result, this year, PTT Group posted THB 19,936 million in net profit and THB 2,026,912 million in sales revenue.

The highlights of performance outcomes for each business unit appear below:

## PTT-Operated Businesses



### Gas Business Unit

This year's operational success resulted from relentless process efficiency improvement, which produced 4% reduction in per-unit-energy consumption at the GSPs from last year, implying lower GSP production costs. In addition, success came from greater volumes of gas supply in line with rising gas demand among customers of the power, industrial, and GSP groups. Below are the performance highlights of the Gas Business Unit in 2015:



### Natural gas procurement

Supply procurement totaled 4,824 MMcf/d, a 3% rise from last year of 4,687 MMcf/d, consisting of 3,532 MMcf/d from indigenous sources and 1,292 MMcf/d from import, or an equivalent indigenous/import ratio of 73:27.

### Gas sales to the power sector

Sales totaled 2,886 MMcf/d, about 60% of the total sales, representing a 5% rise from last year (at 2,757 MMcf/d), due to the rising demand for power. Sales were completed to EGAT at 1,151 MMcf/d, or 40% of the total; to 10 independent power producers (IPPs) at a total of 995 MMcf/d, or 34% of the total; and to 42 small power producers (SPPs) at 740 MMcf/d, or 26% of total sales.

### Gas sales to the industrial sector

Sales totaled 669 MMcf/d, equivalent to 14% of the total sales, an increase of 2% from last year (at 653 MMcf/d). A total of 356 plants used industrial gas this year: 325 in the industrial group, 30 in the self-power-generating group, and one in the commercial group. Accounting for the rise in sales was investment in expanded gas distribution pipelines (extension portion) in the IRPC Plc. Industrial Zone, the Rojana Industrial Park, Prachin Buri, and the Ceramic Industrial Thailand Co., Ltd., Sara Buri.

### Gas sales to the transport sector

Sales averaged 312 MMcf/d, equivalent to 6% of the total sales, recording a 2% decline from last year at 317 MMcf/d due to the plunge in world oil prices, which in turn slashed the prices of gasoline and diesel. Consumers therefore consumed more.

### Sales of products from GSPs

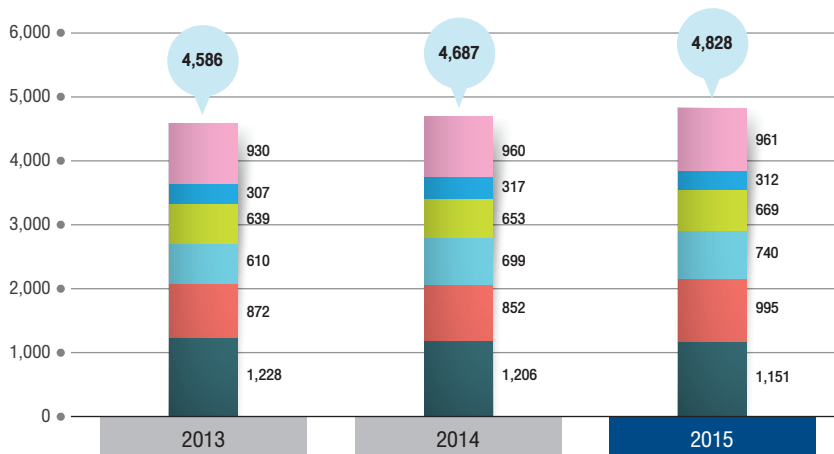
GSPs processed 961 MMcf/d of natural gas this year, or 20% of total sales, a 0.1% rise from last year at 960 MMcf/d. On 14 August 2013, GSP Unit 5 faced an unplanned shutdown because the waste heat recovery unit was struck by lightning. PTT installed a back-up unit in April this year, which enabled it to resume full capacity and eased impacts caused by LPG production and import to meet energy users' needs. In September 2014, PTT installed a brand-new waste heat recovery unit, which has passed its trial-run period, with additional design and improvement of the incident prevention system.



## Natural Gas Sales

Unit: MMcf/d  
at 1,000 BTU/cu.ft.

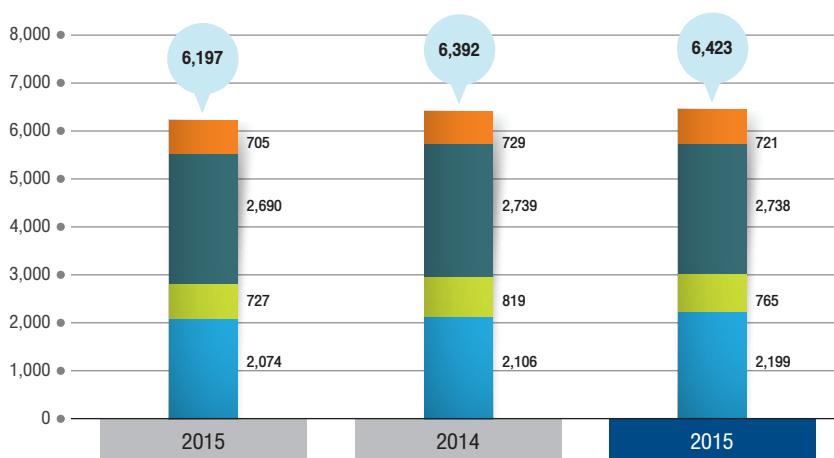
- GSPs
- NGV
- Industries
- SPP
- IPP
- EGAT



## Products from Gas Separation Plants

Unit: thousand tons

- NGL
- LPG
- Propane
- Ethane



## Gas Business Unit milestones

### January

- Qatar Liquefied Gas Co., Ltd. (Qatargas), delivered its first LNG cargo to PTT at 90,613.43 tons under a 20-year LNG supply agreement covering 2 million tons per year or roughly 280 MMcf/d. This was PTT Group's first long-term LNG agreement, contributing to the kingdom's energy security and accommodating national demand over the long term.

- The Energy Policy Administrative Committee (EPAC) raised the NGV price for passenger cars by THB 0.50 per kilogram from THB 12.50 to THB 13 per kilogram and for public vehicles by the same margin from THB 9.50 to THB 10 per kilogram, effective from 31 January 2016.

- EPAC modified the formulas for cost calculation for domestic LPG supply with producers and three suppliers, namely GSPs, refineries, and imports. Thanks to the public sector's employment of the Oil Fund, starting prices from 2 February were identical. As a result, LPG derived from GSPs now reflected realistic costs. On average, from February to April 2015, the price rose from USD 333 per ton to USD 498 per ton. The authority would revise the cost of LPG derived from GSPs every three months.

### March

- The Energy Regulatory Commission (ERC) endorsed the "TPA Code – PTT" regulations for Onshore Natural Gas Transmission Pipeline Third Party Access Code of PTT and "TPA Code – PTTLNG" regulations for LNG terminal and linking of LNG Map Ta Phut terminal under PTTLNG Co., Ltd., third party access. Both PTT and PTTLNG announced these regulations on 30 March 2015. Such announcements conformed to the regulations of the TPA Regime and aligned with the Energy Industry Act, B.E. 2550 (2007), which promotes competition in energy businesses and transparent, non-discriminating administration of energy network systems.

- On 30 March, ERC approved the "TPA Code (Onshore)" for PTT, based on the current version of TPA Regime.

### April

- Taking advantage of the traditionally low power consumption during Songkran (the traditional Thai New Year), the gas producers of Yadana and Yetagun fields in Myanmar undertook planned maintenance work at the same time from 9 to 21 April this year. On the part of PTT, it stored gas in pipelines and got gas from the eastern part of the country ready, while stocking reserve fuels for power plants in Ratchaburi, Bang Pakong, and South Bangkok. The maintenance work proceeded well as planned, enabling resumption of gas production at 03.25 hours on 20 April, six hours ahead of the plan.



- The producer of the Zawtika gas field in Myanmar similarly shut down its field for annual maintenance at the offshore production platform and the onshore pipeline system for eight days, from 20 - 27 April 2015. Gas delivery returned to normal at 22.19 hours of 27 April 2015.

- On 11 April, the project to connect the Navanakorn – Rangsit transmission pipelines with the Nakhon Sawan onshore transmission pipeline (28-inch diameter, 106 kilometers) in Amphoe Bang Pa-In, Ayutthaya, was completed, making the eastern portion of natural gas supply more complete while accommodating the growing regional gas demand in the industrial sector and the transport sector.

## May

- The Third-Party Access Regime: TPA Regime (No. 2) enforcement began, concerning the granting of access to and connection with gas transmission pipelines and the LNG terminal to a third party.

- The National Energy Policy Council (NEPC) endorsed a plan involving the transfer system and natural gas infrastructure for security of the first portion of the investment project (the natural gas transmission system network), made up of three projects, namely the improvement of platforms, hardware, and piping system to accommodate gas delivery to the new Khanom Power Plant, the offshore gas pipeline linking the Ubon field in the Gulf of Thailand, and the compressor station project for the Wang Noi – Kaeng Khoi pipeline system. PTT was assigned to implement three projects, as endorsed by the Cabinet on 30 June.

## June

- ERC endorsed the collection of the gas pipeline tariff commodity charge (Tc) for 2015 for the offshore Rayong portion (Area 1), offshore Khanom (Area 2), and onshore (Area 3) of THB 1.3045 per million Btu, whereas for the Chana onshore portion (Area 4), the charge equaled THB 0.1283 per million Btu and the Nam Phong onshore portion (Area 5), THB 0.0000 per million Btu, with effect from 1 June 2015. The rates were based on the criteria under a manual on gas price and gas transmission tariff calculation of December 2007 and Article 70 of the Energy Industry Act, B.E. 2550 (2007).

- ERC endorsed the adjustment in the fees for storage and regasification of LNG, specifically the variable element of the costs for this year of P TTLNG Co., Ltd., at THB 0.8563 per million Btu, with effect from 1 June.

- The Gas Business Unit and Ratchaburi Electricity Generating Holding PCL signed a memorandum of understanding on the feasibility investigation of an LNG Receiving Terminal in Myanmar together with the opportunity to secure gas deposits for gas-fired power plants.



## July

- The gas producers of the Thailand-Malaysia Joint Development Area (Block JDA A-18) shut down the field for annual maintenance during 21 - 25 July. To accommodate this shutdown, PTT had transported stocked reserve fuels to Chana Power Plant and Krabi Power Plant in advance, thus preventing impacts on power users, thanks to all parties involved. PTT coordinated the shutdown and enabled the field to resume normal operation at 06.00 hours on 25 July, some 24 hours ahead of the plan.

- Inaugurated the Learning Center Building and the Natural Gas Transmission Control Center Building at PTT Operations Center in Chon Buri. These house information exhibits at a museum, including the Pipeline Expert Learning Field, designed to accommodate external visitors and internal meetings and training, which would serve as an excellent means of developing the expertise of Natural Gas Transmission staff.

## September

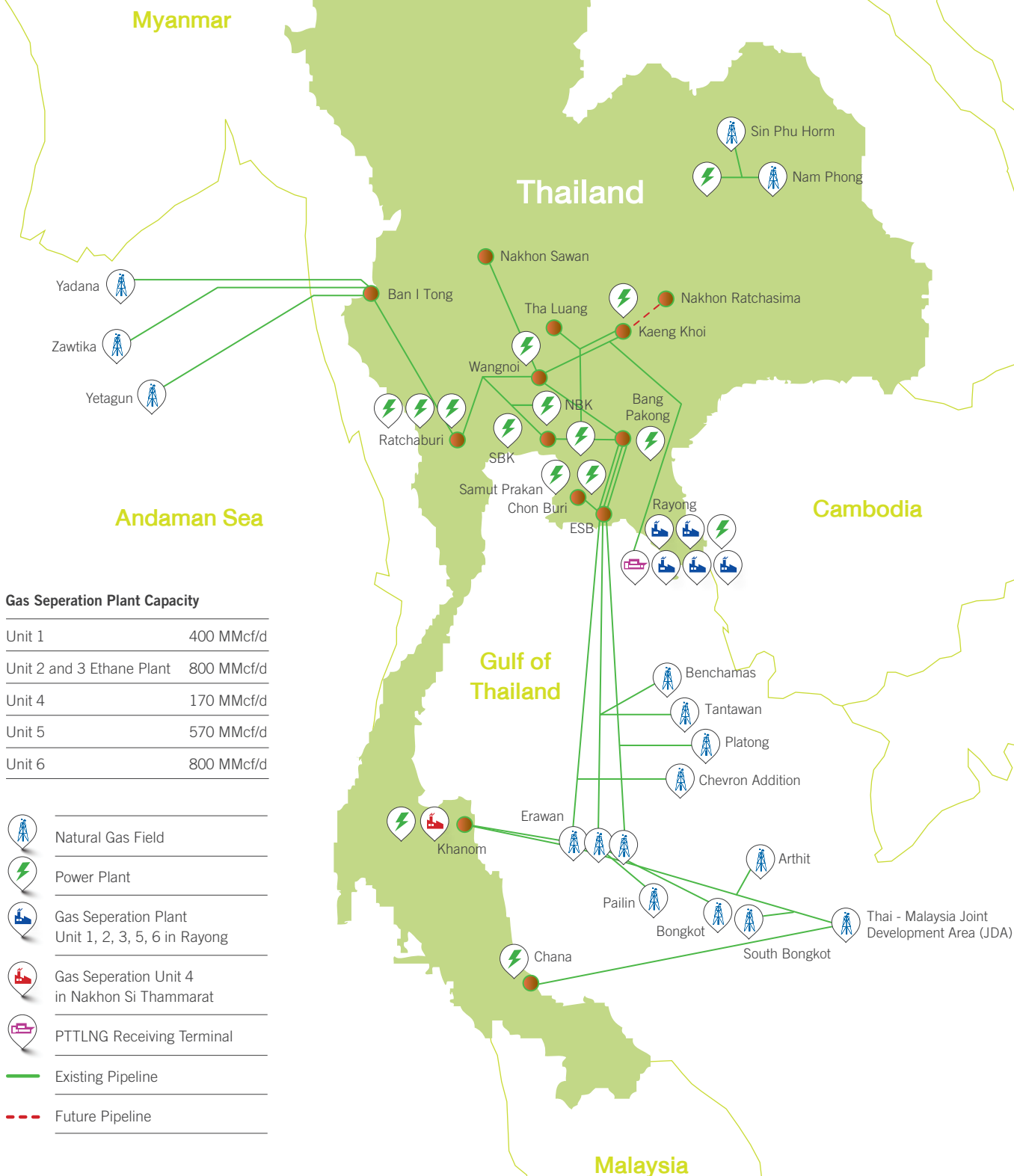
- On 17 September, gas began entering the transmission system when the Fourth Onshore Gas Transmission Pipeline at LNG Terminal was successfully hooked up with the Wang Noi – Kaeng Khoi, Sara Buri, system to enhance national energy security for Thailand's gas transmission system.

- NEPC endorsed a plan involving the transfer system and natural gas infrastructure for security of the first portion of the investment project (the natural gas transmission system network), phase 2, made up of two projects, namely the Fifth Onshore Gas Transmission Pipeline and the onshore pipeline portion from the Ratchaburi – Wang Noi 6 (RA#6) to Ratchaburi. At a budget of THB 110,100 million, which would enhance security and accommodated Thailand's rising gas demand. Gas is due to enter the system by 2021. PTT was assigned to implement both projects.

- PTT Retail Marketing Co., Ltd., a wholly owned subsidiary of PTT, signed an agreement with the shareholders of Osaka Gas (Thailand) Co., Ltd., at a 40:60 proportion in founding "OGP Energy Solutions Co., Ltd." to undertake energy solutions for the industrial group of Thailand engaging in energy solutions and one-stop service for the energy efficiency business.



# Natural Gas Transmission Pipeline System and Gas Separation Plants



- PTT signed an MoU on engineering techniques with the Metropolitan Waterworks Authority (MEA) to jointly develop the expertise and support its application to the management of PTT's gas transmission pipeline maintenance and MEA's water pipeline transmission and dispatching.
- Inaugurated the Fourth Gas Transmission Pipeline (Rayong – Kaeng Khoi) for a secure and sustainable energy network, at the Onshore Compressor Station#4. Construction followed the Cabinet resolution of 19 June 2007. This milestone represented the linking of Eastern and Central Region gas transmission pipeline networks to the Northeast in the future, while accommodating LNG imports.

## October

- ERC endorsed the “TPA Code – PTTLNG” No. 2 on 30 October under the revised TPA Regime. This concerned provision of service of the LNG terminal to third parties and linkage of the Map Ta Phut LNG terminal of PTTLNG Co., Ltd. PTTLNG announced this code on 21 November.



## Oil Business Unit

The success of Oil Business Unit this year resulted from marketing excellence strategies to meet the diverse needs of consumers. PTT continued to occupy the pole position in the domestic fuel retail market for 23 consecutive years, with a 39.9% market share, 0.5% higher than last year. For the lubricating oil market, PTT also succeeded in maintaining the same position for seven straight years, with a 38.4% market share. This year's business performance highlights are as appeared below:



## Petroleum

This year, PTT sold 19,079 million liters of fuel, an increase of 980 million liters from the previous year. Sales consisted of 3,942 million liters of gasoline, 7,871 million liters of diesel, 2,714 million liters of jet fuel and kerosene, 1,482 million liters of fuel oil, and 3,069 million liters of LPG.

The year's average marketing margin (gross margin for Article 7 traders and service station owners) was THB 1.64 per liter, against the suitable margin of THB 1.8-2.2 per liter, based on the coverage of operating expenses and appropriate financial returns for Article 7 traders and service station owners.

As of December 2015, PTT operated 1,450 service stations across the country, or 6.1% of the total, made up of 11 jet (aviation) fuel stations, 19 oil terminals (PTT owned nine and the others were joint/rented ones), two LPG terminals, six petroleum terminals, and four LPG-bottling plants.

## Lube

PTT is determined to globalize PTT Lubricants, a Thai brand. To this end, it sought to maintain its domestic lubricating oil market leadership in parallel with customer expansion to international markets, particularly Southeast Asia, South Asia, and China – a total of 33 countries. This year, PTT still committed to developing new products. A total of 10 new products were launched to address customers' needs and step up to technological and environmental leadership.

## Retail business sales

Apart from the PTT Life Station concept, PTT has now added a service station design concept called "Friendly Design" to show its attention and response to service consumers at all ages and genders, including design of ramps access by wheelchair users, toilets for children, and parking spaces for ladies and handicapped. In addition, it grew the number of service stations in neighboring countries to 26, including the PTT Life Stations in Seam Reap, Cambodia, and in Luang Prabang, Laos.

At the year-end, PTT has expanded retail sales and distribution channels as follows: 1,245 Seven-Eleven convenience stores (up by 100 from last year), 1,437 Café Amazon outlets (up by 240 from last year), and 121 auto-service centers (down by 22 from last year). In December, it reached an agreement with the proprietors of Texas Chicken and launched the business in Thailand. PTT is served as the master franchise, with the first branch now operating at CentralPlaza WestGate in Bang Yai, Nonthaburi.

## Infrastructural investment on Oil Business Unit

PTT has completed its investment in the product transfer capacity under a project to raise the capability of LPG import, dispensation, and transport system so as to accommodate future consumption and raised its import capacity from 132,000 to 250,000 tons per month. It has embarked on the preparation of an infrastructural master plan for the business unit to develop a network of terminals and a transport system, including the capacity expansion of the Surat Thani Oil Terminal to accommodate the South's rising oil demand.



## Petroleum, Oil, LPG Terminals, and Aviation Fuel Station Map

Myanmar

Vietnam

Laos

Chiang Rai

Chiang Mai

Lampang

Den Chai

Phitsanulok

Udon Thani

Khon Kaen

Nakhon Sawan

Thailand

PTTRM (Saraburi)

Ubon Ratchathani

Lam Luk Ka

Phra Khanong/ Bangchak

Khao Boya

Si Racha/ Ban Rong Po

Hua Hin

Utapao

Andaman Sea

Cambodia

Gulf of Thailand

Surat Thani

Nakhon Si Thammarat

Phuket

Krabi

Songkhla

Hat Yai

Malaysia

Petroleum Terminal

LPG Terminal

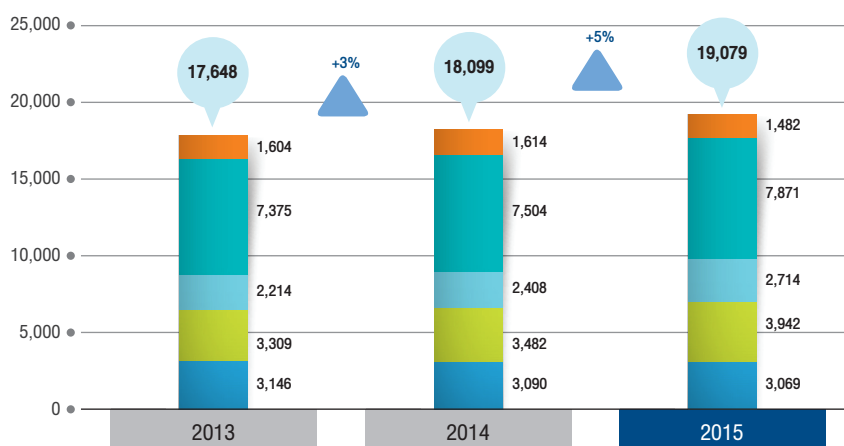
Aviation Fuel Terminal/ Station

## Domestic Petroleum Product Sales

Unit: million liters

Note: Excluding LPG used as petrochemical feedstock.

- Fuel oil
- Diesel
- Jet fuel/kerosene
- Gasoline
- LPG

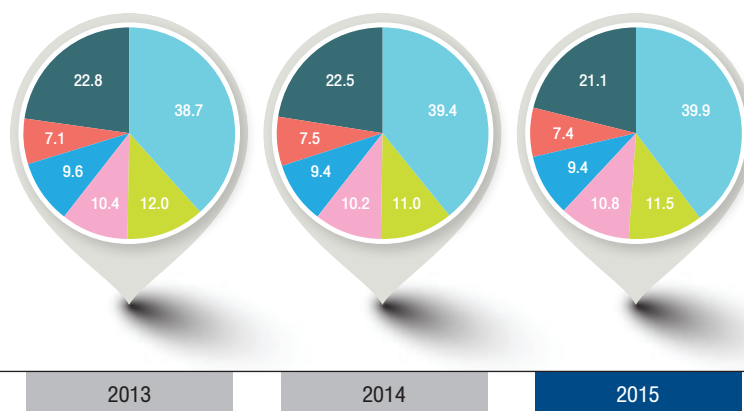


## Domestic Market Share

Unit: percentage

Note: All products excluding lubricants.

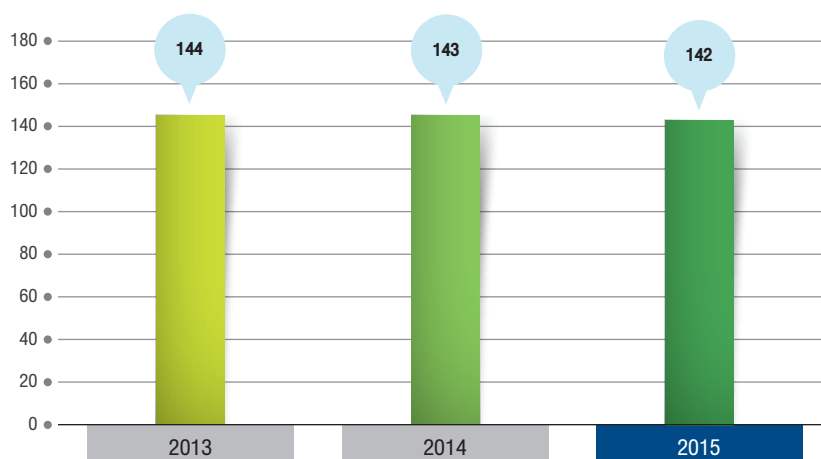
- PTT
- Bangchak
- Shell
- Chevron
- Esso
- Others



## Domestic Lubricant Sales

Unit: million liters

Source: Department of Energy Business, Ministry of Energy





## Oil Business Unit milestones

### July

- Launched the Crime Zero project (“One Press of a Button Keeps You Safe at PTT Service Stations”) at the For Sawatdikan Raw 1 Raw Aw PTT Service Station on Vibhavadi Rangsit Road, designed to deter and minimize crimes by pilot-installing an emergency button system, complete with siren and light signals linking CCTVs to police stations and police officers’ mobile phones.



### November

- Launched the “Amazon Smart Pay” system, designed to accommodate purchasing at Café Amazon by using this card to streamline purchases and speed up customers’ time spent in a given outlet.
- Launched the PTT Free WIFI Project, leveraging WiFi internet on fiber optics at 1,300 Café Amazon outlets in and outside PTT service stations. Initially, one can use this service at 200 Café Amazon shops located in Bangkok and its perimeter and will by early 2016 be able to use it nationwide.



- Developed the lubricant brand through various innovations under the “The Moving Innovation” slogan and the “NEXT ... Forward” marketing strategies by applying advanced technology to the development of products and production processes in parallel with better service catering to customers’ needs.

### October

- Responded to the policy of the Ministry of Energy in aiding suffering oil palm planters who suffered from plunge in prices of palm oil by buying 10 million liters, given its storage capacity, of 100% biodiesel or B100.

### December

- Launched the maiden branch of “Texas Chicken” at Central Plaza West Gate. In 2016, this brand will see 10 more branches (five at service stations and the rest in shopping centers).





- Launched an integrated “PTT Life Station” service station in Seam Reap, Cambodia, and another station in Luang Prabang, Laos, of the Platinum standard along the line of PTT Life Station. The move helped the Thai brand become better known in the region, a pride of Thais.

### International Trading Business Unit

The success of International Trading business this year was attributed to the growth in out-out trading due to the changing world oil market caused by evolving shale oil and gas production in the US. Such trading included crude oil purchases from Latin America, Western Africa, and the Mediterranean, where supply gluts are common, for sale to Asia and Europe; and the purchases of petroleum products and

petrochemicals from the Middle East and India, where capacity rises were seen, for sale to Europe, where refineries continued to be shuttered, in parallel with value addition through the rental of storage tanks located at strategic areas. In other words, all these exemplify integrated trading from intake, storage, blending, administering, and dispensing to improve product quality and volumes matching buyers’ needs the most, while striving to establish a competitive advantage by using hedging derivatives and leveraging PTT’s skills on procuring product vessels to keep transport costs competitive. As a result, this year the business unit maintained high trading volumes amid extremely weak oil prices since the third quarter of last year. This year the business unit posted a total of 67,927 million liters of trading volumes of petroleum and petrochemical products, a rise of 252 million liters or 0.37% from last year. This was made up of 48,436 million liters of crude oil, 7,439 million liters of condensate, 9,579 million liters of petroleum products and LPG, and 2,472 million liters of petrochemicals and solvents. Then there was trading in other commodity markets, including crude palm oil and palm oil-related products, palm kernel shells, and aluminum. The total traded volume was 50 million liters.





As for the securing of adequate energy for the country, regarded as a critical mission of the business unit, below are its missions.

#### Procurement of crude oil and condensate from indigenous sources

These long-term agreements with petroleum concessionaires account for most of the outputs for allocation to oil refineries and petrochemical plants in the proportions and quality fitting each refinery and petrochemical plant. This year, some 12,688 million liters of crude oil and condensate was procured.

#### Import of crude oil and condensate

These long-term G-to-G agreements with Middle Eastern and other regions' producers provide domestic refineries and petrochemical plants with crude oil and condensate matching PTT's equity capacities or more. PTT also imports for other refineries crude oil and condensate whose qualities match respective refineries and petrochemical plants. This year saw a total of 31,222 million liters imported, or about 61% of Thailand's total imports.

#### Import of LPG

To meet the demand of the industrial, transport, and household sectors that exceeds domestic outputs, PTT enters into long-term agreements with the national oil companies of major producing and exporting countries while establishing alliance networks with other major Asian importers. This year the business unit imported a total of 2,231 million liters – or the entire LPG imports by Thailand.

#### Import of fuel oil

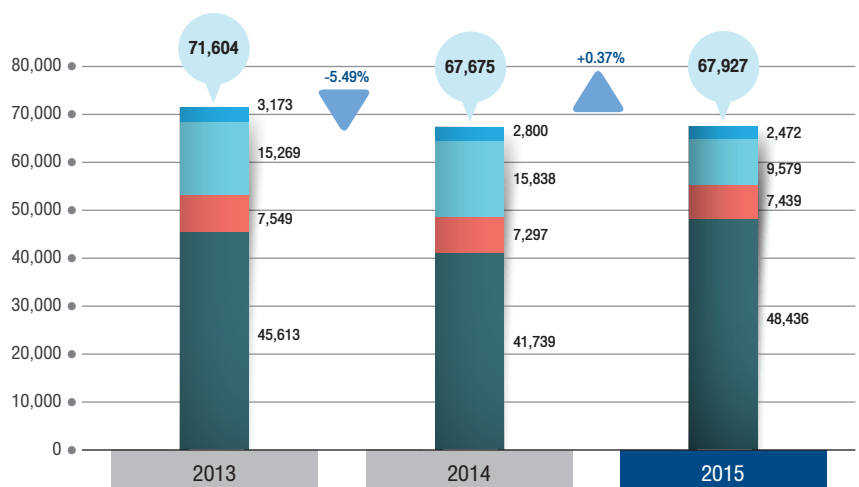
This is designed to provide backup fuels in case of inadequate natural gas (the core fuel) supply. This year, 147 million liters of fuel oil was imported.

Representing PTT and PTT Group, the International Trading Business Unit also engaged itself in hedging management in the course of trading, refining, and production with swaps or options, as seen fit. This year, the hedging volume for PTT totaled 18,575 million liters and 2,226 million liters for PTT Group refineries.

#### International Trading Volumes

Unit: million liters

- Petrochemicals
- Petroleum products
- Condensate
- Crude oil



## International Trading Business Unit milestones

### April

- Entered into an aluminum supply agreement for 2,700 metric tons with a leading global trading company to satisfy the needs of a domestic industrial customer group, representing trade expansion to non-petroleum, non-petrochemical products.

### May

- Signed LPG supply agreements with business partners from South Korea and Japan, which were Southeast Asia's major importers and suppliers to nurture more opportunities for PTT's international trading in addition to enhancement of national energy security.

### June

- Signed a long-term crude oil supply agreement for 18,544 million liters from South American oil fields to expand its business base to the American continent and Europe in pursuit of the goal of a Thai Premier Multinational Energy Company.



### July

- Signed a cooperative agreement on exploitation of the land and public utility systems in the WEcoZi. The business unit secured palm kernel shells to make biofuels in response to PTT's Green Roadmap and the optimal application of alternative energy.



## Infrastructure Business Group

This year, the Infrastructure Business Group promoted linkage in managing PTT's core business group by

- The efficiency of mechanisms and simplifying management and service provision were raised between PTT and PTT Group companies.
- The business group established preparedness for conducting infrastructural and public utilities businesses on a turnkey basis.
- It strived for new business opportunities following business activities serving infrastructure, including investment and construction of new projects to supplement future value.
- The group promoted proficiency for PTT employees to accommodate its centers of excellence in professional project management.
- And catered to public policies with optimal management of infrastructural assets under PTT Group.

The success of the business group was evident in the push for gradual and continual adjustment in NGV retail prices to reflect its cost and in the launch of 500 NGV stations this year.

## Infrastructure Business Unit milestones

### May

- On 13 May, the Project Engineering department tested the waste-heat recovery system at the GSP since May this year. Involved were three sets of 31-MW waste-heat recovery unit, which reduced GSP's fuel consumption by 1.7 trillion Btu per year.

### August

- PTTME and PTTMCC together signed a one-year (1 May 2015 - 30 April 2016) service agreement for plant maintenance. This signing was regarded as cooperation on providing PM/CM plant maintenance service by being committed to supporting operational excellence and PTTMCC's sound management system by proficient personnel from PTTME.

### September

- PTT launched the 500<sup>th</sup> NGV station which was a pipeline station with a capacity of 25 tons per day to accommodate the gas demand in Samut Prakan, Bangkok Metropolis, and the neighboring provinces.

- Launched an innovation that allows NGV users to check the remaining NGV supplies at given service stations by using the "PTT Life Station" application on mobile phones of all operating systems by downloading it from the App Store or Play Store. Then they can choose NGV service stations, whose locations appear on a map with color keys indicating the NGV volumes ready for refueling. This promotes the best decisions for using the service.

- PTT signed an MoU and delivered the PTT NGV Logistics Road Safety Management Standard to executives from all NGV transport companies and relevant PTT units to show joint commitment to development of safe transport systems under the vision of doing business with social responsibility.

- Launched the Engineering Services & Technical Solutions Collaboration group, consisting of PTT, PTT Energy Solutions (PTTES), and PTT Maintenance & Engineering (PTTME) to jointly provide integrated services concerning engineering techniques and maintenance.





## Businesses Invested through PTT Group Companies



### Petroleum Exploration and Production Business

The gross revenue generated by PTTEP and its subsidiaries this year amounted to USD 5,654 million, a drop from USD 7,834 million in 2014, mainly due to the drop in the world oil prices from USD 63.71 in 2014 to USD 45.29 this year, despite the higher sales of 322,167 barrels of oil equivalent (BOE), an increase of 3% from 312,569 BOE in 2014. This year's total expenditure, before impairment, came to USD 4,642 million, against USD 5,087 million in 2014 or up by 30% of the budget, as a result of cost and spending cuts under the "SAVE to

be SAFE" program. The cost cutting success has led to a significant reduction of the unit cost from USD 43.45 per barrel in 2014 to this year's USD 38.88 per barrel by 11% partly due to cost cutting and partly by a performance efficiency increase while maintaining safety standards. For instance, the number of days drilling a well in the Gulf of Thailand was reduced, resulting in drilling cost reduction of some 20%. Another successful area of cost reduction was in logistics, including reduction of the vessel fleet and production equipment inventory, and re-negotiation on terms of equipment procurement and service contracts for current and near-future agreements. The revisit of portfolio management was also critical to successful cost reduction. The overall financial performance of PTTEP and its subsidiaries went from a net profit of USD 677 million in 2014 to a net loss of USD 854 million this year, primarily due to the higher recognition of impairment.



PTTEP is now operating 38 projects in 11 different countries, as detailed below.

### Projects in Thailand

Including projects in overlapping areas with neighboring countries, PTTEP is operating 16 onshore and offshore projects, most of which are in the producing phase. The total average sales volume this year was 239,793 BOE/d, a similar level to 2014, from Bongkot, Arthit, S-1 and Contract 4 projects, accounting for 74% of the overall.

### Projects in Southeast Asia

There were 13 projects in Southeast Asia operated by PTTEP with a total average sales volume of 60,672 BOE/d, accounting for 19% of the total. These projects are in the Myanmar, Vietnam, and Indonesia.

Projects under the producing phase with highlighted activities included:

- **Myanmar Zawtika Project:** Located offshore in the Bay of Moattama, production this year was successfully maintained at the target level with one wellhead platform installed and three more under construction under the Phase 1B field development. Drilling of 10 appraisal wells were completed in Q3 of 2014, leading to an on-going petroleum potential study and future development plans. The average sales volume of gas this year totaled 314 million cubic feet per day (MMcf/d), equivalent to 47,541 BOE/d.

- **Vietnam 16-1 Project:** Located offshore southeast of the mainland, production from the H5 wellhead production platform of the Te Glac Trang field commenced in August 2015 at an average rate of 11,000 barrels per day (b/d) as planned. The total average sales volumes from the field this year were 31,294 b/d of oil and 16 MMcf/d of gas or 3,981 BOE/d.

PTTEP's key project activities in Southeast Asia under the exploration phase this year included

- **Myanmar M3 Project:** Located offshore in the Moattama Bay, five appraisal wells were drilled and completed this year, four of which failed to encounter commercial potential of hydrocarbons. Currently, the project is under an engineering feasibility study for commercial development.

- **Myanmar PSC-G and EP-2:** Lying onshore in the central Myanmar basin, four exploration wells were drilled this year to fulfill the first phase of obligation, but without success. At the present, PTTEP is preparing an application for an exploration extension period with the government to further study petroleum potential of the blocks.

### Projects in Australasia

PTTEP operates one project in this vast area.

- **PTTEP Australasia Projects:** Located in Australia, the project covers 14 concession blocks.

The main project under the producing phase is the development of the **Montara field**. The 2015 average production rate stood at the target level of 16,288 b/d, accounting for 5% of PTTEP's overall production.





Under the exploration phase, **Cash Maple field** was under a detailed study on petroleum potential and possible development in conjunction with more studies on geological and geophysical data in the concession area for further exploration planning.

### Projects in the American Continent

PTTEP operates three projects in this continent in Canada and Brazil.

- **Canadian Mariana Oil Sands Project:** Located in Alberta, Canada, the application of Thornbury Phase 1 development was submitted to the Alberta State Authority in May. Pressured by the falling world oil prices, a project review has been ongoing. A near-future study will focus on cost reduction and development risk mitigation.

- **Brazilian Barreirinhas AP1 Project:** Located in the Barreirinhas Basin, offshore north-east Brazil. The project EIA was approved by the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA) on October 19. The project is currently under planning for a three-dimensional seismic survey, scheduled to begin in the first quarter of 2016.

- **Brazilian BM ES23 Project:** This project lies in the Espirito Santo Basin, offshore eastern Brazil. PTTEP drilled one exploration well this year and found petroleum. A further petroleum potential study is ongoing. Another appraisal well was drilled but found no commercial hydrocarbons.

### Projects in Africa and the Middle East

PTTEP operates five projects in this vast region, including projects in Oman, Algeria, Mozambique, and Kenya.

Projects in the producing phase operated by PTTEP include Algeria 433-A and 416-B, located onshore in the east of Algeria. The total average production was 20,000 b/d. Sales of crude oil began in the fourth quarter.

There were several regional projects operated by PTTEP within the exploration phase:

- **Algerian Hassi Bir Rekaiz Project:** The onshore project east of Algeria entered the third exploration phase this year. A total of five exploration and appraisal wells were drilled with one more well outstanding.

- **Mozambique Rovuma Offshore Area 1 Project:** Located offshore Mozambique, it was a massive natural gas project. PTTEP completed drilling of six appraisal wells and the selection of service contractors for the onshore LNG Engineering Procurement, and Construction Contract. For development, a decree law is needed, and it was approved by the government of Mozambique and later ratified by Parliament. The selection process of service contractors for offshore installation and project financing are underway.

## Portfolio Management

The major portfolio management activities this year were in Myanmar, Indonesia, Mozambique, Kenya, and Thailand. PTTEP engaged in a 20% equity transfer of two projects in Myanmar, namely PSC-G and EP-2, to a subsidiary of Mitsui Oil Exploration Co., Ltd. (MOECO), and Palang Sophon Offshore Pte., Ltd. Another 10% equity of Myanmar MOGE-3 was transferred to a subsidiary of MOECO. Within 2015, PTTEP made a total relinquishment of three blocks, including Malunda and South Mandar of Indonesia, and the onshore Rovuma block of Mozambique. Final approvals of these relinquishments are underway. Approvals for earlier relinquishment were granted this year, namely Kenya L-10 in Kenya, the Sadang block in Indonesia, and A4/48 and A5/48 in Thailand.

## Cost Management

Following the launch of the “SAVE to be SAFE” program, PTTEP has modified its investment plans and activated activities to **reduce** costs, **avoid** expenses, and **defer** investment, including

- **Reduce** and identify ways to reduce operating and capital costs while seeking solutions to increase efficiency by way of working or technologies enhancing short-term and long-term cost reduction.
- **Avoid** all activities deemed unnecessary or just “nice to have or nice to do” and focus only on projects and activities classified as “need to have or need to do”.
- **Defer** investments marked as risky and reprioritize projects based on the capital amount; adapt to the current oil price situation by choosing to invest only on projects with positive returns.

## Strategic Redirection under the Falling Oil Prices

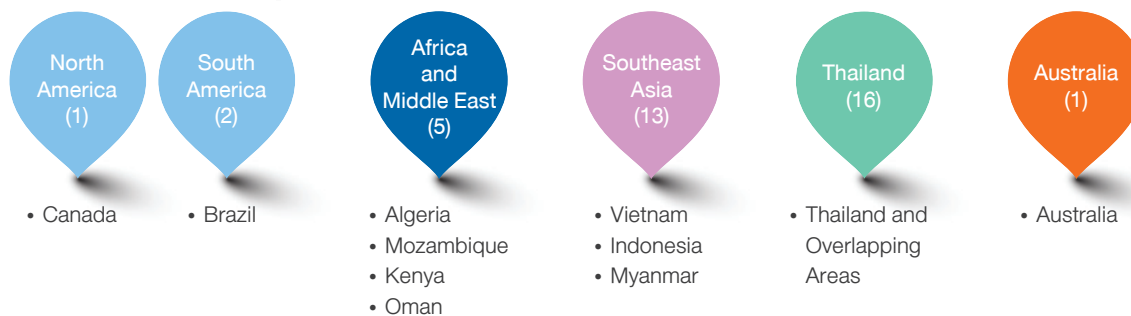
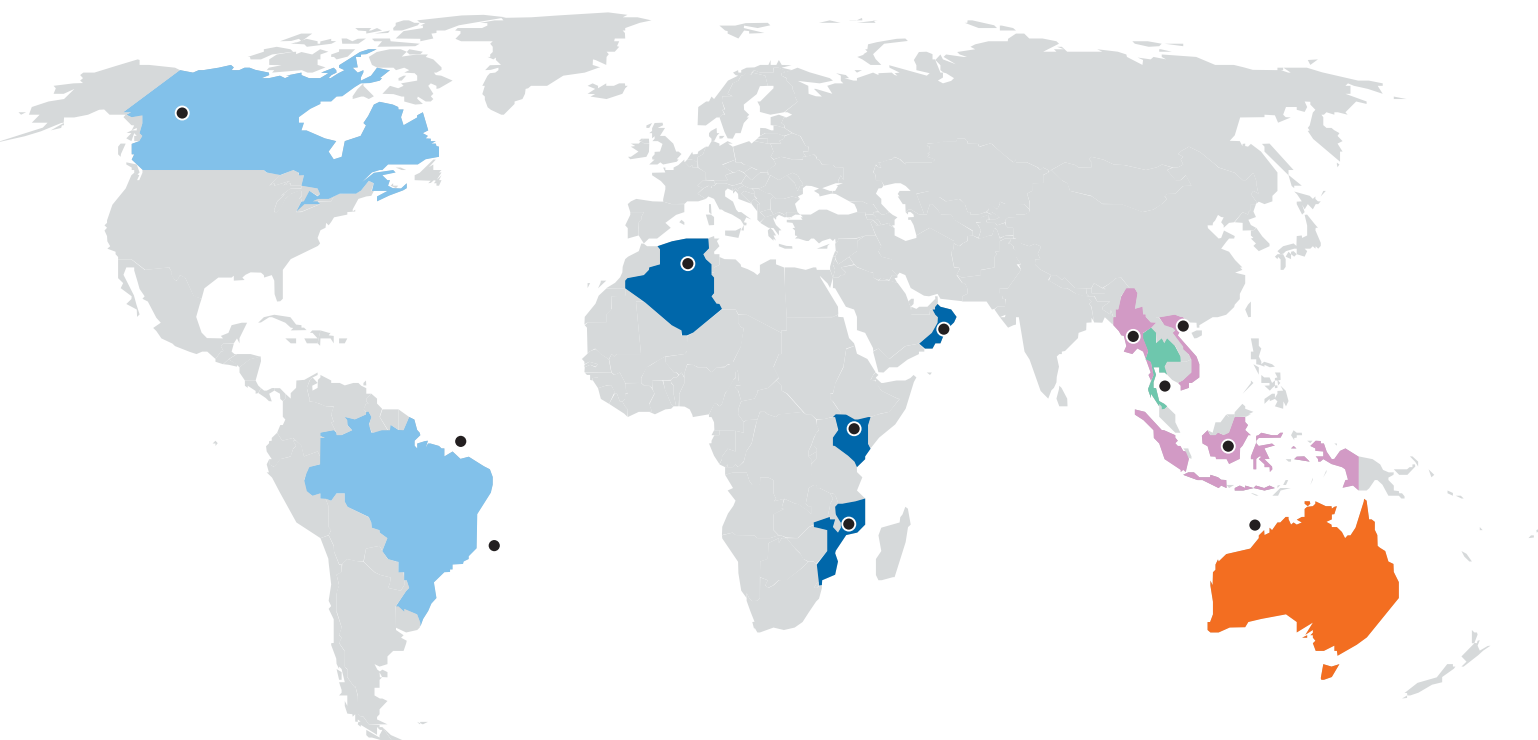
The world oil prices plunged from last year to a USD 40-60-per-barrel window and remained highly volatile -throughout the year. In coping with such volatility, PTTEP redirected its strategic and operation plans to sustain work performance and business growth. These strategies included the following:

- Maintain production levels for projects in the producing phase, but lower the costs.
- Review the capital investment or FID (final investment decision) for projects in the development phase, particularly those with high development costs.
- Focus only on low-risk projects for projects in the exploration phase.
- Choose to invest in projects with existing or imminent production for merger and acquisition (M&A) projects aimed to increase petroleum reserves and generate revenue in a short timeframe.
- Reduce costs of the general and administration category, including consulting fees, travel expenses, and expenditure on information technology.

In addition, PTTEP had conducted various analyses on the oil price to enhance its investment decision on six major capital intensive development projects, namely Contract-4 (Ubon field) Project, Mozambique Rovuma Offshore Area-1 Project, Algerian Hassi Bir Rekaiz Project, PTTEP Australia (Cash/Maple) Project, Mariana Oil Sands Project, and Myanmar M-3 Project. Review and investment decisions on M&A projects have been made more thorough, particularly on the opportunities to provide higher value and energy security to sustain domestic production. The focus area is within Southeast Asia, where PTTEP can leverage its capability.



## Diversified International Portfolio Worldwide Operations



PTTEP has invested in 39 projects in 11 countries around the globe.

(As of December 2015)





## Power Business

PTT Group's power flagship is Global Power Synergy Company Limited (GPSC). The performance income increased from THB 1,851 million in 2014 to THB 1,906 million this year, with a consolidated power production capacity rising from 1,851 megawatts (MW) to 1,917 MW in the same period. This increasing capacity was from domestic and international projects from direct investment and joint ventures.

### Power Business Unit 2015 Milestones

#### January

- Entered a power sales agreement with Vencorex (Thailand) (VCX), an entity with Vencorex Holding (France) holding majority shares and a joint venture between PTTGC and Perstorp Holding France SAS. Three 15-year agreements were signed by GPSC and VCX on sales and delivery of 2.7 MW of electricity, 3 tons per hour of steam, and 3 tons per hour of stand-by steam, and 1 cubic meter per hour of demineralized water. Commercial commissioning is scheduled to begin on 1 January 2016.

#### February

- The Board approved the capital investment in the 20.8-MW Ichinoseki Solar Power 1 in Japan, which is set to distribute electricity to utility companies in Japan. Land reclamation was fully completed, awaiting site preparation after finalizing a construction agreement with the major contractor.

#### March

- Entered an MoU on a joint study and development of wastewater treatment. Under the MoU, GPSC and Universal Utility plan to conduct the study and apply the outcome to recycling industrial wastewater to reduce the quantity of waste water and identify other applications for future use.

#### May

- Registered with SET to convert a company limited to a public company limited by launching an initial public offering (IPO) and listing the company shares on SET. All 374,575,200 shares,





offered to the public and Board members, executives, and staff, were placed on SET for trading on 18 May 2015, with a total value of THB 10,035 million.

- With Marubeni Corporation and EDEN Group, GPSC entered into an MoU with representatives of the government of Myanmar to conduct a feasibility study with an exclusive right for a 400-MW gas-fired combined-cycle power plant at Thanlyin.

## August

- The GPSC Board approved investment in the Central Utility Plant-4 (CUP-4) under SPP cogeneration facilities with capacities for 45 MW of electricity and 70 tons per hour of steam. The investment sought to expand and support business growth of PTT Group in the Wanarom Eco Zone Industries (WEcoZi), Asia Industrial Estate, and other industrial zones in the vicinity. Commercial operation is slated for commissioning in March 2018.

- Was certified by the Thailand Greenhouse Gas Management Organization (Public Organization, TGO) for its Central Utility Plant-2 (CUP-2) as a pilot model under the Thailand Voluntary Emission Reduction Program (T-VER). This certification was the first of its kind for the “new installation of cogeneration system” category.

## November

- Commenced commercial operation of IRPC-CP (IRPC Clean Power) Phase 1 on 18 November. The simple-cycle cogeneration, 51%-owned by GPSC and equipped with a gas turbine generator (TG), heat recovery steam generator (HRSG), and auxiliary boiler, is now generating at its peak capacity of 47 MW electricity and 67 tons per hour of steam.



## Coal Business

PTT's coal business unit is operated by SAR (Sakari Resources Limited), an entity majority owned by PTT Energy Resources (PTTER). SAR's total sales volume of coal this year was 7.5 million tons, resulting in a net profit of USD 18.3 million. However, after taking the USD 149.3-million impairment and USD 47.8-million extraordinary expenses into account, the year's performance turned into a net loss of USD 178.8 million. Consequently, SAR is currently focusing on reducing mining expenses, cash costs, and other operating expenses. The negotiation with service contractors on the mine plan optimization is ongoing with an attempt to modify mining operations to cope with the sliding prices of coal and the procurement of coal produced by other miners to blend with coal from the Jembayan mine to meet the specifications demanded by customers. Additional value-added activities, including mining services and infrastructure-sharing with adjacent miners, are other areas generating revenue for SAR.





### PTTER (PTT Energy Resources Company Limited) 2015 Milestones

- Coal production from the Jembayan mine began in March 2015. The mine is under the APPEL concession, operated and developed by SAR.
- SAR was honored by the Indonesian Ministry of Energy and Mineral Resources (MEMR) with six safety and environmental awards in view of its dedication to community development, occupational health, and the environment. The Jembayan mine was honored for two years in a row with the provincial Environmental PROPER Gold Award, while the Sebuk mine earned the CSR Gold award of the Regency class.
- The Bankable Feasibility Study Report was completed in early 2015 for coal mine development in Madagascar, where PTTER holds 80% shares. However, project financing was kept on hold due to the sluggish price of coal. PTTER was granted exploitation permits for five blocks with total reserves of 108 million tons of coal. Production is set to begin in 2024.
- With 35% equity, PTTER is waiting for approval of the Coal Mining Act from the government of Brunei for the coal development project in Brunei.

- PTTER entered into an MoU agreement with Ratchaburi Electricity Generating Holding Public Company Limited to conduct a feasibility study for coal in Myanmar such as the Chiangtung project. The feasibility study is ongoing for preparation of the application for the permit to explore and drill.



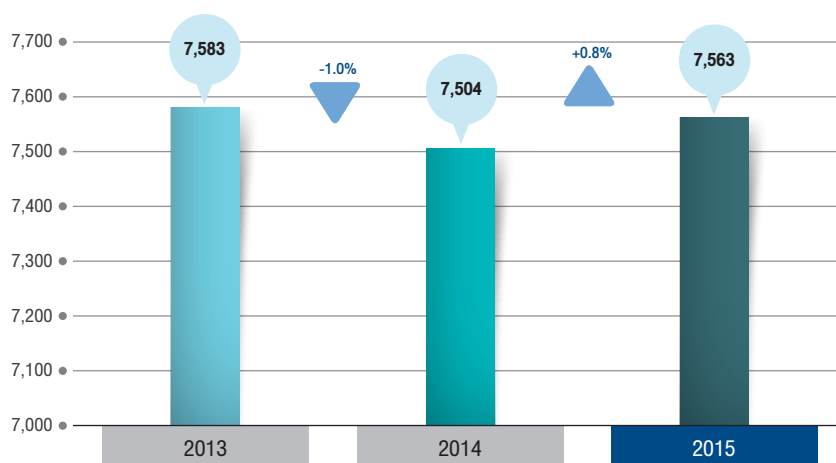
### Petrochemicals and Refining Business Unit

The business unit's performance this year posted a net profit of THB 23,643 million, a significant increase from the previous year, mainly due to product spreads between refined products and crude oil, especially gasoline and fuel oil. For the petrochemical business, despite the lower spreads between petrochemical products and feedstock, its financial performance was superior due to the lower fuel and loss resulting from the lower oil price, and higher production and sales, as well as lower impairment from a lower inventory than the previous year.



### PTT Group's Total Sales Volume of Petrochemicals Products (Olefins, Aromatics, and Polymers)

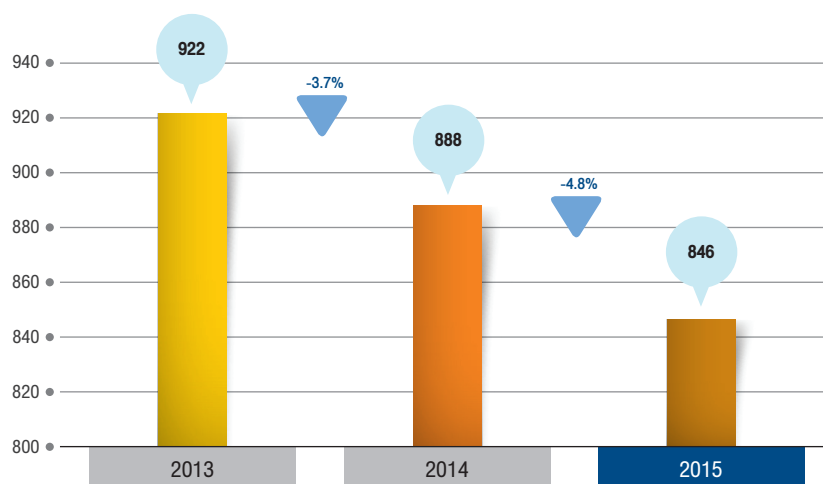
Unit: KT/year



### Total Feedstock for Refineries in PTT Group

Unit: Kbd

Note: Total feedstock for refineries in PTT Group included feedstock for BCP and SPRC until 31 January 2015 and 30 September 2015 respectively.



## Petrochemicals and Refining Business

### Unit 2015 Milestones

#### January

- A joint venture was set up between IRPC Polyol and PCC Rokita SA of Poland to produce high value-added polyurethane products for IRPC in Asia-Pacific. The tripartite agreement was signed by IRPC, IRPC Polyol, and PCC Rokita SA.
- IRPC renewed a USD 28.5-million long-term sales agreement with Darby Trading Inc. to expand the slack wax market to the US and Europe. Darby Trading has been a major client of IRPC since 1998 with a cumulative sales volume of more than 250,000 tons.

#### February

- Jointly with Blue Light Industrial Company Limited, IRPC launched the world's first luggage made from Green ABS under the "CAGGIONO" brand. Green ABS is an innovative product made from a mixture of 10-40% natural rubber and synthetic rubber. The product is more strong, durable, sticky, flexible and resistant to scratches than to other polymers. IRPC is listed as the world's pioneer.

#### April

- PTT sold out its 374,748,571 shares in Bangchak Petroleum Public Company Limited (BCP), equivalent to 27.22% of the total shares. Out of these shares, 15.25% were sold as a lot to Vayupak Fund 1 (VAYU1) and the remaining 11.96% to the Social Security Office.

- PTT Global Chemical Public Company Limited (PTTGC) jointly with the Thai Red Cross Society and Thai Plastic Bags Industries Company Limited organized a study and development of innovative packaging for blood bags for the National Blood Centre of the Thai Red Cross Society. The joint study is the first attempt to produce blood bags and plastic medical products from polymers in Thailand.

- IRPC commercially resumed its fuel oil quality improvement unit or vacuum gas oil hydrotreating unit (VGOHT) on 12 April 2015. IRPC was compensated with partial insurance indemnity of THB 1,710 million in 2014.

#### June

- Under marketing & logistics organizational restructuring, PTTGC acquired 25% of the total shares of PTT Polymer Marketing Company Limited (PTTPM) from IRPC at THB 2,500 per share.

- PTTGC registered PTTGC America Corporation and PTTGC America LLC with 100% equity holding to conduct front-end engineering design (FEED) studies and invest in petrochemical complexes in the US using ethane feedstock derived from shale gas.

- IRPC entered into an agreement with Sinopec Engineering Incorporation (SEI) to construct the Polypropylene Expansion Project (PPE) and the Polypropylene Compound and Specialties Project (PPC). Both projects were initiated to generate value-added clean propylene products under the Upstream Project for Hygiene Valued (UHV).

- IRPC and Wonderworld Products, a major producer and distributor of wooden toys, launched "Trix Track" toys for brain development and creativity. These toys are made from a wood plastic composite jointly developed by IRPC and Wonderworld and are part of the environmentally friendly polymer innovations initiated from the awareness of the value of natural resources.



## July

- PTTGC and its subsidiaries acquired 50% shares of PTT Polymer Logistics Company Limited (PTTPL) from PTT at THB 118 per share. The share acquisition was made under the PTT Group restructuring policy to diversify share ownership of PTTPL to better reflect the service supply chain.

## August

- PTTGC signed two HOAs (Heads of Agreement) with Toyota Tsusho Corporation (TTC) to jointly study a co-investment scheme to produce 200,000 tons per year of propylene oxide (PO), and with TTC and Sanyo Chemical Industries, Ltd. (SCI) to jointly study a co-investment scheme to produce 130,000 tons per year of polyether Polyols (Polyols). Both projects will be located in the Hemaraj Eastern Industrial Estate (Hemaraj EIE), Rayong, with a total investment of about USD 1,000 million.

- The Board of PTTGC granted an approval to buy back its stocks for financial management purpose (treasury stocks) not exceeding THB 4,500 million or less than 2% of the total marketable shares. The buy-back period was scheduled for six months, from 8 September 2015 to 7 March 2016.

- PTTGC increased the capital stock of Myriant by USD 184 million (THB 6,614 million) as part of its plan to increase share ownership from 84% to 100%.

## September

- PTTGC, IRPC, and TOP were listed on the Dow Jones Sustainability Indices (DJSI). The listing of PTTGC and TOP this year was in their third consecutive year, while IRPC listing was its second. In addition, TOP was honored for two years in a row, as a “world leader in the energy industry on sustainable management”.

## November

- PTTGC successfully expanded its Ethylene Oxide (EO) capacity from 336 thousand tons per year (KT/y) to 426 KT/y. EO is a monomer for Ethylene Glycol (EG) family, including Monoethylene Glycol (MEG), Diethylene Glycol (DEG), triethylene glycol (TEG), and EO derivatives, including ethoxylate and ethanolamine. The new EO capacity increased the capacity of MEG from 395 to 423 KT/y.

- IRPC, Thai ABS, Nippon A&L, represented by its president Mr. Toshiro Kojima, and Sumi-Thai International entered into a joint investment with IRPC A&L to increase their competitive advantage on styrenic compound products. The joint investment is part of the high value-added product strategy of the group to expand its market, particularly the AEC's automotive industry.

## December

- Under the restructuring policy, PTT made an IPO for Star Petroleum Refining Public Company Limited (SPRC). The total IPO included 1,242,500,000 shares held by PTT and 197,222,300 shares held by SPRC. After the IPO, the PTT equity ownership in SPRC was diluted from 36% to 5.4% of the total common shares.



In addition to the performances managed by various business units, performances managed by PTT and PTT Group are summarized as follows:

### Strategic Planning

PTT's strategic planning process is a continuous one, beginning with the Top Executive Thinking Session (TTS), where top executives of PTT Group review and set directions for the group to meet its 5-10 year future and cope with changes in the world and the business environment to ensure its business performances moving toward its vision. To meet this objective, PTT Group must succeed in all three aspects: (1) size with a sales volume within the top global 100 companies ranked by Fortune 500 (BIG), (2) listed in the DJSI as a sustainable-growth global company (LONG), and (3) performance in the top quartile of the

global energy companies by 2020 (STRONG). After the TTS, all business and support units, as well as PTT Group companies, translate the top executive strategic directions into a set of strategic directions of their accountable business units and propose to the Strategic Thinking Session (STS) for endorsement. After the STS endorsement, all these strategic directions are submitted to the PTT Management Committee for approval. The strategic directions for 2016-2020 endorsed by the PTT Management Committee included the Technology Initiative, the Green Initiative, and the PTT Group Portfolio Initiative. However, under the new work environment, PTT has faced a public trust challenge. A new strategic direction was therefore created for PTT to become publicly accepted and admired as a national oil company with two distinctive strategies:







(1) Pride with Inclusiveness:

- An integrated enterprise stakeholder management plan including offensive and defensive external stakeholder management.
- An enterprise plan to leverage its internal strengths to the public. This can be done through the fostering of the SPIRIT organizational values into the DNA of all executives and staff. The plan needs to promote staff to participate in and learn from various projects and innovations of PTT, including activities in social and community development and the environment from a social enterprise perspective. The plan also needs to develop executives and employees to become PTT Brand Ambassadors to take pride with inclusiveness and become role models of the organization.
- An enterprise plan to conduct its businesses with good governance. Examples of the plan are the elevating of PTT's anti-corruption practices to its international projects and, jointly with various organizations, expand and strengthen the network of anti-fraud and anti-corruption.

(2) Treasure for Sustainability:

- An enterprise plan for the upstream business units, such as maintaining the production levels for current projects, turning petroleum potential into petroleum reserves and production, and lowering the costs of production and operations.
- An enterprise plan for the natural gas business and infrastructure business, such as increasing efficiency of energy consumption in processes, expansion of the physical infrastructure network to meet the long-term need for natural gas, and investment growth in the renewable-energy businesses.
- An enterprise plan for downstream petroleum businesses, such as creation of value addition through the marketing excellence strategy, increasing the efficiency of production processes, and developing synergy among companies in PTT Group.

## PTT Group's Financial Management

In view of the fact that PTT is the largest publicly traded company on SET with a market capitalization at the end of 2015 of THB 696,937 million, accounting for 5.7% of the total market capitalization and that PTT Group's market capitalization exceeded THB 1,474,570 million at the end of 2015, accounting for 12.0% of the total market capitalization, and that PTT is set to grow sustainably, PTT Group's financial management must be efficient and disciplinary in order to develop and maintain its financial strengths, discipline, and credit rating at the same level as peers of the industrial sector, with transparency on sharing of data equitable to all shareholders. PTT treasury and credit policy is therefore employed by PTT and PTT Group to manage its financial affairs efficiently and in the same direction for all business units.

This year, PTT Group's financial management, including management of its liquidity and financial risks from foreign exchange and interest rates to minimize costs and/or increase values can be summarized below:

- Developed financial derivatives to help manage long-term financial risks, resulting in cost-saving on loans of about THB 25.38 million for its first tranche of interest.
- Managed financial risks on foreign exchange incurred from PTT's international trade, including transactions on import and export of products, international purchases and sales of products, and import of crude oil to PTT Group refineries, resulting in a value creation for the PTT Group of roughly THB 426 million from the total trading volume of USD 17,037 million.

## Performance Management and Efficiency Improvement

PTT has deployed an integrated management system, including economic value management (EVM), Balanced Scorecard, and management criteria defined by the Thailand Quality Award (TQA) to manage performance and continuously improve the efficiency at all levels and align all business units in the same direction with goals to generate more value for the organization and stakeholders. This integrated system also helps advance its performance management to a world-class level and supports the national State Enterprise Performance Appraisal (SEPA), the appraisal system founded by using the criteria matrix developed by TQA under the evaluation policy of the Ministry of Finance. Under the system, PTT is committed to preparing an Organization Performance Report (OPR), including the self-appraisal and organizational appraisal (self-assessment report, SAR), to help identify strengths and opportunities of the organization for further improvement (strengths & opportunities for improvement, S&OFI).

The S&OFI report is then used to prioritize and develop work plans for further improvement for all business units throughout the organization. This process is continuously repeated to increase work efficiency and improve the work quality of the organizational management system. PTT is determined to strive for the Thailand Quality Award (TQA).



## Energizing a Sustainable Future for Thais

As the national energy company dedicating to improve well-being of Thais, PTT Group has been striving to develop the business along with strengthening the society, and preserving the environment through the years. PTT Group also promotes and supports knowledge-building and personnel development in various sectors as seen in different projects concretely implemented.

Above all, this year PTT Group was honored to have HRH Princess Maha Chakri Sirindhorn graciously preside over the opening of PTT projects as below:



HRH Princess Maha Chakri Sirindhorn graciously inaugurated two institutes: “Vidyasirimedhi Institute of Science and Technology (VISTEC)”, providing master’s and doctoral degrees on frontier research to produce exceptional world-class scientists and technologists, and Kamnoetvidya Science Academy (KVIS), a senior high school that nurtures Thai youth gifted in mathematics and science. These institutes were established to enhance learning opportunities in science and technology, with a well-organized educational system that meets the standard of the world’s leading educational institutes. This will drive the country’s competitiveness and development in the future. Both institutes further complement “PTT’s Learning Triad for Sustainability”, including Thailand Energy Academy (TEA) and PTT Leadership and Learning Institute (PLLI).





The princess also graced “Wang Chan Forest Project”, located on 351 rai of reforestation area in Amphoe Wang Chan, Rayong province, which serves as a PTT learning center that not only gathers the knowledge and innovation of reforestation, but also conducts research for PTT Reforestation Institute. Under this project, 185.24 rai joined the pilot afforestation area of Thailand-Voluntary Emission and Reduction Program (T-VER), forest category, sponsored by Thailand Greenhouse Gas Management Organization (TGO). This project serves PTT policy on Carbon Sink and can be developed into an eco-tourism destination.



Wang Chan Forest Project



HRH Princess Maha Chakri Sirindhorn graciously inaugurated the “Metro Forest”, a natural reforestation area on PTT’s 12-rai plot on Sukhaphiban 2 Road, Prawes, Bangkok, designed to honor her 60<sup>th</sup> birthday anniversary and support the direction of PTT Green in the City. It focuses on planting an eco-forest full of various plant species so that every inch can be a source of reforestation learning. It also urges urban people to recognize the importance of the forest and learn to save it as long as possible. The Metro Forest is open daily for the public, except Mondays and public holidays.

Metro Forest



“ป่าในกรุง”

แหล่งเรียนรู้ป่านิเวศ  
และปอดแห่งใหม่  
ของคนเมือง



## Continuing the Mission and Laying Out a Foundation for Sustainability

As the national energy company with a mission to enhance national energy security, PTT strives to be a good corporate citizen that drives society with all its mechanisms at policy and operational levels. With participation by all sectors, PTT focuses on developing communities' well-being, leveraging the philosophy of Sufficiency Economy to ensure that all sectors of Thai society can steadily and sustainably proceed together. This includes its responsibility for society, communities and the environment around all PTT sites. PTT held social engagement activities under three key strategies, namely human resources development, social and community development, and conservation of natural resources and the environment. This year, PTT's projects included the following:

## Power of People, *Power of Creativity*



PTT Youth Camp

### Knowledge Leads to Self-Development

Recognizing that the knowledgeable and capable human resources will drive the country toward the global platform, PTT is strongly determined to comprehensively develop education, such as developing the infrastructure, promoting various skills, and creating learning opportunities from the basic level to research and development.

### Promoting the Youth's Innovative Mind

- **PTT Youth Camp**

To promote children's inventive mind, PTT Youth Camp 2015 was held under the topic of "Innovation Creates the Next". PTT also took a student team of Phra Bang Witthaya School in Nakhon Sawan province (the Project winner in 2014), to join the International Sustainable World Project



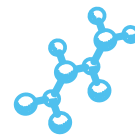




PTT Art Contest under the title of "Image of the Future"



PTT Group V-Youth



Olympiad (I-SWEEEP 2015) in the US. The team and its "Fireproof Oil Blotting Paper Made of Typha Flower Fiber" work won an Honorable Mention Award (Environmental Management & Pollution).

#### • PTT Group V-Youth Camp

PTT has hosted the camp for four consecutive years to cultivate social responsibility among the youth so that they may voluntarily and sustainably develop their communities. This year, senior high-school students joined the activity at the Recruit Training Center, Naval Education Department, in Amphoe Sattahip, Chon Buri province.

#### • Promoting and Developing Art and Cultural Education

Apart from developing scientific and technological knowledge, PTT together with Silpakorn University promotes arts and culture by hosting the 30<sup>th</sup> PTT Art Contest under the title of "Image of the Future". On this occasion, HRH Princess Soamsawali graciously presented the awards to the winners. In addition, PTT joined Thaksin University, Khon Kaen University, and Chiang Mai University in hosting PTT Art Contests in different regions, and the contest then expanded to the ASEAN region to celebrate the 30<sup>th</sup> anniversary of this activity.



# Self-Reliance Drives Growth

## *Strong Society, Secure Nation*

PTT is strongly committed to improving the quality of life of each community around its sites by addressing current and future social issues, from local to national. Fully deploying its expertise in energy, PTT creates opportunities to improve the way of life which benefits communities and focuses on empowering communities to become energy self-reliant.

### Strengthening Communities and their Energy Self-Reliance

For the past three years, PTT has compiled the knowledge gained from its operations with communities in 14 model areas to develop a technical manual on how to apply vetiver and other plants to prevent landslides, which can be applied to other areas of the country. In addition, at the 6<sup>th</sup> International Conference on Vetiver in Vietnam, PTT won two awards from HRH Princess Maha Chakri Sirindhorn for Outstanding People Participation (Disaster Mitigation and Environmental Protection) and Promoting the Use of Vetiver (Technological Promotion and Transfer).

- **Biogas Project from Pig Farms in Tha Manao Community, Amphoe Chai Badan, Lob Buri province**

PTT, joining the Tha Manao community, further improved the production and distribution system of biogas from pig manure at the community level. Previously, gas from one pig farm could energize only 10 households. With the expanded production capacity, biogas from four pig farms can now energize 130 households. This has helped Tha Manao Community reduce the consumption of conventional energy forms, such as cooking gas, diesel and electricity, worth Baht 518,980 a year.

Tambon Tha Manao, as a community model, applied the alternative-energy management system and participated in sustainably managing the knowledge of community energy. It therefore won an SOE Award from the State Enterprise Policy Office in the Best Social and Environmental Responsibility Category.

- **Community Energy Management Program (CEMP)**

After the success of the “84 Tambon on a Sufficiency Path” forest conservation project, PTT has been promoting energy self-reliance among communities. PTT therefore offered CEMP to educate them on energy management, which can be applied to the local context. Under the Sufficiency Economy philosophy, the program will help the popular sector achieve sustainable energy security. This year, PTT hosted two training sessions, with over 100 community leaders from across the country in attendance.

- **R&D Project for Resource-Saving Coffee Cultivation and Production System to Ensure Sustainable Development**

PTT together with the Royal Project Foundation promoted coffee cultivation with a resource-saving system and enhanced the skills of planting and producing high-quality coffee among farmers in the highlands of Tambon Ban Luang, Amphoe Chom Thong, Chiang Mai province. This year, farmers from 41 households voluntarily joined the project. The coffee bean from this project is used as a raw material at “Café Amazon” of PTT. Most importantly, this project develops careers, strengthens farmers, improves well-being in the communities, and maintains a natural balance under PTT’s creates shared value (CSV) principle for society and the environment.



Biogas Project from Pig Farms in Tha Mahao Community, Amphoe Chai Badan, Lob Buri province



R&D Project for Resource-Saving Coffee Cultivation and Production System to Ensure Sustainable Development

Community Energy Management Program (CEMP)



Applying Vetiver and Other Plants to Prevent Landslides Project



# Natural Resources

## *for Sustainability*

### **Saving the Environment to Keep Life Balanced**

Along with developing business capacity and communities, PTT Group restores, conserves, and looks after natural resources to ensure their abundance around its sites and across the country. This will revive the abundant eco-system and, at the same time, foster the environmental conscience of communities and related agencies from all sectors.

#### **Sustainable Eco-Forest Plantation**

- **Eco-Forest Plantation Project to Counter Global Warming**

PTT Group plants and restores forests to build an abundant ecosystem with biological diversity and to sequester carbon dioxide. In 2015, PTT took care of the existing one-million-rai forest under the Reforestation Project in Honor of HM the King on the 50<sup>th</sup> Anniversary of the Coronation and 33,530 rai of new forested areas.



*Eco-Forest Plantation Project  
to Counter Global Warming*



*Volunteer Project: One Team,  
One Rai of Reforestation Project*



• **Emergency Natural Disaster Relief**

PTT resolves natural disaster problems and provides relief domestically and internationally. To ease the suffering of drought victims, PTT offered discounts on fuel to the farmers who had suffered a loss and whose crop income was gone. PTT also provided 700 tons of dry ice and jet fuel for the rainmaking operation of the Department of Royal Rainmaking and Agricultural Aviation to help drought victims. In the “People-Public Sectors Unite to Combat Drought Project”, PTT donated 100,000 bottles of drinking water to inflicted people in several areas. Moreover, PTT donated money and relief items to help earthquake victims in Nepal and flood victims in Myanmar.



*Urgent Assistance for  
Natural Disaster Victims*



*People-Public Sectors Unite to  
Combat Drought Project*

PTT Group promotes a volunteer mind within the organization to ensure that the management and all employees join volunteer activities and help society as much as they can. This year, it held constructive activities for society, communities, and the environment, such as the “Volunteer Project: One Team, One Rai of Reforestation Project” taking care of reforestation plots under the PTT Land Use Development project in Tambon Pa Yup Nai, Amphoe Wang Chan, Rayong province; “Om Koi Smile Project,” donating blankets to villagers in Amphoe Om Koi, Chiang Mai province; “Technology for Education Project” providing basic computer lessons at Boh Rai Witthayakhom School, Trat province; and “Bike for Garbage Sorting Project” in Bang Krachao Bend, Amphoe Phra Pradaeng, Samut Prakan province.

PTT Group is convinced that, in addition to the economy that drives the country’s growth, a knowledge-based self-reliant society that keep a balanced environment will ensure truly sustainable development.





## Innovation for a Sustainable Future



In 2015, PTT managed technology and innovation by various practices across the company which THB 2,256 million or 5.73% of total income was invested in the research and development. In 2014, the integrated Technology and Innovation Management Operating System (TIMOS) has been implemented to provide a synchronized and systematic management system in transforming technology and innovation strategic direction into value realization.

Technology and Innovation Management  
Operating System: TIMOS

The communication campaign, such as public relations and dissemination of innovation activities, works, and accomplishments, mainly focused on cultivating innovative culture through promoting “PTT Innovation Awards” and “PTT Idea Award”, while creating innovation role models and work inspiration for all employees to pursue was set. Some of these campaigns include outstanding innovations showcase at the PTT We Can Corner, exhibitions on innovation which is jointly organized with external organizations such as National Innovation Agency (NIA), publications in SPIRIT magazine, and articles disseminated through media, such as What’s news, e-mail, and posters. Moreover, the Ideas which were not yet commercialized would be developed and supported through the PTT Innovation to Commercialization Gate (PTT I2C Gate). The research ideas would be considered step by step by the executives from private sector to link those ideas with the corporate core businesses. With such determination, PTT was awarded Best State Enterprise Award for its PTT Flange Corrosion Prevention System for the six consecutive years. For executive support, Mr. Tevin Vongvanich, PTT CEO and President has given the “Creativities with Inclusiveness & Sustainability” for innovation in the new strategic direction that aims to contribute values to all stakeholders including societies, communities, environment, people, and Thailand.

The outstanding innovations that are aligned with the new strategic direction in this year include:

- Petroleum and lube formula development: more the 20 product formula were upgraded. Some important products were HSD BO Euro V for Winter, PTT Performa Gastech, Challenger 4T: API SL, and concentrated diesel.

- The “Colorful PV Rest Area” was an outstanding innovation not only used to decorate the building but also protected more than 99% of UV and reduced IR ray penetration by more than 40% and sunlight reflection by more than 94%. The colorful PV also protected and reduced the heat to the absorbed into the building by more than 9%. Colorful PV was already installed at PTT Head Office building at three locations.

- Map Ta Phut water reserve forecast: the water reserve could be forecasted six months in advance and the monthly report would be submitted to the water management committee of the PTT Group.

- PTT DIESEL CNG is an innovative accomplishment for diesel common-rail fuel injection engine pickup trucks to use natural gas in combination with diesel with maximum fuel efficiency while maintaining driving capability. With installation of this dual-fuel system, a customer can save up to 70% from the use of diesel and more distance from each CNG filling. Baht 76 million was the extra revenue collected as royalties from customers on the application of the technology license, reduction of emissions from engine exhaust pipes compare to existing dual-fuel technology.

Besides the innovation of the PTT Research and Development, the innovation related to PTT businesses has been commercialized which were:

- Financial Supply Chain Management: Direct Approve is one of the most important tools which allows PTT to serve customers with fully automated system or so called “Fully e-Service”. Customers can manage their orders and payments via the Direct Approve. Once completed, products are loaded and invoiced can be printed via the intelligent terminal system at ease. Another service innovation this year was the PTT Contact Center 1365, a digital service provider matching today’s consumer behaviors in a digital age. Consumers and Customers can access PTT Contact Center 1365 via various channels including a non-voice channel such as email and phone application on any queries or complaints under the same standard. The system helps enhance Consumer and Customer Relations’ enquiry and complaint management system to deliver proactive service, to respond consumers and customers in a timely manner and to systematically develop its human resources with better service quality.

**Award:**

**Outstanding Technology and Machinery Award 2015 (Creativity for Society), Ministry of Science and Technology.**



**Award:**  
**National Public Sector Service Award 2015 (Excellent Service Development), Office of the Public Sector Development Commission.**

**Award:**  
**Global Top R&D 100 Award for the most outstanding R&D product, named as Oscars of Invention by US-based R&D magazine.**

In 2015, 14 patents and four petty patents were registered by PTT, three petty patents were granted. In total, PTT had 74 patents and 17 petty patents registered.

With the determination to continually enforce the effort of innovation in the organization, PTT was recognized locally and internationally with many awards of recognitions proving our vision of being a Thai premium multinational energy company and our aspiration to become the “Pride and Treasure of Thailand.”

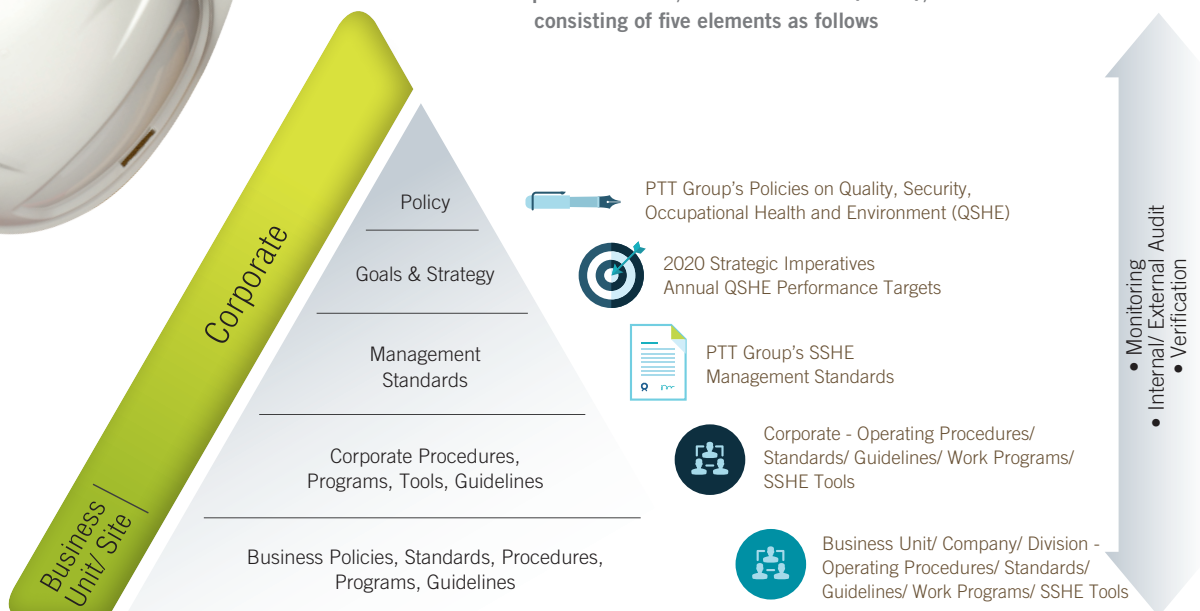
## SSHE: The Safeguarding against Damages and Losses for Sustainability



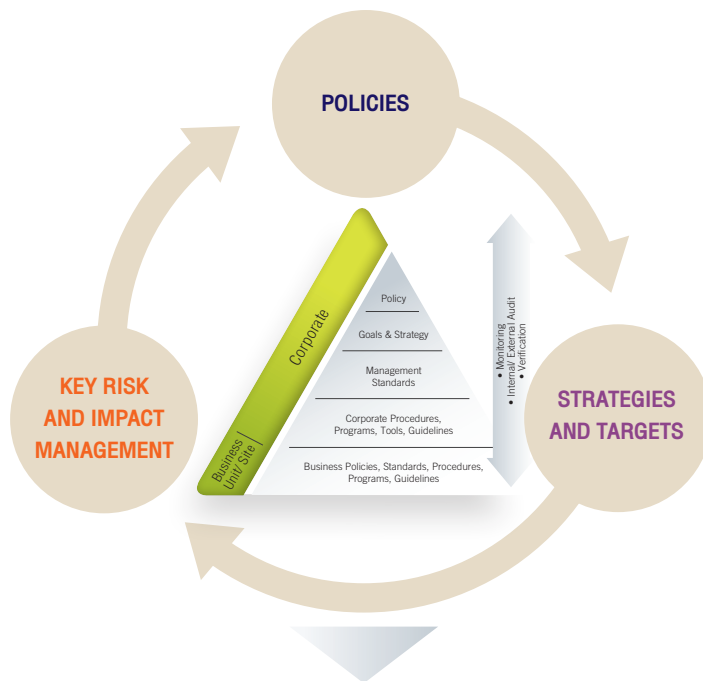
Efficient management of SSHE (Security, Safety, Occupational Health and Environment) risks and impacts is bound to enhance capabilities and strengths of the organization to reduce and mitigate SSHE damages and losses to the communities, publics, and environments. Moreover, efficient SSHE management safely and smoothly drives PTT businesses toward sustainability, leading to more value creation in all business facets, thus ensuring vision and goal attainment.



### PTT Group's Policies on Security, Safety, Occupational Health, and Environment (SSHE), consisting of five elements as follows







#### POLICIES

Analyzed internal and external factors especially on expectations from various stakeholders, **Reviewed the analytical results with PTT Group's commitments and determinations in controlling, preventing, and mitigating key risks and impacts under the current PTT Group's Policies on Quality, Security, Safety, Occupational Health and Environment**, announced on 12 November 2015.

#### STRATEGIES AND TARGETS

Conducted 2015 annual SSHE performance review with the 2020 strategic objective, and identified gaps for efficiency and effectiveness for continuous improvement by using medium-term strategic SSHE plans and annual strategic and work plan of respective business units, to define the 2016 performance SSHE targets.

#### KEY RISK AND IMPACT MANAGEMENT

Continued development and implementation of SSHE risk and impact management for the strategic target areas and projects. Reviewed, improved and extended SSHE work Processes including **emergency preparedness, emergency response and crisis management, as well as business continuity management** for all businesses and major work processes of PTT Group toward higher efficiency.

SSHE performance indicators in 2015  
reflected continuous improvements in all 3 target areas  
(Socio-Eco-Efficient Strategic objectives)

Socio for the public, employees and contractors			Eco for limiting emission to the environment		Efficient for cost saving and higher eco efficiency	
Zero <b>LTA</b> (Lost Time Accident) to PTT employees.	Zero <b>fatality</b> and below target <b>TRIR</b> (Total Recordable Injury Rate) to contractors. Continuously improved TRIR when benchmark in the same industry.	Decreasing rate of <b>serious</b> <b>accidents</b> for product delivery truck, from 0.008 accident per 1 million kilometers in 2014 by 7.84%. Rates have been constantly dropped since 2013.	Continuous drop of solid <b>waste volume</b> for landfill.	Ability to efficient control <b>emission</b> <b>intensity of</b> <b>VOCs (Volatile</b> <b>Organic</b> <b>Compounds)</b> in all major facilities.	Ability to control and <b>reduce</b> <b>emission of</b> <b>greenhouse</b> <b>gas</b> of PTT Group further from the previous year.	Drop in <b>energy</b> <b>consumption</b> of PTT Group by 3.1% From the normal operation level.
<b>LOST TIME ACCIDENT</b>			<b>ZERO TO LANDFORCE</b>		<b>CO<sub>2</sub></b>	<b>energy</b>

Positive impacts directly  
and indirectly to various stakeholders



Reduction of total recordable injury rate (TRIR) of **PTT Group employees, contractors and joint venture workers**; and better lift quality of employees and contractors and their families.



Reduction of exposure to pollutions and indirect impacts including operation dangers, traffic accidents and changes of environmental quality, to surrounding **communities, people and the public**.



Better **environmental quality in local, regional and global communities** from lower emission of pollutions.



Reduction of **national budget** to control, monitor and environmental restoration.



Cost reduction including direct operating expenses and long-term capital as a result of reduction of pollution at sources. Lower expenditures on environmental correction and restoration, and compensation to the affected and thus increasing profits to **shareholders**.

PTT was honored  
with No. 2 in the  
**Green Rankings**  
of the world's energy  
industry sector.

In 2015, under the SSHE management framework, PTT Group was determined to reach out and listen to all stakeholders' expectation. The systematic search for advanced available technologies, proper tools, and opportunities was fully pursued to improve SSHE management processes. With such dedication, in 2015, PTT successfully controlled, prevented, and mitigated SSHE risks and impacts. **Such success was proven by continuously**

**improved performance indicators enabling PTT to retain global ranking on the Dow Jones Sustainability World Index and Dow Jones Sustainability Emerging Markets Index in the Oil and Gas Industry Sector for four consecutive years. PTT was honored with No. 2 in the Green Rankings of the world's energy industry sector and No. 111 in the overall industry ranking by Newsweek. More details on SSHE performance appear in the Corporate Sustainability Report 2015.**

## Financial Status and Performance

### PTT and Its Subsidiaries' Performance

Unit: THB million

	Y2014 (Restated)	Y2015	% Increase/(Decrease)
Sales & services	2,605,062	2,026,912	(22.2)
Earnings before finance costs, income tax, depreciation and amortization including other non-operating income and expense (EBITDA)	275,450	284,828	3.4
Share of net income (loss) from investments in associates and joint ventures	860	6,032	>100.0
Gain (loss) on foreign exchange	11,610	(5,992)	>(100.0)
Earnings before interest and tax (EBIT)	139,887	141,067	0.8
Income taxes	38,006	24,855	(34.6)
<b>Net income</b>	<b>58,678</b>	<b>19,936</b>	<b>(66.0)</b>

In 2015, sales revenue of PTT and its subsidiaries was THB 2,026,912 million, decreasing by THB 578,150 million or 22.2%, mainly due to the drop in average selling prices, despite the continuous growth in sales volume. Average product selling prices dramatically declined following average Dubai crude oil prices which decreased 47.3% compared with 2014. Thus, sales revenue decreased in almost all business groups, especially international trading and oil, exploration and production business, and petrochemical and refining business groups. Earnings before interest, taxes, depreciation and amortization (excluding other non-operating incomes and expenses) (EBITDA) of PTT and subsidiaries in 2015 was THB 284,828 million, increasing by THB 9,378 million or 3.4% compared to 2014.

The share of net income from investments in associates and joint ventures was THB 6,032 million, increasing by THB 5,172 million. The main reasons were the better performance

of Star Petroleum Refining Public Company Limited (SPRC) with better GRM as well as higher refining utilization rates, while there were major turnarounds in 2014, and the lower stock loss.

However, in 2015, loss on impairment of assets of PTT and its subsidiaries increased by THB 36,070 million from loss on impairment of assets of PTT Exploration and Production Public Company Limited (PTTEP) increased by THB 17,097 million (2015: THB 49,893 million, 2014: THB 32,796 million) principally from exploration and production projects in overseas with the main productions of crude oil and condensate. PTT Energy Resources Company Limited (PTTER) recognized loss on impairment of assets related to coal business amounting to THB 20,275 million following the continuous decline in coal price. PTT Global Chemical Public Company Limited (PTTGC) recognized loss on impairment of assets of Myriant amounting to THB 2,531 million.

Loss on foreign exchange in 2015 was THB 5,992 million, while gain on foreign exchange in 2014 was THB 11,610 million, mainly from the decline in realized gains of foreign currency accounts receivable and accounts payable of PTT. Furthermore, affiliates within PTT Group had unrealized loss on foreign exchange from foreign currencies debts as a result of the THB deappreciation against USD. Furthermore, gain on financial derivatives in 2015 decreased by THB 11,487 million mainly from the drop in crack spread hedging of PTT's subsidiaries within the petrochemical and refinery business groups. However, there were gains on disposal of investments in Bangchak Petroleum Public Company Limited (BCP) and SPRC in 2015.

In 2015, corporate income taxes decreased by THB 13,151 million mainly from a drop in PTTEP's petroleum income tax expenses in line with a decrease in operating income from domestic sales. As a result, net income of PTT and its subsidiaries was THB 19,936 million, decreasing from THB 58,678 million in 2014 by THB 38,742 million.

#### In 2015, PTT Group had non-recurring items as follows:

January 2015	<ul style="list-style-type: none"> <li>Energy Policy Management Committee (EPMC) approved to restructure LPG price in order to reflect the actual price by setting the weighted average cost from 3 sources at 488 USD/ton (THB 16.11 per kg), by increasing ex-GSP price to 498 USD/ton (previous price was 333 USD/ton), while maintained retail price at THB 24.16 per kg effective from 2 February 2015.</li> <li>EPMC approved to raise NGV price by THB 0.50 per kg for both private and public cars to be at THB 13.00 per kg and THB 10.00 per kg, respectively, effective on 31 January 2015.</li> </ul>
February 2015	<ul style="list-style-type: none"> <li>The BOD of PTT approved the sale of asset and co-generation power plant as a part of the central utility unit in support of Bangchak oil refinery (BUP) to BCP for up to THB 1,343,469,367 in respect of the core assets and for approximately THB 37.08 million in respect of spare parts.</li> </ul>
March 2015	<ul style="list-style-type: none"> <li>PTT reviewed five-year (Year 2015 - 2019) investment plan to reflect the global economic circumstances by reducing investment plan from THB 326,551 million to THB 298,700 million.</li> </ul>
April 2015	<ul style="list-style-type: none"> <li>IRPC Public Company Limited (IRPC) Vacuum Gas Oil Hydro Treating Unit (VGOHT) resumed its operation for commercial production after the fire incident in 2014 since 12 April 2015.</li> <li>PTT divested its shareholding in BCP totaling 374,748,571 shares or 27.22% of the total paid-up shares to Vayupak Fund 1 and the Social Security Office, equal to approximately 15.25% and 11.96% respectively, at the price of THB 36 per share.</li> </ul>
May 2015	<ul style="list-style-type: none"> <li>PTT Green Energy Pte Ltd. (PTTGE SG) signed a Share and Purchase Agreement (SPA) to dispose its entire investment of 77.56% of the total issued shares in Chancellor Oil Pte. Ltd., a company that operates a palm oil business through PT. First Borneo Plantations (PT FBP) in Indonesia.</li> <li>Global Power Synergy Public Company Limited (GPSC) completed IPO of its shares and started the first trading day on 18 May 2015 at THB 27 per share.</li> </ul>
June 2015	<ul style="list-style-type: none"> <li>PTTGE SG completed the process of disposing the shares, transferring liabilities and advance investment payment of PT. Mitra Aneka Rezeki (PT. MAR) to Harvey Bay Overseas (HBO) on 9 June 2015. Total value of the transaction was 35 MMUSD.</li> <li>PTTGC established PTTGC America Corporation and PTTGC America LLC to conduct Front End Engineering Design (FEED) study and invest in Petrochemical Complex Project in the US to take advantage of ethane feedstock from Shale gas.</li> </ul>



<b>July 2015</b>	<ul style="list-style-type: none"> <li>PTT divested 49% of its shares in PTT Polymer Logistic Company Limited (PTTPL) to PTTGC and 1% of its shares in PTPL to Solution Creation Company Limited, a subsidiary of PTTGC.</li> </ul>
<b>August 2015</b>	<ul style="list-style-type: none"> <li>PTT BOD approved the payment of interim dividends for the first half of 2015 performance at the rate of THB 6.00 per share or 37.3% of consolidated net income.</li> <li>PTT established OGP Energy Solutions Co., Ltd. (OGP), the Joint Venture between PTT Retail Business Co., Ltd. (PTTRB), a subsidiary of PTT, and Osaka Gas (Thailand) Co., Ltd. (OGT) with shareholding proportion of 40% and 60%, respectively. The business objective of the company is to provide “One-Stop Service” of Energy Service Solution.</li> <li>The Disposition of the entire investment and the assignment of loan in PT Az Zhara were completed on 31 August 2015. The total value of the transaction is USD 6.8 million.</li> <li>PTTGC approved the share repurchase program for financial management purpose in the maximum amount not exceeding THB 4,500 million and the number of the shares to be repurchased was approximately 2% of the total issued shares. The repurchase covered 6 month period, starting from 8 September 2015 to 7 March 2016.</li> </ul>
<b>September 2015</b>	<ul style="list-style-type: none"> <li>EPMC approved to raise NGV price by THB 0.50 per kg for private cars to be at THB 13.50 per kg, effective on 8 September 2015.</li> </ul>
<b>October 2015</b>	<ul style="list-style-type: none"> <li>PTT raised fund by issuing the unsubordinated and unsecured debentures to retail investors in the total amount of THB 4,200 million on 19 October 2015.</li> </ul>
<b>December 2015</b>	<ul style="list-style-type: none"> <li>PTT divested its shareholdings in SPRC to the public on 8 December 2015, resulting in its shareholding proportion of PTT in SPRC to decrease from 36% to be 5.4%.</li> <li>The Disposition of the entire investment and the assignment of loan in PTT Green Energy (Netherlands) Cooperatief U.A. (PTTGE COOP), which held shares in KPI Project were completed on 23 December 2015. The total value of the transaction is USD 86.65 million.</li> </ul>
<b>January 2016</b>	<ul style="list-style-type: none"> <li>EPMC announced, on 21 January 2016 to float NGV price for private cars on the condition that PTT could sell NGV at prices not exceeding THB 13.50 per kg for 6 months until July 2016.</li> </ul>

## PTT and its subsidiaries' financial performance comparison for year 2015 and 2014 by business group

Unit: THB million

	Y2014 (Restated)	Y2015	% Increase/(Decrease)
<b>Sales &amp; services income</b>	<b>2,605,062</b>	<b>2,026,912</b>	<b>(22.2)</b>
• Exploration & Production	242,071	185,770	(23.3)
• Natural gas <sup>1/</sup>	581,116	542,799	(6.6)
• Oil	638,409	511,530	(19.9)
• International trading	1,596,030	949,933	(40.5)
• Petrochemical & Refining	1,105,011	874,195	(20.9)
• Coal	20,557	13,633	(33.7)
• Others	5,192	4,870	(6.2)
<b>EBITDA</b>	<b>275,450</b>	<b>284,828</b>	<b>3.4</b>
• Exploration & Production	174,557	132,653	(24.0)
• Natural gas	55,283	45,622	(17.5)
• Oil	11,577	14,583	26.0
• International trading	(3,822)	3,315	>100.0
• Petrochemical & Refining	31,390	81,954	>100.0
• Coal	4,471	2,725	(39.1)
• Others	1,444	3,894	>100.0
<b>EBIT</b>	<b>139,887</b>	<b>141,067</b>	<b>0.8</b>
• Exploration & Production	91,380	39,831	(56.4)
• Natural gas	39,795	29,765	(25.2)
• Oil	8,716	11,607	33.2
• International trading			
- Excluding effect of FX	(3,858)	3,282	>100.0
- Including effect of FX	4,083	5,517	35.1
• Petrochemical & Refining	3,540	54,379	>100.0
• Coal	(238)	(167)	29.8
• Others	0	2,285	>100.0
<b>Depreciation and amortization expenses</b>	<b>135,563</b>	<b>143,761</b>	<b>6.0</b>
<b>Loss on impairment of assets</b>	<b>(38,085)</b>	<b>(74,155)</b>	<b>94.7</b>
<b>Finance costs</b>	<b>33,033</b>	<b>30,089</b>	<b>(8.9)</b>
<b>Gain (loss) on foreign exchange</b>	<b>11,610</b>	<b>(5,992)</b>	<b>&gt;(100.0)</b>
<b>Share of net income (loss) from investments in associates and joint ventures</b>	<b>860</b>	<b>6,032</b>	<b>&gt;(100.0)</b>
<b>Income taxes</b>	<b>38,006</b>	<b>24,855</b>	<b>(34.6)</b>
<b>Net income (loss)</b>	<b>58,678</b>	<b>19,936</b>	<b>(66.0)</b>
<b>Earnings (loss) per share (Baht/share)</b>	<b>20.34</b>	<b>6.73</b>	<b>(66.9)</b>

<sup>1/</sup> Including infrastructure business

**Notes:** Financial performance of group 2014 was restated in accordance with Thai Financial Reporting Standard No. 10 "Consolidated Financial Statements" and Thai Financial Reporting Standard No. 11 "Joint Arrangements", effective from 1 January 2015.

## Segmentation Performance of PTT and Its Subsidiaries

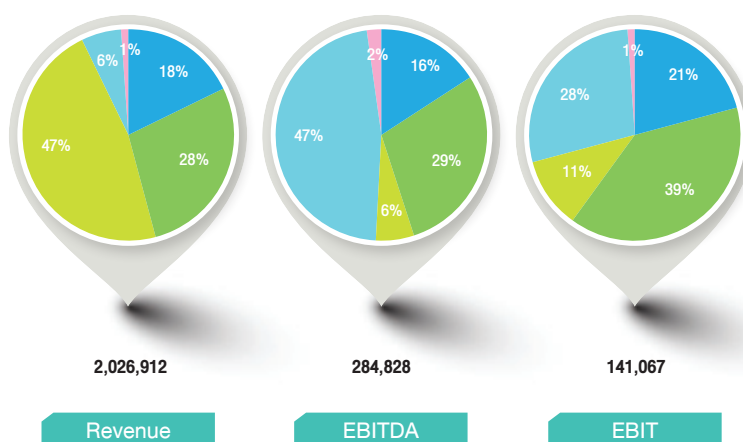
The details of revenue, EBITDA and EBIT of 2015 by segmentation are as follow;

The details  
of revenue,  
EBITDA and  
EBIT of 2015

Unit: THB million

- Gas
- Petrochemical & Refining
- Oil & International Trading
- PTTEP
- Other\*

Remark: \* Coal business and others.



## Upstream Petroleum and Natural Gas Business Group

### Petroleum Exploration and Production Business: PTT Exploration and Production Public Co., Ltd. (PTTEP)

	Y2014 (Restated)	Y2015	% Increase/(Decrease)
Average selling price (USD/BOE)	63.7	45.3	(28.9)
Average sales volume (BOED)	312,569	322,167	3.1

In 2015, sales revenue of PTTEP was THB 185,770 million, decreasing by THB 56,301 million or 23.3% because the average selling prices decreased by 28.9% from USD 63.7 per BOE in 2014 to USD 45.3 per BOE in 2015, while the sales volume continuously increased. The sales volume increased by 3.1% from 312,569 per BOED in 2014 to 322,167 per BOED in 2015 mainly because the Zawtika project started its natural gas sales in Myanmar in March 2014, and has reached its full production capacity as well as has exported natural gas to Thailand since August 2014.

In 2015, EBITDA was THB 132,653 million, decreasing by THB 41,904 million or 24.0%, mainly from lower sales revenue as aforementioned. However, PTTEP had a cost reduction project called "SAVE to be SAFE" which leads to the lower cost per unit. In addition, petroleum royalties and operating expenses decreased in accordance with the decreases in sales revenue and petroleum exploration expenses due to the well write-off of PTTEP Australasia, Kenya L10 A and L28/48 projects while there were the well write-off of Myanmar and Brazil projects in 2015.



In 2015, EBIT was THB 39,831 million, decreasing by THB 51,549 million or 56.4%, as a result of the increase in depreciation expenses in relation to higher completed assets of Contract 4, Arthit, S1 projects as well as higher production volume of Zawtika project.

Moreover, in 2015 PTTEP recognized loss on impairment of assets, amounting to THB 49,893 million (or net tax of THB 46,597 million), increasing by THB 17,097 million while there was impairment loss of THB 32,796 million in 2014. The increase of impairment loss was caused by the continuously decline of global oil prices, together with slow recovery outlook, especially exploration and production assets in overseas which mainly produced crude and condensate.

## Natural Gas Business Group

The details of all product sales volume from gas separation plants (GSP) are as follows:

Unit: Ton

	Y2014	Y2015	% Increase/(Decrease)
LPG	2,738,633	2,737,866	(0.0)
Ethane	2,105,650	2,199,323	4.4
Propane	819,349	765,063	(6.6)
NGL <sup>1/</sup>	728,542	720,568	(1.1)
<b>Total</b>	<b>6,392,174</b>	<b>6,422,820</b>	<b>0.5</b>

**Note:**

1/ include Pentane (sales started in February 2015)

The details of reference product prices of GSP are as follows:

Unit : USD per ton

	Y2014	Y2015	% Increase/(Decrease)
LPG <sup>1/, 4/</sup>	799	424	(46.9)
Ethylene <sup>2/</sup>	1,395	1,104	(20.9)
Propylene <sup>2/</sup>	1,245	774	(37.8)
HDPE <sup>2/</sup>	1,544	1,238	(19.8)
PP <sup>2/</sup>	1,553	1,155	(25.6)
Naphtha <sup>3/</sup>	786	438	(44.3)

**Notes:**

1/ Contract price (CP) 60 : 40

2/ South East Asia - Spot Price

3/ Mean of Platts Singapore (MOPS)

4/ On 15 December 2014, NEPC passed a resolution of LPG price restructuring effective from 2 February 2015 onwards, with the cancellation of LPG Ex-GSP pricing at USD 333 per ton and setting the calculating method for LPG Pool price which reflects actual costs of LPG production and supply (from GSPs, Refineries and Aromatics plants, Import) based on weighted average of the volume from production and supply for the last 3 months.

In 2015, sales revenue of natural gas business was THB 542,799 million, decreasing by THB 38,317 million or 6.6% from 2014 mainly from

## Natural Gas Supply Sales

The sales revenue of gas business unit operating gas supply, transportation and distribution, was lowered as a result of the drop in average selling prices in all customer groups, especially selling prices for industrial customers, which was in line with the decrease in reference fuel oil price compared with 2014. Even though the average natural gas sales volume (calculated at heating value of 1,000 BTU per cubic foot) increased by 119 MMSCFD or 2.5% from 4,688 MMSCFD in 2014 to 4,807 MMSCFD in 2015. The higher sales volume was mainly from higher demands from IPP and SPP customers. New IPPs began commercial operation in December 2014 and June 2015. New SPPs began commercial operation since the second quarter 2015 (Q2/2015).

## GSP Product Sales Volume

In addition, sales revenue of PTT's GSPs decreased as a result of the drop in product selling price in line with the decline in global product reference prices in 2015. Nevertheless, the sales volume of all products from GSPs (including NGL derived from Dew Point Control units) slightly increased 0.5% from 6,392,174 tons in 2014 to 6,422,820 tons in 2015, mainly from the sales volume of Ethane, despite the drop in sales volume of Propane and NGL.

EBITDA of natural gas business in 2015 was THB 45,622 million, decreasing by THB 9,661 million or 17.5%. The main reason was from the drop in gross margin of PTT's natural gas business, especially the gross margins of gas supply, transportation and distribution businesses. These were the results of the drop in selling prices for industrial customers in relations to the lower reference fuel oil price while the feed gas cost has had slower pace adjustment. Similarly, GSPs margins dropped from the decrease in product selling prices as aforementioned. Also, there was the compensation payments for delayed construction of the 4<sup>th</sup> natural gas pipeline project. Nevertheless, NGV loss decreased from NGV price lifting to be at THB 13.50 per kilogram for private cars and THB 10 per kilogram for customers in the NGV credit card project (taxi and public cars). In summary, EBIT in 2015 was THB 29,765 million, decreasing by 25.2% in line with the drop in EBITDA.

The overall performance of infrastructure business increased because GPSC's revenue from electricity sales increased from Sriracha Power Plant due to planned shutdown in 2014, while operating expenses increased. However, GPSC received dividend from RPCL and share of net income from investments in associates and joint ventures increased.

## Downstream Petroleum Business Group

### Oil Business Unit

Unit: Million liter

	Y2014	Y2015	% Increase/(Decrease)
Average sales volume	24,657	25,268	2.5

Sales revenue of oil business in 2015 was THB 511,530 million, decreasing by THB 126,879 million or 19.9%, resulting from the decrease in product selling prices. The average Dubai crude oil price decreased from USD 96.7 per bbl in 2014 to USD 50.9 per bbl in 2015. However, sales volume increased by 611 million liters or 2.5% from 24,657 million liters or equivalent to 424,907 bbl per day in 2014 to 25,268 million liters or equivalent to 435,443 bbl per day in 2015, mainly from the increase in the sales volume of diesel, gasoline and aviation fuel following the increase in demands from the slump in oil prices.

EBITDA in 2015 was THB 14,583 million, increasing by THB 3,006 million or 26.0% due to the rise in margins of gasoline, lubricant, and LPG as a result of the drop in production costs in line with global crude oil price, and LPG stock gain. EBIT in 2015 was THB 11,607 million, increasing by THB 2,891 million, in line with the rise in EBITDA as aforementioned.

## International Trading Business Unit

Unit: Million liter

	Y2014	Y2015	% Increase/(Decrease)
Average sales volume	78,595	81,285	3.4

Sales revenue of international trading business was THB 949,933 million in 2015, decreasing by THB 646,097 million or 40.5% which resulted from the drop in product selling prices in accordance with global oil market prices. However, the sales volume in 2015 increased by 2,690 million liters or 3.4% from 78,595 million liters or equivalent to 1,354,404 bbl per day in 2014 to 81,285 million liters or equivalent to 1,400,756 bbl per day. Sales volume increased mainly from the Out-In and In-In trading, especially crude oil and condensate, because this period, there was no major turnaround for refineries in PTT group. On the other hand, sales volume from the Out-Out trading dropped as a result of the change in import policy for petroleum products of the Indonesian government.

EBITDA in 2015 was THB 3,315 million, increasing by THB 7,137 million and EBIT, which included the effect of foreign exchange, in 2015 was THB 5,517 million, increasing by THB 1,434 million from 2014 due mainly to better performance of PTTT.

## Petrochemical and Refining Business Unit

Unit: USD per ton

	Y2014	Y2015	% Increase/(Decrease)
HDPE	1,544	1,238	(19.8)
PP	1,553	1,155	(25.6)
BZ - Cond	375	238	(36.5)
PX - Cond	400	383	(4.3)



Unit: USD per bbl

	Y2014	Y2015	% Increase/(Decrease)
Market GRM	4.43	6.71	51.5
Inventory gain (loss)	(4.02)	(1.41)	64.9
Accounting GRM	1.06	5.76	>100.0
Utilization rate (%)	92.4%	96.8%	4.8

**Notes:**

- GRM is calculated from refineries of TOP, IRPC, SPRC and PTTGC.
- In 2015 PTT Group's petrochemical and refining performance was based on 11-month operating results of SPRC (January - November) because PTT sold 30.59% shareholding of SPRC on 3 December 2015.

Sales revenue of petrochemical and refining subsidiaries of PTT in 2015 was THB 874,195 million, decreasing by THB 230,816 million or 20.9% mainly from the drop of average selling prices of petroleum and petrochemical products following the decrease in crude oil prices causing by oversupply in the market despite the increase in utilization rate. In addition, the sales of petrochemical products decreased due to economic slowdown in China, leading to the decrease in imported products from producers in China and depreciation of RMB.

Although the sales revenue decreased, the performance of petrochemical and refining business unit increased. EBITDA in 2015 was THB 81,954 million, increasing by THB 50,564 million from THB 31,390 million in 2014 and EBIT in 2015 was THB 54,379 million, increasing by THB 50,839 million from the follows;

- The performance of refining business significantly increased, mainly from the higher petroleum product spreads, especially gasoline and fuel oil. The decrease in oil price effected to lower refineries' costs of crude oil and fuel consumption as well as fuel and loss. Moreover, utilization rates increased comparing to last year, since there were turnarounds of many refineries in 2014. Furthermore, stock loss decreased as the crude oil prices in 2015 did not drop sharply compared with previous year. Therefore, refinery had better performance in 2015.

- The better performance of aromatics was mainly from higher P2F causing by lower in fuel and loss following crude oil/condensate price as well as the decrease in stock loss. Meanwhile, product spread margins both PX and BZ decreased, especially BZ, because of oversupply in Asia and the shorten demand in China resulted from lower economics growth. However, the overall performance of Olefins was lower, compared with last year because P2F decrease from polymer product prices dropped, even though the sale volumes and utilization rates increased.

Share of net income from investments in associates and joint ventures of petrochemical and refining business increased by THB 4,762 million to THB 4,004 million in 2015. The main portion came from the better performance of SPRC (January - November 2015) because of higher utilization rates, while there was a major turnaround in 2014, together with the higher Market GRM and the lower stock loss.

Furthermore, there was an impairment loss of Myriant, a subsidiary of PTTGC, totaling THB 2,531 million (or net tax of THB 2,056 million) in 2015, while there was no such an impairment loss in the previous year.

## Coal Business

	Y2014	Y2015	% Increase/(Decrease)
Newcastle index price (USD per ton)	70.9	59.2	(16.5)
Average selling price (USD per ton)	63.6	54.4	(14.5)
Sales volume (million ton)	9.8	7.3	(25.5)

Sales revenue of coal business in 2015 was THB 13,633 million, decreasing by THB 6,924 million or 33.7% due mainly to the decrease in sales volume by 25.5% especially from Sebkuku coal mine as well as the decrease in average selling price, which fell by USD 9.6 per ton or 15.1%.

In 2015, EBITDA was THB 2,725 million, decreasing by THB 1,746 million or 39.1% caused mainly by both lower average sales volume and average selling price as aforementioned. However, EBIT was net loss of THB 167 million in 2015, compared to net loss of THB 238 million in 2014, mainly from the drop in depreciation and amortization expenses following the drop in production volume, as well as improving efficiencies in production and transportation; thus, operating costs in U.S. currency decreased.

Moreover, in 2015, PTTER recognized loss on impairment of mining assets amounting to THB 20,275 million as aforementioned.

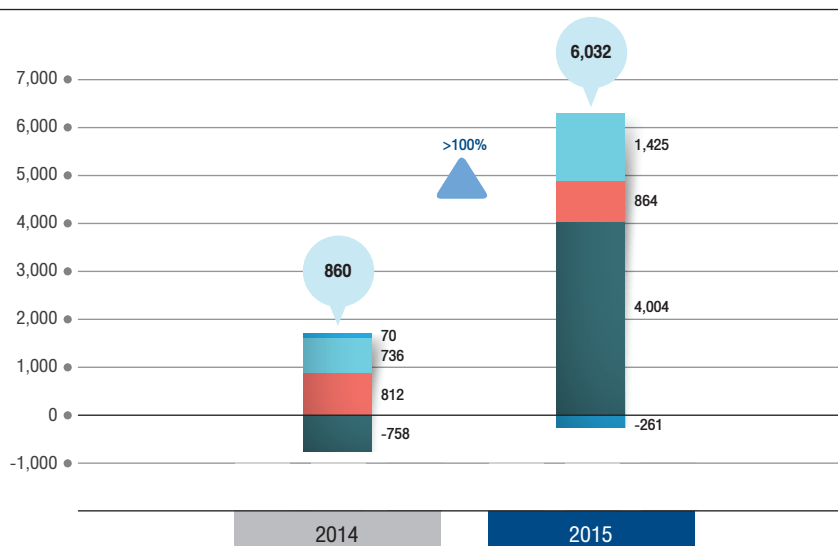
## Net income was THB 19,936 million in 2015, decreased by THB 58,678 million or 66.0% from 2014.

In 2015, net income of PTT and its subsidiaries was THB 19,936 million, decreasing from THB 58,678 million in 2014 by THB 38,742 million or 66.0%. This was mainly resulted from the continuing drop of oil prices from the end of 2014 until the end of 2015, when the price dropped to the 11-year low at USD 40 per bbl. Consequently, PTT and its subsidiaries had higher losses on impairment of assets, principally from the recognition of loss on impairment of exploration and production assets of PTTEP and loss on impairment of assets related to coal business of PTTER. Moreover, the drop in oil prices led to the lower performance of PTTEP and PTT, especially natural gas business from the selling of natural gas to industrial customers and GSP's products. However, petrochemical and refining business had better performance. Refinery and aromatics business units had higher accounting GRM and product to feed margin (P2F) owing to the rise of Dubai crack spreads and the drop in costs of production. On the other hand, olefins business had lower performance as a result of the drop in polymer product prices following a decline in crude oil price. Also, Baht weakening against USD compared to 2014 year-end caused loss on foreign exchange for PTT group.

## Share of net income (loss) from investments in associates and joint ventures

Unit: THB million

- Others
- Gas
- Oil
- Petrochemical & Refining



In 2015, the share of net income from investments in associates and joint ventures was THB 6,032 million, increasing by THB 5,172 million. The main reasons were the better performance of SPRC during January to November 2015 caused by better GRM as well as higher refining utilization rates, while there was major turnarounds in 2014, and the lower stock loss.

In 2015, loss on impairment of assets of PTT and its subsidiaries increased by THB 36,070 million from

- Loss on impairment of assets of PTTEP increased by THB 17,097 million (2015: THB 49,893 million, 2014: THB 32,796 million) principally from exploration and production projects in overseas with the main productions of crude oil and condensate.

- PTTER recognized loss on impairment of assets related to coal business amounting to THB 20,275 million following the continuous decline in coal price.

- PTTGC recognized loss on impairment of assets of Myriant amounting to THB 2,531 million.

Depreciation and amortization expenses increased by THB 8,198 million or 6.0% from THB 135,563 million in 2014 to THB 143,761 million in 2015, mainly caused by depreciation and amortization expenses of PTTEP from Contract 4, Arthit and S1 projects following the increase in completed assets, as well as production volumes of Zawtika project after having reached its full capacity in August 2014.

Loss on foreign exchange in 2015 was THB 5,992 million, while gain on foreign exchange in 2014 was THB 11,610 million, mainly from the decline in realized gains of foreign currency accounts receivable and accounts payable of PTT. Furthermore, affiliates within PTT Group had unrealized loss on foreign exchange from foreign currencies debts as a result of the THB depreciated against USD.

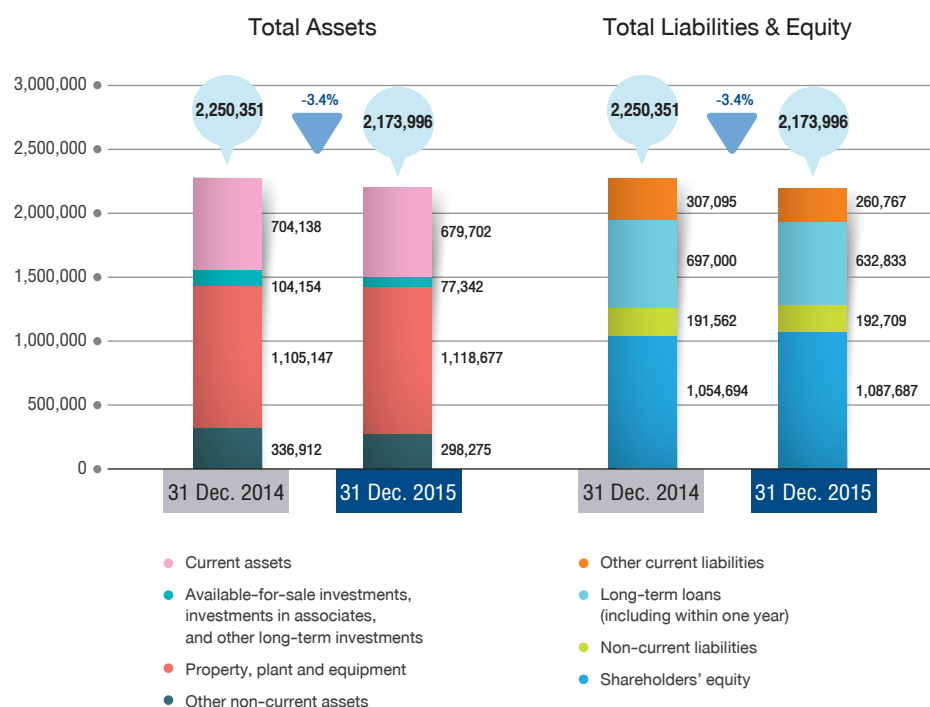
Furthermore, gain on financial derivatives in 2015 decreased by THB 11,487 million mainly from the drop in crack spread hedging of PTT's subsidiaries within the petrochemical and refinery business groups. However, there were gains on disposal of investments in BCP and SPRC in 2015.

In 2015, corporate income taxes decreased by THB 13,151 million mainly from a drop in PTTEP's petroleum income tax expenses in line with a decrease in operating income from domestic sales.

## The analysis of PTT and its subsidiaries' consolidated financial position as of 31 December 2015 compared with 31 December 2014

### Analysis of PTT and its subsidiaries' consolidated financial position

Unit: THB million



### Assets

As of 31 December 2015, total assets of PTT and its subsidiaries were THB 2,173,996 million, decreasing by THB 76,355 million or 3.4% compared with 31 December 2014. This decrease was mainly from the net effect of the followings:

- A decrease of THB 24,436 million or 3.5% in current assets was mainly from the followings:

- A decrease of THB 35,710 million in inventories, mainly from a decrease in prices and petroleum products inventory because market prices and the legal reserve volumes decreased.

- A decrease of THB 34,555 million in accounts receivable, mainly from the decrease in product selling prices compared to 2014.

- An increase of THB 29,968 million in cash and cash equivalents and current investments mainly due to cash inflows from operation and disposal of investments in BCP and SPRC. However, cash and current investment decreased due to long-term loan and debenture repayment and dividend paid during the year.

- A decrease of THB 26,812 million or 25.7% in long-term investments was mainly from the disposal of investment in BCP on 30 April 2015 and SPRC on 3 December 2015 (IPO on 8 December 2015).

- A decrease of THB 13,634 million or 7.7% in intangible assets and a decrease of THB 12,532 million or 38.6% in mining assets were caused by the recognition of impairment losses of exploration and evaluation assets and coal mines.

- An increase of THB 13,530 million or 1.2% in property, plant and equipment was mainly from land acquisition, assets under construction of the 4<sup>th</sup> natural gas pipeline project, the Nakhonsawan pipeline project and the Nakhon Ratchasima pipeline project of PTT, assets under construction of UHV project of IRPC, and asset under construction of the LNG terminal phase 2 project of PTTLNG, as well as assets under construction of new small power plant (SPPs) of TOP. However, property plant and equipment decreased because PTTEP recognized the loss on impairment of petroleum exploration and production assets.



## Liabilities

As of 31 December 2015, PTT and its subsidiaries had total liabilities of THB 1,086,309 million, decreasing by THB 109,348 million or 9.1% from the year ended 2014, due mainly to the following reasons:

- Long-term loans (including the current portion within 1 year) decreased by THB 64,167 million or 9.2%. The decrease was mainly due to the long-term loan repayments and bond redemptions totaling THB 136,890 million, mainly from PTT, PTTEP, PTTGC and TOP. However, during the period, there were additional long-term loans totaling THB 48,141 million, mainly from PTTGC, IRPC and TOP. Furthermore, there was an effect from the THB depreciation, compared with the year ended 2014, leading to the increase in loans by THB 24,075 million.
- A decrease of THB 46,328 million or 15.0% in other current liabilities was primarily from a decrease in accounts payable, caused by the drop of gas and oil prices, following market prices, as well as lower purchasing volume of raw material at the end of 2015.

## Equity

As of 31 December 2015, PTT and its subsidiaries had total shareholders' equity of THB 1,087,687 million, increasing by THB 32,993 million or 3.1% from the year ended 2014, due mainly to the following reasons:

- Other comprehensive income increased by THB 26,261 million mainly from an increase in translation of financial statement differences caused by the THB depreciation, compared with the year ended 2014.
- Non-controlling interests increased by THB 19,133 million.
- The decrease of THB 12,447 million in unappropriated retained earnings mainly resulted from a decrease in PTT and its subsidiaries' net income for the year 2015 amounting to THB 19,936 million. Meanwhile, there were payments of dividends for the second half-year performances of 2014 and for the first half-year of 2015 totaling THB 31,401 million.

## Liquidity

For the year ended 31 December 2015, PTT and its subsidiaries had net decrease in cash and cash equivalents amounting to THB 5,766 million, and cash and cash equivalents at the beginning of the period was THB 234,212 million. As a result, cash and cash equivalents at the end of the period was THB 239,978 million. Details of cash flow by activities are as follows:

Unit: THB million

	2015
Net cash provided by operating activities	293,285
Net cash used in investing activities	(133,043)
Net cash used in financing activities	(163,813)
Effects of exchange rates on cash and cash equivalents	(762)
Translation of financial statement differences	9,872
Cash and cash equivalents classified as non-current assest held-for-sale	227
Net increase in cash and cash equivalents during the period	5,766
Cash and cash equivalents at the beginning of the period	234,212
Cash and cash equivalents at the end of the period	239,978

# PTT and Its Affiliates

As at 31 December 2015

E&P Business Group		Percentage
PTT Exploration and Production Public Co., Ltd.	PTTEP	65.29
Gas Business Group		Percentage
Trans Thai-Malaysia (Thailand) Co., Ltd.	TTM(T)	50.00
Trans Thai-Malaysia (Malaysia) Sdn.Bhd.	TTM(M)	50.00
PTT Natural Gas Distribution Co., Ltd.	PTTNGD	58.00
PTT LNG Co., Ltd.	PTTLNG	100.00
Oil Business Group		Percentage
PTT (Cambodia) Limited	PTTCL	100.00
Subic Bay Energy Co., Ltd.	SBECCL	100.00
PTT Retail Business Co., Ltd.	PTTRB	100.00
Thai Lube Blending Co., Ltd.	TLBC	48.95
KELOIL - PTT LPG Sdn.Bhd.	KPL	40.00
Petro Asia (Thailand) Co., Ltd.	PA (Thailand)	35.00
Petro Asia (Maoming) Co., Ltd.	PA (Maoming)	20.00
Petro Asia (Sanshui) Co., Ltd.	PA (Sanshui)	25.00
Thai Petroleum Pipeline Co., Ltd.	THAPPLINE	40.40
Intoplane Services Co., Ltd.	IPS	16.67
Bangkok Aviation Fuel Services Public Co., Ltd.	BAFS	7.06
Fuel Pipeline Transportation Co., Ltd.	FPT	0.00024
PTT Tank Terminal Co., Ltd.	PTT TANK	100.00
PTT Oil Myanmar Co., Ltd.	PTTOM	100.00
International Investment Business Group		Percentage
PTT Energy Resources Co., Ltd.	PTTER	100.00
PTT Green Energy Pte. Ltd.	PTTGE	100.00
International Trading Business Group		Percentage
PTT International Trading Pte. Ltd.	PTTT	100.00
Petrochemical and Refining Business Group		Percentage
PTT Global Chemical Public Co., Ltd.	PTTGC <sup>1/</sup>	48.89
PTT Polymer Marketing Co., Ltd.	PTTPM	50.00
PTT Asahi Chemicals Co., Ltd.	PTTAC	48.50
HMC Polymers Co., Ltd.	HMC	41.44
PTT Polymer Logistics Co., Ltd.	PTTPL	50.00
PTT MCC Biochem Co., Ltd.	PTTMCC	50.00
PTT PMMA Co., Ltd.	PTTPMMA	100.00
Thai Oil Public Co., Ltd.	TOP	49.10
IRPC Public Co., Ltd.	IRPC	38.51
Star Petroleum Refining Public Co., Ltd.	SPRC	5.41
Infrastructure Business Group		Percentage
PTT Maintenance and Engineering Co., Ltd.	PTTME	40.00
PTT Energy Solutions Co., Ltd.	PTTES	40.00
District Cooling System and Power Plant Co., Ltd.	DCAP	35.00
Thai Oil Power Co., Ltd.	TP	26.00
Global Power Synergy Co., Ltd.	GPSC	22.58
Energy Complex Co., Ltd.	EnCo	50.00
Other Business Group		Percentage
Business Services Alliance Co., Ltd.	BSA <sup>2/</sup>	25.00
PTT ICT Solutions Co., Ltd.	PTTICT	20.00
Dhipaya Insurance Public Co., Ltd.	TIP	13.33
PTT Regional Treasury Center Pte. Ltd.	PTTRTC	100.00

## Remarks:

1/ According to PTTGC's share repurchase program during 2015, PTT's ownership interest in PTTGC as of 31 December 2015 is 49.34%.

2/ PTT holds 100% of BSA's ordinary shares. Thus, PTT's ownership interest in BSA is 100%.

## Revenue Structure of PTT and Subsidiaries by Product Line

Product/ Service	Operated by	% Shareholding of the company	2013		2014 (Revised)		2015 (Audited)	
			THB million	%	THB million	%	THB million	%
1. Natural Gas Products	PTT Plc. (Gas Business Unit)		490,481.29	17.02	425,928.38	16.03	382,374.58	18.58
	PTT Plc. (Oil Business Unit and International Trading Business Unit)		83,948.22	2.91	85,825.23	3.23	86,417.98	4.20
	PTT Exploration and Production Plc. (PTTEP)	65.29	101,955.11	3.54	117,986.25	4.44	120,691.68	5.87
	PTT Natural Gas Distribution Co., Ltd. (PTTNGD)	58.00	10,154.87	0.35	10,313.01	0.39	7,966.37	0.39
	Combined Heat and Power Producing Co., Ltd. (CHPP <sup>1/</sup> )		182.13	0.01	-	-	-	-
	Less PTTEP's gas revenue paid by PTT Plc.		(97,325.70)	(3.38)	(110,838.79)	(4.17)	(107,743.35)	(5.24)
	<b>Total Revenue from Natural Gas Products</b>		<b>589,395.92</b>	<b>20.45</b>	<b>529,214.08</b>	<b>19.92</b>	<b>489,707.26</b>	<b>23.80</b>
2. Oil Products	PTT Plc. (Oil Business Unit and International Trading Business Unit)		1,646,289.35	57.11	980,375.98	36.89	643,755.90	31.28
	PTT Exploration and Production Plc. (PTTEP)	65.29	118,381.95	4.11	119,610.42	4.50	61,034.68	2.97
	Less PTTEP's crude revenue paid by PTT Plc.		(84,399.51)	(2.93)	(93,635.66)	(3.52)	(50,685.20)	(2.46)
	PTT International Trading Pte. Ltd. (PTTT)	100.00	322,417.32	11.19	258,278.62	9.72	183,336.31	8.91
	PTT Global Chemical Public Co., Ltd. (PTTGC <sup>5/</sup> )	48.89	-	-	16,655.40	0.63	32,852.68	1.59
	Thai Oil Public Co., Ltd. (TOP <sup>5/</sup> )	49.10	-	-	206,755.38	7.78	140,262.71	6.82
	IRPC Public Co., Ltd. (IRPC <sup>5/</sup> )	38.51	-	-	145,626.70	5.48	110,141.22	5.35
	PTT (Cambodia) Co., Ltd. (PTTCL)	100.00	7,330.44	0.25	7,715.74	0.29	6,396.54	0.31
	PTT Retail Business Co., Ltd. (PTTRB <sup>2/</sup> )	100.00	38,247.88	1.33	63,773.05	2.40	50,138.95	2.44
	Subic Bay Energy Co., Ltd. (SBECL <sup>2/</sup> )	100.00	21,172.93	0.73	1,013.18	0.04	-	-
	<b>Total Revenue from Oil Products</b>		<b>2,069,440.36</b>	<b>71.79</b>	<b>1,706,168.81</b>	<b>64.21</b>	<b>1,177,233.79</b>	<b>57.21</b>
3. Petrochemical Products	PTT Plc. (Oil Business Unit and International Trading Business Unit)		46,579.53	1.62	28,451.58	1.07	15,647.43	0.76
	PTT Global Chemical Public Co., Ltd. (PTTGC <sup>5/</sup> )	48.89	-	-	105,986.61	3.99	120,598.30	5.86
	Thai Oil Public Co., Ltd. (TOP <sup>5/</sup> )	49.10	-	-	-	-	15,174.03	0.74
	IRPC Public Co., Ltd. (IRPC <sup>5/</sup> )	38.51	-	-	63,853.23	2.40	50,773.08	2.46
	PTT Polymer Marketing Co., Ltd. (PTTPM)	50.00	76,300.43	2.65	89,757.64	3.38	75,349.14	3.66
	PTT International Trading Pte. Ltd. (PTTT)	100.00	-	-	21,376.28	0.80	30,185.37	1.47
	HMC Polymers Co., Ltd. (HMC <sup>5/</sup> )	41.44	10,741.38	0.37	-	-	-	-
	PTT Asahi Chemical Co., Ltd. (PTTAC <sup>5/</sup> )	48.50	4,828.14	0.17	-	-	-	-
	<b>Total Revenue from Petrochemical Products</b>		<b>138,449.48</b>	<b>4.81</b>	<b>309,425.34</b>	<b>11.64</b>	<b>307,727.35</b>	<b>14.95</b>
4. Mining Products	PTT Energy Resource Co., Ltd. (PTTER <sup>3/</sup> )	100.00	24,977.75	0.87	20,436.37	0.77	13,632.79	0.66
	PTT International Trading Pte. Ltd. (PTTT)	100.00	-	-	605.47	0.02	-	-
	<b>Total Revenue from Mining Products</b>		<b>24,977.75</b>	<b>0.87</b>	<b>21,041.84</b>	<b>0.79</b>	<b>13,632.79</b>	<b>0.66</b>
5. Other Products	PTT Plc. (Infrastructure Business Group)		-	-	0.05	-	1.99	-
	PTT Green Energy Pte. Ltd. (PTTGE)	100.00	532.08	0.02	600.57	0.02	228.37	0.01
	Business Services Alliance Co., Ltd. (BSA)	25.00	8.60	-	9.84	-	4.44	0.00
	Thai Oil Public Co., Ltd. (TOP <sup>5/</sup> )	49.10	-	-	-	-	636.67	0.03
	IRPC Public Co., Ltd. (IRPC <sup>5/</sup> )	38.51	-	-	180.89	0.01	178.36	0.01
	<b>Total Revenue from Other Products</b>		<b>540.68</b>	<b>0.02</b>	<b>791.35</b>	<b>0.03</b>	<b>1,049.83</b>	<b>0.05</b>

Product/ Service	Operated by	% Shareholding of the company	2013		2014 (Revised)		2015 (Audited)	
			THB million	%	THB million	%	THB million	%
6. Utilities Products	Thai Oil Public Co., Ltd. (TOP <sup>5/</sup> )	49.10	-	-	1,043.19	0.04	980.26	0.05
	IRPC Public Co., Ltd. (IRPC <sup>5/</sup> )	38.51	-	-	3,479.35	0.13	3,183.68	0.15
	Global Power Synergy Co., Ltd. (GPSC <sup>5/</sup> )	22.58	-	-	14,343.01	0.54	13,698.17	0.67
	Energy Complex Co., Ltd. (EnCo)	50.00	48.50	-	36.33	-	11.95	-
	District Cooling System and Power Plant Co., Ltd. (DCAP <sup>5/</sup> )	35.00	1,002.38	0.03	-	-	-	-
	Thai Solar Renewable Co., Ltd. (TSR <sup>4/</sup> )	-	65.73	-	-	-	-	-
<b>Total Revenue from Utilities Products</b>			<b>1,116.61</b>	<b>0.03</b>	<b>18,901.88</b>	<b>0.71</b>	<b>17,874.06</b>	<b>0.87</b>
7. Revenue from Non-Core Business	PTT Plc. (Oil Business Unit and International Trading Business Unit)		4,109.00	0.14	4,669.14	0.17	5,499.12	0.27
	PTT Retail Business Co., Ltd. (PTTRB <sup>2/</sup> )	100.00	4,765.56	0.17	4,833.01	0.18	4,833.04	0.23
	PTT (Cambodia) Limited (PTTCL)	100.00	6.79	-	33.76	-	105.72	0.01
			<b>8,881.35</b>	<b>0.31</b>	<b>9,535.91</b>	<b>0.35</b>	<b>10,437.88</b>	<b>0.51</b>
<b>Total Revenue from Non-Core Business</b>			<b>8,881.35</b>	<b>0.31</b>	<b>9,535.91</b>	<b>0.35</b>	<b>10,437.88</b>	<b>0.51</b>
8. Revenue from Services	PTT Plc. (Infrastructure Business Group)		-	-	-	-	28.33	0.00
	PTT Exploration and Production Plc. (PTTEP)	65.29	4,635.63	0.16	4,474.74	0.17	4,044.20	0.20
	PTT Global Chemical Public Co., Ltd. (PTTGC <sup>5/</sup> )	48.89	-	-	1,166.92	0.04	2,804.83	0.14
	Thai Oil Public Co., Ltd. (TOP <sup>5/</sup> )	49.10	-	-	623.86	0.02	(133.00)	(0.01)
	IRPC Public Co., Ltd. (IRPC <sup>5/</sup> )	38.51	-	-	734.71	0.03	517.07	0.03
	PTT Retail Business Co., Ltd. (PTTRB <sup>2/</sup> )	100.00	395.40	0.01	420.23	0.02	564.52	0.03
	PTT ICT Solutions Co., Ltd. (PTTICT <sup>5/</sup> )	20.00	-	-	35.76	-	262.48	0.01
	PTT Tank Terminal Co., Ltd. (PTT TANK)	100.00	380.37	0.01	732.08	0.03	715.82	0.03
	PTT Polymer Logistics Co., Ltd. (PTTPL <sup>6/</sup> )	50.00	1,154.85	0.04	1,113.01	0.04	133.32	0.01
	PTT Energy Solutions Co., Ltd. (PTTES <sup>5/</sup> )	40.00	-	-	4.58	-	57.80	-
	Energy Complex Co., Ltd. (EnCo)	50.00	568.55	0.02	131.82	-	243.84	0.01
	Business Services Alliance Co., Ltd. (BSA)	25.00	817.70	0.03	543.75	0.02	6.94	0.00
	PTT (Cambodia) Limited (PTTCL)	100.00	0.26	-	-	-	-	-
	PTT Oil Myanmar Co., Ltd. (PTTOM)	100.00	-	-	1.71	-	2.46	-
	Trans Thai-Malaysia (Thailand) Co., Ltd. (TTM(T) <sup>5/</sup> )	50.00	1,501.98	0.05	-	-	-	-
	Trans Thai-Malaysia (Malaysia) Sdn.Bhd. (TTM(M) <sup>5/</sup> )	50.00	151.42	0.01	-	-	-	-
<b>Total Revenue from Services</b>			<b>9,606.16</b>	<b>0.33</b>	<b>9,983.17</b>	<b>0.37</b>	<b>9,248.61</b>	<b>0.45</b>
<b>Total Revenue from Products and Services</b>			<b>2,842,408.31</b>	<b>98.61</b>	<b>2,605,062.38</b>	<b>98.02</b>	<b>2,026,911.57</b>	<b>98.50</b>
9. Others								
9.1 Other Revenue			14,027.21	0.49	40,012.36	1.51	30,784.17	1.50
9.2 Gain/loss from Foreign Exchange			(210.37)	(0.01)	11,610.31	0.44	(5,992.73)	(0.29)
<b>Total Other Revenue</b>			<b>13,816.84</b>	<b>0.48</b>	<b>51,622.67</b>	<b>1.95</b>	<b>24,791.44</b>	<b>1.21</b>
10. Share of net income/loss from investment under equity method			26,356.15	0.91	860.02	0.03	6,031.70	0.29
<b>Grand Total</b>			<b>2,882,581.30</b>	<b>100.00</b>	<b>2,657,545.07</b>	<b>100.00</b>	<b>2,057,734.71</b>	<b>100.00</b>

**Remarks:**

- 1/ PTT had held all shares in CHPP until 24 December 2013, before transferring its entire shares in CHPP to GPSC.
- 2/ PTT restructured its shareholding in a subsidiary of SBECL by transferring its shares to PTTRB on 1 October 2014. PTTRB's sales revenue has incorporated this subsidiary's sales revenue since 1 January 2014.
- 3/ Formerly known as PTT International Co., Ltd. (PTTI).
- 4/ PTT held 40% of the shares in TSR from 3 May 2012 to 24 December 2014, before disposing of all its shares to GPSC.
- 5/ Since 1 January 2015, PTT Group has complied to Thai Financial Reporting Standard No. 10 "Consolidated Financial Statements" and No. 11 "Joint Arrangement", resulting in the status change of PTTGC, TOP, IRPC, GPSC, PTTES and PTTICT from joint ventures to subsidiaries and effecting the consolidated financial statements of HMC, PTTAC, DCAP, PTTMCC, TTM(T) and TTM(M) from proportionate consolidation to equity method.
- 6/ PTT sold 49% and 1% of the shares in PTTPL to PTTGC and Solution Creation respectively.



## Connected Transactions



### Connected Transactions

**PTT's connected transactions resulted from the following contractual agreements:**

#### 1. Transactions between PTT and state enterprises

##### Transaction

The Cabinet resolution dated 26 November 2002, required government agencies and state enterprises buying 10,000 liters of fuel from PTT Plc. only. This year PTT sold fuels to the following state enterprises: EGAT, Bangkok Mass Transit Authority (BMTA), and State Railway of Thailand (SRT). Should a state enterprise owe PTT outstanding payments, PTT is entitled to levy interests. Incidentally, on 13 August 2015, the National Energy Policy Council exempted EGAT from buying over 10,000 liters of fuel from PTT.

#### 2. Transactions between PTT and subsidiary PTTEP Plc.

##### Transaction

PTTEP and its subsidiaries produce and sell crude oil, natural gas, condensate and LPG. In 2015, PTT was the major buyer (86% by volume) of these. As for natural gas purchase agreement, PTT and PTTEP reached a long-term contract of 25 - 30 years, requiring minimum quantity of natural gas purchased on a yearly basis. PTT and PTTEP were engaged in crude oil and condensate agreements, which PTT sold them to PTTEP under world market prices which were identical to those sold to PTT by PTTEP to reflect product values.



### 3. Transactions between PTT and petrochemical and refining subsidiaries

#### Transaction

PTT signed crude oil and petroleum product supply agreements with its refining subsidiaries at supply rates corresponding to its own equity interests as summarized below. PTT also engaged in hedging through derivative contracts with these subsidiaries to ease price volatility impacts. However, price risk management is subject to the policy of each company.

#### Agreement with Thai Oil Plc. (TOP)

PTT secures crude oil and buys refined products equivalent to 49.99% of TOP's refining capacity at market prices under a 10-year minimum contract, starting from 2014. After the tenth year, this agreement may be revoked by means of written notification sent at least 12 months in advance under the Product Offtake and Crude Supply Agreement (POCSA) terms and conditions.

PTT secures natural gas for TOP's use in its refinery as required by the agreement between them at regular market prices under a 10-year contract (1 January 2014 - 31 December 2023).

PTT also engaged in hedging through derivative contracts made with TOP to ease the impacts of crude and product price volatility. However, price risk management is subject to TOP's policy.

#### Agreement with Star Petroleum Refining Plc. (SPRC)

SPRC's shareholders are required to secure crude oil supply at supply rates corresponding to its own equity interests. PTT secures an equivalent of 36% of SPRC's refining capacity at market prices, and takes delivery of refined products from SPRC at no less than 36% of 70% of its 126,000-bbl per day capacity at domestic market right. For any surplus volume, PTT and Chevron (Thai) Co., Ltd. – as shareholders – have the first right to buy them at domestic market prices before any sale to a third party.

PTT sold SPRC shares upon its IPO (Initial Public Offering) on The Stock Exchange of Thailand (SET) on 3 December 2015. The divestment resulted in PTT's shareholding proportion in SPRC decreased from 36% to 5.4% of the total shares and PTT's crude oil supply entitlement to about 20% from 2016 onward.

PTT secures natural gas supply for the refinery's consumption in regards to volumes required by the agreement between them at regular market prices. Both contracts have paved a path for ten years (1 January 2009 - 31 December 2018 and 17 March 2009 - 16 March 2019).

PTT entered into a short-term deposit agreement with SPRC for legal oil reserves.

#### Agreement with Bangchak Petroleum Plc. (BCP)

PTT secures crude oil supply for BCP under a feedstock supply agreement and a product offtake agreement to take at least 30% of the latter's capacity output (excluding jet fuels and fuel oil) or as agreed otherwise at market prices. Both agreements are for 12 years from the commercial operation date of the Product Quality Improvement project in 2010.



PTT secures natural gas for BCP's use in its refining and cogeneration under a 10-year agreement (3 August 2009 - 2 August 2019) and a 15-year agreement (3 December 2009 - 2 December 2024). The price is as stated in the agreements under regular business conditions.

PTT entered into a 15-year Sriracha Petroleum Terminal service agreement with BCP, effective on 1 January 2009 - 31 December 2023. Service fees are as stated in the agreement.

PTT sold all BCP shares held totaling 374,748,571 shares to Vayupak Fund 1 and the Social Security Office on 30 April 2015. As a result, transactions between PTT and BCP are no longer considered connected transactions.

#### Agreement with IRPC Plc. (IRPC)

PTT secures crude oil supply at market prices for IRPC under a one-year feedstock supply agreement (term and spot). The contract is to be made year by year.

PTT has a one-year contract for petroleum products at Rayong and Chumphon Depots with IRPC under market prices, effective on 1 January 2016, with possible annual extensions, at market prices.

PTT signed a 10-year contract with IRPC for supplying natural gas, which is used to generate electricity and

cogeneration power, effective on 14 January 2011 - 13 January 2021, as well as to produce refined products under a 4-year gas sales agreement (10 November 2015 - 31 December 2019), at market prices.

PTT also engaged in hedging through derivative contracts made with IRPC to ease the impacts of crude and product price volatility. However, price risk management is subject to IRPC's policy.

#### Transactions and agreement with PTT Global Chemical Plc. (PTTGC)

PTTGC was founded on 19 October 2011, through the amalgamation of PTT Chemical Plc. (PTTCH) and PTT Aromatics and Refining Plc. (PTTAR) under the Public Company Act B.E. 2535 (1992). The new company inherited all the assets, properties, and liabilities of the two companies, and continues the operation of the two companies as summarized below:

#### Petrochemical Business

PTT secures feedstock supply for PTTGC's production processes, namely ethane, propane, LPG, and NGL. Below are the details of the agreements for key raw materials.

Feedstock	Contractual supply volume (tons/year)	Contract expiry year
Ethane	454,000 - 605,000	2020
Ethane	370,000 - 500,000	2020
Ethane	1,300,000 - 1,350,000	2025
Propane	126,000 - 168,000	2020
LPG	100,000 - 160,000	2020
LPG	> 240,000	2020
LPG	336,000	2020
LPG	> 156,000	2021
NGL	380,000 - 470,000	2021

Under these agreements, the price structure of ethane is based on film-grade HDPE in Southeast Asian markets, reflecting the entire petrochemical chain and the HDPE market. Similarly, the price structures of propane and liquid petroleum gas (LPG) vary according to film-grade PP in Southeast Asian markets. The prices of other raw materials are as agreed, based on market prices. As for the contribution to the Oil Fund by the petrochemical producers that rely on propane, butane, and LPG as feedstock, the public sector had collected THB 1 per kilogram, effective from 13 January 2012, for which PTTGC was responsible for the contribution. In 2015, the public sector revoked such contribution for the petrochemical sector, effective from 2 February 2015.

The above agreements are extendable for five years, subject to the conditions of individual agreements.

PTT supplies 4.6 - 6.1 million tons per year of condensate to PTTGC under a long-term agreement which the price is tied to a basket of crude oil prices.

PTT entered into a long-term agreement which it buys PTTGC's outputs of aromatics and naphtha for sale to export customers, effective from 2001 under an evergreen basis. It means that after 2013, the agreement is always regarded as effective unless otherwise notified in advance.

PTT entered into a short-term deposit agreement with PTTGC for legal oil reserve.

### **Refining and Petroleum Product Supply Business Group**

PTT secures crude oil supply under a feedstock supply agreement with effect from 1 February 2009. Under the agreement, PTT is to secure crude oil of PTTGC's desired grades and volumes at market prices whether imported or from indigenous sources.

PTT buys refined products from PTTGC at no less than 70% of the latter's refined products at domestic market prices under an 18-year agreement from 9 February 2006. Beyond which the contract is assumed to remain valid unless otherwise notified in advance.

PTT signed an 18-year New Complex Product Offtake Agreement with PTTGC, effective from 9 February 2006, beyond which the agreement is assumed to remain valid unless otherwise notified in advance. Under the contract, PTT is to buy all products from PTTGC derived from the Upgrading Complex. At least half of these products are to be based on domestic market prices.

PTT signed a gas sales agreement with PTTGC for gas consumption in product refining and power generation, which will be expired in 2018.

PTT also engaged in hedging through derivative contracts made with PTTGC to ease the impacts of crude and product price volatility. However, price risk management is subject to PTTGC's policy.

### **Transactions and agreement with HMC Polymers Co., Ltd. (HMC)**

PTT has a feedstock supply agreement with HMC. This long-term propane feedstock supply agreement spans 15 years from the plant's start-up in 2010, with five-year extension at a time, which the price of propane varies according to Southeast Asia's film-grade PP.

In 2009, the propane properties were amended and the delivery point from ex-GSP moved to ex-HMC. The propane price structure was therefore amended to reflect the delivery cost and pipeline transport charges included, resulting in a higher product value.





In 2013, PTT clearly defined the effective date (19 January 2010) and expiry date (18 January 2025) of the agreement, with five years extendable each time; the propane price was revised with effect from 1 December 2012, and still varied according to film-grade PP. The assumption, however, was amended to reflect current circumstances, resulting in a higher product value. On the Oil Fund, the petrochemical sector which uses propane, butane, and LPG as raw materials was required to make a contribution to the Fund at THB 1 per kilogram effective from 13 January 2012, for which HMC was responsible. In 2015, the public sector revoked such contribution for the petrochemical sector, effective from 2 February 2015.

PTT provided natural gas for HMC's use in its refinery as required by the agreement between them at regular market prices under a 10-year contract (30 October 2009 - 29 October 2019).

#### **Transactions and agreement with PTT Asahi Chemical Co., Ltd. (PTTAC)**

In 2008, PTT signed a 15-year propane supply agreement with PTTAC for its feedstock. The agreement would take effect from the plant's start-up with five-year extension each time. The price structure varies according to Southeast Asia's film-grade PP.

In 2013, an amendment was made to the price of propane to cover the contribution to the Oil Fund by petrochemical sector which uses propane, butane, and LPG as feedstock at THB 1 per kilogram, which PTTAC has remitted to this fund as required by the public sector since 13 January 2012.

In 2015, the public sector revoked such contribution for the petrochemical sector, effective from 2 February 2015.

PTT provided natural gas for PTTAC's use in its refinery as required by the agreement between them at regular market prices under a 15-year contract (21 March 2011 - 20 March 2026).

#### **4. Transactions between PTT and Infrastructure Business Group Affiliates**

##### **Transactions and agreements with Global Power Energy Public Company Limited (GPSC)**

PTT enters into gas sales agreements (GSAs) for natural gas use as a key fuel for power generation and sale, which is a normal business transaction. Note that PTT is the sole seller of gas to industrial operators in Thailand, with prices and conditions under GSAs between PTT and GPSC. Details are as follows:

1) Sriracha Power Plant: A 25-year GSA was signed with PTT, ending in 2025, at IPP gas prices. In EGAT billing, GPSC can transfer the fuel price included in the energy payment. If PTT cannot deliver the contractual volume of gas that EGAT orders GPSC to operate the plant with a backup fuel, EGAT is responsible for the incremental fuel charges and is required to pay GPSC accordingly. The Sriracha Power Plant has concluded a diesel purchase agreement with TOP for the backup fuel if it cannot secure natural gas. The 25-year agreement will be terminated in 2025.

2) Central Utility Plant 1 (CUP-1): Natural gas is used as the fuel for this power plant under a 15-year GSA with PTT, ending in 2021.

3) Central Utility Plant 2 (CUP-2): Natural gas is used as the fuel for this power plant under a 15-year GSA with PTT, ending in 2022.

4) Central Utility Plant 3 (CUP-3): Natural gas is used as the fuel for steam generation at this plant under a 15-year GSA with PTT, ending in 2023.

##### **Policy for Connected Transactions**

1. The company's directors and executives must prepare a report on vested interests for themselves or related parties for the company to use as data for further actions according to the terms of connected transactions.

2. Avoid engaging in connected transaction that could lead to conflicts of interest.

3. If connected transactions is inevitable, the company will follow procedures and take actions in line with relevant laws and SEC's and SET's criteria.

4. For connected transactions, set arm's length basis regarding prices and terms that is fair, sensible and at best interests of the company and its shareholders. If no prices are available, the company will compare the prices of goods or services with external prices under the same or similar conditions.

5. Those with vested interests in connected transactions cannot approve or vote on such items.

6. In considering connected transactions, the company may appoint an independent assessor to assess and compare prices for major connected transactions to ensure that they are sensible and in the best interests for the company and its shareholders.

#### **Trends for Connected Transactions with Parties of Potential Conflicts of Interest**

For future connected transactions, the company will follow laws concerning securities and exchanges, including the rules, announcements, directives, or regulations of the Capital Market Supervisory Board, SEC, and SET. Such transactions must not represent benefit transfers between the company and its shareholders, rather transactions in the best interests for the company and its shareholders.

If these transactions take place regularly and are expected to continue in the future, the company will follow the criteria and practical guidelines of regular business conduct by basing prices and conditions on suitability, fairness, sensibility, and accountability. Engagement in such transactions will follow the principles of regular trade terms as approved by the Board. The management will prepare a summary of such engagement for reporting to the Audit Committee yearly.

Disclosure of connected transactions is to follow the law and rules of SEC and SET and conform to the accounting standards of companies or related parties under the practice of the Federation of Accounting Professions.

### **Sensibility of Connected Transactions**

The purposes of purchases of goods, raw materials, or services, or all of these, from related companies are meant to create maximum mutual business benefits within PTT Group and to support national energy security. Such transactions are perceived as normal businesses. The volumes of goods or raw materials bought or sold by the company or services provided or received by related parties match the needs and business of the company. To this end, such prices are as agreed in contracts, which leads to commercial benefits for both the company and related parties without intended transfers of benefits or irregular items.

### **Policy on future connected transactions**

PTT's future connected transactions will be conducted as part of its normal courses of business without special favors or any transfer of benefits among PTT, its subsidiaries, associated companies, related companies, or shareholders. Pricing will continue to be at arm's length, and the prices of products supplied by PTT's subsidiaries will be market-based. Disclosure of connected transactions will conform to the notification of the Securities and Exchange Commission (SEC) and SET, and to the accounting standard for related parties/businesses disclosures, announced by the Federation of Accounting Professions.



## Review of Business Assets



As of 31 December 2015, the core assets employed by PTT and its subsidiaries in their businesses commanded a net value after accumulated depreciation and allowance for impairment of THB 1,118,677 million, with THB 163,154 million in net intangible assets and THB 19,935 million in net mining properties. For details, please see the Notes to the Financial Statements for PTT and its subsidiaries ended 31 December 2015: item 16 (property, plant and equipment), item 17 (intangible assets), and items 18 (mining properties).





## Risk Factors



Thanks to its continued risk management efforts, PTT managed risk factors reasonably well in the past year. Emerging risk factors have been identified and managed under the current year's risk management plan. PTT continues to refine this Risk Factors section to better reflect risks apparent to investors. Below are the key risk factors.

### 1. Strategic Risks

#### 1.1. Risks from business strategy implementation

PTT Group's business growth results from investment expansion under its strategic plans. Most of the Group's businesses are capital-intensive, long-term advance investment,

and require long lead (construction) time. As a result, PTT traditionally faces uncertainty due to various business circumstances like economic uncertainty, unrest around the world, skewed energy demand and supply, petroleum and petrochemical price volatility, and the varied needs of its stakeholders – all these could prevent PTT from achieving its strategic goals. These could in fact upset PTT's overall performance and returns on investment.

To cope with this scenario, PTT has annually initiated a Top Executive Thinking Session (TTS) and a Strategic Thinking Session (STS) among senior PTT executives to analyze trends in business, social, and environmental circumstances. In place are review and adjustment of business directions and strategies under prevailing business circumstances. These meetings also integrate strategic planning and risk management processes in various steps. To this end, business plans are formulated in tandem with risk management plans through assessment of assorted impacts to accommodate which risk management plans are drawn up.





## 1.2. Risks concerning investment efficiency

PTT expands its businesses continuously either directly or indirectly through its Group companies. It therefore faces risks affecting investment efficiency, which could include unattractive returns on investment, project delays, and budget overruns.

To ease risks affecting investment efficiency, PTT therefore engages in risk management by developing rules and requirements on investment criteria by a PTT Group company and applying PTT's affiliate supervisory approach to screen decisions, monitor, and supervise PTT Group's investment with a process known as Strategic Investment Management (SIM). The Investment Administration Committee, made up of executives with expertise in various disciplines, screens investment, monitors, and reports PTT's investment to support decision-making by the PTT Management Committee and the Board to ensure optimal and efficient investment. SIM is made up of investment planning, investment analysis, actual investment, and commercial operation. Once investment has secured approval, PTT regularly tracks the outcomes of the investment and stays vigilant for changes in factors that would deviate returns on investment from goals. In this way, PTT can swiftly and efficiently overcome problems.

## 1.3. Risks concerning personnel development to accommodate business growth

PTT's booming growth resulted from investment growth worldwide together with the pursuit of business opportunities by investing in new businesses. Without a doubt, personnel readiness to accommodate business growth is a key to success. If PTT could not groom enough people with skills and experience, its long-term businesses and goal achievement would suffer.

To ease such personnel risks, PTT relies on two career management mechanisms. First, for the management group, the PTT Group format is applied under the care of an "Executive and Management Development Committee", which accommodates the needs for senior executives in both quantity and quality. Second, for the rank-and-file, it takes the form of line management with a similar approach, supervised by a "Career Advisory Panel". Here, a "Career Management Consultation Committee" ensures that for each career path, a manpower requirement plan is prepared, under which key positions are stated and individual development plans are prepared and implemented. PTT's Young People to Global (YP2G) Project grooms personnel for overseas or domestic posting, or both. A Functional Academy was also set up to develop technical personnel's technical and functional skills. In the meantime, PTT Leadership and Learning Institute (PLLI) was founded to groom personnel for their highest potential by focusing on leadership development and promoting learning. These moves ensure that PTT will consistently command an adequate supply of quality executives and employees.

## 1.4 Reputation risks

Varied expectations of stakeholders, events and news issues could harm PTT (evident in various current media) and undo its image, and finally, the public's confidence in PTT. This could result in future obstacles to PTT's operation and business growth.

To manage these risks, PTT reviews its current business and defines future business directions so as to strike a balance and establish common value-added among business, society, and the environment under the Creating Shared Value (CSV) concept while conducting systematic stakeholder management to meet the expectations of various stakeholders in a balanced fashion. Guidelines for corporate communication and

reputation management have been defined in line with corporate directions; issue management analysis and anticipation; database management and development of communication channels to clarify issues and gain easier access to data by focusing on proactive communication through mainstream media, online media, service stations, Café Amazon, and extended through assorted networks; and clarification by executives to the mass media together with their participation in various public forums to promote energy literacy along with proper understanding of PTT's products, services and businesses.

### 1.5 Risks from diminishing natural gas outputs and rising price trends

There are concerns over the diminishing remaining natural gas reserves in the Gulf of Thailand. Also, the concessions over the Erawan and Bongkot fields in the gulf are due to expire in 2022 - 2023. Besides, the long-term prices of natural gas tend to rise due to the higher proportions of LNG supply from overseas and the likely rising costs of indigenous gas field development. All these could result in less competitiveness of gas than other fuels, and could affect the volumes and prices of raw material of gas separation plants and feedstock of the petrochemical industry. As a result, natural gas outputs could plunge, in turn raising the costs of gas separation plants and the petrochemical industry – affecting long-term performances and growth of PTT Group.

The reason why PTT has secured LNG is to replace gas derived from the Gulf, the volume of which is bound to fall, to satisfy national demand. Besides, PTT has investigated the feasibility of feeding alternative raw materials or feedstock and their imports to gas separation plants and the petrochemical industry. It has also investigated the readiness of infrastructure by reviewing PTT Group's economic effectiveness and production chain to identify optimal solutions.

Furthermore, the public sector has a policy to promote competition in the natural gas business by making it possible for a third party to have access to the gas transmission network as well as the storage and liquefaction facilities for LNG (known as the Third Party Access, TPA). TPA would alter the overall structure of Thailand's gas business, which means that PTT could lose its gas market share, both power generators and industrial users, to new business operators. Therefore, to lessen the risk of losing the market share, PTT has coordinated with its customers to extend their gas sales agreements before the expiry.

## 2. Business Risks

### 2.1. Risks from low prices of petroleum and petrochemicals with high price volatility

Raw material prices and sales prices of natural gas, condensate, crude oil, petroleum products, and petrochemicals, as well as the spreads between product and raw material/feedstock prices – domestic and overseas – of PTT and PTT Group are subject to the volatility of the world market. It is currently projected that depressed prices will prevail for a long time and that the plummeting prices of crude oil will result in the costs of natural gas – which are tied to the oil price of the last 6 - 21 months – dropping more slowly than certain sales prices of products tied to the oil price, which is more current. This could affect PTT and PTT Group's future performance and returns on investment.

To enable price risk management to proceed efficiently, PTT has defined a risk mitigation plan to sustain the impacts of prolonged low energy prices by focusing on efficiency improvement, operating cost reduction, revision of investment plans, and major investment decision-making. Besides, PTT has formulated scenario planning for various oil prices to give PTT Group suitable business and investment plans to promptly handle future change



and uncertainty. PTT Group management has appointed an oil price risk management team, tasked with analyzing world oil price movement and optimizing risk management of feedstock and product prices jointly within the group. Today, to manage price risks, PTT is engaged in hedging through derivative contracts with business partners. Each transaction involving derivatives abides by PTT's policy on price risk management hand in hand with price and volume for suitable risk management in line with PTT Group's business plans to ease the impacts of price volatility on PTT Group's performance. Also, there is a structure and process for supervising risk management and checks and balances on a par with international standards.

## 2.2. Risks from unmatched gas supply volume and demand

PTT has kept up its sourcing negotiation efforts for additional gas supplies from domestic deposits and LNG supplies from sellers in various regions leading to gas sales agreements designed to meet the current gas demand and the demand called for by future economic circumstances.

Each gas sales agreement specifies a minimum annual contractual quantity to be bought by PTT; otherwise, PTT must pay in advance for the volume not taken in a given year under the "take-or-pay" condition. However, PTT may take this pre-paid gas in later years (known as make-up gas) if it has already paid the minimum contracted amount for the year in question. In addition, for spot-cargo LNG and short-term purchase agreements, if PTT fails to take delivery as stated in the agreement, the seller can sell it to others, which implies that PTT risks having to pay the discrepancy in price to the seller if the sales prices prove lower than that specified in the agreement with PTT.

The current global and domestic economic uncertainty, oil and LNG price volatility, and the changing business circumstances may accompany risks affecting PTT's gas supply, including the inability to deliver the volume stated in gas sales agreement. Future gas demand may also deviate from projections. Besides, risks arise from uncertain completion dates of gas transmission pipelines or those of new gas-fired power plants, declining domestic gas reserves, more uncertainty facing natural gas imports in the region, an LNG market that does not favor desired supply sourcing (in volume or quality), changes in business circumstances, and the volatility of the oil price (which in turn affects gas prices).

To cope with these risks, PTT monitors gas supply and demand movement in line with gas price changes in the world market and public policies, as well as closely coordinating with the sellers and the buyers to regularly revise and adjust natural gas and LNG supply plans for the short term and the long term to accommodate unplanned situations and impacts during emergencies and crises.

## 2.3. Risks from government actions affecting PTT's businesses

PTT has retained its state enterprise status, with the Ministry of Finance serving as its major shareholder and the Ministry of Energy as its supervisor. It is also engaged in the energy business under the supervision of the National Energy Policy Council (NEPC) under the National Energy Policy Council Act, B.E. 2535 (1992). Therefore, the public sector can still in effect supervise PTT to ensure alignment with national energy, economic, and social policies. In addition, NEPC, thanks to the above-mentioned act, can make policy and national energy administration plan recommendations to the Cabinet, apart from deciding criteria and conditions for energy pricing

in line with such policies and plans. Besides, the public sector is reviewing draft key legislation, including the draft Petroleum Act; State Enterprise Development, Supervision, and Management Act, and Public Sector Procurement and Supply Administration Act, which may directly impact PTT's businesses.

Furthermore, the public sector's formulation of policies and energy measures could affect PTT's performance, including the price control of LPG and NGV. PTT is therefore still liable for sharing the burden of LPG price subsidies for low-income people, who could exercise rights more often or PTT could face continued burden and risks on the continuity of the policies on realistic NGV price-setting.

Additionally, PTT monitors and analyzes impacts resulting from changes in policies and measure of the public sector, and closely coordinates with government agencies to provide data, appreciate, and formulate accommodating measures in order to mitigate repercussions.

### 3. Operation Risks

#### 3.1. Risks from disruptions of production and business operations

As Thailand's integrated petroleum and petrochemical business conglomerate, with several operated sites worldwide, PTT stands chances to face disruptions of production and business operations resulting from human errors, accidents, malfunctioning machinery, natural catastrophes, threats of political instability, together with terrorist activities and other unforeseen hazards. These could prove detrimental to PTT.

To lower the likelihood and impacts of such threats, PTT requires all executives and employees to recognize their participation in the conduct,

support, and compliance with the policy on crisis management and business continuity by adhering to PTT Group Business Continuity Management System Standard (BCMS) and PTT Group Security, Safety, Health and Environmental Management Standard (PTT Group SSHE MS) to leverage as common criteria for business units, support units, and affiliates to develop and link up with the system to protect value-adding activities throughout PTT's business chain. Moreover, a Zero Unplanned Shutdown Project has been launched by promoting PTT Group companies' improvement of efficiency in search of international standards and preventing business disruptions. In the same way as other companies in the petroleum and petrochemical industries, PTT has subscribed to insurance policies to safeguard its major operating assets against risks and business interruption.

#### 3.2. Risks from changes in environmental and safety regulations

PTT's business operations must conform to strict legislation and regulations on safety and environmental impacts, which are bound to get increasingly tough. In place are explicit provisions for public agencies to supervise PTT operations. Future supervisory mechanisms under the public sector may prove more complicated and stricter. These could shackle PTT's operations or sharply raise operating costs. Besides, risks could arise in the time required and conditions for the approval of environmental impact assessment (EIA) or environmental and health impact assessment (EHIA) reports, including the participation process and community acceptance, which could cause project delays. These could therefore affect PTT's future businesses and revenue generation.





To address these risks, PTT requires all sites to strictly monitor, measure, and assess the compatibility of compliance with applicable laws and regulations. If certain sites tend to deviate from such compliance, PTT will urgently map out corrective and preventive measures. In addition, PTT has developed a system of monitoring and managing laws concerning quality, safety, occupational health, and the environment to serve as a system for legal database and practices of a single database within PTT; thus, enabling all relevant agencies to be promptly aware of upcoming laws and practices so as to develop compliance plans and assess the degree of compliance comprehensively. Moreover, there are monitoring and analysis of the impacts of changes in environmental and safety laws and regulations on its operations. PTT closely coordinates with government agencies, applies available information to develop work plans and response measures, and ensures ongoing community relations activities in operating areas with a constant focus on community engagement.

### 3.3. Risks from delayed project construction

Relentlessly, PTT invests in business expansion, each project accompanying risks of delayed construction completion or construction cost overruns. PTT today has key projects, including a project under the plan for transmission and infrastructure of natural gas for security part one (phase 1 gas transmission system project, 2015 - 2019) and phase 2 (2015 - 2021). Development of projects could fall behind schedules due to various reasons, including contractors' financial standing, climate conditions, construction approval of applicable public agencies, objection by land owners in entering construction sites, communities' objection to construction work, a blockade of operation by local

influential people, procurement of equipment with long lead time and transport time, raw-material/feedstock costs, currency exchange rates, and climate variation. Thus, if projects are delayed, PTT's financial standing and performance outcomes could become vulnerable.

To enable project completion as planned and under the budget, with suitable quality and compliance with the law and regulations, PTT takes seriously the administration of critical-path matters to minimize risks of project development, including hiring of competent teams to control and supervise construction work, preparation of measures to mitigate environmental impacts, constant monitoring of new legislation and regulations, monitoring and analysis of impacts on project execution, development of people participation plans, and preparation of contingency plans and measures to ease potential implications of delayed project completion.

## 4. Financial Risks

### 4.1. Risks from the volatility of the Baht

Changes in the exchange rate between the Baht and the US dollar directly and indirectly affect the bulk of PTT's revenue and affect PTT's net accounting profits/losses, since PTT and its subsidiaries are exposed through outstanding foreign loans. Therefore, the fluctuation of the Baht and the government's economic, monetary, and treasury policies could affect PTT's overall financial and performance.

To ease these risks, PTT has balanced its foreign-currency loans with its foreign-currency revenue (that is, taking a natural hedge), while managing its foreign-currency deposits, leveraging financial derivatives to convert such loans (the participating swap) and purchasing forward foreign

currencies to match the quantity of foreign currencies required for repayment and for commercial transactions. PTT has also developed a treasury and credit policy as an efficient, uniform guideline for PTT and PTT Group, which includes terms of reference for instituting assorted risk management practices.

#### 4.2. Risks from financial support to affiliated companies

To promote constant growth, PTT invests in new projects, expands its businesses, or improves its operation. Sometimes such investment may be undertaken through new companies or link-ups with strategic partners or through PTT Group companies, or all of these. Some of these companies may still be starting projects, or facing business down-cycles, or may not yet be financially strong; therefore, shareholders or PTT will still need to extend cost overrun support to allow them to operate under strategies and business policies of PTT Group as a whole. Some of these companies may need cash deficiency support during commercial operation, which may result from force majeure, thus calling for financial help from the shareholders. To this end, PTT will consider extending loans or commercial credit, or both, to individual affiliates in the belief that such a policy and action would foster sustainable strength for PTT Group.

In extending such financial support to these affiliates, through whether subordinated loans, commercial credit, or loans from the shareholders, PTT cannot guarantee that these companies will repay such loans or credit, that they will not face financial woes again, or that they will not need financial support from PTT again – all these could affect PTT's bottom line. Besides, if PTT or any

member of PTT Group becomes a default party under any agreement on shareholder support, some creditors may accelerate debt repayment. Therefore, PTT cannot guarantee that it will not raise its own shareholding, raise its shareholding to more than half, or take over such a company if such action is considered more beneficial. If any of these should happen, the Thai accounting standards require PTT to consolidate the financial statements of the company in question with those of PTT, effective from the date of such control. In short, such consolidation puts PTT's overall financial standing at stake.

#### 4.3. Acquisition of funds for plan execution

The businesses of PTT – in particular, petroleum exploration and production, natural gas transmission systems, gas separation plants, and the petrochemical businesses – require massive, pre-paid capital investment. Although PTT closely monitors and manages business risks, the actual investment capital required may deviate from project plans due to several factors beyond its control, thus potentially affecting its project successes and costs.

Thanks to PTT's business conduct that focuses on fostering long-term growth and corporate governance, PTT plans to invest in prudent business expansion, with due regard for sources of capital, particularly capital structuring that will enable it to maintain essential financial ratios at suitable levels on a par with peer companies. Continuous monitoring of factors for the sourcing of investment capital has assured PTT that it can secure sufficient and suitable funds for future business expansion.



## Capital Structure

### PTT's Securities

#### Common shares

As of 31 December 2015, PTT's registered capital amounted to THB 28,572,457,250, consisting of 2,857,245,725 common shares at THB 10 per share. These shares represented THB 28,562,996,250 in paid-up capital, or 2,856,299,625 common shares.

#### Bonds and debentures

As of 31 December 2015, PTT's domestic loans amounted to THB 3,000 million in the form of PTT bonds, guaranteed by the Ministry of Finance, and PTT debentures not guaranteed by the ministry, worth THB 167,503 million, for a total of THB 170,503 million. Foreign loans were in the form of PTT debentures of US dollar and Japanese yen denominations, not guaranteed by the ministry, equivalent to THB 62,585 million. A summary of these appears below:

Bond and Denenture	Amount (THB million)	Redemption Date	Guarantee
PTT bonds guaranteed by the Ministry of Finance			
• Domestic bonds	3,000	2016 - 2020	None
PTT debentures not guaranteed by the Ministry of Finance			
• Domestic debentures <sup>1/ 4/</sup>	167,503	2016 - 2110	None
• Foreign debentures <sup>2/ 3/ 4/</sup>	62,585	2016 - 2042	None
<b>Total</b>	<b>230,088</b>		
<b>Grand total</b>	<b>233,088</b>		

**Remarks:**

1/ Fitch Ratings' national rating of long-term PTT debentures at 'AAA (tha)' with a stable outlook

2/ Moody's international rating of foreign PTT debentures at 'Baa1' with a stable outlook

3/ S&P's international rating of foreign PTT debentures at 'BBB+' with a stable outlook

4/ See details of domestic and foreign PTT debentures

## Domestic, unsecured, unsubordinated debentures

Symbol	Amount (THB million)	Annual Coupon Rate (%) (Payment Frequency)	Maturity Period (Years)/ Redemption Schedule
PTTC165A	3,000	(Year 1 - 6) 5, (Year 7 - 12) 5.95 (every six months)	Twelve/ 2016
PTTC165B	2,970	6.17 (every six months)	Ten/ 2016
PTTC167A	17,100	(Year 1 - 5) 4.25, (Year 6 - 7) 5.25 (every six months)	Seven/ 2016
PTTC160A	8,000	5.79 (every six months)	Ten/ 2016
PTTC172A	2,636 <sup>1/</sup>	4.10 (every six months)	Seven/ 2017
PTTC17DA	1,500	5.87 (every six months)	Ten/ 2017
PTTC17DB	4,000 <sup>2/</sup>	(Year 1 - 4) 3.20, (Year 5 - 6) 4.20, (Year 7) 5.00 (every six months)	7 years, 15 days/ 2017
PTTC18DA	500	5.91 (every six months)	Eleven/ 2018
PTTC18NA	18,049 <sup>3/</sup>	(Year 1 - 4) 4, (Year 5 - 6) 4.40, (Year 7) 5.50 (every six months)	6 years, 9 months and 19 days/ 2018
PTTC195A	1,000	5.90 (every six months)	Fifteen/ 2019
PTTC195B	15,000	(Year 1 - 4) 4.10, (Year 5 - 6) 5.10 (every six months)	6 years, 11 months and 24 days/ 2019
PTTC195C	10,000	(Year 1 - 4) 4.10, (Year 5 - 6) 5.10 (every six months)	6 years, 9 months and 15 days/ 2019
PTTC20NA	22,000	4.75 (every six months)	6 years, 11 months and 19 days/ 2020
PTTC208A	4,118	5.95 (every six months)	Fifteen/ 2020
PTTC215A	1,030	6.53 (every six months)	Fifteen/ 2021
PTTC21NA	10,000	4.00 (every six months)	6 years, 11 months/ 2021
PTTC21NB	4,200	3.50 (every six months)	6 years, 27 days/ 2021
PTTC222A	4,000 <sup>4/</sup>	4.50 (every six months)	Twelve/ 2022
PTTC239A	10,000	6.58 (once at the end of redemption period)	Ten/ 2023





Symbol	Amount (THB million)	Annual Coupon Rate (%) (Payment Frequency)	Maturity Period (Years)/ Redemption Schedule
PTTC243A	15,000	(Year 1 - 5) 5, (Year 6 - 8) 6.20, (Year 9 - 15) 6.80 (every six months)	Fifteen/ 2024 (redeemable after Year 8)
PTTC247A	9,400	(Year 1 - 5) 4.25, (Year 6 - 10) 5.50, (Year 11 - 15) 5.75 (every six months)	Fifteen/ 2024 (redeemable after Year 10)
PTTC10DA	4,000	5.9 (every six months)	100 years/ 2110 (redeemable after Year 50 and Year 75, and as defined in the terms on rights and duties of the issuers and the holders)
<b>Total</b>	<b>167,503</b>		

### Foreign, unsecured, unsubordinated debentures

Symbol	Amount (THB million)	Annual Coupon Rate (%) (Payment Frequency)	Maturity Period (Years)/ Redemption Schedule
USD Bond, 2005	12,430	5.875 (every six months)	Thirty/ 2035
Samurai Bond, 2007	10,532 <sup>5/</sup>	2.71 on Yen-denominated principal (every six months)	Ten/ 2017
USD Bond, 2012	18,085 <sup>6/</sup>	3.375 (every six months)	Ten/ 2022
USD Bond, 2012	21,538 <sup>7/</sup>	4.50 (every six months)	Thirty/ 2042
<b>Total</b>	<b>62,585</b>		

**Remarks:**

- 1/ PTT entered into a cross-currency swap from THB-denominated debentures worth THB 2,636 million to dollar-denominated ones worth USD 79.45 million at a floating rate of LIBOR + a fixed interest rate per year on dollar-denominated principal.
- 2/ PTT entered into a cross-currency swap from THB-denominated debentures worth THB 3,000 million to dollar-denominated ones worth USD 99 million at a fixed interest rate of 1.375% per year for year 3 - 4, 2.64% per year for year 5 - 6, and 3.44% per year for the remaining years on dollar-denominated principal.
- 3/ PTT entered into a cross-currency swap from THB-denominated debentures worth THB 9,000 million to dollar-denominated ones worth USD 285 million at a floating rate of LIBOR + a fixed interest rate per year on dollar-denominated principal.
- 4/ PTT entered into a cross-currency swap from THB-denominated debentures worth THB 4,000 million to dollar-denominated ones worth USD 120.55 million at a floating rate of LIBOR + a fixed interest rate per year on dollar-denominated principal.
- 5/ PTT entered into a cross-currency swap from Yen-denominated debentures worth Yen 36,000 million to dollar-denominated ones worth USD 290.51 million and used financial derivatives to conduct a switchable swap and a cross-currency swap linked to LIBOR as follows: USD 96.84 million at a fixed rate of 4.975% per year, convertible by a derivative into a floating rate at LIBOR + 0.65% per year; another USD 96.84 million at a floating rate of LIBOR + 0.20% per year if LIBOR exceeds 4.25% per year, or 5.5% per year if LIBOR is up to 4.25% per year; and another USD 96.84 million at a fixed rate of 5.37% per year, convertible by a derivative to LIBOR + 0.20% per year.
- 6/ PTT entered into an interest rate swap from dollar-denominated debentures worth USD 500 million at a fixed rate to a floating rate of LIBOR + a fixed rate per year on dollar-denominated principal. The interest rate swap will end on 25 October 2018.
- 7/ PTT entered into an interest rate swap from dollar-denominated debentures worth USD 500 million at a fixed rate to a floating rate of LIBOR + a fixed rate per year on dollar-denominated principal. The interest rate swap will end on 25 October 2019.

**PTT Warrants**

PTT has issued and offered 60,000,000 warrants to the President, the management, PTT employees, and employees of PTT Group companies seconded to PTT, consisting of two batches: PTT-W1 (40,000,000 units), offered in 2005 with the last exercise date on 31 August 2010, and PTT-W2 (20,000,000 units), offered in 2006 with the last exercise date on 28 September 2011. The warrants were all exercised, and no new ones have been issued.

**Bill of Exchange**

As of 31 December 2015, none was outstanding.

**Shareholders**

Below was PTT's shareholding structure as of 15 September 2015, the book closing date for the 2015 interim dividend payment.



Item	Shares (in million)	Value (THB million)	%
<b>Registered Capital</b>	<b>2,857.2</b>	<b>28,572</b>	<b>-</b>
<b>Paid-up Capital</b> (as of 15 September 2015)	<b>2,856.3</b>	<b>28,563</b>	<b>99.967</b>
• Ministry of Finance	1,459.9	14,599	51.111
• Vayupak Fund 1 by MFC Asset Management Plc.	212.7	2,127	7.448
• Vayupak Fund 1 by Krung Thai Asset Management Plc.	212.7	2,127	7.448
• Institutional and Public Investors	970.9	9,709	33.993
<b>Unpaid Capital</b>	<b>0.9</b>	<b>9</b>	<b>0.033</b>

PTT's top 14 shareholders (as of 15 September 2015):

No.	Name	Share	%
1.	Ministry of Finance	1,459,885,575	51.111
2.	Vayupak Fund 1 by MFC Asset Management Plc.	212,730,000	7.448
3.	Vayupak Fund 1 by Krung Thai Asset Management Plc.	212,730,000	7.448
4.	Thai NVDR Co., Ltd.	145,843,367	5.106
5.	Chase Nominees Limited	94,260,308	3.300
6.	State Street Bank Europe Limited	31,274,940	1.095
7.	Social Security Office	26,560,500	0.930
8.	GIC Private Limited	26,273,200	0.920
9.	The Bank of New York Mellon	23,929,500	0.838
10.	State Street Bank and Trust Company	20,335,198	0.712
11.	East Fourteen Limited - Dimensional EMER MKTS Value FD	19,096,000	0.669
12.	Peoples's Bank of China	17,564,500	0.615
13.	Government Pension Fund (EQ-TH)	15,301,750	0.536
14.	Hsbc (Singapore) Nominees Pte. Ltd.	14,470,337	0.507
	<b>Total</b>	<b>2,320,255,175</b>	<b>81.235</b>

**Remarks:**

- Numbers 5 and 14 were nominee accounts. PTT's investigation at Thailand Securities Depository Co., Ltd. (TSD), found that the ultimate shareholders' names could not be disclosed. However, the Ministry of Finance remained the sole majority shareholder on behalf of the state, which in part dictated PTT's management policy. The ministry nominated directors to the Board for approval by the shareholders. Other substantial shareholders, including the two above-mentioned ones, did not exercise any influence over PTT's management policy formulation, for example, nominating directors.
- Shareholders of Thai NVDR Co., Ltd., who held non-voting depositary receipts in item 4, were ineligible for voting at shareholders' meetings except when exercising their voting rights on delisting the shares from SET.

## Dividend Policy

### PTT's Dividend Policy

PTT pays out no less than 25% of its net income as dividends after deducting all provisional reserves required by law and by PTT. While the net income is based on the consolidated financial statements, dividend payment is subject to future investment plans, necessity, and suitability. Once the Board has decided on annual dividend payment, it seeks approval from the shareholders' meeting. An exception is for interim dividend payment, for which the Board can approve such payment and report to the next shareholders' meeting.

### Subsidiaries' Dividend Policy

Concerning subsidiaries' dividend policies, each subsidiary may decide dividend payment by taking into account its remaining cash flow in relation to the investment capital. If the cash flow is substantial enough after legal provisions, the subsidiary may proceed with the payment.

### PTTEP Plc.'s Dividend Policy

Barring other necessity, the Board's policy is to propose to the meeting of the shareholders dividend payment at no less than 30% of PTTEP's net income after deducting its annual income tax each year, with occasional interim dividend payment. PTTEP allows no subsidiary to pay dividends.





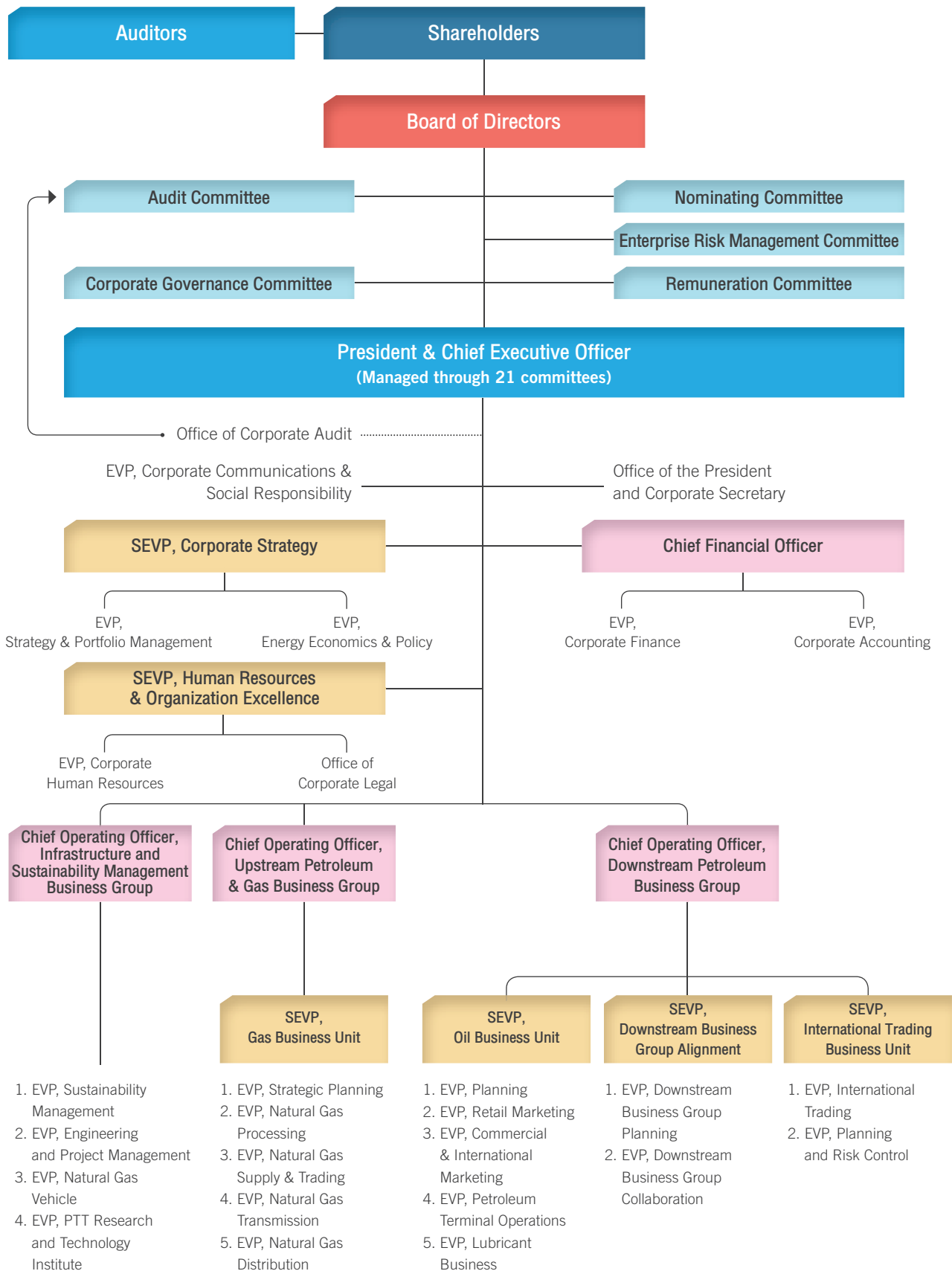
## Management Structure



### Responsibility of the Board of Directors

The organization structure of PTT, as of 1 February 2016, comprises the Board of Directors and five Committees appointed to screen matters of significance; Audit Committee, Nominating Committee, Remuneration Committee, Corporate Governance Committee, and Enterprise Risk Management Committee. PTT's President & CEO is the top executive that manages PTT's three business groups through the 21 management committees.





**Remark:** EVP = Executive Vice President

## Composition of the Board

Under PTT's Articles of Association, the Board consists of

- 5 - 15 persons
- A minimum of three independent directors (PTT's CG requires that independent directors account for not less than a half of the Board.)
- At least one director must be knowledgeable in accounting and finance.

According to the certification of the Ministry of Commerce dated 3 November 2015, the present Board of PTT Plc. consists of 15 directors:

- 14 non-management directors (11 of whom are independent directors, which exceeds half of the Board)
- One management director

The current Board of Directors consists of:

No.	Name	Position as of 1 February 2016	Appointed Date
1.	Mr. Piyasvasti Amranand	Independent Director/ Chairman of the Board (from 1 July 2014), Chairman of the Board (from 4 July 2014)	1 July 2014 (First term)
2.	Mr. Kittipong Kittayarak	Independent Director/ Chairman of the Audit Committee	1 July 2014 (First term)
3.	Mr. Watcharakiti Watcharothai	Independent Director/ Chairman of the Nominating Committee/ Member of the Remuneration Committee	10 April 2009 10 April 2012 (Second term) 9 April 2015 (Third term)
4.	Mr. Areepong Bhoocha-oom* (Resigned effective 8 February 2016)	Director/ Member of the Remuneration Committee	7 July 2014 (First term) 9 April 2015 (Second term)
5.	Gen. Chatchalerm Chalermsook	Independent Director/ Chairman of the Corporate Governance Committee	4 September 2014 (First term)
6.	Mr. Chanvit Amatamatuchart	Independent Director/ Chairman of the Enterprise Risk Management Committee/ Member of the Nominating Committee	4 September 2014 (First term) 9 April 2015 (Second term)
7.	Ms. Nuntawan Sakuntanaga	Independent Director/ Member of the Audit Committee	1 July 2015 (First term) 9 April 2015 (Second term)
8.	Mr. Vichai Assarasakorn	Independent Director/ Member of the Audit Committee	4 September 2014 (First term)
9.	AM Boonsuib Prasit	Independent Director/ Member of the Nominating Committee	4 September 2014 (First term)
10.	Mr. Somchai Sujjapongse	Director/ Member of the Remuneration Committee	1 November 2015 (First term)

No.	Name	Position as of 1 February 2016	Appointed Date
11.	Mr. Somsak Chotrattanasiri	Independent Director/ Member of the Corporate Governance Committee	22 April 2015 (First term)
12.	Mr. Don Wasantapruet	Independent Director/ Member of the Corporate Governance Committee	26 July 2014 (First term)
13.	Mr. Prasert Bunsumpun	Independent Director/ Member of the Enterprise Risk Management Committee	11 April 2013 (First term)
14.	Mr. Chavalit Pichalai	Director/ Member of the Enterprise Risk Management Committee	18 August 2015 (First term)
15.	Mr. Tevin Vongvanich	Director and Secretary of the Board (President & CEO)	10 September 2015 (First term)

**Remarks:**

For 2015, the Board appointed new directors to replace those that either completed their terms or resigned as follows:

No. 10, Mr. Somchai Sujjapongse replaced Mr. Rungson Sriworasat, who resigned on 1 October 2015.

No. 11, Mr. Somsak Chotrattanasiri replaced Mr. Montri Sotangkul, who left the post on 26 December 2014.

No. 14 Mr. Chavalit Pichalai replaced Mr. Twarath Sutabutr, who resigned on 1 August 2015.

No. 15 Mr. Tevin Vongvanich replaced Mr. Pailin Chuchottaworn, whose term as President & CEO was completed on 10 September 2015.

\* Mr. Areepong Bhoocha-oom tendered his resignation on 8 February 2016.

## Authority and Responsibilities of the Board

### Authority of the Board:

- The Board is authorized to supervise and manage PTT under applicable laws, objectives, articles of association, and resolutions of shareholders' meetings.
- The Board is to elect one director to serve as Chairman, and, if appropriate, one Vice Chairman or more.
- The Board is to elect one director to serve as President & CEO and Secretary of the Board as appropriate.

### Duties and Responsibilities of the Board

#### The Board is to:

- Carry out its duties under PTT's Articles of Association and ensure that management of PTT complies with applicable laws, objectives, Articles of Association and resolutions of shareholders' meetings.
- Define PTT's vision, directions, strategies, policies and major plans, including considering the potential risks to ensure that management can effectively put plans into practice.

- Endorse PTT's major strategies and policies, including objectives, financial targets and operating plans, budget, as well as monitor and ensure plan implementation and budgeting.
- Institute systems for corporate accounting, financial reporting and auditing, and institute efficient and effective internal control and internal audit systems.
- Supervise and remedy problems arising from conflicts of interest and connected transactions.
- Define comprehensive risk management guidelines and ensure an efficient risk management system or process is in place.
- Ensure a suitable compensation system or mechanism for senior management to induce short-term and long-term motivation.
- Assess the performance of the President & CEO and decide suitable compensation.
- Ensure suitable communicating channels with each group of shareholders and stakeholders.
- Ensure accurate, clear, transparent, reliable, and high-quality disclosure of information.
- Show leadership and lead by example.





### The Board's additional authority includes:

- Approve long-term investment, such as common stocks, preferred stocks, bonds, debentures and warrants or other financial instruments.
- Approve the financial support in the form of funds, common stocks, preferred stocks, loan or others as appropriate for the companies whose shares (directly or indirectly) held by PTT.
- Approve the case of contingent liability or excess or extra payment from the annual or additional budget.
- Approve the annual budget.
- Approve the procurement and other procurement-related matters if the limits exceed the CEO's approval authority.
- Consent to the sale of estate, whether it is the land or land with construction.
- Consent to employ, appoint, transfer, or promote the employees serving as senior executive vice presidents or equivalent upward.
- Appoint the Corporate Secretary.

### Directors Authorized to Sign and Bind for PTT

According to PTT's Articles of Association, as of 5 November 2015, the directors whose signatures are recognized as binding on PTT consist of either (1) Mr. Tevin Vongvanich, President & CEO, to sign and affix PTT's seal, or (2) Mr. Watcharakiti Watcharothai and Mr. Chanvit Amatamatucharti or Mr. Chavalit Pichalai to jointly sign and affix PTT's seal.

### Appointment and Dismissal of Directors

1. The Board consists of 5 - 15 persons, elected at the shareholders' meetings. It consists of a minimum of three independent directors, and at least half of the directors are to reside in the Kingdom, and at least one must be knowledgeable in accounting and finance. All directors must have qualifications as specified by law and by PTT's Articles of Association. Since 2004, the Board has decided that independent directors are to make up at least half of the Board, a requirement which remains in effect today. As of 5 February 2016, it had 11 independent directors, all of whom resided in Thailand. Five directors are experts in accounting and finance : Mr. Somchai Sujjapongse, Ms. Nuntawan Sakuntanaga, Mr. Areepong Bhoocha-oom, Mr. Prasert Bunsumpun and Mr. Tevin Vongvanich.

2. The shareholders' meetings are to elect qualified directors who have previously been nominated by the Nominating Committee under the following criteria :

- (1) Each shareholder has one vote per share held.
- (2) Each shareholder exercises all votes applicable under (1) in electing one or more persons as directors, provided that no vote is divisible.
- (3) Candidates with the highest number of votes are to be appointed directors up to the number required at a given meeting.
- (4) If candidates get equal votes, which makes the number of successful candidates exceed that of directors to be elected, the Chairman of that meeting will cast the decisive vote.

3. At every AGM, one-third of the directors, or if the number is not a multiple of three, then the number nearest to one-third, will retire from office. The directors retiring in the first and second year after PTT was listed are to be drawn by lots. For subsequent years, those with the longest terms are to retire.

4. If a post is vacated because of reasons other than term completion, the Board may elect a qualified person without the prohibitions stipulated under PTT's Articles of Association to fill the post at the next Board meeting, except when the remaining term of the vacated director is less than two months. The replacement director must get at least three-quarters of the votes by the remaining directors and shall stay in office only for the remaining term of the former.

5. Any director wishing to resign from office must tender his/her resignation to PTT. Such resignation will take effect from the date the resignation letter reaches PTT.

6. In voting to remove any director from office before the expiry of his term, a three-quarter vote of eligible shareholders present at the meeting is required, and the number of shares represented by the three-quarter votes account for at least half of the total number of shares represented by the eligible shareholders present at the meeting.

## Qualifications of Directors

Directors must be duly qualified and be without the prohibitions stated in the Public Limited Company Act and the Standard Qualifications for Directors and State Enterprise Officers Act (No. 6) of 2007, as well as relevant Cabinet resolutions, including :

- Up to 65 years of age.
- A maximum of three state-enterprise directorships, including appointments due to their positions and those due to acting assignments.
- Independent directors must be qualified under the SET's announcement governing the qualifications and scope of operation of audit committees.
- Have never been sentenced to imprisonment, except for violations of the law by negligence or petty crimes.
- Do not hold a political position, except for a director position required by law.
- Do not belong to a political party or work for one.
- Have never been expelled, dismissed, or made to leave a position because of malfeasance.

- Do not hold shares of the state enterprise in question or a shareholder of a juristic person where the state enterprise in question holds shares. Exceptions apply to directors of state enterprises who are not government officials, government employees, or wage earners with positions or position salaries of centralized governments, provincial governments, local governments or other government units. Also, such state enterprise directors can hold no more than 0.5% of the paid-up capital of the state enterprise in which they serve as directors or juristic persons where the state enterprise in question holds shares.

- Are not position holders in the juristic person where the state enterprise in question holds shares. Exceptions apply when the board of directors of that state enterprise appoints them as directors or other positions in the juristic person.

- Are not directors, management team members or authorized managers or hold vested interests in a juristic person that serves as a concessionaire, a joint venture, or ones with vested interests in the affairs of the state enterprise in question. Exceptions apply for the board chairman, director, or manager assigned by that state enterprise.

Under the Corporate Governance and Code of Conduct Handbook, third version, on term holding, a director can hold office up to the following:

1. A maximum of three directorships in the state enterprises/ juristic persons of which the state enterprise is a shareholder.
2. A maximum of five directorships in SET listed companies, provided that the directorships under (2) do not contradict (1) above. Such directorships in (1) and (2) must not exceed five.
3. Independent directors and committee members are not to hold office for more than nine consecutive years.

In compliance with the law, PTT ensures that at least one-third of the Board comes from the Director's Pool of State Enterprise Policy Office (SEPO), the Ministry of Finance. On 1 February 2016, 9 out of 15 PTT directors' names were included in the Director's Pool.



## Board Meetings

Board meetings are planned for the entire year. For 2015, the meetings were held on the fourth Friday of each month. Additional meetings may be called to discuss special items as necessary. The Office of the President and Corporate Secretary will issue a meeting notice along with the meeting agenda and relevant supplementary documents to each director seven days ahead of the meeting to allow the directors enough time to prepare themselves for the meeting.

Currently, board meetings have been made paperless (electronic), for which meeting agenda items are put on a CD, and the meetings are conducted through iPad application software for speed and convenience, while considerably reducing accompanying documents. This requirement also shortens the process, speeds up execution of the agenda, and facilitates decision-making of management with efficient information access.

In 2015, PTT held 16 board meetings (12 regular and four special meetings). One special meeting, held annually, aimed to determine/ review PTT Group's direction and operational strategies (five-year rolling). This year, the Board and management jointly reviewed and approved these matters as a framework and guideline for business units, subsidiaries and associates to formulate the annual state enterprise plan and budget of 2016 - 2020. In addition, one board meeting was conducted in absence of the management on "The Directors' Role in Fostering Ethics for

Corporate Sustainability". The Board focused on promoting ethical practices and made sure that CG was conducted under the Code of Conduct. It also had a dialogue about improving the meeting and operation to further enhance PTT's performance. One independent directors' meeting was also held on "Setting the Directors' Operational Objectives as KPI". After the discussion, the independent directors therefore set the operational standard and improved the policies and guidelines on good corporate governance. In every meeting, the Chairman allowed directors to freely and openly express their views.

Moreover, the Board set the sequel agenda to report the progress of the previously proposed agenda items and to follow up the operations implemented based on the meeting's observation and comments, with the corporate strategies being applied. The agenda must be reported monthly in the meeting.

The Board has set a policy that meeting documents on particular agenda items will not be forwarded to directors with potential conflict of interests with PTT on such agenda items, and such directors will abstain from attending and voting during that portion of the meeting. The minutes of each meeting for each agenda item will be properly documented with all recommendations and, after the adoption from the Board was given, will be filed for auditing purposes and reference by directors and related persons. By and large, each board meeting lasted three hours. Details about directors' meetings are summarized as follows:

## Attendance Record of Board of Director Meetings / Five Specific Committee Meetings for 2015

Name	1/2015	Special 1/2015	2/2015	Special 2/2015	3/2015	4/2015	5/2015	6/2015	7/2015	Special 3/2015	8/2015	9/2015	10/2015	Special 4/2015	11/2015	12/2015
1. Mr. Piyasvasti Amranand	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
2. Mr. Kittipong Kittayarak	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
3. Mr. Watcharakiti Watcharothai	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
4. Mr. Areepong Bhoocha-oom	X	/	/	/	/	/	X	/	/	/	/	X	/	X	X	/
5. Gen. Chatchalerm Chalermsook	X	/	/	/	X	/	/	/	/	/	/	/	/	/	/	/
6. Mr. Chanvit Amatamatuchart	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
7. Ms. Nuntawan Sakuntanaga	/	X	/	X	X	/	/	/	/	/	/	/	/	/	/	/
8. Mr. Vichai Assarasakorn	/	/	/	/	/	/	/	X	/	/	/	/	/	X	/	/
9. AM Boonsuib Prasit	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
X Mr. Rungson Sriworasat	/	X	/	/	/	/	/	/	X	/	/	/	Resigned effective 1 October 2015			
10. Mr. Somchai Sujjapongse	Appointed effective 1 November 2015													/	X	/
11. Mr. Don Wasantapruet	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
12. Mr. Somsak Chotrattanasiri	Appointed effective 22 April 2015					/	/	/	/	/	/	/	/	/	X	/
13. Mr. Prasert Bunsumpun	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
X Mr. Kurujit Nakornthap	Resigned effective 13 January 2015															
X Mr. Twarath Sutabutr	Appointed effective 22 April 2015					/	/	/	/	/	Resigned effective 1 August 2015					
14. Mr. Chavalit Pichalai	Appointed effective 18 August 2015											/	/	/	/	/
X Mr. Pailin Chuchottaworn	/	/	/	/	/	/	/	/	/	/	/	Term completed				
15. Mr. Tevin Vongvanich	Appointed effective 10 September 2015											/	/	/	/	/
Total Attendance	11	11	13	12	11	15	14	14	14	15	15	14	14	13	12	15
Total Directors	13	13	13	13	13	15	15	15	15	15	15	15	14	15	15	15





## Attendance Record of the Board of Directors and the Specific Committee Meetings for 2015

Name	Meeting Attendance 2015						Appointment during the Year
	Board of Directors (Total 16)	Audit Committee (Total 17)	Corporate Governance Committee (Total 4)	Nominating Committee (Total 5)	Remuneration Committee (Total 1)	Enterprise Risk Management Committee (Total 4)	
1. Mr. Piyasvasti Amranand	16/16						-
2. Mr. Kittipong Kittayarak	16/16	17/17					-
3. Mr. Watcharakiti Watcharothai	16/16		3/3	5/5	1/1		-
4. Mr. Areepong Bhoocha-oom	11/16						-
5. Gen. Chatchalerm Chalernsukh	14/16		4/4				-
6. Mr. Chanvit Amatamatucharti	16/16			1/1	1/1	4/4	-
7. Ms. Nuntawan Sakuntanaga	13/16	15/17					-
8. Mr. Vichai Assarasakorn	14/16	15/17					-
9. AM Boonsuib Prasit	16/16			5/5			-
10. Mr. Somchai Sujjapongse	2/3						1 November 2015 (replacing Mr. Rungson Sriworasat)
11. Mr. Don Wasantapruerk	16/16		4/4				-
12. Mr. Somsak Chotrattanasiri	10/11		1/1				2 April 2015 (replacing Mr. Montri Sotangkul)
13. Mr. Prasert Bunsumpun	16/16					4/4	-
14. Mr. Chavalit Pichalai	6/6					2/2	18 August 2015 (replacing Mr. Twarath Sutabutr)
15. Mr. Tevin Vongvanich	5/5						10 September 2015 (replacing Mr. Pailin Chuchottaworn)

**Attendance Record of Retired/ Resigned Directors for 2015 (Total 4 Directors)**

Name	Meeting Attendance 2015						Appointment during the Year
	Board of Directors (Total 16)	Audit Committee (Total 17)	Corporate Governance Committee (Total 4)	Nominating Committee (Total 5)	Remuneration Committee (Total 1)	Enterprise Risk Management Committee (Total 4)	
1. Mr. Kurujit Nakornthap	0/0						Resigned on 13 January 2015
2. Mr. Twarath Sutabutr	5/5					0/1	Resigned on 1 August 2015
3. Mr. Pailin Chuchottaworn	11/11			3/3			Term completed on 9 September 2015
4. Mr. Rungson Sriworasat	10/12				1/1		Resigned on 1 October 2015

**Remarks:** A total of 16 Board meetings were held during the year: 12 regular meetings and four special ones.

\* Reasons for meeting absence were from prior overseas or official engagement. Absence letters of the directors was forwarded to the Chairman ahead of the meeting.

**Corporate Management (The Management)****Management team members, as of 1 February 2016, were:**

(PTT Organization Chart is detailed under “**Responsibility of the Board of the Directors**”)

Name	Position
1. Mr. Tevin Vongvanich <sup>1/</sup>	President & CEO
2. Mr. Pitipan Tepatimargorn <sup>2/</sup>	Chief Operating Officer, Upstream Petroleum & Gas Business Group
3. Mr. Sarun Rungkasiri	Chief Operating Officer, Downstream Petroleum Business Group
4. Mr. Chavalit Punthong <sup>3/</sup>	Chief Operating Officer, Infrastructure and Sustainability Management Business Group
5. Mr. Wirat Uanarumit	Chief Financial Officer
6. Mr. Kris Imsang <sup>4/</sup>	Senior Executive Vice President, Human Resources & Organization Excellence
7. Ms. Sriwan Eamrunroj <sup>5/</sup>	Senior Executive Vice President, Corporate Strategy & Organization Development
8. Mr. Noppadol Pinsupa <sup>6/</sup>	Senior Executive Vice President, Gas Business Unit
9. Mr. Auttapol Rerkpiboon <sup>7/</sup>	Senior Executive Vice President, Oil Business Unit
10. Mr. Chansin Treenuchagorn <sup>8/</sup>	Senior Executive Vice President, Downstream Business Group Alignment
11. Ms. Boobpha Amornkiatkajorn	Senior Executive Vice President, International Trading Business Unit

Name	Position
12. Mr. Somporn Vongvuthipornchai <sup>9/</sup>	Senior Executive Vice President, seconded to President and CEO, PTT Exploration and Production Plc.
13. Mr. Atikom Terbsiri	Senior Executive Vice President, seconded to President and CEO, Thailoil Plc.
14. Mr. Supattanapong Punmeechaow	Senior Executive Vice President, seconded to President and CEO, PTT Global Chemical Plc.
15. Mr. Sukrit Surabotsopon	Senior Executive Vice President, seconded to President, IRPC Plc.
16. Mr. Samrit Sumneing <sup>10/</sup>	Executive Vice President, Corporate Finance
17. Ms. Nitima Thepvanangkul	Executive Vice President, Corporate Accounting

**Remarks:**

No. 1 - 5 are PTT Management under SEC's announcement.

1/ Appointed on 10 September 2015 replacing Mr. Pailin Chuchottaworn, whose term was completed.

2/ Appointed on 1 October 2015, replacing Mr. Nuttachat Charuchinda, who retired.

3/ Appointed on 1 October 2015, replacing Mr. Surong Bulakul, who retired.

4/ Appointed on 1 February 2016, replacing Mr. Pitipan Tepatimargorn, who was Chief Operating Officer, Upstream Petroleum & Gas Business Group and Acting Senior Executive Vice President, Human Resources & Organization Excellence.

5/ Appointed on 1 October 2015, replacing Mr. Chansin Treenuchagorn, who was appointed Senior Executive Vice President, Downstream Petroleum Business Group.

6/ Appointed on 1 October 2015, replacing Mr. Charcrie Buranakanonda, who retired.

7/ Appointed on 1 October 2015, replacing Mr. Chavalit Punthong, who was appointed Chief Operating Officer, Infrastructure and Sustainability Management Business Group.

8/ Appointed on 1 October 2015, replacing Mr. Sarakorn Kulatham, who retired.

9/ Appointed on 22 October 2015, replacing Mr. Tevin Vongvanich, who was appointed President & CEO.

10/ Appointed on 1 January 2016, replacing Ms. Pannalin Mahawongtikul, who was seconded to PTT Exploration and Production.

## Duties and Responsibilities of the President & CEO

Under PTT's Articles of Association, the President has the authority and responsibility to manage PTT's business as assigned by the Board. The business is to be managed strictly, prudently, and with integrity under the plans or budget approved by the Board, and must be in the best interests of PTT and its shareholders.

The President's authority and responsibility include the following duties:

- Operate and/or manage day-to-day business, or both.
- Hire, appoint, remove, transfer, promote, demote, reduce the salary or wages of, and take disciplinary action against, and dismiss any officers and employees, under the Board's regulations.
- Ensure the preparation and submission of business policies, including operating plans and budget estimates, to the Board for approval, and report performance against them to the Board every three months.
- Ensure the implementation of the policies, plans, and budget approved by the Board.

The Board authorizes the President to manage PTT's business under the following scope of authority :

- Manage business under all objectives, Articles of Association, policies, rules and regulations, specifications, directives, and resolutions of the Board or shareholders' meetings, or both.

- Order, contact, command, implement, and sign juristic acts, agreement, orders, announcements, or any correspondence with government agencies, state enterprises, or other parties, and engage in any necessary and suitable action to facilitate this duty.

- Command all employees, including hiring, appointing, removing, promoting, demoting, cutting the salary or wages of, taking disciplinary action against or dismissing any employees under the rules, regulations, and directives of the Board. For employees serving as advisors, senior executive vice presidents or equivalent upward, prior approval of the Board is required. The President is also authorized to specify employment conditions for employees, and issue rules governing PTT's operations, provided that they do not conflict with the rules, regulations, and directives of the Board.

- Assign the power of attorney and/or delegate specific tasks to other persons, provided that the action complies with the document concerning the power of attorney or rules, regulations, or directives of the Board and/or PTT.

The authority and duties of the President stated above are invalid in case of conflicts of interest with PTT in any form resulting from the President's exercise of the authority. This year no such cases have arisen.





## The Management Committee

The PTT Management Committee (PTTMC) was appointed on 1 October 2001, with the mandate of operating PTT's business. As of 1 February 2016, the committee consists of 11 members as follows:

Name	Position
1. President & CEO	Chairman
2. Chief Operating Officer, Upstream Petroleum & Gas Business Group	Member
3. Chief Operating Officer, Downstream Petroleum Business Group	Member
4. Chief Operating Officer, Infrastructure and Sustainability Management Business Group	Member
5. Chief Financial Officer	Member
6. Senior Executive Vice President, Human Resources & Organization Excellence	Member
7. Senior Executive Vice President, Gas Business Unit	Member
8. Senior Executive Vice President, Oil Business Unit	Member
9. Senior Executive Vice President, Downstream Business Group Alignment	Member
10. Senior Executive Vice President, International Trading Business Unit	Member
11. Senior Executive Vice President, Corporate Strategy	Member and Secretary

The Vice President, Office of the President & Corporate Secretary, served as Assistant Secretary.

The Management Committee meets at least once a month. This year there were altogether 34 meetings (32 regular and two special meetings).

### Duties and Responsibilities

Provide advice and recommendations to the President & CEO on significant issues regarding corporate strategy and business directions, long-term planning, business performance, investment plans, budgets, allocation of resources to PTT and its affiliates, and ensure that the operation of PTT affiliates is uniform.

PTTMC also provides consultation and recommendations to the President & CEO, and promotes operation in the following matters:

- Sets the visions and major responsibilities for PTT Group.

- Establishes direction strategies and business targets of PTT Group as well as performance targets of business units and PTT Group as a whole.

- Screens PTT Group's capital allocation structure (budget and resources) to support future investments and operations of PTT Group (PTT Group's Capital Allocation Structure).

- Screens investment management of PTT and PTT Group (PTT Group's Portfolio Management).

- Screens and monitors PTT's extended international investment.

- Establishes a policy on human resource management, prepares and develops PTT Group's management of level 10 up in a systematic and professional way to be ready for its future missions in line with the Leadership Affiliation and Alignment Program.

- Screens and provides opinions and recommendations on the establishment of standards for the systems of business administration, human resources and information, as well as the organizational structure of PTT and its affiliates in order to be a corporate of sustainability excellence.

- Considers, screens, defines policies and principles for the PTT Way of Conduct, and sees if it is carried out in the desired directions.

- Ranks significant matters about the allocation of human and financial resources of PTT and its affiliates.

- Jointly resolves significant conflicts between PTT's upstream and downstream petroleum businesses.

- Follows up on the progress and assesses the performance of PTT Group against KPIs (PA & KPIs).

- Scrutinizes risk management in business operations of the PTT Group.

- Screens meeting agendas before presenting to the Board.

- Ranks decisions made by the Board to ensure effective implementations.

- Appoints committees or working groups, or both, to assist the tasks of the Board.

- Performs other work as may be assigned by the President & CEO.

In order to efficiently manage the PTT Group to drive the strategies and operations of the companies to achieve their goals, PTT has divided its management committees into three groups:

#### 1. Strategy Committees:

1.1 PTT Group Management Committee: PTTGMC

1.2 PTT Management Committee: PTTMC (*as mentioned above*)

#### 2. Coordination Committees:

2.1 Upstream & Gas Business Group Alignment & Coordination Management Committee (UAC)

2.2 Downstream Business Group Alignment & Coordination Committee (DAC)

2.3 Infrastructure Business Group Alignment & Coordination Committee (IAC)

2.4 Technology Alignment Committee (TAC)

2.5 Sustainability Alignment Committee (SAC)

2.6 Gas Business Strategic Alignment Committee (GBSC)

2.7 Oil Business Strategic Alignment Committee (OBSC)

2.8 Petrochemicals & Refining Business Strategic Alignment Committee (PRSC)

2.9 Trading Business Strategic Alignment Committee (TBSC)

#### 3. Support Committees:

3.1 Corporate Plan Committee (CPC)

3.2 Risk Management and Internal Control Committee (RMCC)

3.3 Human Resources Group Alignment & Coordination Management Committee (HRAC)

3.4 Finance & Accounting Group Alignment & Coordination Management Committee (FAAC)

3.5 PTT Group KM Committee

3.6 PTT Group Internal Audit Management Committee

3.7 PTT Group ICT Committee

3.8 PTT Group Policy & Strategic Sourcing Committee

3.9 PTT Group Quality, Security, Safety, Health, and Environment Management Committee (QSHEGMC)

3.10 PTT Group Corporate Governance Committee



## Corporate Secretary

To comply with the CG principles of listed companies under the category of directors' responsibility and the terms of the Securities and Exchange Act, the Board appointed a Corporate Secretary to provide the Board with legal advice and remind them of assorted regulations that they need to know and comply with; hold meetings; supervise assorted Board activities to enable them to perform efficiently and effectively for the maximum benefit to PTT; prepare and maintain critical documents, including directors' registration, Board meeting notices and minutes, annual reports; issue shareholders' meeting notices and minutes, and keep reports on connected transactions reported by directors or the management.

This year the Board appointed Ms. Wantanee Jaruke, Vice President, Office of the President and Corporate Secretary, to also serve as the Corporate Secretary, effective since 1 December 2013.

### Profile of the Corporate Secretary



#### Ms. Wantanee Jaruke

Corporate Secretary  
(1 December 2013 - Present)

Age: 55

(%) Shares Possession: 0.000780

#### Education:

- Bachelor of Arts (German), Chiangmai University
- Master of Business Administration, Kasetsart University

#### Company Secretary Training Record:

- From the Thai Institute of Directors Association (IOD) Company Secretary Program (CSP 2/2002), Effective Minutes Taking (EMT 1/2006), Board Reporting Program (BRP 9/2012) and Company Reporting Program (CRP 4/2012)
- TLCA: Executive Development Program (EDP 7), Thai Listed Companies Association
- Company Secretaries, Trueeventus, the Philippines (2013)
- Leadership Development Program, Centre for Creative Leadership, Singapore (2015)

#### Professional Experience:

- 2002 - 2005 : Specialist, Office of the President and Corporate Secretary, PTT Plc.
- 2006 - 2013 : Team Leader, Office of the President and Corporate Secretary, PTT Plc.
- 2013 - Present : Vice President, Office of the President and Corporate Secretary, PTT Plc.

#### Related Important Positions Held:

- None

#### Extra Activity:

- Committee of Thai Company Secretary Club, Thai Listed Companies Association

#### Relationship with Executives:

- None

## Remuneration of Directors and the Management

With the oversight of the Remuneration Committee, PTT fairly and sensibly specifies the compensation paid to directors, taking into account on each director's responsibility, its financial performance, and compatibility with industry peers. Compensation consists of meeting allowances and bonuses. Directors appointed to the committees receive additional allowances for additional responsibilities. Directors' compensation rates approved by shareholders are as follows:

### Directors' Compensation

#### Board's Compensation

The following compensation structure for the Board was approved at the 2015 AGM on 9 April 2015:

##### 1. Meeting Allowances

- 1.1 Board Meeting compensation consisted of
  - Retainer fee of THB 30,000 per month (same rate as last year)
  - Meeting allowance of THB 50,000 for each meeting (same rate as last year) for those in attendance only. Meeting payment allowance must not exceed 15 times per year.

1.2 Compensation for Committee meetings consisted of

##### 1.2.1 Audit Committee

- Monthly allowance of THB 15,000 each
- Meeting allowance of THB 15,000 for each meeting for those in attendance only, and the Secretary received a monthly allowance of THB 7,500.

1.2.2 Compensation for other Committees, namely the **Nominating, Remuneration, Corporate Governance, and Enterprise Risk Management Committees** and other sub-Committees appointed by the Board as necessary in the future, consisted of meeting allowance of THB 24,000 for each meeting for those in attendance only.

1.3 Compensation for the Chairman of each committee was 25% higher than other members.

#### Directors' Bonuses in 2015

Bonus payouts to each director, at 0.05% of the net profit of 2015, corresponded to PTT's performance and net profit, up to THB 3,000,000 per person (same rate as last year). The bonus was prorated to each director's term with the Chairman receiving 25% more than individual directors.





## Remuneration Paid to Directors in 2015

Unit: THB

No.	Name	Days of Service	2015 Bonus <sup>1/</sup>	Meeting Allowance (Inclusive of Monthly Allowance)	Specific Committee Meeting Allowance	Total Allowance	Total Remuneration
1.	Mr. Piyasvasti Amranand	365	830,684.07	1,387,500.00	-	1,387,500.00	2,218,184.07
2.	Mr. Kittipong Kittayarak <sup>2/</sup>	365	664,547.25	1,110,000.00	615,750.00	1,725,750.00	2,390,297.25
3.	Mr. Watcharakiti Watcharothai <sup>2/</sup>	365	664,547.25	1,110,000.00	294,000.00	1,404,000.00	2,068,547.25
4.	Mr. Areepong Bhoocha-oom	365	664,547.25	910,000.00	-	910,000.00	1,574,547.25
5.	Gen. Chatchalerm Chalermsook <sup>2/</sup>	365	664,547.25	1,010,000.00	192,000.00	1,202,000.00	1,866,547.25
6.	Mr. Chanvit Amatamatuchart <sup>2/</sup>	365	664,547.25	1,110,000.00	192,000.00	1,302,000.00	1,966,547.25
7.	Ms. Nuntawan Sakuntanaga	365	664,547.25	960,000.00	405,000.00	1,365,000.00	2,029,547.25
8.	Mr. Vichai Assarasakorn <sup>2/</sup>	365	664,547.25	1,060,000.00	537,000.00	1,597,000.00	2,261,547.25
9.	Mr. Somchai Sujjapongse	61	111,061.32	110,000.00	-	110,000.00	221,061.32
10.	AM Boonsuib Prasit	365	664,547.25	1,110,000.00	120,000.00	1,230,000.00	1,894,547.25
11.	Mr. Don Wasantapruek	365	664,547.25	1,110,000.00	96,000.00	1,206,000.00	1,870,547.25
12.	Mr. Somsak Chotrattanasiri	254	462,452.06	699,000.00	24,000.00	723,000.00	1,185,452.06
13.	Mr. Prasert Bunsumpun	365	664,547.25	1,110,000.00	96,000.00	1,206,000.00	1,870,547.25
14.	Mr. Chavalit Pichalai	136	247,612.13	383,548.39	48,000.00	431,548.39	679,160.52
15.	Mr. Tavin Vongvanich <sup>3/</sup>	113	205,736.55	311,000.00	-	311,000.00	516,736.55
Total			8,503,018.63	13,491,048.39	2,619,750.00	16,110,798.39	24,613,817.02

## Remarks:

1/ Includes the directors' bonuses paid in the later installment of 2015.

2/ Includes the meeting allowance of Nominating Committee and Remuneration Committee during the process of PTT's President & CEO nomination.

3/ Mr. Tevin returned all of his remuneration to PTT in compliance with the employment agreement of President & CEO dated on 27 August 2015.

In addition, President & CEO has already returned the remuneration earned as Chairman of the Board and/or Director of PTT subsidiaries, as follows: the remuneration of PTT Exploration and Production Public Co., Ltd. director during September - December 2015 was 360,000 baht and the remuneration of IRPC Public Company Limited chairman and/or director during October - December 2015 was 263,226.00 Baht in compliance with the employee agreement of President & CEO.

No. 9, Mr. Somchai Sujjapongse was appointed on 1 November 2015.

No. 12, Mr. Somsak Chotrattanasiri was appointed on 22 April 2015.

No. 14, Mr. Chavalit Pichalai was appointed on 18 August 2015.

No. 15, Mr. Tevin Vongvanich was appointed on 10 September 2015.

A vehicle was provided to the Chairman to facilitate his duties only.

## Retired and Resigned Directors (2015)

Unit: THB

No.	Name	Days of Service	2015 Bonus <sup>1/</sup>	Meeting Allowance (Inclusive of Monthly Allowance)	Specific Committee Meeting Allowance	Total Allowance	Total Remuneration
1.	Mr. Kurujit Nakornthap	12	21,848.13	11,612.90	-	11,612.90	33,461.03
2.	Mr. Twarath Sutabutr	101	183,888.42	349,000.00	-	349,000.00	532,888.42
3.	Mr. Pailin Chuchottaworn	252	458,810.71	799,000.00	72,000.00	871,000.00	1,329,810.71
4.	Mr. Rungson Sriworasat <sup>2/</sup>	273	497,044.93	770,000.00	120,000.00	890,000.00	1,387,044.93
<b>Total</b>			<b>1,161,592.19</b>	<b>1,929,612.90</b>	<b>192,000.00</b>	<b>2,121,612.90</b>	<b>3,283,205.09</b>

**Notes:**

1/ Includes the directors' bonuses paid in the later installment of 2015

2/ Includes the meeting allowance of Nominating Committee and Remuneration Committee during the process of PTT's President &amp; CEO nomination

No. 1 Mr. Kurujit Nakornthap was appointed on 1 July 2014 and resigned on 13 January 2015.

No. 2 Mr. Twarath Sutabutr was appointed on 22 April 2015 and resigned on 1 August 2015.

No. 3 Mr. Pailin Chuchottaworn completed his term as President &amp; CEO on 10 September 2015.

No. 4 Mr. Rungson Sriworasat was appointed on 26 July 2014 and resigned on 1 October 2015.

## Directors' Remuneration Profile of 2012 - 2015

Unit: THB

Remuneration	2012		2013		2014		2015*	
	Person	THB	Person	THB	Person	THB	Person	THB
Meeting Allowance	14	11,316,572.58	15	16,324,759.22	14	17,632,709.70	15	18,232,411.29
Bonuses	14	30,122,950.82	15	45,129,452.06	14	27,680,910.81	15	9,664,610.82
<b>Total</b>		<b>41,439,523.40</b>		<b>61,454,211.28</b>		<b>45,313,620.51</b>		<b>27,897,022.11</b>

\* Includes the directors' bonuses paid in the later installment of 2015

## Remuneration to Independent Directors Serving as Independent Directors of Subsidiaries in 2015

-None-

## Management's Remuneration

### Management's Remuneration

The Board defined the policy and criteria regarding management's remuneration to correspond to PTT performance in accordance with the Performance Agreement (PA) under the assessment system of state enterprise stipulated by the Ministry of Finance. The President & CEO, all executives and management jointly defined Key Performance Indicators (KPIs) as operation directions and are to be used in assessment of the President & CEO, executives and management. The Remuneration Committee decided on the remuneration which reflected performance management, taking into account practices and standards of leading companies with same nature of business, and submitted the principles and proposed remuneration to the Board for approval.

PTT had an organizational restructuring which had been in effect since 1 May 2014. Accordingly, under SEC's definition, PTT's management before the restructuring (1 January - 30 April 2014) included 10 persons and was reduced to 5 after 1 May 2014. The compensation paid to the President & CEO and senior executives under SEC's criteria (excluded those seconded to PTT affiliates and those from PTT affiliates seconded to PTT) are detailed below:

#### Total Remuneration Paid to Top Management (CEO and EVP) in 2015

Unit: THB

Remuneration	2015				
	Management (under SEC criteria)			Total	
	President & CEO*	Person	THB	Person (includes President & CEO)	THB
Salary	24,063,596.00	4	27,622,740.00	5	51,686,336.00
Bonus	8,458,219.00	4	8,700,040.00	5	17,158,259.00
<b>Total</b>	<b>32,521,815.00</b>		<b>36,322,780.00</b>		<b>68,844,595.00</b>

#### Remarks:

- \* - The remuneration of Mr. Pailin Chuchottaworn, as appointed the President & CEO during 1 January - 9 September 2015, and Mr. Tevin Vongvanich as appointed the President & CEO during 10 September - 31 December 2015.
- The salary of Mr. Tevin Vongvanich, President & CEO, includes the allowance for his additional tasks, namely holding a position of Chairman of the Board and/or Director of PTT subsidiaries. He has already returned the allowance earned as Chairman of the Board and/or Director of PTT, PTT Exploration and Production Public Co., Ltd. and IRPC Public Co., Ltd. to PTT in compliance with the employment agreement of President & CEO.

**Total Remuneration Paid to the Management from 2012 - 2015**

Unit: THB

Remuneration	2012		2013		2014		2015	
	Person	THB	Person	THB	Person	THB	Person	THB
Salary	9	62,769,000.00	10	69,023,520.00	10/5	56,454,960.00	5	51,686,336.00
Bonus	9	23,993,379.77	10	30,772,449.50	10/5	34,428,132.00	5	17,158,259.00
<b>Total</b>		<b>86,762,379.77</b>		<b>99,795,969.50</b>		<b>90,883,092.00</b>		<b>68,844,595.00</b>

**Provident Fund Contribution to the Management from 2012 - 2015**

Unit: THB

Remuneration	2012		2013		2014		2015	
	Person	THB	Person	THB	Person	THB	Person	THB
Provident Fund	9	6,276,900.00	9	6,652,851.60	9/4	4,937,228.80	4	5,086,634.00

**Additional Information on the Board and the Management**

Records have shown no violation of the law within the past 10 years regarding:

- 1) Being sentenced for criminal charges, except for violations of traffic law, minor charges, or similar charges.
- 2) Being sentenced to bankruptcy or having assets controlled.
- 3) Serving as an executive or a person with authority in a company or partnership sentenced to bankruptcy or whose assets are controlled.

**Employees**

Convinced that the employees are pivotal to its operations and that their quality is the key to its business success, PTT is committed to the development of human resource management systems compatible with technological advancement and international standards. It not only promotes both conscientious merit and business competence for its employees, but also encourages them to actively take part in public service activities. It is indeed through employees that PTT focuses on its development toward a sustainability organization to elevate competitiveness, respond to changes in the organization, and enhance national energy security.

**Headcount and Compensation**

As of 31 December 2015, the PTT employee headcount (including those seconded to PTT's affiliates) stood at 4,382. PTT has continued to set its manpower plan in line with its operations under uncertain economic conditions, with a focus on allocating resources where significant value supplementation is likely or where continuing investment is needed. PTT formulates human resource plans and earnestly develops the potential of all its employees, as well as streamlining its business procedures to enhance work efficiency.



The business-group headcounts from 2012 to 2015 are as follows:

Unit: Person

Business Unit	2012		2013		2014		2015	
	PTT	PTT Group	PTT	PTT Group	PTT	PTT Group	PTT	PTT Group
1. Gas	1,367	-	1,424	-	1,323	-	1,289	-
2. Oil	1,296	-	1,496	-	1,409	-	1,465	-
3. Petrochemicals and Refining	103	-	95	-	93	-	83	-
4. Infrastructure Business Group	-	-	-	-	201	-	342	-
5. Support staff/ secondees to PTT affiliates	1,197 <sup>1/</sup>	265 <sup>2/</sup>	1,098 <sup>1/</sup>	282 <sup>2/</sup>	1,218 <sup>1/</sup>	272 <sup>2/</sup>	1,203 <sup>1/</sup>	278 <sup>2/</sup>
6. Subsidiaries and jointly-controlled entities	-	20,551	-	24,969	-	25,714	-	24,512
<b>Total</b>	<b>3,963</b>	<b>20,816</b>	<b>4,113</b>	<b>25,251</b>	<b>4,244</b>	<b>25,986</b>	<b>4,382</b>	<b>24,790</b>

**Remarks:**

1/ Excludes PTT secondees

2/ PTT secondees

Remuneration for Personnel (excluding the President & CEO and Senior Management) from 2012 to 2015 are as follows:

Unit: THB

Remuneration	2012	2013	2014	2015
Salary	3,311,831,273.00	3,549,202,456.00	3,729,946,652.00	4,000,980,185.00
Bonus	1,653,647,970.00	1,756,840,371.00	1,869,490,435.00	1,647,437,327.00
Provident Fund Contributions	318,714,613.00	415,284,584.00	434,836,637.00	468,316,181.00
Others (if applicable)	2,331,060,076.00	2,364,683,270.00	2,750,517,905.00	2,676,017,663.00
<b>Total</b>	<b>7,615,253,932.00</b>	<b>8,086,010,681.00</b>	<b>8,784,791,629.00</b>	<b>8,792,751,356.00</b>

## Other Remuneration

PTT has instituted employee welfare and other compensation programs apart from salary, bonus, and provident fund contribution for management and all employees in keeping with economic conditions, cost of living, and other standards for peer companies such as housing allowance, upcountry allowance, and overtime payment. In 2013, PTT revised its salary structure to make it more competitive, provided strategies and policy to boost their motivations; both in monetary and non-monetary forms such as flexible benefits which give employees an opportunity to choose the welfare plans that suit their lifestyles as well as human resource development policy, medical check-ups for employees who might be exposed to risks and the revised medical welfare.

Tuition fees for year 2014 were also revised in response to the announcement of the Comptroller General's Department with a life insurance premium at an average of THB 2,832.29 per person per year and medical care expenses through PTT's operated welfare system and health insurance systems for all PTT staff and family at an average of THB 98,561.31 per person per year.

This year, PTT adjusted the medical care expenses by increasing maternity allowance limits in the health insurance system and increasing the fee of Continuous Positive Airway Pressure (CPAP) with a life insurance premium at an average of THB 2,829.90 per person per year, including medical care expenses through PTT-operated welfare systems and health insurance systems for all PTT employees at an average of THB 79,325.89 per person per year.

## Human Resource System Development and Improvement

To become a sustainable organization, PTT continues to develop and improve its processes and mechanisms for human resource management to ensure higher efficiency and realize the full potential of its employees which will lead PTT toward its goals. PTT employees are able to fully demonstrate their competence, advance in their careers, and continue to grow with PTT.

PTT has focused on participation across the board in designing business plans to suit its direction and targets since this will efficiently align all components of PTT. To this end, it has instituted a process in which the senior management of PTT and its affiliates along with support employee jointly define a vision and directions before propagating the agreed items for other units to use in defining business strategies and business plans and come up with budget plans in broad alignment. All PTT employees defined individual objectives and KPIs cascaded through the ranks from the corporate, department to an individual level. Such objectives and indicators defined by employees then serve as a framework for performance and performance assessment standards to reflect individual performance.

PTT applies Career Management guidelines to prepare and promote the management and all employees with skills and knowledge to fit the PTT - designed model in coping with its mission and creating value for the organization. PTT has applied this model in developing employees of all levels for greater efficiency by dividing employees into two professional groups with clear and efficient interconnected (senior management and employee) systems for recruitment, assessment, and individual development planning in place.

- Senior management (equivalent to vice presidents upward) is subject to Group Leader Development which sustains the needs of high-level executives in both quantity and quality aspects. Management of this group is supervised by a panel of CEOs in the PTT Group called the PTT Group Management Committee (PTTGMC) with responsibility for defining directions and the policies for development plans for senior management. Another team called Human Resources Group Alignment & Coordination Management Committee (HRAC), provides counseling and recommendations to the Senior Vice President, Human Resources & Organization Excellence, to enhance decision-making on key coordination issues regarding human resource development strategies and directions of the PTT Group to align with those of PTT.



- Employee (division manager or equivalent downward): this internal management is specific to PTT or a PTT Group company in developing employees to suit operational needs. The Corporate Human Resources Committee (HRC) was established to promote and monitor career development planning to ensure that it achieves its goals. A Career Counseling Teams (CCT) for 15 professional groups takes charge of defining and developing individuals, providing counseling and guidance, and monitoring and following up on the implementation. The development plan is a tool for employees to set their goals and develop their career paths and add value in their work in line with PTT's direction and goals. Such employee development can be undertaken through proper training via competency and success profiles

or via job rotation in line with their career paths which will enable all employee to develop skills in their new positions, as do suitable appointments and promotions in line with their responsibilities and potential. Finally, development of employee to suit their competencies and needs of both employee and the organization would in time lead PTT to achieve its goals.

Apart from implementing the human resource development under the above-mentioned guideline, PTT is concerned with the environment. It held environmental courses for related employees and interested parties to enhance their awareness. In 2015, the following courses were conducted:

No.	Name of the business event	Start date	End date	Location	Attendess
1.	Environmental Impact Assessment (EIA)	25/9/2015	25/9/2015	Head Office	78
2.	Basic Safety, Occupational Health and Environment Management	2/1/2015	31/12/2015	Head Office	103
3.	Contractor SSHE Mgt.	24/3/2015	14/9/2015	Head Office	147
4.	SSHE Training 1	1/1/2015	31/12/2015	Head Office	515
	<b>Total</b>				<b>843</b>

In 2015, PTT held its third "Young People to Globalize (YP2G)" program to select qualified personnel to station overseas in line with PTT's strategies. These personnels will receive additional training from last year to prepare and develop them for work. They will be assigned to tasks related to PTT's international business development or international related businesses to enable them to learn and gain experiences in business acumen through on-the-job training (OJT). In 2014, PTT had also included vocational management on Quality Assurance and Engineering Career in human resource development to be prepared for its infrastructure business unit.

Valuing career and competency management, PTT not only prepared and reviewed the success profile and career path of each position, but also assessed the success profile to be aligned with the performance cycle. Employees were urged to discuss their responsibilities with their supervisor (two-way communication) at the beginning of the year, and these responsibilities were monitored and evaluated at the end of the year. Individual Development Plans (IDPs) were formulated in the COACH system, and the operations handbook on human resources career development was revised to develop each member for his/her position and in line with PTT's business.

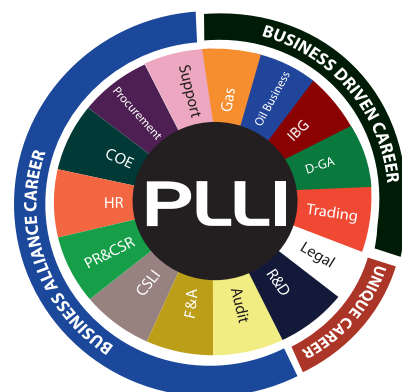
PTT Group also promoted learning to serve the corporate strategy which shifts PTT's position from a resource-based to a knowledge-based organization. Turning itself into a Knowledge Society, PTT faced the key challenge of continuous learning which paved the way to the organization's survival. PTT Group, as the national energy provider that conducts the knowledge-and-innovation-based business, initiated the strategy of **"Three Collaborative Learning Factors for PTT Group's Sustainability"**. It focused on generating knowledge and creating high-quality people to serve as a key driving force that steadily develops the country. PTT supported the establishment of both internal and external education-promoting agencies such as Thailand Energy Academy, Kamnoetvidya Academy and Vidyasirimedhi Institute of Science and Technology.

To support employees' learning within the organization, PTT established the **"PTT Leadership and Learning Institute (PLLI)"** as the learning and capacity-building center for the management and employees. This helps developing human resources into valuable human capital, **"smart and conscientious"** employees with leadership and hunger to learn for life. Believing in the "power of knowledge" and the "power of human capital development" that steadily and sustainably drives PTT's growth, PTT always provides employees with learning opportunities whether they are related to their position or not. All staff members will learn and develop themselves throughout their careers in the following courses conducted by PLLI as follows:

1. Leadership Acceleration Program prepares and builds the capacity of PTT Group's management.
2. Core Course is designed for all employees and is linked to the corporate goal, policy and knowledge. This competency-based course will develop not only the business/people management skill of the employees at each level, but also the soft skills that properly shape their behavior to fit core competencies.
3. Function Course is the position-specific course that develops the employees in each line position from beginners to experts.



PLLI, in collaboration with the Functional Academy, established by PTT, conducts this course to systematically develop corporate knowledge. PLLI encourages each unit to share knowledge and experiences and orderly transfer what it has learned to another generation. This offers employees in each line position, from the beginners to experts, a chance to learn and enhance their capacity. It also allows employees from other line positions to attend the class to learn their subject of interest.





Furthermore, PTT is gearing toward a Learning Organization which conducts the business based on knowledge and systematic knowledge management. It adheres to PTT Way's Functional Excellence which is the organization's key topic of knowledge. The knowledge management is evaluated with a qualitative methodology in PTT Group KM Maturity Assessment and a quantitative methodology in KM Dashboard. BRIGHT or PTT Group Knowledge Center serves as the center that gathers key knowledge. With the support from the management and all employees, the information-sharing work culture thrives and encourages all staff members to continuously develop their potential via efficient learning and problem-solving process. They can also further apply the knowledge gained to invent excellent creation and innovation, which is the foundation

that sustainably drives PTT's competitiveness. PTT also has training programs to continually develop the management and employees since the first day at PTT until retirement. This helps prepare them and build their capacity to be aligned with the organization's and unit's direction, and to create smart, conscientious and responsible people for the organization and society.

Besides a human resource management system focusing on making employees both smart and responsive to its expectations to become High-Performance Organization, PTT values its role in developing conscientious people ready to participate in CSR while observing CG principles. PTT is convinced that achievement of competence and righteousness will foster steady and sustainable growth for itself.

## Summary of Human Resource Development

Unit: Hour/person/year

Training hours/person/year	2012	2013	2014	2015
Employee	60.1	63.0	35.24*	55.11
Executive	41.8	43.0	22.61	30.02

Unit: THB/person/year

Training Expense/person/year	2012	2013	2014	2015
Employee & Executive	54,611.00	58,000.00	55,435.37	34,476.36

\* Expenses per person per year in 2015 were lower than those of the previous year due to the government's policy.

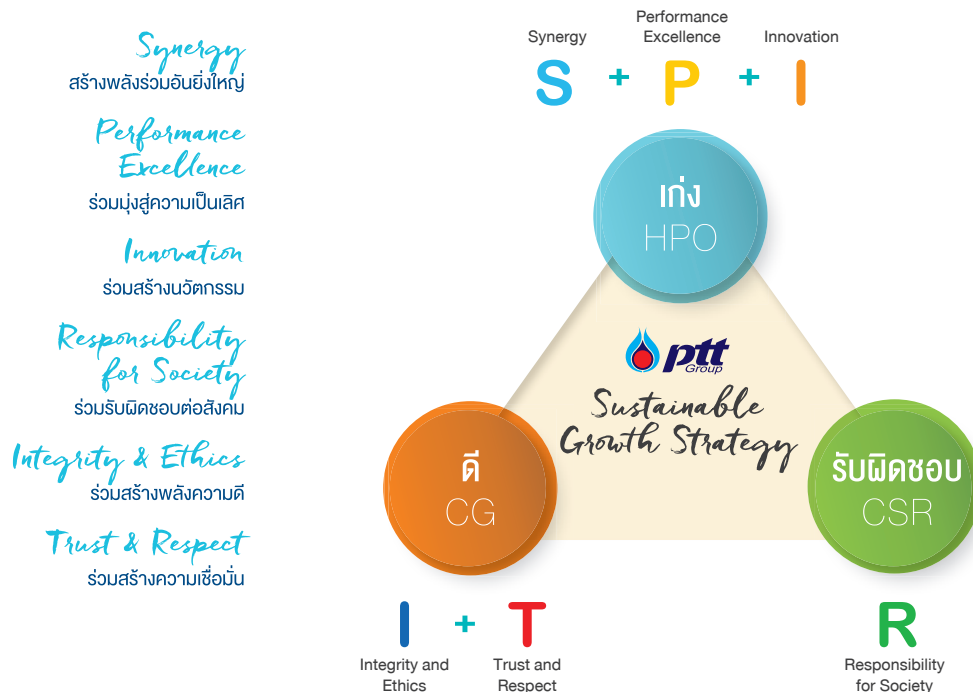
## Fostering Positive Relations between the Management and Staff in Search of the Same Goal

Communication between the management and staff at PTT comes in various forms. Needing to be aware of corporate business, obstacles, and potential repercussions, all employees are allowed to share their views and take part in business efficiency improvement. Each year, besides the monthly labor relations committee meetings, PTT holds joint consultation committee (JCC) meetings between its management team and staff of regional offices nationwide. In addition, the President & CEO not only continually holds regular meetings with employees and attends meetings among the management and staff (both in and outside PTT), but also surveys employees' satisfaction for views and suggestions for improvement. PTT is convinced that proper communication and information exchange among all staff will produce smooth relationships and cooperation, thus moving the organization forward to achieve its goals. Moreover, PTT surveys the basic human resource needs of the management and staff through the operation of numerous

committees such as the human resource management committee, PTT labor relations committee, and career path management committee. A survey of staff opinions was undertaken by an external human resource management adviser. There was also cooperation with the PTT Group to jointly develop a database of the management as well as development plans of senior management.

## PTT Group Core Values

PTT Group Core Values known as SPIRIT, is a common work path. If all management and employees practice it as the guideline for their personal lives, they will become smart, conscientious and responsible people who are well-loved and accepted by all. This will also clearly reflect PTT's image as a credible and trustworthy organization in the society, communities and nation. When following the common work path, employees at all levels will become not only smart, but also conscientious and responsible which will strengthen the organization and lead it to success under PTT's strategic framework of sustainable growth. SPIRIT consists of



SPIRIT lays the foundation that shapes the management and employees into smart, conscientious and responsible people for the organization and society. They can then lead PTT Group to become the Pride & Treasure of Thailand, adhering to the determination of the President & CEO who envisions PTT Group as the organization that reinforces the faith of Thai people and makes them proud. In 2015, PTT Group focused on RIT while still recognizing the importance of SPI to clearly reflect an image of conscientious and socially responsible entity among external stakeholders. Besides reviewing and revising the policies, PTT Group upgraded the system and workflow to promote transparent management, starting from the CG policy, anti-corruption policy, No-Gift Policy, the internal audit system to procurement processes. It also linked the socially, economically and environmentally responsible operational process with the principle of sustainability management and CSR for the sake of society, communities and the country. Moreover, the business and society mutually create value such as developing society under the concept of social enterprise to be widely accepted by the society, communities and the Thai people.



## Succession Planning

Because PTT is a state enterprise, the nomination and appointment of the President & CEO must follow the Standard Qualifications of Directors and State Enterprise Officer Act. Directors must have the qualifications as specified in Article 8 ter and the nominating procedures as specified in Article 8 quarter. The Board is to appoint a Nominating Committee, with five members duly qualified and without prohibitions under the laws, which nominates persons with appropriate knowledge, capability, and experience to fill the positions of

PTT management. Candidates must be legitimately qualified and without prohibitions under the laws and are not PTT directors, except for management team members who are directors by title. They must not be older than 58 years old on the date of application submission. When the Nominating Committee selects appropriate candidates, it submits the results to the authority. The appointment must be completed within one year from the day the incumbent vacated the position. Each employment contract lasts up to four years for each term. If the Board wishes to hire a previous management team member after the completion of his term as specified

in the hiring contract, it does not have to go through the nominating process, but it cannot hire the person for more than two consecutive terms. This year, the Board nominated the new President to replace Mr. Pailin Chuchottaworn, whose term was completed on 9 September 2015. Abiding by Standard Qualifications for State Enterprise Directors and Officials Act, the Board appointed the Nominating Committee. Four fully qualified candidates applied for the position, consisting of three PTT management personnel and one non-PTT management person. The nominating process was transparently conducted in compliance with Section 8, paragraph 3, of the Standard Qualifications for State Enterprise Directors and Officials Act (No. 6) B.E. 2550. The Nominating Committee proposed a qualified candidate, Mr. Tevin Vongvanich, to the Board for consideration. On 26 June 2015, the Board approved the Committee's proposal and appointed Mr. Vongvanich, President & CEO, replacing Mr. Chuchottaworn, Mr. Vongvanich took office on 10 September 2015, and his term will be completed in two years and eleven months from the date of appointment because Mr. Tevin will be 60 years old on 30 August 2018.

PTT has been grooming top management to become qualified candidates for the next President nomination. It has also prepared the successors to replace the retired top management during 2015 and 2019. Furthermore, PTT lays out the policy/direction to develop the PTT Group's top management and formulates the IDPs by preparing the management pool, consisting of 320 management personnels and a potential pool in key areas.

In 2007, PTT set up a Group Leadership Development Program (GLDP) to develop a succession plan for personnel when the time comes for assuming higher positions that become vacant, namely:

- President
- Senior Executive Vice President (SEVP) or equivalent
- Executive Vice President (EVP) or equivalent
- Vice President (VP) or equivalent

Core responsible management parties and units are as follows:

- PTT Group Management Committee (PTTGMC)
- PTT Group Management Committee-Minor (PTTGMC-Minor)
- Human Resources Group Alignment & Coordination Management Committee (HRAC)
- Human Resources Management Committee (HRMC)
- Corporate Human Resources Committee (HRC)

### Performance in 2015

- Selection of SEVP pool members from EVPs (PTT Group)
  - 39 pool members (as of 31 December 2015)
  - 23 pool members already promoted (2008 - 2015)
- Selection of EVP pool members from VPs (PTT Group)
  - 120 pool members (as of 31 December 2015)
  - 31 pool members already promoted (2009 - 2015)
- Selection of VP pool members from PTT division managers (PTT)
  - 161 pool members (as of 31 December 2015)
  - 102 pool members already promoted (2009 - 2015).

### Labor Disputes

No reports of PTT labor disputes have been received during the past three years.





## Corporate Governance

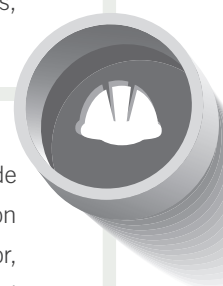


### Corporate Governance Policy

As the national energy company and a listed company of The Stock Exchange of Thailand (SET), PTT recognizes its vital mission on boosting business confidence under good management filled with transparency and fairness to all stakeholders. Therefore, what will produce trust and confidence on the part on shareholders is the existence of policies and business conduct that preserve their basic rights under the law or more, together with suitable management filled with efficiency and optimal effectiveness. In which, these will bring about continued acceptance by investors and relevant parties.

Ever since the privatization into PTT Plc. and distribution of its shares on SET in late 2001, PTT has valued corporate governance (CG) as its guiding principles. PTT regulations state: "The Company must have and implement a policy on its business ethics including the ethics of its Board of Directors,

senior executives, the management, and employees in compliance with good CG practices as its code of conduct for the proper conduct of the organization with a high standard." PTT has issued its rules on CG in 2001, revised it in 2014, and published a handbook on CG in 2003 and delivered to each director, the management, and the employees to sign, acknowledge, and comply with. The handbook was revised in 2005, 2009 and 2013 - 2015. The latest revision complied with SET's CG of listed companies as well as suggestions and recommendations from IOD's Corporate Governance Assessment Report, revised in line with the ASEAN Corporate Governance Scorecard (ASEAN CG Scorecard) and good practices of leading international companies. The handbook was renamed "PTT Corporate Governance, Ethical Standard, and Code of Business Conduct Handbook".



Essential provisions added to the handbook are:

- Ethical standards that lend the handbook the status of “code of ethics” under the constitution
- Mechanisms and good practices for CG for explicit conformance and punishment for violations or negligence
- Position-holding of directors:
  1. Directors can hold positions in no more than three state enterprises or entities that the state enterprises hold shares in, or both.
  2. Directors can hold positions in no more than five companies registered on SET. By holding posts under item (2), directors must not obstruct item (1). Therefore, directors can hold up to five positions.
  3. Independent directors and directors of specific committees cannot hold positions over nine consecutive years.
- Duties and responsibilities of the Audit Committee and the Enterprise Risk Management Committee
- Code of conduct on treatment of creditors to cover all groups of stakeholders more clearly
- Anti-corruption policy
- A policy on Board voting, under which the minimum quorum must consist of no less than two-thirds of the total attending directors.
- The desired qualifications of directors that match PTT’s business strategies.
- The criteria for serving in various positions by PTT Group’s executives.

PTT has integrated CG in its vision missions and core values to grow in a sustainable way in order to become a leading Thai energy company and a high-performance organization (HPO) with corporate social responsibility (CSR), and to provide appropriate returns to its stakeholders on CG principles.

## Corporate Governance Policy

PTT duly reviewed its Corporate Governance Policy and handbook to suit prevailing economic and social circumstances and requires all directors, the management, and employees to acknowledge it in writing and observe all policies at work to illustrate the commitment to practical application of such policy and code of conduct to their jobs. The Board’s policy on CG is as follows:

1. The Board, management, and all employees are committed to the six elements of CG: Accountability, Responsibility, Equitable Treatment, Transparency, Vision to Create Long-Term Value, and Ethics. An organization structure balances the roles of the Board, the management, and the shareholders.
2. Directors must perform their duties independently with full commitment, responsibility and independence. There is a clear division of responsibilities between the Chairman and the President & CEO.
3. Playing a key role in the formulation of the corporate vision, strategies, policies, and key plans regarding to risk factors and suitable risk management, the Board must also ensure the credibility of PTT’s accounting system, financial statements and accounting audits.
4. Leading the rest of PTT on ethics and CG, the Board must supervise the management and solutions to any conflict of interest or connected transactions.
5. The Board may appoint committees to help on screening and scrutinizing critical issues.
6. The Board must undergo annual self-assessment to obtain a framework for its performance assessment.
7. The Board must establish a code of conduct for itself, the management, employees, and all contract employees in addition to PTT’s regulations.



8. Disclosure of financial and non-financial information must be carried out adequately, credibly, promptly, and fairly for all shareholders and stakeholders. To investors and the general public, Investor Relations is responsible for such disclosure.

9. For fair treatment, PTT shareholders can access information through suitable communication channels with PTT.

10. A proper selection procedure must be in place for the appointment of key management personnel under a fair and transparent nomination process.

11. The Board must establish an efficient anti-corruption system to ensure that the management is aware of and values anti-corruption as well as complying with anti-corruption measures.

PTT publicized the “Corporate Governance, Ethical Standard, and Code of Business Conduct Handbook”, Revision 3, on its website.

CG performance can be summarized as follows:

## 1. Shareholders’ Rights

As the owners, the shareholders are entitled to dictate PTT’s direction or decide on matters of significant impacts. Shareholders’ meetings therefore serve as their key forums for the expression of views, questioning, and voting, apart from the election of directors to supervise PTT’s operation on their behalf. Shareholders are entitled to attend shareholders’ meetings, take adequate deliberation time, and acknowledge meeting minutes.

### 1.1 Shareholders’ Meetings

As a rule, PTT schedules an annual general meeting of shareholders (AGM) within four months of the annual closing date of its accounting books. For urgent matters that affect or involve the shareholders’ interests or involve conditions, regulations, or laws that require the shareholders’ approval. However, it can call an extraordinary meeting of the shareholders.

This year the AGM fell on 9 April 2015, hosted at EH 106, First Floor, Bangkok International Trade & Exhibition Centre (BITEC), 88 Bang Na - Trat Road (km. 1), Bang Na, Bangkok. No extraordinary meeting was held this year.

### 1.2 Delivering Meeting Notices

In 2015, the Board held the meeting No. 2/2558 on 19 February 2015, they decided to call AGM meeting on 9 April 2015. Its decision, meeting date, and meeting agenda were disclosed in detail ahead of time by announcing on SET’s website to alert the shareholders before sending the meeting notices. PTT assigned Thailand Securities Depository Co., Ltd. (TSD), its securities registrar, to mail the notices together with details of the agenda and accompanying documents, supplementary and supporting information for decision-making, opinions of the Board, complete minutes of the past meeting, the annual report, meeting documents, proxy forms with complete instruction, to the shareholders more than 14 days ahead of the meeting date. The meeting notices were sent on 18 March 2015. Three days ahead of the meeting, the invitation was announced through one Thai and one English newspaper, each for three consecutive days (between 3 - 5 April 2015), to allow the shareholders enough time to prepare themselves for the meeting.

The AGM meeting notice and supporting documents were made available at PTT’s website (<http://www.pttplc.com>) 34 days ahead of the meeting date (starting 6 March 2015).

### 1.3 On the Meeting Date

Before the meeting, the chairman of the meeting introduced the directors, management team members, the external auditor and the legal adviser who acted as a neutral party. After explaining PTT's rules on voting and vote counting for individual agenda items, the chairman clearly addressed how to vote on each agenda item. Once information had been provided for each item, the chairman gave the floor to all attendants to express opinions or recommendations and ask questions, giving adequate time for debate. The chairman and the management addressed and answered all questions clearly and precisely, treating all questions with respect. For the election of directors, individual votes were required.

The chairman ensured that the meeting proceeded according to an agenda order and did not add an item without notifying shareholders in advance. If the meeting

should decide to change the order of the agenda, it would need at least two-thirds of the votes of the shareholders in attendance. Alternatively, the shareholders with at least one-third of all the sold shares might ask the meeting to consider other matters not mentioned in the meeting notice. At the 2015 AGM, the order of the agenda was not changed, and there was no request to consider any other matters.

At every meeting, the minutes must be completely and accurately recorded with the vote tally of each applicable agenda item. As a rule, a shareholders' meeting lasts 3 - 4 hours. The 2015 AGM began at 9.30 a.m., with registration beginning at 7.30 a.m. At the meeting's opening, a total of 3,942 shareholders registered, of whom 1,305 were shareholders and 2,637 were proxy holders, holding a total of 2,360,177,057 shares, or 82.63% of the total shares sold, which exceeded one-third of all sold shares of 2,856,299,625. The following attendees are as detailed below:

### Board of Directors

1. Mr. Piyasvasti Amranand	Chairman/ Independent Director
2. Mr. Kittipong Kittayarak	Independent Director/ Chairman of Audit Committee
3. Mr. Rungson Sriworasat	Director/ Chairman of Remuneration Committee
4. Mr. Prasert Bunsumpun	Director/ Member of Enterprise Risk Management Committee
5. Ms. Nuntawan Sakuntanaga	Independent Director/ Member of Audit Committee
6. Mr. Chanvit Amatamatucharti	Independent Director/ Member of Remuneration Committee/ Chairman of Enterprise Risk Management Committee
7. Mr. Areepong Bhoocha-oom	Director
8. Mr. Watcharakiti Watcharothai	Independent Director/ Chairman of Nominating Committee/ Member of Remuneration Committee/ Member of Corporate Governance Committee
9. AM Boonsuib Prasit	Independent Director/ Member of Nominating Committee
10. Mr. Vichai Assarasakorn	Independent Director/ Member of Audit Committee
11. Mr. Don Wasantapruek	Independent Director/ Member of Corporate Governance Committee
12. Mr. Pailin Chuchottaworn	Director and Corporate Secretary/ Member of Nominating Committee/ President and CEO

Gen. Chatchalerm Chalermasukh had an overseas government assignment.

## Executives

1. Mr. Surong Bulakul	COO, Infrastructure Business Group
2. Mr. Nuttachat Charuchinda	COO, Upstream Petroleum & Gas Business Group
3. Mr. Sarun Rungkasiri	COO, Downstream Petroleum Business Group
4. Mr. Wirat Uanarumit	CFO

Also, in attendance were several senior executive vice presidents, executive vice presidents, and executives from PTT Group at the front of the stage, ready to address queries and provide information for relevant questions. Independent directors were also proxies for minor shareholders.

## External Auditors

1. Ms. Mayuree Chanthamat	Office of the Auditor - General
2. Ms. Kulpramot Adisaralak	Office of the Auditor - General
3. Ms. Jirawat Prueksasuai	Office of the Auditor - General

## Legal Advisors (to proctor balloting in case of disputes during the meeting)

1. Ms. Peangpanor Boonklam	Weerawong, Chinnavat & Peangpanor, Ltd.
2. Mr. Theerasak Phetpaiboon	Weerawong, Chinnavat & Peangpanor, Ltd.
3. Mr. Sathaporn Jamsuk	South Asia Law Co., Ltd.
4. Mr. Kan Watcharakorn	South Asia Law Co., Ltd.

## Number of Shareholders (at the meeting's conclusion at 12.56 hours)

A total of 6,030 shareholders registered, of whom 2,224 were shareholders and 3,806 were proxy holders, commanding a total of 2,425,104,863 shares or 84.9% of the total shares sold.



### 1.4 Practical Guidelines for Reporting Conflicts of Interest

As specified by the CG Handbook, all directors, management team members, and employees must prepare reports on conflicts of interest, consisting of annual reporting forms and a new annual format in case of changes during the year. At a given meeting, those with vested interests or conflicts of interest with PTT must inform the meeting to excuse themselves and abstain from voting on each connected matter.

At the shareholders' meetings, any director with vested interests or involvement on any agenda item must inform the meeting to excuse themselves and abstain from voting on each connected agenda item.

### 1.5 Disclosure of Shareholders' Meeting Outcomes

For the 2015 AGM, PTT duly submitted the summary of AGM resolutions to SET and the SET Board within the afternoon of the meeting date (9 April 2015). It also duly submitted the report of the shareholders' meeting with minutes (each agenda clearly separated), number of directors in attendance/ absence, questions raised by shareholders and answers from the directors and voting tallies of each agenda item to SET and the SET Board within 14 days after the meeting. Meeting information, video-recording, photos, and audio-recording are accessible through PTT's website.

## 2. Equitable Treatment of Shareholders

PTT treats all shareholders fairly despite different shareholding proportions and voting power due to their shares. Shareholders' fundamental rights are conserved regardless of their gender, age, origin, nationality, religion, belief, social status, physical impairment, or political inclinations. At the AGM, seats at the most convenient spots were reserved for the elderly, the handicapped, and pregnant women with officers to attend to their needs. Information on the shareholders' meeting was announced ahead of the meeting, in Thai and English. Directors with vested interests in any agenda item must excuse themselves from the meeting on that item. All shareholders have equal rights to take part in PTT's activities.

### 2.1 Proposing Additional Meeting Agenda Items and Nominating Directors

To enable minor shareholders to earnestly take part in business operations and auditing, PTT has defined the criteria and consideration process for entitling them to propose meeting agenda items and/or nominate directors in advance to deliberate agenda items that could be useful to PTT, including the selection of qualified directors to perform their duties efficiently in the best interests of PTT, the shareholders, and stakeholders. In practice, shareholders with a combined holding of at least 100,000 shares could propose agenda items or nominate directors before the AGM during the last quarter of the previous year.

For the 2015 AGM, PTT posted such criteria on its website and posted an announcement on SET's website from 1 October to 31 December 2014. Therefore, shareholders could propose meeting agenda items and/or nominate directors in advance. However, it attracted no recommendation of such agenda items and no nomination of directors, and the Corporate Secretary had duly informed the Board meeting on the matter.

### 2.2 Facilitating Shareholders at the Meeting

As in previous AGM meetings, for the 2015 version, PTT facilitated all shareholders by manning officers to welcome and take care of them, and provided adequate convenience. The meeting venue was well chosen to accommodate all shareholders and facilitate the elderly and those on wheelchairs. Back-up meeting rooms were in place as was a signal relay system between meeting rooms. Security precautions and emergency contingency plans were in hand. Examination of registration credentials five days ahead of the meeting was possible. Officers provided photocopying services and verified documents. On the meeting day, registration opened two hours ahead of the meeting and extended until the period before the last meeting agenda. A barcode system was used to quicken registration and voting. Finally, the shareholders had access to a reception and snacks.



Since most shareholders attending the AGM were Thais, it was conducted in Thai. However, for the benefit of foreign shareholders, PTT commissioned the translation of shareholders' meetings, supplementary documents, and relevant documents in English. Its official website is also bilingual. It also provided officers skilled in English on hand at meetings to facilitate foreign shareholders. If shareholders could not communicate in Thai but preferred to pose queries or discuss at the meetings, PTT arranged translation into Thai for both the queries and the answers for other shareholders to preserve their interests and ease communication needs for foreign shareholders.

### 2.3 Appointing Proxies

To maintain the rights of shareholders who could not attend the 2015 AGM in person, they could appoint proxies or delegate their votes to any independent director in attendance. To this end, PTT has specified these independent directors' names on proxy forms defined by the Ministry of Commerce for voting on behalf of shareholders without conditions. PTT treated proxies as if they were shareholders. Thirty days ahead of each meeting, PTT disclosed the proxy form, which was attached along with details and procedures on its website. Shareholders might make further inquiries about this by phone or other channels such as PTT's website or e-mail.

## 3. Roles toward Stakeholders

As the national energy company, PTT accounts for all stakeholders' rights and interests by establishing guidelines for addressing the needs of each group in and outside PTT, as well as its own responsibility to society and the environment. The following spells out PTT Group's missions for each of the six following groups:

- To the country:** Ensuring long-term energy security by providing adequate high-quality energy supply at fair prices to support economic growth.
- To community and society:** Maintaining a good standing corporate status in society by exercising environment stewardship of internationally accepted standards and helping to improve the quality of life for the community and society.
- To shareholders:** Operating profitable businesses that lead to sustainable growth while generating optimal returns.
- To customers:** Ensuring customers' satisfaction and loyalty by delivering world-class quality products and services at fair prices.
- To business partners:** Conduct fair practices with all partners while promoting trust, relationship, and cooperation to extend business capability and increase efficiency in long-term business partnerships.
- To employees:** Continually promoting professional capability-building and ensuring that employees' well-being is on a par with other leading companies in order to strengthen organization/employee engagement.

### 3.1 Treatment of Six Main Stakeholder Groups

#### 3.1.1 Thailand

As the national energy entity, PTT is tasked with a mission to satisfy the country's demand in line with the "Secure, Prosperous, and Sustainable" Thailand vision, leading to a foundation for robust national development through the forging of long-term energy security so that all Thais may have access to adequate energy in a fair and sustainable manner.

PTT's policy is to conduct its businesses in line with the public policy under the National Economic and Social Development Plan and the Ministry of Energy's strategic directions with a focus on supplying adequate amounts of energy for security at suitable and fair prices and a focus on sustainable energy development that is friendly to the environment. PTT's roles are as follows:

1) Security: PTT leverages over 50% of its investment budget to develop energy infrastructure, including natural gas transmission systems, LNG-receiving terminals, LPG import facilities, oil terminals, and service stations. In sourcing energy supply, PTT has risk management plans for supplies from various sources to ensure adequate volumes, quality, and standards to satisfy national demand, including sourcing of natural gas to cover domestic deposits, imports from neighboring countries, and LNG.

2) Economy: PTT invests in the procurement of energy at suitable costs, acceptable to the public and businesses; energy efficiency improvement; and value addition to petroleum through gas separation plants, oil refineries, and the petrochemical business. These have created countless businesses and promoted the application of technologies to improve efficiency and develop capability for operators throughout the business chain – all these to strengthen and grow the digital economy.

3) Ecology: PTT invests in research and development (R&D) of “green” energy and bioplastics, while supplementing value to agricultural produce of communities.

### 3.1.2 Society and Communities

PTT takes seriously the stewardship of communities and society, taking into consideration the prevention of environmental impacts under international standards together with the strengthening and security of Thai society by engaging in the development of sensible lifestyles of communities and society under the Sufficiency Economy philosophy to promote sustainable development in human resource development, improvement of the quality of life, and enhanced conservation of natural resources and the environment.

*Details about these matters appear under “Thai Energy, Thai Pride” section and the Corporate Sustainability Report 2015.*

### 3.1.3 Shareholders

The Sustainable Growth Strategy finds application in PTT management to achieve a high-performance organization (HPO) that is based on CG in tandem with CSR (corporate social responsibility) to ensure investors that PTT provides sound investment returns and is sustainable, apart from being a part of Thai society in the future.

#### Investors' Activities

Since 2006, PTT has continually arranged trips for minor investors to visit its operation, update information, and meet the management as well as participating in PTT's CSR activities in Rayong.

For 2014, PTT skipped this activity because of political rallies, and in 2015, the trip was planned for 18 - 19 November. PTT mailed invitations and reply letters to the shareholders whose names appeared on the roster at the registration book closing for the interim dividend of 2015 on 9 March. With an overwhelming response from more than 2,000 investors, lots were drawn on 13 October, to decide the actual visitors' names, which were announced on its website. In addition, PTT officers phoned the winners to confirm their interest. This activity saw minor shareholders visit the PTT WEcoZI of PTT Group and the LNG Receiving Terminal of PTT LNG Co., Ltd. Visitors went on a tour around the compounds by bus with officers from the Rayong GSP providing information and answering questions and later, on a CSR study trip to the HRH Princess Maha Chakri Sirindhorn Herb Garden in Rayong for 360 shareholders in two groups, as done last year.

Those interested in visiting PTT's sites can follow project updates and details on PTT's website. PTT reserves the rights to invite only those that have never taken part in this activity.



### Activities for Debenture Holders

Since 2010, PTT has staged continued debenture holders' activities to serve as a channel for maintaining cordial relations with them and to repay them for the confidence in PTT bonds over the long term. These activities are typically varied to meet some 28,000 debenture holders' diverse needs, including the "Happiness" quarterly newsletter, Open House (twice this year: the March visit was to a gas separation plant and the herb garden in Rayong, and the December visit was to VISTEC and KVIS academies together with the Wang Chan Forest Project in Rayong), family outing activities, and assorted workshops. In addition, PTT organized variety concerts, which have typically garnered warm reception. This year, it held three rounds of concert for debenture holders to choose from, named "Your Concert". PTT has plans for other formats of activities to constantly improve the efficiency and meet debenture holders' satisfaction.

### Activities for Institutional Investors

In 2015, besides investors' meetings to inform institutional investors and securities analysts on its quarterly performances, PTT organized annual company visits and meetings with its executives in February and organized a visit to Rayong GSP Unit 6 under a friendly atmosphere. There, such visitors and analysts learned about PTT's business directions and opportunities to be involved in PTT Group's businesses from executives first-hand.

### 3.1.4 Customers

PTT divides its market into two portions, domestic and overseas markets, with two major groups of customers: Business to Business (B2B) and Business to Customer (B2C).

PTT listens to the needs and expectations of its customers through varied channels proven to provide adequate quality of information for the design of products and services that suit such needs and expectations in quality, quantity, and prices, including customer visits, seminars, and opinion surveys. Based on regular assessment of the efficiency of these listening posts, these channels have continually undergone fine-tuning for convenience and modernity. For instance, more social media channels have been adopted, including the website, Facebook, and LINE Group. Also, PTT listens to other information besides the above-mentioned needs and expectations, including technological trends, state of competition, physical changes in society and communities, and consumers' lifestyles to compile along with customers' needs for use as input to the development of products and services of competitors' customers, as well as those who could become PTT's future customers.

Constantly, PTT developed support systems to ease customers' transactions with it, including taking purchase orders through the Order & Customer Relations Center, and the e-Order, e-Billing, e-Payment, and Direct Approved systems designed to improve the efficiency of the complaint-receiving center through the Mind system, which links all related information centers, including e-mails, the website, and PTT Blue Card member data, such that the officers that receive complaints can swiftly respond to customers with accurate data.

PTT also developed a Procedure Manual and Work Instruction and implemented these. It also verified standards against QMS ISO 9000, ISO 14000, and TIS 18000 to ensure that all PTT personnel can regularly deliver products, services, and good experiences to customers as called for by relevant standards.

PTT developed means to foster relations with customers that suit each life-cycle of customers, designed to lead to repurchase and "word of mouth" to others, which is the ultimate goal. In place is PTT satisfaction and engagement assessment in comparison with competitors via the annual satisfaction survey. Survey methods and questions have undergone improvement so that survey outcomes are now more realistic and give PTT clearer insight into business extension. Finally, dissatisfaction measurement has been improved so that PTT may know trouble indicators so that it can promptly resolve problems and prevent losses of customers.

PTT groups complaints by severity of impact, with defined service level agreements for different types of complaints, for which relevant units must resolve problems within stated periods. All complaints must be addressed within 24 hours, and after problem resolution, an inquiry will be made to all the customers to determine their satisfaction to PTT's problem-solving. This ensures that problems are indeed reasonably resolved and that customers are satisfied and will continue to buy PTT's products and services in the future.

This year, PTT continually ran projects or activities with customers, including the PTT Tune Up Project, under which free engine checks and free engine tune-ups are given during holiday periods to forge awareness of energy-saving and recognition of travel safety; the "Universal Design" concept for service stations to ease access by the handicapped and the elderly; and the launch of the Crime Zero Project, a cooperative project with the Metropolitan Police under which direct emergency notification is made to the police whenever abnormal incidents happen at service stations. This would make PTT service stations safer.

### 3.1.5 Business Partners

Since business partners are the key to business success through mutual support, PTT takes them seriously and treats them fairly on the basis of fair competition and mutual respect, and in good cooperation. PTT strictly complies with contracts and values procurement processes, since they are vital to the determination of expenses and the quality of PTT products and services. A clear procurement procedure has been formulated to ensure transparency, accountability, and maximum benefit.

To achieve its resolution, PTT is committed to doing businesses for sustainable growth in parallel with good governance for communities, society, and the environment. It therefore values supply chain management and bring to practice by developing risk management processes and mitigates impacts from business partners' business conduct to support the success of supply chain management. The key factors for the drive are as follows:

#### 1. Clear policy and directions

This means PTT's policies and strategies are key factors for forging awareness among employees and society of PTT's commitment and business directions. Therefore, this year, **PTT issued a PTT Group policy on procurement and sustainable business partner management.**

So that PTT's business partners may have business conduct guidelines more in line with, and more suitable for, the sustainable organization management concept, PTT revised the **PTT Supplier Sustainable Code of Conduct (SSCoC), and announced its third edition on 3 August 2015**, defining the contents and scope under relevant regulations and laws, together with the aspects taken seriously by PTT, consisting of four main topics:

1. Business Ethics
2. Social Responsibility
3. Safety
4. Environmental Management.

#### 2. Sustainable business partner management

PTT assesses risks and ESG (Environmental, Social, and Governance/ Economics) impacts and buyer risks of all its products and services groups, the findings of which are applied to grouping business partners into three levels: 1. strategic/ critical, 2. key, and 3. managed (in order of potential severity of impacts). For those in the strategic group, management actions will be more intensified than the other groups. That is, those that wish to take part in price bidding in this group's bidding of products or services must respond to the Sustainability Performance Assessment Form, which would determine if they will need to formulate ESG Corrective Action Plans as in the given forms to be sent along with bidding documents. PTT reserves the right to inspect their outcomes for sustainability performance.





### 3. Capacity-building of relevant parties

Since mastery and capacity of relevant parties represent another key factor driving the success of this matter, PTT values **the capacity-building on procurement and management of business partners** by PTT's own executives and staff in a systematic and suitable way. This is achieved through training, communication, and knowledge management (KM) so as to achieve the sustainability objectives of the management of business partners.

In addition, PTT establishes business partners' readiness and communicates with them in parallel so that they may prepare themselves for developing their own businesses along the sustainability approach or PTT Supplier Sustainable Code of Conduct announced by PTT.

To promote an exchange of data and knowledge between PTT and business partners, while building their capacities to support PTT's success in outcomes, business continuity, and social responsibility, this year, PTT staged nine Supplier Relationship Management Seminars (SRMs), eight of which were staged by each business unit/ group:

Business partner group	Date (2015)
Lubricant Business's business partners	30 March
Engineering and Technical Service, Commercial and International Market's business partners	30 March and 18 December
Nakhon Si Thammarat Gas Separation Plant's business partners	18 June
Natural Gas Transmission's business partners	2 July
Rayong Gas Separation Plant's business partners	6 October
Oil Business Unit Service Station Engineering's business partners	16 October
NGV's business partners	22 December

One SRM was held for major business partners of all units engaging in procurement for PTT on 10 August this year.

At each SRM, PTT conveyed business directions and organized activities that suited business partners. This year's topics and seminar activities were as follows:

- Business directions, vision, and missions
- Policies and procurement directions and applicable laws
- Procurement, business partner management, and sustainable organizational management
- Procurement of green products and services
- PTT AVL (approved vendor list)
- Group activities and shared activities among procurement officers and business partners involving the sharing of views for adjusting business processes for greater efficiency, cordial relations, and sustainable partnership
- Workshops on ESG assessment for business partners in pursuit of genuine supply chain sustainability.

PTT requires price bidders to strictly conform to the rules of work safety and handling of tools, as well as other regulations, particularly in the type of work affecting health, safety and the surroundings. PTT visits business partners' sites to assess their capabilities, particularly those on the QSHE side. In addition, business partners' employees must undergo the do's and don'ts on PTT's sites in addition to conforming to the requirements for entering sites to work, as described for each site.

A PTT Approved Vendor List (PTT AVL) was prepared for the benefit of procurement through bidding in order to ensure that, under the process to determine business groups and procedures or methods of selecting business partners to register for PTT AVL, the business partners are efficient and deliver products/services that meet PTT's requirements, and foster sustainable partnership with PTT. This year, the PTT AVL consisted of 294 companies from 29 business groups.

To ensure the efficient preparation of PTT AVL, PTT considers criteria, conditions, qualifications of the business partners who apply to PTT AVL in each business group. The initial qualifications of the business partners must meet the following requirements:

1. Business partners must not abandon the work of PTT, the government sector, state enterprises, and government agencies.
2. If business partners are revoked from the Vendor List, they have no right to apply for the List in that particular business group for five years after the date of revocation. An exception applies if the revocation is the result of abandoning the work of PTT, the government sector, state enterprises, and the government agencies, in which case PTT will not accept the business partners to PTT AVL until PTT receives a letter proving the cancellation of the revocation.
3. Business partners must understand and recognize PTT Suppliers' Sustainable Code of Conduct (SSCoC).

Apart from the initial criteria, PTT assesses business partners' operation and sustainable implementation in parallel.

After business partners deliver products/services in each allotment, PTT will assess them and notify them of the good points/improvements to be made in operations so that they may acknowledge and improve themselves for future supplier development.

Moreover, PTT supports Thai suppliers and gives them the top priority. Past procurement information reveals that, for the past five year, PTT has procured more than 90% of local products, generating cash flows in the Thai economic system, promoting procurement of products from the areas where PTT sites are located, as well as promoting jobs and generating income for people in the communities.

### 3.1.6 Employees

*(The information on employees is reported under Management Structure, **Employees**).*

## 3.2 Respect for International Human Rights Principles

PTT requires that all its directors, the management, and employees observe laws, customs, and cultures which differ in each country where PTT invests in and strictly respect international human rights principles under the Universal Declaration of Human Rights; the company does not condone its violation.

As a leader, PTT encourages PTT Group of companies to apply human rights principles to their CSR framework. As a member of the United Nations Global Compact (UNGC) since 1 March 2012, PTT has indicated its intention to observe principles on human rights, labor rights, environmental conservation, and anti-corruption as its guidelines for doing business to control and prevent risks concerning human rights. PTT employs these as an approach for continuous improvement to become a good corporate citizen accountable for its business and business decisions. PTT Group, including PTT Global Chemical, PTT Exploration and Production, IRPC, and Thai Oil, have joined the UNGC. Relevant performance was detailed in the Sustainability Report 2015.



### 3.3 Significant Disputes with Stakeholders

This appears under “Legal Disputes”, disclosed in Form 56-1.

## 4. Disclosure of Information and Transparency

Disclosure of information is a key index of transparency, a crucial factor to create confidence among investors and stakeholders. PTT values correct, accurate disclosure of information and creates numerous channels of disclosure so that all stakeholders can gain easy access to information. PTT promotes awareness among directors, the management, and employees of the importance of good CG and transparency to their work, and creates appropriate mechanisms to receive complaints and fair treatment for those who file complaints and those complained against as follows:

### 4.1 Financial and Non-financial Reports

PTT prepared the Corporate Sustainability Report 2015 to communicate its policy, management approach, and outcomes of its economic, social, and environmental performance by relying on the Sustainability Reporting Guidelines and Oil and Gas Sector Disclosure (OGSD) (G4) of the Global Reporting Initiative (GRI) approach to ensure that the disclosure was suitable to and more specific for the business. PTT has commissioned an external party for the fifth consecutive year for the certification of the report's accuracy, transparency, and accountability each year. This report together with the annual report was delivered to the shareholders and is accessible to those interested via [www.pttplc.com](http://www.pttplc.com).

### 4.2 Investor Relations

Ever since PTT's privatization and share trading on SET in October 2001, the Investor Relations Department has been established as a clearing house for disclosing essential information to investors and financial reporting, which includes performance reports, financial statements, and information reported to SET, together with quarterly management discussion and analysis (MD&A) reports with updated performance and corporate directions. These are disclosed to domestic and international shareholders fairly, regularly, and thoroughly. A quarterly investors' magazine under the “Happiness” title has been prepared to communicate business information and data, as well as PTT's performance, for debenture holders and the quarterly newsletter “PTT Bizway” with the same purpose, aimed at common shareholders. The two publications are in Thai and English to communicate PTT's vision, missions, quarterly performance, CG, management for sustainability, and other current major activities. Investors may contact the department directly or through the PTT website, which is regularly updated, for information in Thai and English, which includes:

- Annual report/ Form 56-1
- Major investment project information
- Procurement and hiring
- Policy statements by the management
- Implementation of government policies
- Key plans
- Corporate governance policies and promotional activities
- Financial performance
- Non-financial performance
- Highlights of social responsibility activities.

Through the years, PTT has valued disclosure of information that is accurate, complete, transparent, and comprehensive, as well as direct and indirect presentation of performance and keeping investors, shareholders, and relevant parties informed of its data. Highlights of our activities appear below:

- **Direct:** PTT regularly presents information to analysts, investors, and employees at analysts' meetings, roadshows, conference calls, and conferences organized by various entities. PTT also holds joint activities with SET to meet minor investors. Analysts, investors, and interested parties can also join company visits to meet our management and inquire about our updates.

**This year, these key activities took place:**

Activities	2014 (times)	2015 (times)
International roadshows	12	9
Domestic roadshows	9	10
Analyst Meeting	4	4
Credit Rating Review	4	4
Company Visit/ Conference Call	65	79
E-mail/ phone calls	8 - 10 times daily	8 - 10 times daily
Joint activities with SET and other agencies to meet investors	3	3
Trips for institutional investors to visit and meet management team members	4	5
Trips for minor (retail) investors to visit and meet management team members	Canceled due to political rallies	One trip (two batches) scheduled (Nov. 18 - 19)
Relations activities with debenture holders	14	16

- **Indirect:** Information about PTT, its performance, financial statements, and reports filed with SET are found at [www.set.or.th](http://www.set.or.th), PTT's website, and the "Happiness" magazine for debenture holders as well as the quarterly newsletter "PTT Bizway" for common shareholders.

- Investors and interested parties can also mail inquiries to Investor Relations at Tel. 0-2537-3518-9, through E-mail at [ir@pttplc.com](mailto:ir@pttplc.com), or through PTT website at [www.pttplc.com](http://www.pttplc.com).

In addition, PTT has constantly publicized news, business activities, operation and project updates, apart from addressing questions and facilitating contacts for the media and the public. In 2014 - 2015, the activities appeared below:

Activities	2014 (times)	2015 (times)
E-mails	108	144
News/ photo releases	237	316
Press conferences	38	28
Media visits to operations (domestic and international)	10	19
Welcoming and information provision to visiting agencies for assorted purposes	30 groups (due to political unrest)	55 groups

#### 4.3 Complaint-Filing and Access to Information

All stakeholders have equal access to PTT's public information, including reporting of news and leads, whether inside PTT through the intranet webboard or outside PTT through its website, by phone, letter, or e-mail. Please contact Investor Relations, Office of the President and Corporate Secretary, Corporate Communications, or the Ordering & Customer Relations Center through these channels:

- Telephone: PTT Contact Center 1365, 0-2537-2000
- Website: [www.pttplc.com](http://www.pttplc.com)
- E-mail:
  - Ordering & Customer Relations Center: [1365@pttplc.com](mailto:1365@pttplc.com)
  - Corporate Communication Department: [corporate@pttplc.com](mailto:corporate@pttplc.com)
  - Office of the President and Corporate Secretary: [corporatesecretary@pttplc.com](mailto:corporatesecretary@pttplc.com)
  - Investor Relations: [ir@pttplc.com](mailto:ir@pttplc.com)
  - CG Hot Line: [cghelpdesk@pttplc.com](mailto:cghelpdesk@pttplc.com).

The queries, comments and recommendations will be forwarded to relevant agencies to address these through the complaint management system. Follow-up on the action is done through E-mail every three days. If the action is not completed, a notification will be sent to another level of supervisors for action. When completed, responsible units will notify the contact person(s), with another follow-up to find out about their satisfaction with the services of Contact Center officers, which will help improve information system management. The management tracks all information every month to detect trends and apply them as an approach for refinement of processes, products, and services to respond to all stakeholders. In 2015, the queries, comments, and recommendations received totaled 145,975, mostly concerning PTT Blue Card, NGV energy credit cards, service stations/shops, and PTT's projects.

PTT offers opportunities for the public to file complaints about improper behavior of directors, the management, and staff or their violation of PTT's business ethics. They are to be directed to the Office of Corporate Audit, Office of the President and the Corporate Secretary, or Human Resources Department. PTT treats all complaints on the basis of equality, transparency, and fairness to all concerned. An appropriate timeframe to consider the complaints is set, and the secrecy and protection of those who file the complaints will be observed. No complaint on ethics was made this year, however.



## Specific Committees, Assessment of the Directors, Directors' Orientation, Directors Development

### 1. Specific Committees

The Board values CG by initially appointing the Audit Committee, the Nominating Committee, and the Remuneration Committee. For a period, the Audit Committee also looked after CG and risk management for the Board.

In 2004, the Board set up the Corporate Governance Committee, charged with promotion and screening of CG and promotion of excellence in such areas. In 2013, the Board set up the Enterprise Risk Management Committee to ensure clearer implementation of PTT risk management in compliance with SET's corporate governance of listed companies and the State Enterprise Policy Office's (SEPO) guidelines on CG of state-owned enterprises (2009). PTT today has five committees investigating critical matters under the CG principles to create maximum benefit for shareholders, taking into account stakeholders' concerns and interests, business ethics, transparency, and accountability. Each of these committees consists of qualified, non-management directors as required by SET, with clearly written roles and responsibilities in a charter. Since 2009, the duties of the Corporate Governance Committee have been expanded to

cover additional policies, implementation, and monitoring of the operation on responsibilities toward society, community, and the environment so that the committee may be responsible for the stakeholders in a more comprehensive and efficient way. In 2013, the duties of the committee also covered the definition of guidelines for CG monitoring in relation to PTT's counter-corruption implementation. This year, the Board reviewed the authorities of the Nominating Committee, Remuneration Committee, Corporate Governance Committee, and the Enterprise Risk Management Committee to make them more current.

PTT has appointed five committees with the following duties and responsibilities:

#### 1.1 The Audit Committee

Each quarter, together with Accounting and the Office of the Auditor-General, the Audit Committee reviews PTT's financial reports and presents them to the Board. The Board is accountable for PTT Group's consolidated financial statements as well as other financial information presented in the annual report. The financial statements are prepared under generally accepted accounting principles and are audited and certified by the Office of the Auditor-General. Essential information, financial and others, is completely and consistently disclosed.



The Board approved the appointment of the Audit Committee on 1 October 2001, which consisted of its directors with the qualifications specified by SEC laws and SET. The committee must consist of at least three directors. As of 1 February 2016, it consisted of three independent directors as follows:

Name	Position	Remarks
1. Mr. Kittipong Kittayarak	Chairman	Independent Director
2. Mrs. Nuntawan Sakuntanaga	Member	Independent Director
3. Mr. Vichai Assarasakorn	Member	Independent Director

**Notes:**

*Mrs. Nuntawan Sakuntanaga meets the qualifications required to review the accountability of PTT's financial statements.*

- 1. Mr. Kittipong Kittayarak was appointed Member of the Audit Committee, effective from 5 July 2014, and appointed Chairman of the Audit Committee, effective from 4 September 2014.*
- 2. Mrs. Nuntawan Sakuntanaga was appointed Member of the Audit Committee, effective from 5 July 2014.*
- 3. Mr. Vichai Assarasakorn was appointed Member of the Audit Committee, effective from 4 September 2014.*

The Executive Vice President, Office of Corporate Audit, served as secretary.

**Duties and Responsibilities**

- Prepare a charter on internal audit for the Audit Committee to correspond with PTT scope of works and responsibilities. The charter must be approved by the Board and revised at least once a year.
- Review the efficiency and effectiveness of CG, risk management, and internal control processes.
- Review PTT's financial reporting process to ensure accuracy and reliability.
- Review compliance with laws, regulations, rules, stipulations, cabinet resolutions, SET regulations, SEC laws, and laws relevant to PTT's business.
- Ensure the suitability and effectiveness of the internal control system and internal audit procedures and consider the adequacy of the budget and personnel as well as the independence of the Office of Corporate Audit.

- Consider connected transactions or transactions of potential conflicts of interest or potential malfeasance affecting PTT's operations under the laws and SET's regulations.

- Provide recommendations to the Board on the appointment, transfer, promotion, and assessment of the head of internal audit unit.

- Select, nominate, and recommend fees for the external auditor to the Board.\*

- Coordinate with the external auditor audit findings and recommend reviews or verification on any items, if necessary.

- Report its internal audit performance to the Board at least quarterly, except for the fourth quarter, which will be reserved for the annual report. The reports must be submitted to the regulating ministry and the Ministry of Finance for acknowledgment.

- Evaluate its own internal audit performance at least once a year and report the results to the Board.

**Note:** \* In practice, PTT is regarded as a state enterprise under the definition of the Budgetary Practice Act, B.E. 2502 (1959), Article 4, interpreted by an act complementary to the Constitution concerning the auditing of state budget, B.E. 2542 (1999), Articles 4, 39, and 42 state that the Office of the Auditor-General is authorized to state its views on the accounting standards generally accepted of state enterprises under the law concerning budgetary practices.

- Disclose a report on its annual performance and the fees of the external auditor in the annual report.
- The chairman or members of the Audit Committee must attend shareholders' meetings to address matters related to the Committee or appointment of external auditor.
- Ensure that the management has a mechanism to receive complaints and supervise the system of complaints.
- When it is necessary to provide its opinions on PTT's assorted operations, seek independent opinions from or hire advisers or specialists, at the expense of PTT.
- If internal reports show any sign of violations against laws, regulations, Cabinet resolutions, announcement, or orders relating to PTT's operations, the top management must be informed and responsible unit(s) must be ordered to take due actions.
- Hold the committee meeting at least every quarter and a meeting with the external auditor in the absence of the management at least once a year.
- Hold a formal meeting with the management at least once a year.
- Perform other tasks as required by the law or as assigned by the Board within the committee's scope of duties and responsibilities.

These are in line with PTT's regulations on the Audit Committee and Internal Audit Unit 2014.

In 2015, the committee held 17 meetings (12 regular and 5 special meetings) and duly reported its findings to the Board. In addition, it participated in quarterly financial audits along with the external auditor and Accounting.

The Audit Committee has reported this year's performance in the Report of the Audit Committee section in the annual report.

## 1.2 The Nominating Committee

The Board approved the appointment of the Nominating Committee on 1 October 2001, made up of three of its directors. As of 1 February 2016, it consisted of:

Name	Position	Remarks
1. Mr. Watcharakiti Watcharothai	Chairman	Independent Director
2. AM Boonsuib Prasit	Member	Independent Director
3. Mr. Chanvit Amatamatucharti	Member	Independent Director

### Notes:

1. Mr. Watcharakiti Watcharothai was appointed Chairman of the Nominating Committee, effective from 4 September 2014.
2. AM Boonsuib Prasit was appointed Member of the Nominating Committee, effective from 4 September 2014.
3. Mr. Chanvit Amatamatucharti was appointed Member of the Nominating Committee, effective from 26 September 2015.

The Vice President, Office of the President and Corporate Secretary, served as secretary.

### Duties and Responsibilities

In 2015, the Board decided to amend the Nominating Committee's authority to make it more current.

1. Define the methods and criteria of director-nomination for transparency.
2. Select director nominees to fill vacancies (due to resignation or term completion) for the Board's or the shareholders' meeting's consideration and appointment with regarding to the composition of the Board, expertise, competencies, and experience that would be useful to PTT. Equally important, nominees must have no conflicts of interest with PTT. The qualifications of desirable directors must prove compatible with PTT's business strategies.
3. Propose directors for committee duties regarding to the composition of the committees in question, qualifications, expertise, and competencies. Then, these names are to be tabled for the Board's appointment. An exception is for the committee itself which is appointed by the Board.
4. By its mandate, be accountable to the Board directly while the Board is accountable to all stakeholders.
5. Assess its own performance and report the findings to the Board for acknowledgment and disclose it in the annual report.
6. Disclose its own performance in the annual report.
7. Perform other Board-assigned tasks.

The recruitment procedures for directors are as follows:

1. The committee defines the qualifications needed for the replacement to ensure that the new directors meet the criteria and qualifications as required by related laws and regulations, and in line with PTT's business operation, and defines the procedures for nominating qualified candidates.

According to the Corporate Governance Handbook, ethic standards, and the Code of Business Conduct, the Board should be an experts from a variety of disciplines needed for the administration of PTT businesses. Specifically, the Board Composition should consist of at least three persons that are knowledgeable in the petroleum business, at least one person that is knowledgeable in law, and at least one person that is knowledgeable in finance and accounting.

2. The committee summarizes its recruitment results and presents to the Board a shortlist of qualified candidates along with supporting rationale.
3. The Board appoints the qualified candidates from the list prepared by the committee and submits their names to the shareholders' meeting for approval. The list of suitable persons must also be endorsed by the State Enterprise Policy Committee in conformance to the Directive of the Prime Minister's Office on the Definition of Policy and Supervision of State Enterprises, B.E. 2557 (2014).

In 2015, the committee held five meetings, with all committee members at the time in attendance. The Corporate Secretary served as secretary to the committee.

The committee disclosed its own performance in the annual report under the Report of the Nominating Committee.

### 1.3 The Remuneration Committee

The Board approved the appointment of the Remuneration Committee on 1 October 2001, by appointing three directors from the Board. As of 1 February 2016, it consisted of:

Name	Position	Remarks
1. Mr. Areepong Bhoocha-oom*	Chairman	Director
2. Mr. Watcharakiti Watcharothai	Member	Independent Director
3. Mr. Somchai Sujjapongse	Member	Director

**Notes:**

1. Mr. Areepong Bhoocha-oom was appointed Chairman of the Remuneration Committee, effective from 1 November 2015, and resigned from the Board, effective from 8 February 2016. \*
2. Mr. Watcharakiti Watcharothai was appointed Member of the Remuneration Committee, effective from 5 July 2014.
3. Mr. Somchai Sujjapongse was appointed Member of the Remuneration Committee, effective from 1 November 2015.

The Vice President, Office of the President, and Corporate Secretary served as secretary.

#### Duties and Responsibilities

In 2015, the Board decided to amend the Remuneration Committee's authority to make it more current.

1. Define the criteria or method for compensation and propose fair and sensible compensation for directors and committee members for the Board's and the shareholders' approval.
2. Propose guidelines for assessing performance outcomes and compensation for the President & CEO for the Board's approval.
3. Acknowledge and comment on organization restructuring and job levels, and assess and decide compensation for senior executive vice presidents.
4. By its mandate, be accountable to the Board directly while the Board is accountable to all stakeholders.
5. Assess its own performance and report the findings to the Board for acknowledgment and disclose it in an annual report.
6. Disclose its own performance in an annual report.
7. Perform other Board-assigned tasks.

This year, the committee held one meeting, with all committee members at the time in attendance. The Corporate Secretary served as secretary to the committee.

The committee disclosed its own performance in the annual report under the Report of the Remuneration Committee.



## 1.4 The Corporate Governance Committee

The Board approved the appointment of the Corporate Governance Committee on 24 June 2004, consisting of three directors. As of 1 February 2016, it consisted of:

Name	Position	Remarks
1. Gen. Chatchalerm Chalermsook	Chairman	Independent Director
2. Mr. Don Wasantapruet	Member	Independent Director
3. Mr. Somsak Chotrattanasiri	Member	Independent Director

### Notes:

1. Gen. Chatchalerm Chalermsook was appointed Chairman of the Corporate Governance Committee, effective from 4 September 2014.
2. Mr. Don Wasantapruet was appointed Member of the Corporate Governance Committee, effective from 4 September 2014.
3. Mr. Somsak Chotrattanasiri was appointed Member of the Corporate Governance Committee, effective from 26 September 2015.

The Vice President, Office of the President and Corporate Secretary, served as secretary.

### Duties and responsibilities

In 2015, the Board decided to amend the Corporate Governance Committee's authority to make it more current.

1. Propose practical guidelines for CG to the Board.
2. Advise the Board on matters dealing with CG.
3. Ensure that the performances of the Board and the management align with CG practices.
4. Revise PTT's CG approach by comparing with international practices and propose revisions to the Board.
5. Assign the CG policy to PTT's CG task force.
6. Assign the policy and practical guidelines for Sustainability Management (SM) including CSR guidelines.
7. Assign a policy of allowing minor shareholders to nominate directors and propose AGM agenda items.
8. Monitor SM implementation and report them to the Board.
9. Define the scope for supervising matters dealing with PTT's anti-corruption practices.

In 2015, the committee held four meetings with all committee members at the time in attendance. The Corporate Secretary served as secretary to the committee.

The committee disclosed its own performance in the annual report under the Report of the Corporate Governance Committee.

## 1.5 The Enterprise Risk Management Committee

The Board approved the appointment of the Enterprise Risk Management Committee on 25 October 2013, 22 November 2013, and 31 January 2014 by appointing at least three directors, one of whom must be an independent director. As of 1 February 2016, it consisted of:

Name	Position	Remarks
1. Mr. Chanvit Amatamatucharti	Chairman	Independent Director
2. Mr. Prasert Bunsumpun	Member	Independent Director
3. Mr. Chavalit Pichalai	Member	Director

### Notes:

1. Mr. Chanvit Amatamatucharti was appointed member of the Enterprise Risk Management Committee, effective from 4 September 2014, and was appointed Chairman of the Enterprise Risk Management Committee, effective from 30 January 2015, replacing Mr. Kurujit Nakornthap, effective from 13 January 2015.
2. Mr. Prasert Bunsumpun was appointed member of the Enterprise Risk Management Committee, effective from 25 November 2013.
3. Mr. Chavalit Pichalai was appointed member of the Enterprise Risk Management Committee, effective from 18 August 2015.

The Senior Executive Vice President, Corporate Strategy & Organization Development and Chief Risk Officer (CRO) served as the secretary.

### Duties and responsibilities

In 2015, the Board decided to amend the Enterprise Risk Management Committee's authority to make it more current.

- Define and review PTT's risk management policy and framework
- Regulate and support risk management processes in line with strategies and business goals as well as prevailing circumstances
  - Provide recommendations, monitor, and evaluate risk management for further implementation of the Risk Management and Internal Control Committee (RMCC) (executive level)
  - Review risk management outcome reports and provide recommendations on possible risks including specifications of control measures or mitigation plans, and the development of the risk management system to RMCC to ensure continued efficiency
  - Support the Chief Risk Officer (CRO) in achieving PTT's risk management's goals
  - Report risk management outcomes to the Board. In case where there are factors or events that might have significant on PTT, the Board must be notified immediately.
  - Screen and comment on items with long-term obligations, business complexities, and risks with potential significant impacts on PTT before tabling such items to the Board.
  - The Enterprise Risk Management Committee must meet at least once a quarter.
  - Perform other Board-assigned duties.

In 2015, the Committee held four meetings with all committee members at the time in attendance. The Senior Executive Vice President, Corporate Strategy & Organization Development served as the secretary.

The committee disclosed its own performance in the annual report under the Report of the Enterprise Risk Management Committee.

## 2 Self-assessment of the Board

By the resolution of Board meeting No. 9/2558 on 25 September 2015, the Board approved all four self-assessment forms used in 2014 again this year, namely Assessment of the Board, Assessment of Individual Directors (Self-assessment), Individual Assessment of Other Directors (Cross-assessments), and Assessment of the Committees (the entire committees). The Board agreed that the forms were appropriate for the assessment of the Board this year with improvements in some items for completeness, namely the request for the Board's stipulation of the courses or specific skills needed by directors so as to secure clearly suitable training for each director. The four assessment forms stipulated the percentages corresponding to the levels of performance achieved in each of these are as detailed below:

Over	85%	=	Excellent
Over	75%	=	Very good
Over	65%	=	Good
Over	50%	=	Fair
Below	50%	=	Need improvement.

The findings from the self-assessments were as follows:

**1. Assessment of the Board** consisted of five categories: Board Policy; Board Composition; Board Practices; Board Meetings; and Board Training and Development.

The results indicated excellent/most suitable overall performance with an average score of 94.96%.

**2. Assessment of Individual Directors (Self-assessment)** consisted of six categories: accountability for decisions and actions; responsibility for performing the job with full ability and efficiency; equitable treatment of all stakeholders; transparency in job performance and information disclosure; vision to create long-term value; and business ethics.

Overall results of the six categories indicated excellent conformance by most directors, with an average score at 98.7%.

**3. Individual Assessment of Other Directors (Cross-assessments)** consisted of six identical categories as listed above for direct comparison.

Cross-assessment results in these six categories indicated excellent conformance by most directors with an average score of 99.13%.

**4 Self-assessment of the Committees (the entire committees)** consisted of four categories: Board policy; Board composition; Board practices; and Board meetings.

The results in the four categories indicated excellent/most suitable overall performance for the committees as follows:

4.1 The Nominating Committee indicated excellent performance with an average score of 98.96%.

4.2 The Remuneration Committee indicated excellent performance with an average score of 100%.

4.3 The Corporate Governance Committee indicated excellent performance with an average score of 97.22%.

4.4 The Enterprise Risk Management Committee indicated excellent performance with an average score of 99.31%.

## 5. Assessment of the Audit Committee's Performance

Under PTT's regulations on performance assessment on the Audit Committee and Internal Audit Unit 2014, the Audit Committee Manual for State Enterprises under the Ministry of Finance, and SET's good governance handbook for internal auditors and the audit committee Section 1.1: Responsibility of the Audit Committee, the Audit Committee must assess its performance by undertaking self-assessment at least once a year. The individual self-assessment or the entire committee's assessment is presented yearly to the Board, specifying problems leading to unfulfilled objectives. In 2015, the Audit Committee's meeting No. 10/2558 of 15 October 2015 passed a resolution to use the same assessment forms of the Audit Committee, namely Assessment of Individual Directors (Self-assessment), Individual Assessment of Other Directors (Cross-assessments), and Assessment of the Committee (the entire committee), since they conformed

to the good governance stipulated by the State Enterprise Policy Office (SEPO) and SET. The Audit Committee's meeting No. 12/2558 of 15 December 2015, approved the assessment of its performance for 2014 with the following details:

- Self-assessment consisted of business knowledge/ specific expertise/ duties and authorities/ independence and fairness/ understanding of duties and responsibilities of members/ commitment to work and meetings.

The assessment criteria were 4 = Excellent, 3 = Very good, 2 = Good, 1 = Need improvement.

The results of the Audit Committee's self-assessment indicated "very good to excellent" overall performance with an average score of 3.78.

- Cross-assessments consisted of six identical categories as listed above for direct comparison.

The results of the Audit Committee's self-assessment indicated "very good to excellent" overall performance, with an average score of 3.94.

- Assessment of the entire committee consisted of seven topics: Structure and composition/ meetings / roles and responsibilities/ relationship with the Office of Corporate Audit and the external auditor/ relationship with the management/ reporting/ quality consistency.

The assessment criteria were 4 = regularly implemented, 3 = mostly implemented, 2 = sometimes implemented, 1 = never implemented.

The results of the assessment of the entire Audit Committee was at the "regularly implemented" level with an average score of 3.88.

Incidentally, PTT will be analyzing assessment topics for further work improvements. For instance, under participation in succession planning for senior executives, the Board should consider improving its practices such as on the agenda of appointment of senior executive vice presidents which is the authority of the Board, the management should propose at least 2 - 3 candidates so that the Board may be aware of each one's strengths and weaknesses before making appointment decisions.

### 33. Directors' Orientation

For new directors, PTT arranges an orientation program to inform them of its business policies, capital structure, shareholding structure, business performance, information systems, as well as related laws and regulations. Moreover, each director receives a Director's Handbook which includes the following topics:

#### Director's Handbook

1. Public Company Act
2. Securities and Exchange Act
3. Standard Qualifications of Directors and State Enterprise Officer Act
4. Company Registration Certificate
5. Company Certificate
6. Company Objectives
7. Company's Articles of Association
8. Company Rules (15 Rules)
9. PTT Corporate Governance Handbook
10. Guidelines for Directors of Listed Companies.

#### Information kit for directors

1. Overview business presentation of PTT by the President & CEO
2. List of directors, specific committees, and management structure
3. Director Fiduciary Duty Check List
4. Good CG principles for listed companies
5. Connected transactions of listed companies
6. Guidance on providing information for listed company management
7. PTT Plc. Company Profile (short version)
8. Annual Report
9. Financial Report
10. Sustainability Report
11. Governance book
12. Publication "PTT: The S-Curve Story"
13. Debenture Magazine
14. PTT Spirit Magaine



15. Article: "Truth about Privatization"
16. PTT Way of Conduct
17. Factsheets
18. PLLI brochure
19. PTT Technology and Innovation Management Operating System.

In his briefing to new directors this year, the President & CEO presented information about PTT, its policies, and relevant information for their overview of the business operation and performance. At the same time, the above-mentioned documents and handbook for new directors are handed over on three occasions.

## 4. Directors' Development

### • Training and Seminars

The Board and the management value regular participation in development training relevant to their performance, as seen in each of their profiles. Most directors (93%) have undergone training with IOD. PTT supports and encourages their training with IOD as well as other institutions in all relevant courses throughout the year, which included regular in-house briefing by experts and consultant companies with helpful business data, roughly every quarter. In addition, study trips to other agencies and organizations are organized to promote helpful initiatives which can be applied to PTT's business. This year, the following directors underwent training and seminars as follow:

Name	Course/ Seminar
Mr. Piyasvasti Amranand	<ul style="list-style-type: none"> <li>- Board Briefing</li> <li>- Seminar on the roles and duties of state enterprise directors (SEPO, 5 June 2015)</li> <li>- Attended a talk on "State Investment Corporation Approach" (13 July 2015)</li> <li>- Participated in PTT Group CG Day 2015 (25 August 2015)</li> <li>- Attended a talk on "Roles of Directors in Forging Ethics for Organization's Sustainability" (PwC, 28 August 2015)</li> <li>- Seminar on "Briefing on International Anti-Corruption...International Cases and Practices" (IOD, 14 October 2015)</li> <li>- Attended Thailand's 6th National Conference on Collective Action against Corruption: "Anti-Corruption in Thailand: Sustaining the Momentum" (IOD, 16 October 2015)</li> </ul>
Mr. Kittipong Kittayarak	<ul style="list-style-type: none"> <li>- Attended training on Advanced Audit Committee Program (AACP 18/2015, IOD)</li> <li>- Board Briefing</li> <li>- Seminar on the roles and duties of state enterprise directors (SEPO, 5 June 2015)</li> <li>- Attended PTT Group AC Forum 2015 (6 July 2015)</li> <li>- Attended a talk on "Roles of Directors in Forging Ethics for Organization's Sustainability" (PwC, 28 August 2015)</li> </ul>



Name	Course/ Seminar
Mr. Watcharakiti Watcharothai	<ul style="list-style-type: none"> <li>- Board Briefing</li> <li>- Participated in PTT Group CG Day 2015 (25 August 2015)</li> <li>- Attended a talk on “Roles of Directors in Forging Ethics for Organization’s Sustainability” (PwC, 28 August 2015)</li> <li>- Seminar on “Briefing on International Anti-Corruption...International Cases and Practices” (IOD, 14 October 2015)</li> </ul>
Mr. Areepong Bhoocha-oom	<ul style="list-style-type: none"> <li>- Board Briefing</li> <li>- Attended a talk on “Roles of Directors in Forging Ethics for Organization’s Sustainability” (PwC, 28 August 2015)</li> </ul>
Gen. Chatchalerm Chalermsook	<ul style="list-style-type: none"> <li>- Board Briefing</li> </ul>
Mr. Chanvit Amatamatuchart	<ul style="list-style-type: none"> <li>- Board Briefing</li> <li>- Seminar on the roles and duties of state enterprise directors (SEPO, 5 June 2015)</li> <li>- Attended a talk on “Roles of Directors in Forging Ethics for Organization’s Sustainability” (PwC, 28 August 2015)</li> </ul>
Mrs. Nuntawan Sakuntanaga	<ul style="list-style-type: none"> <li>- Board Briefing</li> <li>- Attended PTT Group AC Forum 2015 (6 July 2015)</li> <li>- Attended training on “Financial Statements for Directors” (FSD 29/2015, IOD, ongoing)</li> <li>- Seminar on “Briefing on International Anti-Corruption...International Cases and Practices” (IOD, 14 October 2015)</li> <li>- Seminar on “Global Financial Market Outlook 2016” (IOD, 17 November 2015)</li> </ul>
Mr. Vichai Assarasakorn	<ul style="list-style-type: none"> <li>- Board Briefing</li> <li>- Seminar on the roles and duties of state enterprise directors (SEPO, 5 June 2015)</li> <li>- Seminar on “Re-energizing Growth through Better Governance” (IOD, 18 June 2015)</li> <li>- Attended PTT Group AC Forum 2015 (6 July 2015)</li> <li>- Attended a talk on “State Investment Corporation Approach” (13 July 2015)</li> <li>- Attended a talk on “Roles of Directors in Forging Ethics for Organization’s Sustainability” (PwC, 28 August 2015)</li> <li>- Training for Senior Executives (Thailand Energy Academy, Class 7, 2015, ongoing)</li> <li>- Training for “Certification Program” (DCP 212/2015) (IOD, on going)</li> <li>- Seminar on “Briefing on International Anti-Corruption ... International Cases and Practices” (IOD, 14 October 2015)</li> <li>- Seminar on CG Forum 4/2015 – Thailand CG Forum: “Governance as a Driving Force for Business Sustainability” (SET, SEC &amp; IOD, 28 October 2015)</li> </ul>



Name	Course/ Seminar
AM Boonsuib Prasit	<ul style="list-style-type: none"> <li>- Training for “Director Accreditation Program” (DAP 117/2015), Role of the Nomination and Governance Committee Program (RNG 7/2015) (IOD)</li> <li>- Board Briefing</li> <li>- Attended a talk on “State Investment Corporation Approach” (13 July 2015)</li> <li>- Participated in PTT Group CG Day 2015 (25 August 2015)</li> <li>- Attended a talk on “Roles of Directors in Forging Ethics for Organization's Sustainability” (PwC, 28 August 2015)</li> </ul>
Mr. Somchai Sujjapongse (Appointed 1 November 2015)	<ul style="list-style-type: none"> <li>- New Directors' Orientation</li> </ul>
Mr. Don Wasantapruet	<ul style="list-style-type: none"> <li>- Training for “Director Accreditation Program” (DAP 117/2015), Role of the Nomination and Governance Committee Program (RNG 7/2015) (IOD)</li> <li>- Training for “Senior Executives” (Thailand Energy Academy, Class 6, 2015, ongoing)</li> <li>- Attended a talk on “State Investment Corporation Approach” (13 July 2015)</li> <li>- Board Briefing</li> <li>- Participated in PTT Group CG Day 2015 (25 August 2015)</li> <li>- Attended a talk on “Roles of Directors in Forging Ethics for Organization's Sustainability” (PwC, 28 August 2015)</li> <li>- Seminar on “Briefing on International Anti-Corruption...International Cases and Practices” (IOD, 14 October 2015)</li> </ul>
Mr. Somsak Chotrattanasiri (Appointed on 22 April 2015)	<ul style="list-style-type: none"> <li>- New Directors' Orientation</li> <li>- Board Briefing</li> <li>- Attended a talk on “Roles of Directors in Forging Ethics for Organization's Sustainability” (PwC, 28 August 2015)</li> <li>- Attended Thailand's 6<sup>th</sup> National Conference on Collective Action against Corruption: “Anti-Corruption in Thailand: Sustaining the Momentum” (IOD, 16 October 2015)</li> </ul>
Mr. Prasert Bunsumpun	<ul style="list-style-type: none"> <li>- Board Briefing</li> <li>- Attended a talk on “Roles of Directors in Forging Ethics for Organization's Sustainability” (PwC, 28 August 2015)</li> </ul>

Name	Course/ Seminar
Mr. Chavalit Pichalai (Appointed on 18 August 2015)	<ul style="list-style-type: none"> <li>- New Directors' Orientation</li> <li>- Board Briefing</li> <li>- Participated in PTT Group CG Day 2015 (25 August 2015)</li> <li>- Attended a talk on "Roles of Directors in Forging Ethics for Organization's Sustainability" (PwC, 28 August 2015)</li> <li>- Seminar on "Global Financial Market Outlook 2016" (IOD, 17 November 2015)</li> </ul>
Mr. Tevin Vongvanich (Appointed on 10 September 2015)	<ul style="list-style-type: none"> <li>- Training on "Anti-Corruption for Executive Program (ACEP 15/2015, IOD)</li> <li>- Board Briefing</li> <li>- Participated in PTT Group CG Day 2015 (25 August 2015)</li> <li>- Seminar on "Briefing on International Anti-Corruption...International Cases and Practices" (IOD, 14 October 2015)</li> <li>- Attended Thailand's 6<sup>th</sup> National Conference on Collective Action against Corruption: "Anti-Corruption in Thailand: Sustaining the Momentum" (IOD, 16 October 2015)</li> <li>- Seminar on "CG Forum 4/2015 – Thailand CG Forum "Governance as a Driving Force for Business Sustainability" (SET, SEC &amp; IOD, 28 October 2015)</li> <li>- Seminar on "Global Financial Market Outlook 2016 (IOD, 17 November 2015)</li> </ul>

Moreover, this year the management provided key information, such as the business operation of business units and PTT Group companies, oil purchase and gas sales, situations of oil prices in the global markets, etc., through the "Board Briefing 2015".

#### • Visits to Businesses, Assets, and Employees of PTT Group Companies/ Energy Business Investigation

PTT's policy is to organize periodic visits and study trips to operations, assets, and employees, both domestic and overseas, for the directors to foster their understanding of the business and apply their expertise and experience to their consideration of energy-related matters concerning PTT and Thailand.

As of the year 2015, PTT organized the following trips:

1. Overseas study visits including PTT Group's Business, assets and employees, energy business, and exchanging views/ideas with senior executives from other national oil companies, and other entities whom specialize in the overseas energy business in Italy, Malta, and Oman, as summarized below:

- Study visit to the Expo Milano 2015, Italy, “Feeding the Planet, Energy for Life”. The directors appreciated that worldwide attention is being given to effective usage of energy, since most sources of energy popularly used today are being depleted. Therefore alternative forms of energy, including solar, wind, and bioenergy, have assumed critical roles. Each country’s exhibition featured new technology and innovations that could be applicable to Thailand.
- Meeting and exchange of views with the management of Eni S.p.A.:
  - The company is Italy’s national energy company (30% owned by the government) engaging in integrated petroleum businesses, with related businesses in 85 countries worldwide and an employee headcount of 82,300.
  - Eni presented its overall picture and strategies of each business unit for 2015 - 2018, with a focus on cost reduction, efficiency improvement, and generation of sustainable returns for shareholders.
  - Consultation was held on related businesses, where the Board learned about Eni’s energy business strategies, and on business trends under depressed energy prices, as well as sharing of views about the roles of LNG, a crucial form of energy in the future.
- Information sharing with the management of the University of Malta and the International Ocean Institute (IOI) in Malta:
  - The university houses 14 schools, with about 750 foreign students from 82 countries worldwide. With IOI (founded in 1972), it implemented the UN Treaty on the Investigation of Marine Laws to promote the study and research on efficient usage of marine resources, including the identification of protective and conservation methods for the marine environment. To this end, they launched an interesting program called “Master of Arts in Ocean Governance” to develop the study and research on marine management and related laws.

- The Board was updated on technologies for alerting people about assorted dangers, relying on observation of changes in the sea and recognition of the value of environmental care. It also learned about the primary aspects of educational systems, which can be applied with PTT Group’s Vidyasirimedhi Institute of Science and Technology and Kamnoetvidya Science Academy.

- Visit to the asset, management, and employees of PTTEP Oman Co., Ltd.

- Located in Oman, PTTEP Oman is a subsidiary company of PTTEP.
- The Board was briefed on Oman’s energy consumption.
- PTTEP Oman was founded 13 years ago, with 12 PTTEP employees on secondment. It has been operating the Oman 44 Project to produce crude oil and condensate.

Incidentally, this trip not only encourage those working in foreign lands, but also provided the Board with helpful information for future development of PTT Group’s businesses.

The policy to promote directors’ knowledge of how different countries consume their energy enabled the Board to compare Thailand’s energy policies with them and to monitor data and progress in energy businesses. Moreover, sharing views with experts of leading energy companies in those countries directly could expand the Board’s perspectives of growing PTT Group’s investment in foreign lands, which agrees with future PTT Group’s business directions. Such direct knowledge and experience derived by the Board will contribute a great deal to its appreciation of worldwide energy businesses and to its formulation of future business approaches of both PTT and Thailand.

The Board also took part in the inauguration of PTT’s first integrated service station (“PTT Life Station”) in Seam Reap, Cambodia, and Luang Prabang, Laos, which fostered cordial relations between Thailand and its neighbors in a move toward AEC at the end of this year, leading to long-term joint energy development. By getting to personally meet PTT Group’s executives and staff stationed in those countries, the Board consulted, visited operations, and jointly resolved problems, which would prove beneficial to the Group’s strategic consideration.

Also, this year the Board made the following domestic study visit as follow:

1. The Board humbly welcomed HRH Princess Maha Chakri Sirindhorn at the inauguration of the “Urban Forest” on Sukhaphiban 2 Road, Khet Prawes, Bangkok. The project will contribute to public awareness and stimulate urban people to recognize the value of collaborate on preserving forest resources so that they may sustainably accompany Thailand.

2. The Board visited the construction sites of Kamnoetvidya science Academy and Vidyasirimedhi Institute of Science and Technology in Amphoe Wang Chan, Rayong, in January 2015. Then on 6 August 2015, they humbly welcomed the princess at the inauguration of both academies, which are run by PTT Group on 900 rai of land. Both focus on instruction and research on science and technology to produce world-class personnel. The princess also graciously launched the “Pa Wang Chan Forest Project” under the PTT Reforestation Institute, located in the vicinity – a massive natural classroom.

3. The Board took part in a visit to the 5<sup>th</sup> “Tulips in Bloom in Rayong” winter plant fair, 8 - 17 April 2015, at the Princess Maha Chakri Sirindhorn Herb Garden.

## Nomination and Appointment of Directors and President & CEO

### 1. Independent Directors

#### 1.1 Qualifications of Independent Directors

At meeting No. 1/2556 of 17 January 2013, the Board endorsed a proposal of the Corporate Governance Committee to redefine PTT independent directors more stringently than the criteria of SEC and SET and to define their roles and responsibility in a manual, signed by the Chairman on 21 January 2013, as follows:

##### • Qualifications of Independent Directors

(1) Hold up to 0.5% of the voting shares of PTT, its subsidiaries, associates, or related companies (*including the shares held by connected parties under Article 258 of Securities and Exchange laws*)

(2) Have not been involved in the management or employees, wage earners – including audit advisors, legal or other advisers – on the payroll of PTT, or have control over PTT, its subsidiaries, associates or juristic persons that could pose conflicts of interest for the past two years.

(3) Have no blood relationship or relationship through registration as parents, spouses, siblings, and children. This definition also applies to children's spouses, executives, major shareholder, controllers, or people due to be nominated as an executive or controller of PTT or its subsidiaries.

#### (4) Business relationship with PTT

##### (a) Types of relationship

- Professional service
  - o Auditor and other professional service provider, including legal adviser, financial adviser, property valuator
  - o “Non-independent” criteria
    - Total prohibition for auditors
    - Other professional services: when the total value exceeds THB 2 million per year.
- Commercial/business relationship (similar to SET’s requirements for connected transactions)
  - o Types of relationship: Full coverage of business transactions, that is, normal transactions, real-estate leasing, asset/service transactions, and financial assistance transactions
  - o “Non-independent” criteria: Transaction value from THB 20 million or 3% of PTT’s NTA upward (whichever is lower); the total value must include items occurring within six months before this transaction.

(b) Should the relationship under (a) apply to a juristic person, the parties regarded as “non-independent” consist of the major shareholder, directors that are not independent ones or not a member of the Audit Committee, and executives (or partners) of that juristic person.





- (c) The forbidden periods for (a) and (b): Two years before the appointment
- (d) Exceptions: If necessary and suitable (exceptional cases), independent directors/ Audit Committee members may have more relationship than the non-independent criteria while holding directorship, provided that a prior unanimous approval has been given by the Board. Besides, PTT must disclose such relationship in Form 56-1 and its annual report (Form 56-2). And should PTT should decide to extend the term of that independent director, it must disclose details about such relationship in the meeting notice for the next shareholders' meeting (in the directors' election agenda item).

(5) Are not appointed to represent PTT's directors, its major shareholder, or shareholders that are related to PTT's major shareholder.

(6) Have no qualifications that compromise the expression of free views.

(7) Independent directors with qualifications 1 through 6 above may be assigned by the Board to decide on business matters of PTT, its subsidiaries, associated companies, sister companies, or juristic persons that could pose conflicts of interest; such decisions will be collective decisions.

Incidentally, if independent directors serve in this position in PTT, its subsidiaries, associated companies, or sister companies, PTT must also disclose information about such service and the total compensation of such directors in Form 56-1 and Form 56-2.

#### • Roles and Responsibility of PTT's Independent Directors

(1) Recommend essential and beneficial matters to PTT and all its shareholders to the Board or the President & CEO, or both.

(2) Advocate roles and responsibility of the Board and provide views commonly expected of independent directors for the benefit of PTT and all its shareholders.

(3) Review matters to ensure PTT's compliance with the law dealing with independent directors, and revise the definition of independent directors for suitability and legal completeness.

(4) Take other Board-assigned actions provided that these actions do not compromise their independence.

(5) An independent director's term begins once he or she fulfills all the requirements under the definition for PTT's CG; it ends when he or she lacks qualifications or completes the PTT term.

(6) The independent directors must hold their own meeting at least once a year.

#### 1.2 Segregation of the Chairman and the President & CEO Positions

To segregate policy-making duties from those of day-to-day management and to enable directors to oversee, look after, and assess performance effectively, PTT has required that the Chairman and the President & CEO are always two distinct persons. This is because the Chairman needs to oversee the management's performance, guide, and assist it, but not to take part in or interfere with day-to-day management, which is the duty of the President & CEO under the authority delegated by the Board.

The current Chairman is an independent director. He exercises high-level leadership and ensures that directors do not fall under the influence of the management by encouraging them to exercise their voting rights and strictly comply with good CG principles.

### 1.3 Independence of the Chairman

To ensure fairness and efficiency and support the Board, the Chairman of the Board also serves as chairman of shareholders' meetings. At a special meeting No. 1/2557 on 4 July 2014, the Board appointed Mr. Piyasvasti Amranand as the Chairman in compliance with the CG principles for listed companies (2012 edition). It would allow the work of the Chairman to be independent and boost confidence in transparency of the operation and fair treatment of all stakeholders.

## 2. Nomination of Directors and President & CEO

### 2.1 Nomination of Directors

*(The nominating process to appoint directors is reported under the Corporate Governance section entitled "The proposal of additional agenda items and the submission of the names of candidates for the position of directors" and "The Nominating Committee").*

### 2.2 Nomination of President & CEO/ Succession Planning

Due to the fact that PTT is a state enterprise company, the nomination and appointment of the President & CEO must follow the Standard Qualifications of Directors and State Enterprise Officer Act. The directors must have the qualifications as specified in Article 8 ter and the nominating procedures as specified in Article 8 quarter. The Board is to appoint a Nominating Committee with five members legitimately qualified to nominate persons with appropriate knowledge, capability, and experience to fill the positions of PTT management. They must be legitimately qualified and cannot be PTT directors, except for the management who are directors by title. They must not be older than 58 years old when submitting the application form. When the Nominating Committee selects appropriate candidates, the results must be submitted to the authority for consideration. The appointment must be completed within one year from the day the incumbent vacated the position.

The employment contract lasts up to four years for each term. If the Board wishes to hire the previous management team member after the completion of his term as specified in the employment contract, the nominating process is not required and that person cannot be hired for more than two consecutive terms.

*The information on **succession planning for the executives** is reported under Management Structure, entitled "Employees".*

## Supervision of the Operation of Subsidiary Companies and Associated Companies

### Supervision Mechanisms

PTT has defined a CG policy for PTT Group companies by preparing the "PTT Way" handbook and the "PTT Way of Conduct" guidelines, which are the compilation of work procedures in various aspects of PTT Group companies so that their work procedures may be in conformity and unity. They will provide the PTT executives who take the positions of directors and presidents in PTT Group companies or relevant agencies with the guidelines that they can comply with and foster cooperation in business operations among PTT Group companies in the same direction, conforming to and complementing one another, in order to create competitiveness so as to meet the long-term goal and experience sustainable growth.

In addition, PTT has defined the roles and duties of those who take the positions of directors and executives as the guidelines for them to adhere to in the management of PTT Group companies for maximum benefit as set by the mission.

**Roles of the Board** are as follows:

- Define the Company's vision, directions, strategies, and policies
- Appoint the management to conduct business
- Monitor and ensure that the company's operations provide maximum benefit to the shareholders and stakeholders
- Adhere to good governance



**Roles of the Management** are as follows:

- Provide linkage of strategies and policies between the company and the PTT Group based on concrete implementation
- Manage the company so that its performance may satisfy shareholders

**Roles of the Corporate Secretary** are as follows:

- Support the directors and the President
- Ensure the company's compliance
- Establish an internal control system.

**Roles of the Shareholders** are as follows:

- Elect and monitor directors
- Formulate the company's policy.

The management is divided into two levels as follows:

- **Corporate Level** consists of:
  - Corporate Center focuses on supervision and shared services by devising uniform policies for PTT Group
  - COO/ BG with the role of devising strategies, goals, closely following up on the operation of each business group to achieve excellence, and building up synergy.

• **Operating Level** in PTT Group, such as business units and companies under business units, focuses on the excellence of business operations, meets achievements, and integrates PTT Group's CG policy with its own operations for maximum benefit.

The management at the Corporate Level and the Operating Level (BU/Flagship) will be linked through the following CG mechanisms:

- PTT Regulations
- Implementation of policies under which PTT executives take the positions of directors or President & CEO, or both, in PTT Group companies, or PTT employees are seconded to PTT Group companies.
- Linking and driving company's policies to achieve goals through the Committees.
- The management of subsidiaries of each business unit will communicate, follow up, provide counsel, and assess the implementation of policies with PTT Group companies.

The regulations determining the roles, duties, and responsibilities of directors and President & CEO of PTT Group companies, including:

- SEC regulations
- The management principles of the PTT Group
- The anti-corruption principles as monitored by the Private Sector Collective Action Coalition against Corruption.

## Policy on Serving as Directors of Other Companies

This year, PTT had 42 affiliated companies, seven of which are SET-listed. Thus, PTT has adopted the PTT Group management structure for synergy and alignment of policies. To achieve this, it appoints directors or management team members to serve as directors in these companies to supervise policies and business management which align with PTT's policies for the benefit and value addition for all stakeholders. The objectives of such appointments are

1) To ensure that the management of a given company aligns with the policies of PTT Group companies; to monitor its overall business performance to align with PTT's policy and institute comparable standards.

2) To establish synergy for the business of PTT Group companies and add value to all related parties, including Thailand as a whole.

3) To apply specific expertise in support of business, including financial know-how to improve accounting and financial processes to enable a given company to grow robustly. This includes assistance to companies outside PTT Group. The resulting application of the knowledge and expertise gained from serving in such leading companies will enhance the benefit to PTT and foster cordial relations and business alliance with PTT.

4) This is part and parcel of the responsibility of directors and the management of PTT.

PTT ensures its consideration of executives or outsiders from the Ministry of Finance's Director's Pool for appointment within PTT Group, which is regarded as a state enterprise, based on an act on standard qualifications of directors and state enterprise officials. Chosen directors from the pool must make up no less than one-third of other directors of a given state enterprise. As of 1 February 2016, PTT had seven members who were on the list of the Director's Pool. It also ensures that PTT executives and such outsiders who serve as directors in PTT affiliates serve on no more than three PTT affiliates or other state enterprise affiliates. This is designed to lower risks of conflicts of interest and ensure conformance to applicable laws, as well as conformance to a Cabinet resolution of 24 January 2011, on fraud prevention measures at state enterprises, entitled "The appointment of senior government officials or persons as directors on multiple state enterprises", as proposed by the National Anti-Corruption Commission.

Finally, the Board decided to define guidelines and criteria for serving in various positions by PTT Group's executives. This year the Board decided to adopt them as part of the Corporate Governance Handbook.

## Supervision of the Use of Inside Information

### 1. Internal Control System

PTT consistently values internal controls, particularly a system that is comprehensive in scope of activities and aspects, as well as adequate and suitable for its businesses for:

1. Operational Excellence: Ensure efficient and effective management of resource consumption, together with stewardship of properties through prevention and reduction of errors, damage, waste, and fraud
2. Reporting: Ensure that financial and other reports developed for internal and external consumption are accurate, credible, and timely

3. Compliance: Ensure compliance with laws and regulations dealing with the organization's business, together with strict compliance with PTT-defined policies and procedures dealing with its businesses.

Under PTT's system, a unit is responsible for internal control to assess such control. The President & CEO has authorized the Risk Management and Internal Control Committee to define work procedures under PTT's internal control standards, together with assessing the outcomes and reporting the overview of PTT's internal control in line with the rule of the Office of the Auditor-General governing the formulation of internal control standards, B.E. 2544 (2011), Article 6, under which the head of a government agency or state enterprise must report to the Office of the Auditor-General, the monitoring agency, and the Audit Committee on internal controls at least once a year. The Board has assigned the Audit Committee to review the findings of such internal control assessment, annually conducted by the management and the Office of Corporate Audit, as highlighted below:

#### (1) Control Environment

PTT commands a sound overall control environment that is adequate for business efficiency and effectiveness. Its executives have promoted an organizational culture focusing on the code of conduct as a role model with the following implementations:

- PTT has defined a policy and procedures in writing on integrity and a code of conduct. The Corporate Governance Committee defines a CG policy in line with international standards. Disclosures are made about conflicts of interest toward off activities of such conflicts, illegal, and improper activities. The policy and the handbook are revised each year. Each director, management team member, and employee sign to acknowledge and conform to such policy and handbook as part of their work, illustrating the commitment to applying the good CG policy and code of conduct to produce practical results.



- PTT has instituted an organizational structure that decentralizes power for business flexibility and alignment with prevailing circumstances, as well as clear and suitable lines of command. Duties and responsibilities are defined in writing, with definitions of key performance indicators (KPIs) set early in the year as guidelines for employee performance, and performance is regularly monitored against goals and measured at the year-end. Goals are revised each year. All employees are aware of their roles, authority, duties, and responsibility.

- PTT has integrated CG with the organization's vision, missions, and core values by setting the goal for PTT as a company with sustainable growth strategy, a high-performance organization with CSR, and with proper benefits to the stakeholders on the basis of CG.

## (2) Code of Conduct

PTT's written Policy and a Code of Conduct are in place for integrity and ethics. In the handbook, the Corporate Governance Committee has defined the code based on international standards. Violators of the code are subject to disciplinary action.

The essential aspects of the code are included below:

1. Respect the law and the Universal Declaration of Human Rights principles
2. Stay politically neutral
3. Stay free of vested interests and conflicts of interest
4. Maintain confidentiality and refrain from using inside information for self-gains
5. Respond to customers' needs and show responsibility to consumers
6. Compete freely and fairly
7. Use a transparent procurement system and treat business partners fairly
8. Show responsibility to communities and society

9. Support employees' rights and establish employee engagement
10. Strictly, transparently, and equitably honor loan contracts
11. Have an efficient internal control system and an internal audit system
12. Have a guideline for accepting and giving gifts, assets, or other benefits
13. Maintain safety, promote health, and preserve the environment
14. Respect intellectual properties and properly apply information technology.

## (3) Conflicts of Interest

PTT requires information disclosure to prevent conflicts of interest and illegal, improper activities. Under the Board's policy, business decisions made by the management and employees must be solely for PTT's best interests. All staff must not only avoid engaging in financial and other relationships with external parties that would lead to financial losses for PTT or a conflict in loyalty or interest, but also must not compromise the efficiency of business operations. Those staff with interests or related businesses which may require PTT's review and decisions must report their relationships and connection with a possible conflict of interest. PTT is to disallow such connected persons from exercising their authority for and involvement in such transactions.



#### **(4) Reporting Connected Transactions with PTT**

PTT has required the directors, management, and all employees to disclose potential conflicts of interest through a specific disclosure form. In addition, any approval of such items must not contain special conditions or specifications that are out of the ordinary, which forms part of PTT's internal controls. PTT's Office of Corporate Audit and the Audit Committee have been entrusted with the monitoring and resolution of issues related to conflicts of interest. This year the directors, management, and all employees were required to fill a form for conflicts of interest at the beginning of the year. However, no such cases of significance have arisen. The disclosure form confirms their acknowledgment that violation of ethics and the code of conduct in PTT's business operations is subject to disciplinary measures varying with the seriousness of the actions.

#### **(5) Reporting Vested Interests of Directors, the Management, and Related Parties**

In the first quarter this year, PTT required reporting of the vested interests of directors, the management, and related parties as basic information to manage vested interests for directors and the senior management. The directors and the management are to report such matters every year and with every change. The Corporate Secretary is to compile and submit the copy to the Board Chairman and the Chairman of the Audit Committee to check and manage the conflicts of interest. This year, however, no such cases have arisen.

#### **(6) Reporting Changes in Share Ownerships (Portfolios)**

As part of the oversight of inside-information measures, all PTT directors and management, including their spouses and children not yet of legal age, must report any changes in their PTT share ownership to SEC under Article 59 of the Securities and Exchange Act B.E. 2535 (1992) within three days from the dates of sale, purchase, disposal, or receipt of such shares. PTT defines the policy of disclosing or reporting the sale, purchase, disposal, or receipt of such shares, changes in share ownerships of the directors and the management to the monthly Board meeting, contained in advance as a regular agenda item.

Moreover, one week before the closing of the quarterly and yearly financial statements, the Office of the President and Corporate Secretary issues a letter to the directors, executives, or units with privilege of inside information, forbidding them to disclose such information to external parties or unrelated parties, and to buy or sell PTT shares within 45 days (for quarterly statements) and 60 days (for the annual statements) of the last effective date of the financial statements to the notification date of the financial statements to SET, ahead of the public dissemination of the statements so as to prevent insider trading. This year, all directors and management have strictly observed this policy. The notifications of forbidding sale, purchase, disposal, or receipt of PTT's shares were sent to the directors and the management four times this year: (1) between 1 January - 27 February (fiscal year 2014), (2) between 1 April - 15 May (fiscal year 2015, first quarter), (3) between 1 July - 14 August (fiscal year 2015, second quarter), and (4) between 1 October - 16 November (fiscal year 2015, third quarter).



## Report on Directors' Securities Portfolio, 2014 - 2015

No.	Name	Shares			Remark
		Dec. 31, 2014	Dec. 31, 2015	Change during the year	
1.	Mr. Piyasvasti Amranand	-	-	-	(No PTT share held)
	Spouse and children under legal age	-	-	-	-
2.	Mr. Kittipong Kittayarak	-	-	-	(No PTT share held)
	Spouse and children under legal age	-	-	-	-
3.	Mr. Watcharakiti Watcharothai	-	-	-	(No PTT share held)
	Spouse and children under legal age	-	-	-	-
4.	Mr. Areepong Bhoocha-oom	-	-	-	(No PTT share held)
	Spouse and children under legal age	-	-	-	-
5.	Gen. Chatchalerm Chalermsook	-	-	-	(No PTT share held)
	Spouse and children under legal age	-	-	-	-
6.	Mr. Chanvit Amatamatucharti	-	-	-	(No PTT share held)
	Spouse and children under legal age	-	-	-	-
7.	Mrs. Nuntawan Sakuntanaga	-	-	-	(No PTT share held)
	Spouse and children under legal age	-	-	-	-
8.	Mr. Vichai Assarasakorn	-	-	-	(No PTT share held)
	Spouse and children under legal age	-	-	-	-
9.	AM Boonsuib Prasit	-	-	-	(No PTT share held)
	Spouse and children under legal age	-	-	-	-

No.	Name	Shares			Remark
		Dec. 31, 2014	Dec. 31, 2015	Change during the year	
10.	Mr. Somchai Sujjapongse	-	-	-	Appointed on 1 November 2015 (No PTT share held)
	Spouse and children under legal age	-	-	-	-
11.	Mr. Don Wasantapruek	-	-	-	(No PTT share held)
	Spouse and children under legal age	-	-	-	-
12.	Mr. Somsak Chotrattanasiri	-	-	-	Appointed on 22 April 2015 (No PTT share held)
	Spouse and children under legal age	-	-	-	-
13.	Mr. Prasert Bunsumpun	130,800	-	-	Transferred 130,800 shares to spouse on 23 December 2015
	Spouse	-	130,800	-	-
	Children under legal age	-	-	-	-
14.	Mr. Chavalit Pichalai	-	-	-	Appointed on 18 August 2015 (No PTT share held)
	Spouse and children under legal age	-	-	-	-
15.	Mr. Tevin Vongvanich	-	-	-	Shown in the Management's Ownership of Shares Table.

**Remark:** No PTT shares was held by directors' spouses and children under legal age, **except** for those of Director No. 13.

## Securities Portfolios of Directors Who Completed Their Terms and Who Resigned, 2015

No.	Name	Shares			Remark
		Dec. 31, 2014	Dec. 31, 2015	Change during the year	
1.	Mr. Kurujit Nakornthap	-	N/A	N/A	Resigned on 13 January 2015 (No PTT share held)
	Spouse and children under legal age	-	-	-	-
2.	Mr. Twarath Sutabutr	-	N/A	N/A	Resigned on 1 August 2015 (No PTT share held)
	Spouse and children under legal age	-	-	-	-
3.	Mr. Pailin Chuchottaworn	60,000	N/A	N/A	Completed the term as President & CEO under the employment agreement with effect from 10 September 2015
	Spouse	2,000	N/A	N/A	-
	Children under legal age	-	-	-	-
4.	Mr. Rungson Sriworasat	-	N/A	N/A	Resigned on 1 October 2015 (No PTT share held)
	Spouse and children under legal age	-	-	-	-

## Management's Ownership of Shares, 2014 - 2015

No.	Name	Shares			Remark
		Dec. 31, 2014	Dec. 31, 2015	Change during the year	
1.	Mr. Tevin Vongvanich	56,000	25,000	(31,000)	Appointed President & CEO under the employment agreement on 10 September 2015 Transactions of PTT shares in 2015: - Bought 10,000 shares - Sold 41,000 shares
	Spouse and children under legal age	-	-	-	-
2.	Mr. Wirat Uanarumit	25,500	25,500	-	(No trading transaction of PTT shares in 2015)
	Spouse and children under legal age	-	-	-	-
3.	Mr. Sarun Rungkasiri	0	0	-	(No PTT share held)
	Spouse and children under legal age	-	-	-	-
4.	Mr. Sarun Rungkasiri	4,334	4,334	-	(No trading transaction of PTT shares in 2015)
	Spouse and children under legal age	-	-	-	-
5.	Mr. Chavarit Punthong	0	0	-	(No PTT share held)
	Spouse and children under legal age	-	-	-	-
6.	Ms. Boobpha Amornkiatkajorn	101,900	101,900	-	(No trading transaction of PTT shares in 2015)
	Spouse and children under legal age	-	-	-	-
7.	Mr. Chansin Treenuchagron	0	0	-	(No PTT share held)
	Spouse and children under legal age	-	-	-	-



No.	Name	Shares			Remark
		Dec. 31, 2014	Dec. 31, 2015	Change during the year	
8.	Mr. Auttapol Rerkpiboon	20,500	22,500	2,000	(Transactions of PTT shares in 2015: - Bought 2,000 shares)
	Spouse	2,300	3,800	1,500	(Transactions of PTT shares in 2015: - Bought 2,100 shares - Sold 600 shares)
	Children under legal age	-	-	-	-
9.	Ms. Sriwan Eamrungrroj	N/A	0	-	Appointed on 1 October 2015 (No trading transaction of PTT shares during 2015)
	Spouse	N/A	120,200	-	(No trading transaction of PTT shares during 2015)
	Children under legal age	-	-	-	-
10.	Mr. Noppadol Pinsupa	N/A	13,600	-	Appointed on 1 October 2015 (No trading transaction of PTT shares during 2015)
	Spouse	N/A	50,800	-	(No trading transaction of PTT shares during 2015)
	Children under legal age	-	-	-	-
11.	Mr. Kris Imsang*	N/A	10,000**	N/A	* Appointed on 1 February 2016 ** PTT shareholding as of 1 February 2016
	Spouse and children under legal age	-	-	-	-
12.	Mr. Somporn Vongvuthipornchai	N/A	0	-	Newly appointed executive, seconded to PTTEP since 22 October 2015 (No trading transaction of PTT shares during 2015)
	Spouse	N/A	10,000	-	(No trading transaction of PTT shares during 2015)
	Children under legal age	-	-	-	-

No.	Name	Shares			Remark
		Dec. 31, 2014	Dec. 31, 2015	Change during the year	
13.	Mr. Sukrit Surabotsopon	2,000	2,000	-	Seconded to IRPC since 1 October 2013 (No trading transaction of PTT shares during 2015)
	Spouse and children under legal age	-	-	-	-
14.	Mr. Atikom Terbsiri	0	0	-	Seconded to TOP since 1 October 2014 (No PTT share held)
	Spouse and children under legal age	-	-	-	-
15.	Mr. Supattanapong Punmeechaow	0	0	-	Seconded to PTTGC since 1 October 2014 (No trading transaction of PTT shares during 2015)
	Spouse and children under legal age	-	-	-	-
16.	Ms. Nitima Thepvanangkul	41,000	41,000	-	(No trading transaction of PTT shares during 2015)
	Spouse and children under legal age	-	-	-	-
17.	Mr. Sumrid Sumneing*	N/A	7,000**	-	* Appointed with effect from 1 January 2016 ** PTT shareholding as of 1 January 2016
	Spouse and children under legal age	-	-	-	-

**Remarks:** No PTT shares was held by executives' spouses and children under legal age, except those of No. 8, 9, 10 and 12.

## Securities Portfolio of Executives Transferred / Retired, 2014 - 2015

No.	Name	Shares			Remark
		Dec. 31, 2014	Dec. 31, 2015	Change during the year	
1.	Mr. Pailin Chuchottaworn	60,000	N/A*	-	* Completed the term as President & CEO under the employment agreement with effect from 10 September 2015 (No trading transaction of PTT shares in 2015 while in office)
	Spouse	2,000	N/A*	-	-
	Children under legal age	-	-	-	-
2.	Mr. Surong Bulakul	118,183	N/A	-	Retired on 30 September 2015 (No trading transaction of PTT shares in 2015 while in office)
	Spouse and children under legal age	-	-	-	-
3.	Mr. Nuttachat Charuchinda	63	N/A	-	Retired on 30 September 2015 (No trading transaction of PTT shares in 2015 while in office)
	Spouse and children under legal age	-	-	-	-
4.	Mr. Charcrie Buranakanonda	44,108	N/A	-	Retired on 30 September 2015 (No trading transaction of PTT shares in 2015 while in office)
	Spouse	11,300	N/A	-	-
	Children under legal age	-	-	-	-
5.	Mr. Sarakorn Kulatham	45,400	N/A	(1,000)	(Retired on 30 September 2015 Transactions of PTT shares in 2015: - Sold 1,000 shares)
	Spouse	11,000	N/A	2,000	(Transactions of PTT shares in 2015: - Bought 2,000 shares)
	Children under legal age	-	-	-	-

No.	Name	Shares			Remark
		Dec. 31, 2014	Dec. 31, 2015	Change during the year	
6.	Mr. Pramin Phantawesak	0	N/A	-	Retired on 30 September 2015 seconded to PTT Phenol since 1 October 2012 (No trading transaction of PTT shares in 2015 while in office)
	Spouse	300	N/A	-	-
	Children under legal age	-	-	-	-
7.	Ms. Pannalin Mahawongtikul*	28,812	N/A	2,000	* Seconded to PTTEP since 1 January 2016 (Transactions of PTT shares in 2015: - Bought 2,000 shares)
	Spouse and children under legal age	-	-	-	-

**Remarks:**

1. No PTT shares were held by executives' spouses and children under legal age, except those of No. 1, 4, 5, and 6.
2. PTT has issued and offered 60,000,000 warrants to the President, the management, PTT employees, and employees of PTT Group companies seconded to PTT, consisting of two batches: PTT-W1 (40,000,000 units), offered in 2005 with the last exercise date on 31 August 2010 and PTT-W2 (20,000,000 units), offered in 2006 with the last exercise date on 28 September 2011. The warrants were all exercised, and no new ones have been issued.

## (7) Reporting List of Assets and Debts to the Office of the National Anti-Corruption Commission (NACC)

Under Article 39 of the Anti-Corruption Act B.E. 2542 (1999), PTT's directors and senior management, including directors and senior management in the companies where PTT holds more than 50% of shares, are required to submit a list of their own assets and debts, including those of their spouses and children not yet of legal age, to the NACC each time they take up a position, every three years during their terms, and when they no longer hold their positions. To achieve this, PTT will issue a reminder to each of the directors and senior management as required.

## (8) Declaring Vested Interests at Meetings

At each Board meeting, the Chairman reminds directors to conform the policy on conflicts of interest on all agenda items, which requires those with vested interests must declare such interests to the meeting to abstain from voting or giving any views. This year, a total of 17 notices were made to the Chairman out of 16 Board meetings.

## (9) Review of Connected Transactions

The Audit Committee reviews related transactions, those with potential conflicts of interest, or with possible fraudulent practices that could harm PTT's businesses. The Audit Committee reports these transactions to the Board along with items of conflicts of interest, which have been examined for conformance to SET's criteria. Such transactions are strictly disclosed in the reports and disclosed every quarter of the year.

## (10) Corporate Governance Promotional Activities

The Corporate Governance Committee promotes and screens CG matters so that PTT may actively campaign for compliance with CG principles. A working group on CG, headed by an executive vice president, has drawn up PTT's action plan for CG and anti-corruption along with annual goals, later approved by the Corporate Governance Committee and the Board for relevant units to observe, as well as implementing assorted matters under the policy and conducting campaigns to cultivate awareness in the directors, management, employees, and related parties this year as described below:

- PTT constantly reviews and amends its values and corporate culture to suit and align with its vision and business context. Senior leaders show their commitment to the values and communicate with all staff across PTT through assorted channels. They also define promotional plans and activities for such values and culture, together with indicators for monitoring and assessment to lend effectiveness to internal communication, personnel skill sharing, and innovation in the workplace.

- PTT has defined its policy and management procedures for human resources in writing, including selection, training, promotion, and compensation procedures. A policy is in place to constantly develop competencies so that employees' capability matches business needs and accommodates work expansion.

- PTT has set up a complaint management center, with Corporate Communications as the main responsible unit, charged with the management of external complaints and responses to queries, together with internal complaints. Suitable periods have been defined for these purposes. Issues are compiled, managed, and regularly submitted to the management for comprehensive improvement and development of PTT.

- This year the Corporate Governance Committee held four meetings, with the meeting frequency set for at least quarterly, to monitor CG, follow up on the progress of the management of PTT's sustainability, and activities for society and PTT's communication.

- A channel for directly communicating CG with all shareholders is a quarterly newsletter called "PTT Bizway" in Thai and English, mailed to shareholders. It contains key information, including the vision, missions, message from the President & CEO, performance outcomes, CG, and management for PTT's sustainability. PTT enclosed an attitude survey form for shareholders and received cooperation from the readers. For the topic on satisfaction with PTT on CG, it received assessment at "very satisfied" to "most satisfied" of about 80%.

- Late this year, the CG taskforce conducted a survey through internal communication channels to assess PTT employees' mastery and communication of CG matters. Its conclusion was that nearly 90% of them commanded good understanding of CG and the code of business conduct. It also developed CG E-learning on the intranet as a learning media for CG and the code of business conduct for all employees. The plan is to assess employees' understanding to promote the cultivation of awareness and campaign for it in their performance under the code of business conduct.

- For new employees, the CG principles are communicated through the orientation, with tests to assess their knowledge of the CG E-Learning system. This year, there were four batches, each 60-80 persons. All new employees received a CG handbook. They had to study them and sign their names as acknowledgment before applying the CG principles and the code of business conduct as guidelines in their work.



- A “Fundamental Practice for Company Secretary Program” training course was held for PTT Group employees. The course deals with the CG policy and the anti-corruption policy, roles of units in promoting proper understanding and application of these matters to their jobs. The course featured experts from inside and outside PTT, including SET, SEC, and the Office of the Auditor-General of Thailand.

- Besides promoting CG knowledge within the organization, PTT shared its knowledge with external parties by agreeing to requests for a visit by assorted organizations/institutions. PTT’s top management was also invited to give talks or join seminars on the subject.

- Periodic promotional campaigns were conducted through various media within PTT, including exhibitions, a CG website packed with information, and two-way communication channels through email: cghelpdesk@pttplc.com, video, and a CG column in the “PTT Spirit” magazine are among the publicity and awareness tools, with positive responses from all. In addition, the Corporate Governance Committee distributed the Thai and English versions of the Good Corporate Governance Handbook (3<sup>rd</sup> Revision) to investors, international interested parties, and stakeholders for their reference. This is also posted on PTT’s website.

- A “CG Millionaire Challenge” was set up as a game on PTT Intranet to promote CG knowledge through puzzle-solving and adventures of characters in various aspects under PTT’s Code of Business Conduct for knowledge and easy memorization.

- In addition, PTT focused on CG among PTT Group to align with PTT’s CG management standards. To this end, they agreed to jointly study and develop CG guidelines based on international best practices to establish a standard suitable for PTT Group as a step toward future ranking. Implementation plans and proactive promotional strategies for CG were also established as follows:

#### R-E-A-C-T

R = Responsibility

E = Equitable Treatment

A = Accountability

C = Creation of Long-term Value

T = Transparency

Below is a description of activities promoting CG among PTT Group companies:

- Appointment of a PTT Group CG Steering Committee
- Staging of a PTT Group CG Day, a key annual activity designed to campaign, promote, and publicize CG practices among PTT Group companies, namely PTT, PTTEP, PTTGC, TOP, IRPC, and GPSC. It promoted awareness among executives and employees of CG application to their work. The all-day event consisted of exhibitions and recreational games that also educated visitors, in addition to a top-management seminar and an employee show among six PTT Group companies, featuring employees from all. Guest visitors also paid a visit, including representatives of SET, Thai Listed Companies Association, PTT Group’s business partners, and PTT Group executives and employees. Knowledge and impression were evident in the spirit shown by senior executives and employees that participated in growing good awareness of the significance of CG to management and work. This year, PTT was the host for the event on behalf of PTT Group under the “PTT Group CG Day 2015: Shade of Sharing...Passing the Power Forward” theme of forwarding the force of virtue. The more virtue, the more we give, and the more sustainable our cause will become. The activities entice all PTT Group people to form a network that forwards the force of virtue to all sectors. PTT Group is convinced that, thanks to this force of virtue, our society will become a sustainably clean one.

#### (11) Anti-corruption

- PTT set anti-corruption guidelines in its ethics and code of practice, including the code of practice for vested interests and conflicts of interest and that for acceptance and giving of gifts, assets, or other benefits. In essence, improper practices could bring unease or could affect business decisions and ultimately deprive PTT of its interests. In line with the law, PTT is absolutely against bribery. It also designates integrity and ethics as corporate values and PTT’s ethics standard for all directors, executives, and employees to observe in tandem with PTT’s regulations so that administration and business conduct may be transparent, straightforward, fair, and worthy of stakeholders’ confidence and trust.



- In 2010, PTT enlisted in the declaration of the intention to join Thailand Private Sector Collective Action Coalition against Corruption (CAC), an endeavor of the Thai Institute of Directors (IOD) with the support of the government and the Office of the National Anti - Corruption Commission (NACC). PTT was one of the first 27 companies to do so.

- In 2012, PTT joined the United Nations Global Compact (UNGC) to show its desire to apply the principles of human rights, labor rights, environmental preservation, and anti-corruption at the international level to its business conduct.

- PTT's Board Meeting No. 6/2014 dated 27 June 2014, endorsed PTT's and PTT Group's anti-corruption policies for implementation across each organization. It requires the Anti-Corruption Policy as a part of PTT's Corporate Governance, Ethics Standards, and Code of Business Conduct Handbook and requires PTT Group's Anti-Corruption Policy as a part of the PTT Way of Conduct so that PTT Group companies may observe the same standards and management approaches.

- PTT's Anti-Corruption Policy requires that PTT's employees must not carry out or participate in corrupt practices, as well as all forms of bribery giving or acceptance (direct and indirect). PTT's employees must seriously observe the Anti-Corruption Policy, which covers various processes, including donation to charities, human resource administration, procurement, and internal control.

- PTT communicates its Anti-Corruption Policy and guidelines to its subsidiaries, associates, and other PTT-controlled companies, business partners, and stakeholders, as well as the public, through assorted channels such as letters, e-mails, website, PTT Intranet, seminars, and exhibitions so that all stakeholders may acknowledge and conform to PTT's guidelines.

- PTT establishes constant communication with and training for its employees so that they may develop true understanding about PTT's anti-corruption measures, PTT's expectations, and punishment for violations, including training for new employees on CG and anti-corruption through orientation sessions, ethics training courses, CG and anti-corruption training courses, and CG E-learning. It also arranges for its executives and employees to join training courses on anti-corruption, organized by external organizations, including IOD.

- Conforming to CAC's certification process by showing evidence about its business policies, procedures, and internal control system to CAC, PTT duly secured the status of a CAC member on 3 October 2014.

- This year, PTT declared its "No-Gift Policy" for any festival period to establish a higher standard for business practices in the hope of having all employees perform to the best of their ability without expecting benefits. This was how PTT underscores compliance with CG and anti-corruption policies. To this end, a letter was sent to all units, and signboards were put up on the premises of PTT.

- Monitoring of performance:

- The Board ensures that PTT has an efficient system in support of anti-corruption to ensure that the management recognizes and values anti-corruption and cultivates it as a corporate culture.

- The Audit Committee supervises internal control, financial reporting, and other procedures related to anti-corruption measures, and steers conformance to anti-corruption measures, and reviews applicable measures and internal control to ensure that the measures are adequate and effective. The committee reviews risk assessment and provides recommendations to the Board about suggested practices to mitigate such risks. Executives must implement such recommendations. The committee also regularly reports internal-audit findings regarding anti-corruption measures to the Board and provided good practices to the Board and the executives.

- The Corporate Governance Committee annually defines and reviews the Anti-Corruption Policy, provides recommendations, guidelines, monitoring, and assessments anti-corruption performance.

- The Risk Management Committee steers and advocates risk management practices related to anti-corruption by assessing corruption risks and reviewing anti-corruption measures for adequacy and suitability.

- The executives establish risk assessment for business procedures that may lead to corrupt practices, review the suitability of processes and measures, and exemplify proper behavior as well as communicating it to all employees and related parties.

- PTT's internal control can reduce and curb practical risks through the establishment of a control environment that promotes integrity among all employees, risk assessment, and control activities that are adequate and suitable, particularly those unacceptable to PTT, including corruption risks.

- PTT establishes procedures for maintaining auditable documents and records to confirm the accuracy and suitability of financial reports. The internal control of accounting processes and information storage are audited to verify the effectiveness of anti-corruption measures and processes and to ensure that the entry of financial items is well-evidenced for audit.

- The Office of Corporate Audit examines items of potential conflicts of interest, the likelihood of corruption, and organizational efficiency in managing risks arising from corporate corruption and those at operating levels. The office also reviews business ethics principles and the code of business conduct for executives and employees. It reviews and reports to the Audit Committee and top executives immediately when encountering items or actions that could waste PTT's performance outcomes, including corruption.

- Measures, scope, and tools for whistleblower protection

- PTT's human resource administration process reflects its determination for anti-corruption measures. Although it may deprive PTT of business opportunities, PTT's policy is not to demote, punish, or harm those that refuse to take part in corruption.

- PTT's employees should not ignore actions that could go against anti-corruption measures. PTT has established channels for whistleblowing and protection of whistleblowers or those that need advice about conformance to anti-corruption measures.

- PTT has established a requirement concerning complaint-making and whistleblowing to define criteria and guidelines for complaint-making and whistleblowing that are suitable and uniform throughout the corporation. In place are protective measures and fair treatment of whistleblowers

or those that cooperate in providing relevant information. Whistleblowing serves as an alerting tool for the organization and a channel for suppressing corrupt practices, since it could resolve problems promptly before they worsen and spoil the image and financial standing of the corporation. All employees can become whistleblowers by publicizing irregularities for the benefit of PTT's transparency, CG, and sustainability.

- Punishment

- Since PTT requires that all employees must sign their names in acknowledgment of the CG Handbook to show their commitment to acceptance of good practices as their guidelines, the handbook serves as discipline that all must strictly observe.

- PTT has established a suitable and fair process for punishing those that violate anti-corruption measures. Any violation of this policy, direct or indirect, calls for disciplinary review under PTT Regulations, consisting of explicit fact-finding, investigation, punishment, and appeal. They could also lead to punishment by law. Employees must therefore master and strictly conform to the Anti-Corruption Policy in every step of their work.

## 2. Risk Assessment

PTT recognizes the significance of risk management under changes that impact its businesses because of internal and external factors. Viewing risk management as a key component of every business process which must be linked with one another, PTT therefore defined a policy of corporate risk management that all must conform to and undertake at the operating level. As for corporate risks, this management is systematically undertaken by PTT's management committees. Operation risks fall under the oversight of respective operations. A risk management and internal control committee manages overall risks for maximum efficiency. It is the responsibility of all units to manage and control at manageable levels, as is clearly stated in the functional job descriptions of all units.



### 3. Control Activities

The Management Committee is authorized to review reports, financial and otherwise, of all business groups and corporate overviews, and regularly review all reports to ensure conformance to regulations and job manuals. PTT has defined policies and procedures in writing, including those for performance assessment of all employees, which relies on Key Performance Indicators (KPIs) to enable control of management activities to be suitable, adequate, and accountable. Portions of businesses have been identified for key risks, and mechanisms defined to control and minimize errors. Regular performance reviews by the management are in place, including financial, procurement, and general administrative transactions. Systematic delegation of duties to personnel groups ensures examinations and counterbalance. Authority is duly and totally segregated for approval, information processing, transaction recording, receipt and disbursement of cash, reviews and inspection, and stewardship of properties. In place is an internal control system for finance and accounting, dealing with cash collection, cash retention, receipt and disbursement, bank deposits, and cash advances. These follow the rules with complete, accurate, and regular recording. Systematic storage of accounting documents, both documents and information, is in place to comply with the law.

In procurement process, PTT follows rules and requirements on material and supply matters, which clearly define responsible parties, including the authority, approval limits, supply need assessment, inspection, control and storage of supplies, and property counting. As for human resource administration, PTT has instituted a human resource administration system, complete with adequate monitoring and assessment, covering recruitment, determination of compensation, duties, personnel development, performance, and communication so that employees may be competent and that PTT's human resource administration may be suitable and efficient.

If PTT enters into transactions with major shareholders, directors, the management, or related persons, PTT applies strict measures to ensure that each such transaction goes through the required approval procedures every time for every item. The stakeholders will not take part in the approval of such item. PTT also closely monitors any subsequent actions.

In addition, PTT values security, safety, occupational health, and environment (SSHE), which is likened to a vital shield against losses to PTT's businesses so that the corporation may grow smoothly and sustainably, while extending corporate performance in all aspects for excellence to ensure vision and goal attainment. The Board looks after, monitors, and provides policies as well as recommendations on SSHE, which PTT then applies as its control activities through the PTT MC (Management Committee), led by the President & CEO, the PTT Group QSHE Policy Committee, and the PTT QSHE Committee, which screens and steers management practices at the operating level for PTT Group and within PTT. To this end, centralized units are SSHE and Quality Management. This year, there was a requirement to make an "SSHE moment" as the very first agenda item of every Board meeting. Details appear under SSHE in this report and the Corporate Sustainability Report 2015.

### 4. Information & Communication

Thanks to the vision of the Board, PTT and PTT Group companies have jointly established PTT ICT Solutions Co., Ltd. (PTTICT), to centralize IT services for the group, a cost-saving idea that reduces infrastructural spending and IT redundancies for each company, while adding bargaining power for the group. To date, PTTICT has performed its roles consistently well and has become PTT Group's flagship in IT operations over the past 10 years.

The Board has also supported PTT's infrastructural improvement dealing with ICT and developed an information system for innovation for greater ICT and communication business competitiveness on a par with leading companies worldwide, for instance, improvement of the internal PTT data communication system to high-speed network as fast as 10 GBps; development of the POS (Point of Sale) into the Cloud Service type to accommodate business expansion with burgeoning branch expansion and growth, including Café Amazon outlets and the TEXAS Chicken restaurants; development of the SAP system by using Global Template and Global Platform in SAP application as PTT Group's core business system. These improvements shorten the time for system application and efficiently eliminate data redundancy and data linkage, thus accommodating worldwide performance.

PTT has also developed the In-Vehicle Management System (IVMS) to help track PTT's product transport and perform better logistical management with an alert system when a vehicle strays from the given directions, and with a control room for monitoring trucks and vans to enhance cargo delivery safety and speed up reports to the management. Further, PTT has come up with an innovation supporting various reports, called the PTT Dashboard, which accommodates performance tracking under State Enterprise Performance Appraisal (SEPA) evaluation in pursuit of a leading entity of Thais – the Pride and Treasure of Thailand.

The Board recognizes and values security in its IT system and the storage of electronics data, evident in the active monitoring and driving of the construction of a new computer center, which was launched on 2 September this year. This center features the TIER IV standard of data center, the first in Thailand, which is undergoing certification of ISO/IEC 27001 (Information Security Management System). In place is network security in a bid to achieve digital security. Developed a program controlling the hook-up of unregistered computer hardware with PTT's LAN or Wireless LAN system, thus lending maximum security and safety and accommodating PTT's stride for a Digital Roadmap in the future. Finally, PTT staged an emergency response drill on ICT to ensure uninterrupted business under ISO 22301 (Business Continuity Management System).

This year, the Board valued the development of a knowledge management system to provide service concerning knowledge accumulated through the years, that is, the PTT Learning Management System (LMS), which links the courses defined in the capability development of PTT employees in a given position, and a KM system on mobile phones to enable PTT personnel to quickly search for its knowledge. Besides, it operated through the Audit Committee and the Risk Management and Internal Control Committee, both of which required reviews of the information system for administering various tasks, development of internal control reports, together with the rollout of IT Governance and Way of Conduct (WoC) to PTT Group companies so that all PTT affiliates may proceed in the same directions and embrace all units worldwide.

## 5. Monitoring & Evaluation

### • Internal Control System

The Office of Corporate Audit is an independent unit which directly reports to the Audit Committee. It fosters assurance and provides consultation to ensure that business processes are properly equipped with CG, risk management, and sound internal controls in support of PTT's objectives.

The office audits annual operating plans and three-year advanced audit plans in line with business strategic directions and the so-called risk-based approach (key corporate risks), encompassing PTT Group's businesses, both domestic and international. It reports findings to the Audit Committee for consideration and reports to the Board for acknowledgment every quarter. Regular monitoring is undertaken for actions in response to the office's recommendations. In its work, the office freely expresses its opinions. No conflicts have arisen between audited units and the office that cannot be resolved.

### • Control Self-Assessment (CSA)

In addition, PTT monitors internal controls and assesses them at least annually by defining this task as a part of the routine procedures of executives, supervisors, and relevant parties. It also instituted Control Self-Assessment (CSA) within PTT in a mixed mode:





- Specific questionnaires on internal controls at corporate and departmental levels
- Facilitated workshops to assess internal controls at the activity level, with a focus on process control, assessment outcomes, and plans to improve internal controls, which must have the buy-in of work process owners and monitoring by superiors.

The Risk Management Department compiles data and summarizes its analyses of those data in reports of self-assessment covering the entire PTT for the Risk Management and Internal Control Committee to screen, comment on, and issues approaches for responsible units to proceed with corrective actions every year. In addition, the Office of Corporate Audit conducts reviews to ensure that the existing internal controls are adequate for handling risk management and are consistently conformed to and observed. The Audit Committee reviews the findings of the internal audit annually. If any areas needing improvement are found, PTT has instituted procedures to ensure that such areas receive due attention and immediate corrective actions. As for the internal control assessment of accounting and finance, the audit and review are usually undertaken by the Office of the Auditor-General (the external auditor), with the findings submitted to the Audit Committee for consideration quarterly and annually.

In monitoring and assessing internal controls, PTT conforms to the guidelines for report preparation issued by the Auditing Commission Regulation (Clause 6). It was concluded that the latest assessment was at a “good” level. All business groups also report their performance every month and have it regularly measured against KPIs.

This year the Corporate Risk Management Department under the Corporate Strategy Group, which was assigned to look after PTT’s internal control assessment, collected data and developed an information system for a list of key controls. The effort consisted of data on task description (FD), appointment orders of committees, roles of the Board, rules

of the State Audit Commission, COSO Internal Control Integrated Framework, and anti-corruption measures in response to CAC’s questions. The purposes are to refine the assessment form for internal control for vice presidents upward under PTT’s corporate structure and those on secondment with PTT Group companies to respond with a scope covering key process activities and to develop a database for key controls for 30 core processes. The response format was also developed as an e-CSA (electronic) for executives to assess and access assessment reports through the intranet. This year, assessment questions were modified with a focus on procurement processes and the anti-corruption policy. Consultation was held with process owners to jointly and personally review the adequacy of such questions for internal control assessment, which contributed to the awareness and promotion of alignment of work of the entire corporation. That way, all units may proceed in the same directions.

Regular reviews of the assessment outcomes conducted by executives and the Office of Corporate Audit and the Audit Committee for this year indicated no significant problems or defects, a view shared by the external auditor. In summary, PTT’s internal control system is adequate and effective from a business standpoint.

## Auditor’s Fee

For the year 2015, the Company and its subsidiaries paid audit fees amounting to Baht 145,528,035 (One hundred forty-five million five hundred twenty-eight thousand and thirty-five Baht). In addition, the Company and its subsidiaries paid material amount of non-audit fees (e.s. a professional fee for the Offering Memorandum of the Global Medium Term Notes Programme, a professional fee for certifying financial statements submitted to the Revenue Department, and other professional fees) amounting to Baht 11,378,086 (Eleven million three hundred seventy-eight thousand and eighty-six Baht)

## Implementation of Corporate Governance in Other Areas

According to a survey on PTT's CG conducted by the Thai Institute of Directors (IOD), the score given to the overall picture of PTT on the CG principles for listed companies in 2015 was "excellent".

On average, PTT earned a higher overall score and individual category scores than the field of 588 companies, and higher than the average score of SET50 companies. The survey result was based on PTT's public information. This year, PTT has good practical guidelines apart from the survey criteria which can serve as good practices for other listed companies such as:

- As the current chairman is an independent director, the assignment of policies and supervision of PTT's operations is independent.
- PTT requires that independent directors make up at least half of its directors.
- Due to the Budget Procedures Act B.E. 2502 (1959), PTT is regarded as a state enterprise, therefore, the Audit Committee endorsed the appointment of the Office of the Auditor-General of Thailand (a credible, neutral agency) as PTT's external auditor. The committee has secured the Board's endorsement for review and approval by the shareholders, who will appoint and approve its audit fees.
- PTT prepares an agenda-based meeting format for its units to increase performance review efficiency, guided by QSHE/ SPIRIT/ CSR/ CG Talk as channels to communicate the CG principles and encourage reminders of the campaign on the awareness of CG-based work.
- PTT has defined guidelines to systematically promote the SPIRIT core values, linking assorted mechanisms in the corporation by stressing concrete, sustainable implementation. A developed SPIRIT Norm Checklist promotes a work ambience that underscores/reminds employees to be smart and conscientious in line with the SPIRIT values. The executives play a critical role in serving

as practical role models and in coaching; for instance, consistently acting as role models, communicating clearly, closely mentoring employees, and communicating of good CG, which is one of PTT's core values.

- Communication of the core values to PTT Group companies through the PTT Group policies. It also defines SPIRIT as one of the supervisory approaches for PTT Group companies (PTT Way of Conduct).

- PTT requires that the PTT Group Anti-Corruption Policy be part of the PTT Way of Conduct, with tangible KPIs designed to drive the management of PTT Group toward the same standard and management approach and direction so as to create synergy in line with investment objectives and to drive the policy to systematic implementation, ready for upcoming assessment.

This year although PTT observed CG, it may not have covered the criteria of the Corporate Governance Report of Thai Listed Companies and ASEAN CG Scorecard in the following aspects:

- Board composition of 5 - 12 directors

PTT Regulations call for 5 - 15 directors. Today it has a total of 13 directors, which agrees with the requirement for petroleum businesses that needs experts from a variety of professions. Today the Board has appointed five committees to screen key matters, namely the Audit Committee, the Nominating Committee, the Remuneration Committee, the Corporate Governance Committee, and the Enterprise Risk Management Committee.

- Director election through cumulative voting

PTT Regulations call for director election to be decided by a majority of votes. Each shareholder carries votes equal to his or her number of shares. In addition, PTT has consistently devised other ways to preserve the rights of minor shareholders, including its encouragement for them to exercise their right to nominate additional agenda items or nominate directors in advance.

*The number of meetings of the Committees is shown under **Meetings of PTT Committees**.*



## Internal Control and Risk Management



The Risk Management and Internal Control Committee has assigned the Risk Management Department to assess internal controls by preparing the individual internal control self-assessment forms for managerial level and upper under PTT's corporate structure and those seconded to PTT Group companies, covering the duties and responsibilities as referred to in the internal control guidelines of the Committee of Sponsoring Organizations of the Treadway Commission (COSO), which devises the major compositions of internal controls: (1) Control Environment, (2) Risk Assessment, (3) Control Activities, (4) Information & Communication, and (5) Monitoring Activities. The intention is to ensure that PTT's overall business achieves the objectives of internal control in business efficiency; resource consumption; stewardship of properties; prevention or reduction of errors, damage, losses, and waste; credibility of financial, accounting, and other reports; compliance with laws, regulations, Cabinet resolutions,

and PTT's policies and regulations. Assessment is also conducted against the framework of corporate governance and anti-corruption measures under the checklist of the Thailand Private Sector Collective Action Coalition against Corruption (CAC).

Reviewing the effectiveness of internal controls, the Office of Corporate Audit reports the findings to the Audit Committee and the Board, which then assesses the system by interrogating the management on the implementation of guidelines/ recommendations to improve internal controls. In summary, in assessing PTT's internal control against the five above-mentioned compositions, the Board concluded that PTT's internal control system is adequate and proper. Finally, PTT has provided enough employees to efficiently implement the system.



## Head of the Office of Corporate Audit

At No. 21/2551 Meeting 22 September 2008, the Management Committee appointed Ms. Nitaya Direksathapon as Executive Vice President, Office of Corporate Audit, on 1 October 2008, citing her in-depth expertise and understanding of PTT's business. Also experienced in PTT's accounting, financial matters, and financial risk management at the business and group levels, she was regarded as suitable for the position. The Audit Committee approved the appointment, transfer, performance assessment, and annual merit pay increase of this position.

## Compliance Mechanism

PTT defines the following responsibilities of the units to ensure its compliance with corporate regulations:

- **Office of the President and Corporate Secretary** ensures that the PTT Group companies/ the Board/ the management committee/ executives/ units conform to the

rules on state enterprises and listed companies, together with applicable regulations. It also serves as an information clearing house and follows up on external rules and regulations, and provides knowledge and advice on external regulations on state enterprises and listed companies by interpreting and summarizing them so that relevant persons/ units may conform to them.

- **Office of Corporate Legal** supervises business legislation, laws on listed companies, laws on environment/ safety in the workplace, energy laws, Administrative Court cases, and international laws to ensure that PTT's business operations comply with the other laws and regulations of the State; and counsels other units/ PTT Group companies so that their operations may comply with the law, especially new business transactions (domestic and overseas) to allow flexibility for business operations.

- **Office of Corporate Audit** assesses the efficiency and adequacy of the internal control system and supervises the operation of PTT and its subsidiaries.

## Profile of the Head of the Office of Corporate Audit



**Ms. Nitaya Direksathapon**  
Head of the Office of Corporate Audit

Age: 58

### Education

- Bachelor of Accounting (Second-Class Honors), Chulalongkorn University
- Master of Business Administration (Finance), National Institute of Development Administration (NIDA)

### Training

- Senior Executive Program, Sasin Graduate Institute of Business Administration
- Finance for Senior Executives, Harvard Business School
- NIDA - Wharton Executive Leadership Program, National Institute of Development Administration (NIDA)
- Director Accreditation Program (DAP) 91/2011, IOD
- Senior Judicial Administration Executives Program, Class 3, Office of the Administrative Court

### Career highlights

- 1993 - 2000 : Vice President, Accounting Department
- 2001 - 2006 : Vice President, Financial Risk Management on Finance and Credit Policy Department, PTT
- 2006 - 2008 : Executive Vice President, Corporate Accounting and Finance, IRPC Plc.
- 2009 - Present : Executive Vice President, Office of Corporate Audit, PTT

### Relevant important position

- None

### Relationship with the management

- None



# PTT Board of Directors



1. **Mr. Piyasvasti Amranand**
2. **Mr. Kittipong Kittayarak**
3. **Mr. Watcharakiti Watcharothai**
4. **Mr. Areepong Bhoocha-oom**
5. **Gen. Chatchalerm Chalernsukh**
6. **Mr. Chanvit Amatamatucharti**
7. **Mrs. Nuntawan Sakuntanaga**

Independent Director/ Chairman  
Independent Director/ Chairman of Audit Committee  
Independent Director/ Chairman of the Nominating Committee/  
Member of the Remuneration Committee  
Director/ Chairman of the Remuneration Committee  
Independent Director/  
Chairman of the Corporate Governance Committee  
Independent Director/ Member of the Nominating Committee/  
Chairman of the Enterprise Risk Management Committee  
Independent Director/ Member of the Audit Committee



8. **Mr. Vichai Assarasakorn**
9. **Air Marshal Boonsuib Prasit**
10. **Mr. Somchai Sujjapongse**
11. **Mr. Don Wasantapruerk**
12. **Mr. Somsak Chotrattanasiri**
13. **Mr. Prasert Bunsumpun**
14. **Mr. Chavalit Pichalai**
15. **Mr. Tevin Vongvanich**

Independent Director/ Member of the Audit Committee  
Independent Director/ Member of the Nominating Committee  
Director/ Member of the Remuneration Committee  
Independent Director/ Member of the Corporate Governance Committee  
Independent Director/ Member of the Corporate Governance Committee  
Independent Director/  
Member of the Enterprise Risk Management Committee  
Director/ Member of the Enterprise Risk Management Committee  
Director/ Secretary to the Board/ President and Chief Executive Officer



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## PTT Board of Directors

\* As of 1 February 2016



### Mr. Piyasvasti Amranand

Age 62

Independent Director/  
Chairman

(%) Share Possession: None

#### Appointed

- 1 July 2014 (Chairman since 4 July 2014)

#### Educations

- Bachelor's Degree (First Class Honors) (Mathematics), University of Oxford, UK
- Master's Degree (Economics), London School of Economics and Political Science, University of London, UK
- Ph.D. (Economics), London School of Economics and Political Science, University of London, UK

#### Certifications

- Director Accreditation Program (DAP 35/2005), Thai Institute of Directors Association (IOD)
- Seminar "Incorporation of State Investment Corporation" (5 June 2015)
- Seminar "Role and Function of Board of Directors of State Enterprise", State Enterprise Policy Office (13 July 2015)
- Seminar "Briefing on International Anti-Corruption... International cases and practices", IOD (14 October 2015)
- Seminar Thailand's 6<sup>th</sup> National Conference on Collective Action against Corruption "Anti-Corruption in Thailand: Sustaining the Momentum" IOD (16 October 2015)
- PTT Board Briefing

#### Work Experiences

2006 - 2008	: Minister, Ministry of Energy
2008 - 2009	: Chief Advisor to Chief Executive Officer, Kasikorn Bank Public Company Limited
2009 - 2012	: President, Thai Airways International Public Company Limited
Present	: Independent Director/ Chairman, PTT Public Company Limited Independent Director/ Chairman of the Audit Committee, Kasikorn Bank Public Company Limited Independent Director/ Chairman of the Audit Committee, Prukha Real Estate Public Company Limited Chairman, Energy for Environment Foundation

#### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Independent Director/ Chairman, PTT Public Company Limited
- Independent Director/ Chairman of the Audit Committee, Kasikorn Bank Public Company Limited
- Independent Director/ Chairman of the Audit Committee, Prukha Real Estate Public Company Limited

#### Relevant Important Positions in Non-listed Company/ Other Organizations

- Chairman, Energy for Environment Foundation

#### Relation among Family with other Directors and Executives

- None



### Mr. Kittipong Kittayarak

Age 57

Independent Director/  
Chairman of Audit Committee

(%) Share Possession: None

#### Appointed

- 1 July 2014

#### Educations

- Bachelor of Laws (Honor), Chulalongkorn University, Thailand
- Master of Laws (LL.M.), Cornell University, USA (OCSC Scholarship)
- Master of Laws (LL.M.), Harvard University, USA (Fulbright Scholarship)
- Doctor of the Science of Laws (J.S.D.), Stanford University, USA (Fulbright Scholarship)

#### Certifications

- Director Accreditation Program (DAP 112/2014), Advance Audit Committee Program (AAP 18/2015), Thai Institute of Directors Association (IOD)
- Barrister-at-Law, Institute of Legal Education Thai Bar Association
- Politics and Government in Democracy for Executives (Class of 5<sup>th</sup>), King Prajadhipok's Institute
- Diploma, The National Defence Course (Class of 49<sup>th</sup>), National Defence College
- Diploma, (Class of 8<sup>th</sup>), Capital Market Academy (CMA)
- Certificate in Top Executives in the Energy Education Program (Class of 1<sup>st</sup>), Thailand Energy Academy (TEA)
- Seminar "Role and Function of Board of Directors of State Enterprise", State Enterprise Policy Office (5 June 2015)

- Thailand's 5<sup>th</sup> National Conference on Collective Action against Corruption ("Tackling Corruption through Public-Private Collaboration") (16 October 2014)
- Seminar PTT Group AC Forum 2015
- PTT Board Briefing

### Work Experiences

2005 - 2008	: Deputy Permanent Secretary, Ministry of Justice
2008 - 2014	: Permanent Secretary, Ministry of Justice
2014 - 2015	: Advisor to the Prime Minister
2015 - Present	: Executive Director, Thailand Institute of Justice (TIJ)

### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Independent Director/ Chairman of the Audit Committee, PTT Public Company Limited
- Independent Director/ Chairman of the Audit Committee/ Member of the Nominating and Remuneration Committee/ Member of the Compliance Committee, Krung Thai Bank Public Company Limited

### Relevant Important Positions in Non-listed Company/ Other Organizations

- Member of the Board of Committee, Thai Bar under the Royal Patronage
- Chairman, The Council of Bangkok University
- Director, The Council of Mahidol University
- Honorary Committee, Department of Special Investigation
- Committee, Office of The Narcotics Control Board
- Member of the Executive Committee, ASIA Crime Prevention Foundation (ACPE)

### Relation among Family with other Directors and Executives

- None



### Mr. Watcharakiti Watcharothai

Age 55

Independent Director/  
Chairman of the Nominating Committee/  
Member of the Remuneration Committee

(%) Share Possession: None

### Appointed

- 10 April 2009; 10 April 2012 (re-elected);  
9 April 2015 (re-elected)

### Educations

- Bachelor of Arts (Political Science), Kasetsart University, Thailand
- M.P.A., Roosevelt University, USA
- Honorary Degree of Doctor of Philosophy, Department of Administration, Ramkhamhaeng University, Thailand
- Honorary Degree of Doctor of Management, Thongsook College

### Certifications

- Director Certification Program (DCP 121/2009), Moving Corporate Governance Forward: Challenge for Thai Director 2012, Thai Institute of Directors Association (IOD)
- Diploma, The State, Private Sector and Political Sectors Course (Class 4/2006), National Defence College
- Top Executives Program (Class of 9<sup>th</sup>), Capital Market Academy (CMA)
- Corporate Governance for Directors and Senior Executives of State Enterprises and Public Organizations (Class of 5<sup>th</sup>), Public Director Institute (PDI), King Prajadhipok's Institute
- Senior Executives on Justice Administration Batch (Class of 15<sup>th</sup>), National Justice Academy
- Top Executive Program in Commerce and Trade (TEPCoT) (Class of 5<sup>th</sup>), Commerce Academy
- Certificate in Top Executives in the Energy Education Program (Class of 1<sup>st</sup>), Thailand Energy Academy (TEA)
- Certificate in Top Executives in the Poornpalungpandin Program (Class of 1<sup>st</sup>), Chulalongkorn University
- Certificate in Top Executive in Industrial Development and Investment (Class 1/2013), Institute of Business and Industrial Development
- Certificate in Top Executives in Urban Management (Mahanakorn 3<sup>rd</sup>) Institute of Metropolitan Development
- Thailand's 5<sup>th</sup> National Conference on Collective Action Against Corruption (Tackling Corruption through Public-Private Collaboration) (16 October 2014)
- Seminar "Briefing on International Anti-Corruption... International cases and practices", IOD (14 October 2015)
- PTT Board Briefing

### Work Experiences

2001 - 2007	: Assistant Lord Chamberlain
2007 - Present	: Grand Chamberlain

### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Independent Director/ Chairman of the Nominating Committee/ Member of the Remuneration Committee, PTT Public Company Limited

- Independent Director/ Chairman of the Corporate Governance Committee, IRPC Public Company Limited (IRPC)
- Independent Director/ Chairman of the Audit Committee, Aqua Corporation Public Company Limited
- Chairman, Grande Asset Hotels and Property Public Company Limited

#### Relevant Important Positions in Non-listed Company/ Other Organizations

- Committee Member of The Red Cross Fair, The Thai Red Cross Society
- Member of the Board of Director Rachavinit Pathom School
- Chairman of Parents & Teachers Association Rachavinit Pathom School
- Member of the Board of Director Suan Sunand Rajabhat University
- Member of the Board of Director Suan Dusit Rajabhat University

#### Relation among Family with other Directors and Executives

- None



**Mr. Areepong Bhoocha-oom\***

Age 58

Director/

Chairman of the Remuneration Committee

(%) Share Possession: None

#### Appointed

- 7 July 2014; 9 April 2015 (re-elected)
- \* Resigned with effect from 8 February 2016

#### Educations

- International Management, Boston University, USA
- MBA (Finance), Marshall University, USA
- Ph.D (Finance), University of Mississippi, USA

#### Certifications

- Director Certification Program (DCP 3/2000), Thai Institute of Directors Association (IOD)
- Certificate in Government Debt Monitoring System, World Bank
- Certificate in Global Trend and Public Enterprise Reform, Harvard University, USA
- Awareness, Vision, Imagination, Responsibility, Action (AVIRA), INSEAD The Business School, France
- Top Executive Program (Class of 4<sup>th</sup>), Capital Market Academy (CMA)
- Senior Executives on Justice Administration Batch (Class of 14<sup>th</sup>), National Justice Academy

- Diploma, The National Defence Course (Class of 46<sup>th</sup>), National Defence College
- Certificate in Top Executives in the Energy Education Program (Class 1/2012), Thailand Energy Academy (TEA)
- PTT Board Briefing

#### Work Experiences

- 1 October 2009 : Director General, Excise Department, Ministry of Finance
- 1 October 2010 : Permanent Secretary, Ministry of Finance
- 11 October 2013 : Secretaries-General, Office of the Public Sector Development Commission (OPDC)
- 27 June 2014 : Permanent Secretary, Minister of Energy
- 25 May 2015 : Secretaries-General, Office of the Public Sector Development Commission (OPDC)
- 14 July 2015 : Permanent Secretary, Minister of Tourism & Sports
- 1 October 2015 - Present : Permanent Secretary, Minister of Energy

#### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Director/ Chairman of the Remuneration Committee, PTT Public Company Limited
- Independent Director/ Chairman/ Chairman of Strategy and Transformation Committee, Thai Airways International Public Company Limited

#### Relevant Important Positions in Non-listed Company/ Other Organizations

- None

#### Relation among Family with other Directors and Executives

- None



**Gen. Chatchalerm Chalermsook**

Age 60

Independent Director/

Chairman of the Corporate

Governance Committee

(%) Share Possession: None

#### Appointed

- 4 September 2014

**Educations**

- Bachelor of Science Program, Chulachomklao Royal Military Academy, Thailand
- Master of Arts (Military), Command and General Staff College, Thailand

**Certifications**

- PTT Board Briefing

**Work Experiences**

- 2012 : Assistant Chief of Staff for Intelligence, Royal Thai Army
- 2013 : Deputy Chief of Staff, Royal Thai Army
- 2014 - 30 September : Chief of Staff, Royal Thai Army
- 2015

**Relevant Important Positions in Listed Company - The Stock Exchange of Thailand**

- Independent Director/ Chairman of the Corporate Governance Committee, PTT Public Company Limited
- Independent Director/ Chairman, MCOT Public Company Limited

**Relevant Important Positions in Non-listed Company/ Other Organizations**

- Member of the National Legislative Assembly (NLA)
- Chairman, Rubber Authority of Thailand (RAOT)

**Relation among Family with other Directors and Executives**

- None

**Mr. Chanvit Amatamatucharti**

Age 59

Independent Director/  
Member of the Nominating Committee/  
Chairman of the Enterprise  
Risk Management Committee

**(%) Share Possession:** None**Appointed**

- 4 September 2014; 9 April 2015 (re-elected)

**Educations**

- Master of Arts (Economics), Chiang Mai University, Thailand
- Master of Economics Program (Development Economics), National Institute of Development Administration, Thailand

**Certifications**

- Director Certification Program (DCP 109/2008), Audit Committee Program (ACP 39/2012), Thai Institute of Directors Association (IOD)
- Diploma, The National Defence Course (Class of 50<sup>th</sup>), National Defence College
- Advanced Certificate Course in Public Economics Management for Executives (class of 5<sup>th</sup>) King Prajadhipok's Institute
- "Middle Management", Office of The Civil Service Commission (OCSC)
- Top Executive Program in Commerce and Trade (TEPCoT) (Class of 4<sup>th</sup>), Commerce Academy
- The 4 Imperatives of Great Leaders Program, Office of The Civil Service Commission (OCSC)
- "Cross-Border Infrastructure in a Market Economy" Cambodia
- Top Executives Program (Class of 18<sup>th</sup>), Capital Market Academy (CMA)
- Certificate in Top Executives in the Energy Education Program (Class of 3<sup>rd</sup>), Thailand Energy Academy (TEA)
- Seminar "Role and Function of Board of Directors of State Enterprise", State Enterprise Policy Office (5 June 2015)
- PTT Board Briefing

**Work Experiences**

- 2007 - 2010 : Senior Advisor, Office of National Economic and Social Development Board (NESDB)
- 2010 - Present : Deputy Secretary General, NESDB

**Relevant Important Positions in Listed Company - The Stock Exchange of Thailand**

- Independent Director/ Member of the Nominating Committee/ Chairman of the Enterprise Risk Management Committee, PTT Public Company Limited

**Relevant Important Positions in Non-listed Company/ Other Organizations**

- Director, Expressway Authority of Thailand

**Relation among Family with other Directors and Executives**

- None



**Mrs. Nuntawan Sakuntanaga**

Age 57

Independent Director/  
Member of the Audit Committee

(%) Share Possession: None

**Appointed**

- 1 July 2014; 9 April 2015 (re-elected)

**Educations**

- Bachelor of Accounting, in Finance and Banking, Chulalongkorn University, Thailand
- MBA, in Marketing and International Business, University of Wisconsin at Madison (Wisconsin, USA)

**Certifications**

- Director Certification Program (DCP 166/2012), Audit Committee Program (ACP 43/2013), Thai Institute of Directors Association (IOD)
- Management Development Program, Mt. Eliza, Melbourne, Australia (1989)
- Certificate, The Civil Service Executive Program for Senior Civil Servants (Class 38/2003), Office of the Civil Service Commission
- Diploma, The National Defence Course (Class of 49<sup>th</sup>) (2006 - 2007), National Defence College
- Leaders in Development Program-Managing Political & Economic Reform, Kennedy School of Government, Harvard University, Boston, USA, 2008
- Top Executive Program in Commerce and Trade (TEPCoT) (Class of 2<sup>nd</sup>), Commerce Academy
- Top Executive Program (Class 14/2012), Capital Market Academy (CMA)
- Corporate Governance Program for Directors and Executives of State Enterprises and Public Organization (Class 12/2013), Public Director Institute (PDI)
- Certificate in Top Executives in the Energy Education Program (Class 5/2014), Thailand Energy Academy (TEA)
- Seminar PTT Group AC Forum 2015
- Briefing on International Anti-Corruption: International cases and practices, IOD (14 October 2015)
- Seminar "Global Financial Market Outlook 2016", IOD (17 November 2015)
- PTT Board Briefing

**Work Experiences**

- October 2008 : Deputy Permanent Secretary, Ministry of Commerce
- May 2009 : Director General, Department of Trade Negotiations, Ministry of Commerce

- September 2010 : Director General, Department of Export Promotion, Ministry of Commerce
- September 2012 : Director General, Department of International Trade Promotion, Ministry of Commerce
- October 2012 : Deputy Permanent Secretary, Ministry of Commerce
- October 2013 : Director General, Department of International Trade Promotion, Ministry of Commerce
- 1 October 2015 - Present : Director General, Department of Intellectual Property, Ministry of Commerce

**Relevant Important Positions in Listed Company - The Stock Exchange of Thailand**

- Independent Director/ Member of the Audit Committee, PTT Public Company Limited

**Relevant Important Positions in Non-listed Company/ Other Organizations**

- Advisor of Thailand's National Shippers Council
- Advisor of Thai-Japan Association

**Relation among Family with other Directors and Executives**

- None



**Mr. Vichai Assarasakorn**

Age 55

Independent Director/  
Member of the Audit Committee

(%) Share Possession: None

**Appointed**

- 4 September 2014

**Educations**

- Bachelor of Engineering, New South Wales University, Australia

**Certifications**

- Director Certification Program (DCP 212/2015), Thai Institute of Directors Association (IOD) (in progress)
- Top Executive Program (Class of 12<sup>th</sup>), Capital Market Academy (CMA)
- Diploma, The Joint State - Private Sector Course (Class of 22<sup>nd</sup>), National Defence College
- Thailand's 5<sup>th</sup> National Conference on Collective Action Against Corruption (Tackling Corruption through Public-Private Collaboration) (16 October 2014)



- Seminar “Role and Function of Board of Directors of State Enterprise”, State Enterprise Policy Office (5 July 2015)
- Seminar “Re-energizing Growth through Better Governance”, IOD (18 June 2015)
- Seminar “Incorporation of State Investment Corporation” (13 July 2015)
- Certificate in Top Executives in the Energy Education Program (Class of 7<sup>th</sup>) (2015), Thailand Energy Academy (TEA)
- Seminar PTT Group AC Forum 2015
- Briefing on International Anti-Corruption...International Cases and Practices, IOD (14 October 2015)
- CG Forum 4/2015 - Thailand CG Forum “Governance as a Driving Force for Business Sustainability”, SET SEC and IOD (28 October 2015)
- PTT Board Briefing

#### Work Experiences

- 1995 - Present : Director, ShiangHeng International Company Limited
- 2001 - October 2014 : Secretary-General, Anti-Corruption Organization of Thailand
- October 2014 - Present : Vice President, Anti-Corruption Organization of Thailand
- March 2013 - Present : Vice Chairman, The Thai Chamber of Commerce

#### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Independent Director, Member of the Audit Committee, PTT Public Company Limited

#### Relevant Important Positions in Non-listed Company/ Other Organizations

- Director, The Support Arts and Crafts International Centre of Thailand (Public Organization)

#### Relation among Family with other Directors and Executives

- None



**Air Marshal Boonsuib Prasit**

Age 62

Independent Director/  
Member of the Nominating Committee

(%) Share Possession: None

#### Appointed

- 4 September 2014

#### Educations

- Armed Forces Academies Preparatory School (Class of 13<sup>th</sup>)
- Royal Thai Air Force Academy (Class of 20<sup>th</sup>)
- Squadron Officers (Class of 56<sup>th</sup>)
- Air Command and Staff College (Class of 33<sup>rd</sup>)
- Air War College (Class of 36<sup>th</sup>)

#### Certifications

- Director Accreditation Program (DAP 117/2015), Role of the Nomination & Governance Committee Program (RNG 7/2015), Thai Institute of Directors Association (IOD)
- Thailand's 5<sup>th</sup> National Conference on Collective Action Against Corruption (Tackling Corruption through Public-Private Collaboration) (16 October 2014)
- Seminar “Incorporation of State Investment Corporation” (13 July 2015)
- PTT Board Briefing

#### Work Experiences

- 2009 - 2011 : Chief of Staff, Directorate of Aeronautical Engineering, Royal Thai Air Force
- 2011 - 2013 : Deputy Director, Directorate of Aeronautical Engineering, Royal Thai Air Force
- 2013 : Special Expert, Royal Thai Air Force
- 2013 - 2014 : Director, Directorate of Aeronautical Engineering, Royal Thai Air Force

#### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Independent Director, Member of the Nominating Committee, PTT Public Company Limited

#### Relevant Important Positions in Non-listed Company/ Other Organizations

- None

#### Relation among Family with other Directors and Executives

- None



**Mr. Somchai Sujjapongse**

Age 54

Director/  
Member of the Remuneration Committee

(%) Share Possession: None

#### Appointed

- 1 November 2015

### Educations

- B.A. (Economics) (Hons.), Chulalongkorn University, Thailand
- M.A. (Economics), The Ohio State University, USA
- Ph.D. (Economics), The Ohio State University, USA

### Certifications

- Director Certification Program (DCP 75/2006), Thai Institute of Director (IOD)
- Certificate, The Civil Service Executive Program for Senior Civil Servants (Visionary Leadership, Class 44/2005), Office of the Civil Service Commission
- Top Executive Program (Class 2/ 2006) Capital Market Academy (CMA)
- Diploma, The Joint State - Private Sector Course (Class of 20<sup>th</sup>) (2007 - 2008), National Defence College
- Top Executive Program in Commerce and Trade (TEPCoT) (Class 2/2009), Commerce Academy
- Corporate Governance for Directors and Senior Executives of State Enterprises and Public Organizations 2011, Public Director Institute (PDI), King Prajadhipok's Institute
- Certificate in Top Executives in the Energy Education Program (Class 3/2013), Thailand Energy Academy (TEA)

### Work Experiences

2009 - 2010	: Director-General, Thai Customs Department, Ministry of Finance
2010 - 2011	: Director, State Enterprise Policy Office, Ministry of Finance
2011 - 2014	: Director, Fiscal Policy Office, Ministry of Finance
2014 - 2015	: Director-General, Thai Customs Department, Ministry of Finance
2015 - Present	: Permanent Secretary, Ministry of Finance

### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Director/ Member of the Remuneration Committee, PTT Public Company Limited
- Director/ Chairman, Krung Thai Bank Public Company Limited
- Director, Thai Airways International Public Company Limited

### Relevant Important Positions in Non-listed Company/ Other Organizations

- None

### Relation among Family with other Directors and Executives

- None



### Mr. Don Wasantapruerk

Age 57

Independent Director/  
Member of the Corporate  
Governance Committee

(%) Share Possession: None

### Appointed

- 26 July 2014

### Educations

- Bachelor of Industrial Engineering, University of New South Wales, Sydney, Australia
- Master of Industrial Engineering, University of New South Wales, Sydney, Australia

### Certifications

- Director Accreditation Program (DAP 117/2015), Role of the Nomination & Governance Committee Program (RNG 7/2015), Thai Institute of Directors Association (IOD)
- Thailand's 5<sup>th</sup> National Conference on Collective Action Against Corruption (Tackling Corruption through Public-Private Collaboration) (16 October 2014)
- Certificate in Top Executives in the Energy Education Program (Class 6/2015), Thailand Energy Academy (TEA)
- Seminar "Incorporation of State Investment Corporation" (13 July 2015)
- Briefing on International Anti-Corruption...International cases and practices, IOD (14 October 2015)
- PTT Board Briefing

### Work Experiences

2009 - Present	: Self-employed
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### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Independent Director, Member of the Corporate Governance Committee, PTT Public Company Limited
- Independent Director, Member of the Corporate Governance Committee, PTT Global Chemical Public Company Limited

### Relevant Important Positions in Non-listed Company/ Other Organizations

- None

### Relation among Family with other Directors and Executives

- None

**Mr. Somsak Chotrattanasiri**

Age 58

Independent Director/  
Member of Corporate  
Governance Committee**(%) Share Possession:** None**Appointed**

- 22 April 2015

**Educations**

- Bachelor of Arts (Political Science), Kasetsart University, Thailand
- Master of Public Administration (MPA), National Institute of Development Administration, Thailand

**Certifications**

- Director Certification Program (DCP 113/2009), Audit Committee Program (ACP 34/2011), Thai Institute of Directors Association (IOD)
- Diploma, The National Defence Course, National Defence College
- Seminar Thailand's 6<sup>th</sup> National Conference on Collective Action against Corruption "Anti-Corruption in Thailand: Sustaining the Momentum", IOD (16 October 2015)
- PTT Board Briefing

**Work Experiences**

2009 - 2010	: Advisor, Bureau of the Budget
2010 - 2013	: Deputy Director Bureau of the Budget
2013 - Present	: Director Bureau of the Budget

**Relevant Important Positions in Listed Company - The Stock Exchange of Thailand**

- Independent Director/ Member of Corporate Governance Committee, PTT Public Company Limited
- Director, Nok Air Public Company Limited

**Relevant Important Positions in Non-listed Company/ Other Organizations**

- Director, Expressway Authority of Thailand
- Director, Geo-Informatics and Space Technology Development Agency (Public Organization) (GISTDA)
- Member of the National Legislative Assembly (NLA)

**Relation among Family with other Directors and Executives**

- None

**Mr. Prasert Bunsumpun**

Age 63

Independent Director/  
Member of the Enterprise  
Risk Management Committee**(%) Share Possession:**

0.004579 (Own 0; Spouse 0.004579)

**Appointed**

- 11 April 2013

**Educations**

- Bachelor in Engineering (Civil Engineering), Chulalongkorn University, Thailand
- MBA, Utah State University, USA
- Honorary Doctoral in Engineering, Chulalongkorn University, Thailand
- Honorary Doctoral in Management, National Institute of Development Administration (NIDA), Thailand
- Honorary Doctoral in Management Science, Petchaburi Rajabhat University, Thailand
- Honorary Doctoral in Management, Maharakarm University, Thailand
- Honorary Doctoral in Social Innovation Management, Suan Sunandha Rajabhat University, Thailand

**Certifications**

- Director Accreditation Program (DAP 26/2004), The Role of Chairman (RCP 28/2012), Thai Institute of Directors Association (IOD)
- Certificate in Advanced Management Program (AMP155), Harvard Business School, USA
- Diploma, The Joint State - Private Sector Course (Class of 10<sup>th</sup>), National Defence College
- Politics and Government in Democracy for Executives (Class of 6<sup>th</sup>), King Prajadhipok's Institute
- Top Executive Program (Class of 3<sup>rd</sup>), Capital Market Academy (CMA)
- Certificate in Top Executives in the Energy Education Program (Class of 3<sup>rd</sup>), Thailand Energy Academy (TEA)

**Work Experiences**

2003 - 2011	: President and CEO, PTT Public Company Limited
Present	: Chairman of Thailand Business Council for Sustainable Development (TBCSD)

#### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Independent Director/ Member of the Enterprise Risk Management Committee, PTT Public Company Limited
- Independent Director/ Chairman, PTT Global Chemical Public Company Limited
- Independent Director, Intouch Holdings Public Company Limited
- Chairman/ Chairman of the Executive Board of Director, Thorensen Thai Agencies Public Company Limited
- Independent Director/ Chairman of Executive Committee, Thaicom Public Company Limited

#### Relevant Important Positions in Non-listed Company/ Other Organizations

- Chairman, Mermaid Maritime Public Company Limited
- Member of the National Legislative Assembly (NLA)
- Chairman, Thailand Business Council for Sustainable Development (TBCSD)

#### Relation among Family with other Directors and Executives

- None



**Mr. Chavalit Pichalai**

Age 60

Director/ Member of the Enterprise Risk Management Committee

(%) Share Possession: None

#### Appointed

- 18 August 2015

#### Educations

- Bachelor of Arts (Economics), Thammasat University, Thailand
- Master of Economics Program (Development Economics), National Institute of Development Administration (NIDA), Thailand
- Master of Public Administration, Carleton University, Canada

#### Certifications

- Director Certification Program (DCP 192/2014) Thai Institute of Directors Association (IOD)
- Certificate, The Civil Service Executive Program for Senior Civil Servants (Visionary Leadership, Class 39), Office of the Civil Service Commission
- Diploma, The National Defence Course Class 2008, National Defence College
- The Columbia Senior Executive Program (CSEP 131), Columbia University, USA (2011)

- Chief Information Officer (CIO), Class 24 (2012), National Electronics and Computer Technology Center (NECTEC)
- Seminar "Global Financial Market Outlook 2016", IOD (17 November 2015)
- PTT Board Briefing

#### Work Experiences

- |                |  |
|----------------|--|
| 2011 - 2012    | : Deputy Director General, Department of Mineral Fuels, Ministry of Energy |
| 2012 - 2014    | : Inspector General, Ministry of Energy                                    |
| 2014 - 2015    | : Director-General, Energy Policy and Planning Office, Ministry of Energy  |
| 2015 - Present | : Deputy Permanent Secretary, Ministry of Energy                           |

#### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Director/ Member of the Enterprise Risk Management Committee, PTT Public Company Limited
- Independent Director/ Chairman of the Audit Committee, Ratchaburi Electricity Generating Holding Public Company Limited

#### Relevant Important Positions in Non-listed Company/ Other Organizations

- None

#### Relation among Family with other Directors and Executives

- None



**Mr. Tevin Vongvanich**

Age 57

Director/ Secretary to the Board/ President and Chief Executive Officer

(%) Share Possession:

0.000875 (Own 0.000875; Spouse 0)

#### Appointed

- 10 September 2015

#### Educations

- B.Eng. (Chemical Engineering) (Hons.), Chulalongkorn University, Thailand
- M.Sc. (Chemical Engineering), Rice University, USA
- M.Sc. (Petroleum Engineering), University of Houston, USA

### Certifications

- Director Certification Program (DCP 21/2002), Financial Statements for Directors (FSD 6/2009), Role of the Compensation Committee (RCC 13/2011), Anti-Corruption for Executive Program (ACEP 15/2015), Thai Institute of Directors Association (IOD)
- Program for Global Leadership (PGL), Harvard Business School, USA
- Democratic Politics and Governance for High-Level Administrators Program, (Class of 10<sup>th</sup>), King Prajadhipok's Institute
- Senior Executive Program (SEP) (Class of 7<sup>th</sup>), Sasin Graduate Institute of Business Administration, Chulalongkorn University
- Top Executives Program (Class of 6<sup>th</sup>), Capital Market Academy
- Diploma, The Joint State-Private Sector Course (Class of 22<sup>nd</sup>), National Defence College
- Senior Executives on Justice Administration Batch (Class of 16<sup>th</sup>), National Justice Academy
- Certificate in Top Executives in the Energy Education Program (Class 3/2013), Thailand Energy Academy (TEA)
- Corporate Governance for Directors and Senior Executives of State Enterprises and Public Organizations (Class of 7<sup>th</sup>), Public Director Institute (PDI), King Prajadhipok's Institute
- Seminar "Briefing on International Anti-Corruption... International cases and practices", IOD (14 October 2015)
- Seminar Thailand's 6<sup>th</sup> National Conference on Collective Action against Corruption "Anti-Corruption in Thailand: Sustaining the Momentum", IOD (16 October 2015)
- CG Forum 4/2015- Thailand CG Forum "Governance as a Driving Force for Business Sustainability", SET SEC and IOD (28 October 2015)
- Seminar "Global Financial Market Outlook 2016", IOD (17 November 2015)
- PTT Board Briefing

### Work Experiences

- 2008 - 2009 : Senior Executive Vice President of Strategy and Development, PTT Public Company Limited (PTT)
- July 2009 - December 2009 : Chief Financial Officer and Acting Senior Executive Vice President of Strategy and Development, PTT

- January 2010 - April 2012 : Chief Financial Officer, PTT Public Company Limited
- 2012 - 9 September 2015 : Senior Executive Vice President, PTT, working on a Secondment as President and Chief Executive Officer, PTT Exploration and Production Public Company Limited
- 10 September 2015 - Present : President and Chief Executive Officer, PTT Public Company Limited

### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Director/ Secretary to the Board/ President and Chief Executive Officer, PTT Public Company Limited
- Director, PTT Exploration and Production Public Company Limited
- Director/ Chairman, IRPC Public Company Limited

### Relevant Important Positions in Non-listed Company/ Other Organizations

- Honorary Advisor, Environment Engineering Association of Thailand
- Chairman, Chulalongkorn University Alumni Association under the Patronage of His Majesty the King
- Committee, Chulalongkorn University Council
- Chairman, Information and Public Communication Management Sub-committee, National Committee on Competitive Advantage (NCC)
- Honorary Board Member, National Committee on Competitive Advantage (NCC)
- Director, Rayong Institute of Science & Technology (RAIST) Foundation and Rayong Science Academy (RASA) Foundation
- Honorary Advisor, Energy Committee, The National Legislative Assembly
- Chairman, TMA Center for Competitiveness Thailand Management Association
- Board of Trustees, Thailand Management Association
- Honorary Board Member, National Science and Technology Development Agency

### Relation among Family with other Directors and Executives

- None



# PTT Executives



1. Mr. Tevin Vongvanich

Director/ Secretary to the Board/  
President and Chief Executive Officer

2. Mr. Pitipan Tepartimargorn

Chief Operations Officer, Upstream Petroleum and Gas Business Group

3. Mr. Sarun Rungkasiri

Chief Operations Officer, Downstream Petroleum Business Group

4. Mr. Chavalit Punthong

Chief Operating Officer, Infrastructure and Sustainability Management  
Business Group

5. Mr. Wirat Uanarumit

Chief Financial Officer

6. Mr. Kris Imsang

Senior Executive Vice President ,  
Human Resources & Organization Excellence

7. Mrs. Sriwan Eamrungrroj

Senior Executive Vice President, Corporate Strategy



8. Mr. Noppadol Pinsupa

Senior Executive Vice President, Gas Business Unit

9. Mr. Auttapol Rerkpiboon

Senior Executive Vice President, Oil Business Unit

10. Mr. Chansin Treenuchagron

Senior Executive Vice President, Downstream Business Group Alignment

11. Mrs. Boobpha Amorntkajorn

Senior Executive Vice President, International Trading Business Unit

12. Mr. Somporn Vongvuthipornchai

President and Chief Executive Officer, PTT Exploration and Production  
Public Company Limited (PTTEP)

13. Mr. Supattanapong Punmeechaow

President and Chief Executive Officer, PTT Global Chemical Public  
Company Limited

14. Mr. Atikom Terbsiri

President and Chief Executive Officer, Thai Oil Public Company Limited

15. Mr. Sukrit Surabotsopon

President, IRPC Public Company Limited

## PTT Executives

\* As of 1 February 2016



### Mr. Tevin Vongvanich

Age 57

Director/ Secretary to the Board/  
President and Chief Executive Officer

#### (%) Share Possession:

0.000875 (Own 0.000875; Spouse 0)

#### Appointed

- 10 September 2015

#### Educations

- B.Eng (Chemical Engineering) (Hons.), Chulalongkorn University, Thailand
- M.Sc. (Chemical Engineering), Rice University, USA
- M.Sc. (Petroleum Engineering), University of Houston, USA

#### Certifications

- Director Certification Program (DCP 21/2002), Financial Statements for Directors (FSD 6/2009), Finance for Non-Finance Director (FN), Role of the compensation Committee (RCC 13/2011), Anti-Corruption for Executive Program (ACEP 15/2015), Thai Institute of Directors Association (IOD)
- Program for Global Leadership (PGL), Harvard Business School, USA
- Democratic Politics and Governance for High-Level Administrators Program, (Class of 10<sup>th</sup>), King Prajadhipok's Institute
- Senior Executive Program (SEP) (Class of 7<sup>th</sup>), Sasin Graduate Institute of Business Administration, Chulalongkorn University
- Top Executive Program (Class of 6<sup>th</sup>), Capital Market Academy
- Diploma, The Joint State-Private Sector Course Class of 22<sup>nd</sup>, National Defence College
- Senior Executives on Justice Administration Batch (Class of 16<sup>th</sup>), National Justice Academy
- Certificate in Top Executives in the Energy Education Program (Class 3/2013), Thailand Energy Academy (TEA)
- Corporate Governance for Directors and Senior Executives of State Enterprises and Public Organizations (Class of 7<sup>th</sup>), Public Director Institute (PDI), King Prajadhipok's Institute
- Seminar "Briefing on International Anti-Corruption... International cases and practices", IOD (14 October 2015)
- Seminar Thailand's 6<sup>th</sup> National Conference on Collective Action against Corruption "Anti-Corruption in Thailand: Sustaining the Momentum", IOD (16 October 2015)

- CG Forum 4/2015 - Thailand CG Forum "Governance as a Driving Force for Business Sustainability", SET SEC and IOD (28 October 2015)
- Seminar "Global Financial Market Outlook 2016", IOD (17 November 2015)
- PTT Board Briefing

#### Work Experiences

- 2008 - 2009 : Senior Executive Vice President of Strategy and Development, PTT Public Company Limited (PTT)
- July 2009 - December 2009 : Chief Financial Officer, Acting Senior Executive Vice President of Strategy and Development, PTT
- January 2010 - April 2012 : Chief Financial Officer, PTT Public Company Limited
- 2012 - 9 September 2015 : Senior Executive Vice President, PTT, working on a Secondment as President and Chief Executive Officer, PTT Exploration and Production Public Company Limited
- 10 September 2015 - Present : President and Chief Executive Officer, PTT Public Company Limited

#### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Director/ Secretary to the Board/ President and Chief Executive Officer, PTT Public Company Limited
- Director, PTT Exploration and Production Public Company Limited
- Director/ Chairman, IRPC Public Company Limited

#### Relevant Important Positions in Non-listed Company/ Other Organizations

- Honorary Advisor, Environment Engineering Association of Thailand
- Chairman, Chulalongkorn University Alumni Association under the Patronage of His Majesty the King
- Committee, Chulalongkorn University Council
- Chairman, Information and Public Communication Management Sub-committee, National Committee on Competitive Advantage (NCC)
- Honorary Board Member, National Committee on Competitive Advantage (NCC)
- Director, Rayong Institute of Science & Technology (RAIST) Foundation and Rayong Science Academy (RASA) Foundation
- Honorary Advisor, Fossil Fuel Energy Committee, The National Legislative Assembly



- Chairman, TMA Center for Competitiveness Thailand Management Association
- Board of Trustees, Thailand Management Association
- Honorary Board Member, National Science and Technology Development Agency

#### Relation among Family with other Directors and Executives

- None



#### Mr. Pitipan Teparthimargorn

Age 59

Chief Operations Officer,  
Upstream Petroleum  
and Gas Business Group

#### (%) Share Possession:

0.000152 (Own 0.000152; Spouse 0)

#### Appointed

- 1 October 2015

#### Educations

- B.E. Electrical Engineering, King Mongkut's Institute of Technology Ladkrabang, Thailand
- Master of Political Science (Public Administration), Thammasat University, Thailand

#### Certifications

- Director Certification Program (DCP 138/2010), Anti-Corruption for Executive Program (ACEP 4/2012), Thai Institute of Directors Association (IOD)
- Strategic Human Resource Management Program, Harvard University, USA
- NIDA-Wharton Executive Leadership Program 2009, The Wharton School of the University of Pennsylvania, USA
- Senior Executive Program (SEP), Sasn Graduate Institution of Business Administration of Chulalongkorn University, Thailand
- Advance Political and Electoral Development Program (Class of 3<sup>rd</sup>), Office of the Election Commission of Thailand
- PTT-GE Executive Leadership Program, GE Crotonville, USA
- Top Executive Program (Class of 19<sup>th</sup>), Capital Market Academy

#### Work Experiences

- 2004 - 2010 : Executive Vice President, Human Resources, PTT
- 2010 - 2015 : Senior Executive Vice President, Human Resources & Organization Excellence, PTT

- 2015 - 31 January 2016 : Chief Operations Officer, Upstream Petroleum and Gas Business Group acting Senior Executive Vice President, Human Resources & Organization Excellence
- 1 February 2016 - Present : Chief Operations Officer, Upstream Petroleum and Gas Business Group, PTT

#### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Director/ Member of the Risk Management Committee, PTT Exploration and Production Public Company Limited

#### Relevant Important Positions in Non-listed Company/ Other Organizations

- Chairman, PTT ICT Solutions Company Limited
- Director, Sakari Resources Company Limited

#### Relation among Family with other Directors and Executives

- None



#### Mr. Sarun Rungkasiri

Age 58

Chief Operations Officer,  
Downstream Petroleum Business Group

#### (%) Share Possession: None

#### Appointed

- 1 October 2013

#### Educations

- B.Eng. (Industrial Engineering), Chulalongkorn University, Thailand
- M.S. Management, Polytechnic Institute of New York, USA

#### Certifications

- Company Secretary Program (CSP 8/2004), Director Certification Program (DCP 61/2005), Finance for Non-Finance Director (FN 19/2005), Thai Institute of Directors Association (IOD)
- Thirty Fourth Oxford Energy Seminar, St.Catherine's College, Oxford University, UK
- NIDA-Wharton Executive Leadership Program 2009, The Wharton School of the University of Pennsylvania, USA
- Diploma, The Joint State - Private Sector Course (Class of 23<sup>rd</sup>), National Defence College

# 216

- Top Executive in Industrial Development and Investment (Class of 1<sup>st</sup>) (2013)
- Certificate in Top Executives in the Energy Education Program (Class of 5<sup>th</sup>) (2014), Thailand Energy Academy (TEA)
- Seminar “Briefing on International Anti-Corruption... International cases and practices”, IOD (14 October 2015)

## Work Experiences

2008 - 2009	: Executive Vice President, Corporate Communication & Social Responsibility, PTT
2009 - 2010	: Executive Vice President, Commercial & International Marketing, PTT
2010 - 2011	: Executive Vice President, Retail Marketing, PTT
2011 - 2013	: Senior Executive Vice President, Oil Business Unit, PTT
2013 - Present	: Chief Operations Officer, Downstream Petroleum Business Group, PTT

## Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Director/ Member of the Nomination and Remuneration Committee/ Member of Risk Management Committee , PTT Global Chemical Public Company Limited
- Director/ Member of the Nomination and Remuneration Committee/ Chairman of the Risk Management Committee, IRPC Public Company Limited

## Relevant Important Positions in Non-listed Company/ Other Organizations

- Club President, PTT Rayong Football Club

## Relation among Family with other Directors and Executives

- None



### Mr. Chavalit Punthong

Age 59

Chief Operating Officer, Infrastructure and Sustainability Management Business Group

(%) Share Possession: None

## Appointed

- 1 January 2016

## Educations

- Bachelor of Engineering (Mechanical Engineering), Kasetsart University, Thailand
- MBA, Central Missouri State University, USA

## Certifications

- Director Certification Program (DCP 177/2556), Thai Institute of Director (IOD)
- Top Executive Program (CMA 18/2014), Capital Market Academy
- Senior Executive Program (SEP), Sasin Graduate Institute of Business Administration of Chulalongkorn University
- PTT-GE Executive Leadership Program, GE Crotonville, USA
- NIDA-Wharton Executive Leaders Program, The Wharton School of the University of Pennsylvania, USA

## Work Experiences

2009 - 2010	: Executive Vice President, Supply & Terminals Operation, PTT
2010 - 2011	: Executive Vice President, Commercial & International Marketing, PTT
2011 - 2013	: Executive Vice President, Retail Marketing, PTT
2013 - 2014	: Executive Vice President, Acting Senior Executive Vice President, Oil Business Unit, PTT
2014 - 30 September 2015	: Senior Executive Vice President, Oil Business Unit, PTT
1 October - 31 December 2015	: Chief Operating Officer Infrastructure, PTT
1 January 2016 - Present	: Chief Operating Officer Infrastructure and Sustainability Management Business Group, PTT

## Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Director, IRPC Public Company Limited
- Director, Global Power Synergy Public Company Limited

## Relevant Important Positions in Non-listed Company/ Other Organizations

- None

## Relation among Family with other Directors and Executives

- None

**Mr. Wirat Uanarumit**

Age 53

Chief Financial Officer

**(%) Share Possession:**

0.000893 (Own 0.000893; Spouse 0)

**Appointed**

- 1 May 2014

**Educations**

- Bachelor of Science in Electrical Engineering, Chulalongkorn University, Thailand
- Master of Business Administration, with emphasis in Financial Management, Pennsylvania State University, Pennsylvania, USA

**Certifications**

- Director Certification Program (DCP 8/2001), Director Certification Program Update (DCPU 5/2015), Audit Committee Program (ACP 38/2012), Thai Institute of Directors Association (IOD)
- Member, Beta Gamma Sigma (US National Scholastic Honour Society in Business)
- Advanced Management Programme, INSEAD Business School, Fontainebleau, France
- Advanced Management Program, Harvard Business School, USA
- Top Executive Program (Class of 4<sup>th</sup>), Capital Market Academy (CMA)
- Senior Executives on Justice Administration Batch (Class of 16<sup>th</sup>), National Justice Academy
- Advanced Security Management Program (ASMP), (Class of 2<sup>nd</sup>), National Defence College
- Executive Development Program (Class of 1<sup>st</sup>), Thai Listed Companies Association (TLCA)
- Diploma, The Joint State - Private Sector Course (Class of 26<sup>th</sup>), National Defence College
- Executive Management with Business Development and Investment (Class 2), Institute of Business and Industrial Development (IBID)

**Work Experiences**

2005 - January 2011 : Executive Vice President - Finance, Thai Oil Public Company Limited

February - : Senior Executive Vice President - Corporate Accounting and Finance, IRPC Company Limited

October 2011 - : Executive Vice President,  
30 April 2014 Corporate Finance, PTT  
1 May 2014 - Present : Chief Financial Officer, PTT

**Relevant Important Positions in Listed Company - The Stock Exchange of Thailand**

- Director/ Member of the Risk Management Committee, PTT Exploration and Production Public Company Limited
- Director, Thai Oil Public Company Limited

**Relevant Important Positions in Non-listed Company/ Other Organizations**

- Director, Chulalongkorn University Alumni Association (CUAA) 2015 - 2017
- Director under Thai-Chinese Railway Finance and Investment Sub-Committee, Thai-Chinese Railway Development Committee
- Advisory Committee, Promoting and Supporting Office of Industries, The Federation of Thai Industries
- Director & Treasurer, Rayong Institute of Science & Technology (RAIST) Foundation and Rayong Science Academy (RSA) Foundation
- Director/ Audit Committee, Thailand Management Association (TMA)
- Chairman, Thailand - Malaysia Business Council
- Director, Joint Standing Committee on Commerce, Industry and Banking of Thailand (JSCIB-Thailand)

**Relation among Family with other Directors and Executives**

- None

**Mr. Kris Imsang**

Age 50

Senior Executive Vice President,  
Human Resources & Organization Excellence**(%) Share Possession:**

0.000567 (Own 0.000567; Spouse 0)

**Appointed**

- 1 February 2016

**Educations**

- Bachelor of Engineering (Civil Engineering), Chulalongkorn University, Thailand



### Certifications

- Director Certification program (DCP 2010)  
Thai Institute of Directors Association (IOD)
- Leadership Development Program, PTT
- Certificate in Top Executives in the PoomPalungPandin Program, Chulalongkorn University

### Work Experiences

2009 - 2011	: Vice President, Leadership & Talent Management
2012 - 2013	: Executive Vice President, Lubricant Business
2013 - 2015	: Executive Vice President, Petroleum Terminal Operations, PTT
2015 - 1 January 2016	: Executive Vice President, Retail Marketing, PTT
1 February 2016 - Present	: Acting Senior Executive Vice President Human Resources & Organization Excellence, PTT

### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- None

### Relevant Important Positions in Non-listed Company/ Other Organizations

- Director, PTT Retail Business Company Limited
- Director, Energy Complex Company Limited
- Director, Sport Services Alliance Company Limited
- Deputy Secretary General, Chulalongkorn University Alumni Association (CUAA)

### Relation among Family with other Directors and Executives

- None



**Mrs. Sriwan Eamrungrroj**

Age 58

Senior Executive Vice President,  
Corporate Strategy

(%) Share Possession:

0.004208 (Own 0; Spouse 0.004208)

### Appointed

- 1 October 2015

### Educations

- Bachelor of Engineering (Mechanical Engineering) (Second Honor), Chulalongkorn University, Thailand
- Master of Business Administration, Thammasat University, Thailand

### Certifications

- Director Certification program (DCP 60/2012),  
The Board's Role in Mergers and Acquisitions (Class 1/2011)  
Thai Institute of Directors Association (IOD)
- Advanced Management Program (AMP) (Class 183/2012),  
Harvard Business School, USA
- Strategic Marketing Management,  
Stanford Graduate School of Business
- Seminar "Briefing on International Anti-Corruption...  
International cases and practices", IOD (14 October 2015)

### Work Experiences

2009 - 2011	: Executive Vice President Corporate Strategy, PTT
2011 - 30 September 2015	: Executive Vice President, PTT working on a secondment as Executive Vice President, Corporate Commercial and Marketing, PTT Global Chemical Public Company Limited (PTTGC)
1 October 2015 - Present	: Acting Senior Executive Vice President Corporate Strategy, PTT

### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Director, Thai Oil Public Company Limited

### Relevant Important Positions in Non-listed Company/ Other Organizations

- Director, PTT MCC Biochem Company Limited
- Director, PTT Asahi Chemical Company Limited

### Relation among Family with other Directors and Executives

- None



**Mr. Noppadol Pinsupa**

Age 51

Senior Executive Vice President,  
Gas Business Unit

(%) Share Possession:

0.002255 (Own 0.000476; Spouse 0.001779)

### Appointed

- 1 October 2015

**Educations**

- Bachelor of Engineering (Electrical), Chulalongkorn University, Thailand
- Master of Engineering (Electrical), Chulalongkorn University, Thailand

**Certifications**

- Director Certification Program (DCP) (Class of 146/2011), Financial Statement for Director (FSD) (Class of 12/2011), Thai Institute of Directors Association (IOD)
- Leadership Development Program III, PTT Leadership and Learning Institute
- Breakthrough Program For Senior Executives, International Leading Business School (IMD), Lausanne, Switzerland
- Assessor Training Program, Thailand Quality Award (TQA)
- Financial Statement for Directors, PTT Public Company Limited (PTT)
- Seminar "Briefing on International Anti-Corruption... International cases and practices", IOD (14 October 2015)
- Mitsui-HBS Global Management Academy 2015, Japan, USA
- G-20Y Summit 2015, France
- Program for Senior Executive on Justice Administration Batch (Class of 19<sup>th</sup>), Judicial Training Institute

**Work Experiences**

2010 - 2012	: Executive Vice President, Natural Gas Distribution, Gas Business Unit, PTT
2012 - 2014	: Executive Vice President, Natural Gas for Vehicle, PTT
1 October 2014 - 30 September 2015	: Executive Vice President, PTT, working on a secondment as President, Global Power Synergy Public Company Limited
1 October 2015 - Present	: Acting Senior Executive Vice President Gas Business Unit, PTT

**Relevant Important Positions in Listed Company - The Stock Exchange of Thailand**

- Director, Thai Oil Public Company Limited

**Relevant Important Positions in Non-listed Company/ Other Organizations**

- Director/ Chairman, PTT Natural Gas Distribution Company Limited
- Director/ Chairman, AMATA Natural Gas Distribution Company Limited
- Director, Ratchaburi Power Company Limited

**Relation among Family with other Directors and Executives**

- None

**Mr. Auttapol Rerkpiboon**

Age 50

Senior Executive Vice President,  
Oil Business Unit**(%) Share Possession:**

0.000921

(Own 0.000788; Spouse 0.000133)

**Appointed**

- 1 October 2015

**Educations**

- Bachelor of Engineering (Civil Engineering), Chulalongkorn University, Thailand
- Master of Economics Program, National Institute of Development Administration, Thailand

**Certifications**

- Director Certification Program (DCP 173/2013), Thai Institute of Directors (IOD)
- TLCA Executive Development Program (EDP) (Class of 1<sup>st</sup>) Thai Listed Companies Association (TLCA)
- Diploma of Petroleum Management, College of Petroleum Studies, Oxford, England (British Council Scholarship)
- Politics and Governance in Democratic for Executives (Class of 14<sup>th</sup>), King Prajadhipok's Institute
- Top Executive Program (Class of 20<sup>th</sup>), Capital Market Academy (CMA)
- NIDA-Wharton Executive Leadership Program 2009, The Wharton School of the University of Pennsylvania, USA
- PTT Executive Leadership, General Electric, GE, New York, USA

## Work Experiences

2010 - 2011	: Executive Vice President, Corporate Communications & Social Responsibility, PTT
2011 - 2014	: Executive Vice President, Commercial & International Marketing, PTT
2014 - 30 September 2014	: Executive Vice President, Retail Marketing, PTT
1 October 2014 - 30 September 2015	: Senior Executive Vice President, Sustainability Management and Project Engineering, PTT
1 October 2015 - Present	: Senior Executive Vice President Oil Business Unit, PTT

## Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Director/ Member of Corporate Governance Committee, PTT Global Chemical Public Company Limited

## Relevant Important Positions in Non-listed Company/ Other Organizations

- Chairman, PTT Retail Business Company Limited
- Chairman, PTT Retail Management Company Limited
- Director, Sustainable Energy Foundation

## Relation among Family with other Directors and Executives

- None



### Mr. Chansin Treenuchagron

Age 55

Senior Executive Vice President,  
Downstream Business Group  
Alignment

(%) Share Possession: None

## Appointed

- 1 January 2016

## Educations

- Bachelor Degree of Economic, Thammasat University, Thailand
- Master Degree of Economic, Chulalongkorn University, Thailand

## Certifications

- Director Certification Program (DCP 85/2007), Financial Statements for Directors (FSD12/2011), Director Accreditation Program (DAP 93/2011), Chartered Director Class (CDC 10/2015) Thai Institute of Directors Association (IOD)
- Executive Development Relation (Class of 1<sup>st</sup>), Directorate of Civil Affairs
- Air War College (Class of 35<sup>th</sup>, 2006)
- Senior Executive Program (SEP-20) (Class of 20<sup>th</sup>), Sasin Graduate Institute of Business Administration of Chulalongkorn University
- PTT Executive Leadership, General Electric, GE, New York, USA
- Advanced Senior Executive Program (ASEP-5), Class 5, KELLOGG & SASIN, Chicago, USA
- Advanced Certificate Course in Public Economics Management for Executives (Class of 10<sup>th</sup>) King Prajadhipok's Institute
- Leadership Excellence through Awareness and Practice (LEAP), INSEAD, France & Singapore
- Leadership Development Program III (LDP III), PLLI, PTT Public Company Limited
- Diploma, The National Defence Course (Class 57/2014), National Defence College
- Seminar "Briefing on International Anti-Corruption... International cases and practices", IOD (14 October 2015)

## Work Experiences

2009 - 30 September 2014	: Executive Vice President, PTT, working on a secondment at IRPC Public Company Limited as Senior Executive Vice President Corporate Commercial and Marketing (1 March 2013 - 30 September 2014), Senior Executive Vice President Port & Asset Management Business unit (19 October 2011- 28 February 2013), Managing Director Thai ABS (1 November 2010 - 30 November 2012), Managing Director IRPC Oil (1 November 2010 - 13 July 2012) and Executive Vice President Corporate Strategy (1 June 2009 - 18 October 2011)
October 2014 - 30 September 2015	: Senior Executive Vice President, Corporate Strategy, PTT

1 October - 31 December 2015	: Senior Executive Vice President, Petrochemicals & Refining Business Unit, PTT
1 January 2016 - Present	: Senior Executive Vice President, Downstream Business Group Alignment

#### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Director, IRPC Public Company Limited

#### Relevant Important Positions in Non-listed Company/ Other Organizations

- Chairman, PTT Polymer Logistics Company Limited
- Chairman, PTT Polymer Marketing Company Limited

#### Relation among Family with other Directors and Executives

- None



#### Mrs. Boobpha Amornkiatkajorn

Age 57

Senior Executive Vice President,  
International Trading Business Unit

#### (%) Share Possession:

0.003568 (Own 0.003568; Spouse 0)

#### Appointed

- 1 October 2014

#### Educations

- Bachelor of Science (Economics) (Hons.), Kasetsart University, Thailand
- Master of Economics Program (Finance) (Hons.), National Institute of Development Administration (NIDA), Thailand

#### Certifications

- Director Certification Program (DCP 152/2011), Thai Institute of Directors (IOD)
- Breakthrough Program for Senior Executive (BPSE) (Class 2012), IMD Institute/ Switzerland
- Leadership Development Program- center for Creative Leadership, Singapore
- Army War College (Class 2008), Institute of Army Academics

- Senior Executive Program (Class 2003), Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Capital Market Academy Leader Program (CMA 21/2015), Capital Market Academy

#### Work Experiences

2002 - 2009	: Vice President, Crude Oil Trading, PTT
2010 - 2013	: Director, Thailoil Marine Company Limited
2010 - 2014	: Executive Vice President Downstream Business Group Alignment, PTT
2014 - 30 September 2014	: Executive Vice President, Trading Operations, PTT
1 October 2014 - Present	: Senior Executive Vice President, International Trading Business Unit, PTT

#### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Director, PTT Global Chemical Public Company Limited

#### Relevant Important Positions in Non-listed Company/ Other Organizations

- Director, PTT Polymer Marketing Company Limited
- Director, Tiger Energy Trading Pte. Ltd.
- Vice Chairman, The Institute of Industrial Energy, The Federation of Thai Industries

#### Relation among Family with other Directors and Executives

- None



#### Mr. Somporn Vongvuthipornchai

Age 57

President and Chief Executive Officer,  
PTT Exploration and Production  
Public Company Limited (PTTEP)

#### (%) Share Possession:

0.000350 (Own 0; Spouse 0.000350)

#### Appointed

- 22 October 2015

### Educations

- Bachelor of Sciences (Petroleum Engineering), University of Tulsa, Oklahoma, USA
- Master of Sciences (Petroleum Engineering), University of Tulsa, Oklahoma, USA
- Ph.D., (Petroleum Engineering) University of Tulsa, Oklahoma, USA

### Certifications

- Advanced Management Program 2006 (Executive Education Program), Harvard Business School, USAGE Energy Customer Executive Leadership Program (Class 2012), GE Global Learning, Crotonville, USA
- Leadership Development Program III (2013), PTT Leading and Learning Institute (PLLI)
- Certificate in Top Executives in the Energy Education Program (Class of 2<sup>nd</sup>), Thailand Energy Academy (TEA)
- Anti-Corruption Strategic Management Course for Senior Executive (Class of 6<sup>th</sup>), Sanya Dharmasakti Anti-Corruption Institute (SDI), Office of the National Anti-Corruption Commission (NACC)

### Work Experiences

- |                   |  |
|-------------------|--|
| 1 May 2006 -      | : Vice President, International Asset Division,                              |
| 14 January 2010   | PTT Exploration and Production Public Company Limited (PTTEP)                |
| 15 January 2010 - | : Executive Vice President International                                     |
| 31 December 2014  | Asset Group, PTTEP   |
| 1 January -       | : Executive Vice President, Strategy and                                     |
| 21 October 2015   | Business Development Group, PTTEP  |
| 22 October 2015 - | : Senior Executive Vice President,   |
| Present           | PTT working on as secondment as President and Chief Executive Officer, PTTEP |

### Relevant Important Positions in Listed Company - The Stock Exchange of Thailand

- Director, PTT Exploration and Production Public Company Limited

### Relevant Important Positions in Non-listed Company/ Other Organizations

- None

### Relation among Family with other Directors and Executives

- None



### Mr. Supattanapong Punmeechaow

Age 56

President and Chief Executive Officer,  
PTT Global Chemical  
Public Company Limited

(%) Share Possession: None

### Appointed

- 1 October 2014

### Educations

- Bachelor Degree, Chemical Engineering, Chulalongkorn University, Thailand
- Master Degree, Business Administration, Chulalongkorn University, Thailand

### Certifications

- Director Certification Program (DCP 131/2010), Role of Chairman Program (RCP 30/2013), Thai Institute of Directors Association (IOD)
- Advanced Management Program, INSEAD University, France
- Diploma, The National Defence Course (Class of 50<sup>th</sup>) and The Joint State-Private Sector Course (Class of 20<sup>th</sup>), National Defence College
- Oxford Energy Seminar 2013, United Kingdom
- Certificate in Top Executives in the Energy Education Program (Class of 4<sup>th</sup>), Thailand Energy Academy
- Corporate Governance for Directors and Senior Executives of State Enterprises and Public Organizations (Class 12/2014), Public Director Institute (PDI), King Prajadhipok's Institute
- Rule of Law for Democracy Course (Class 3/2015)

### Work Experiences

- |                          |  |
|--------------------------|--|
| 2009 - 2011              | : Executive Vice President Business Development, PTT International Company Limited and Executive Vice President Corporate Strategy, PTT              |
| 2011 - 30 September 2014 | : Senior Executive Vice President, Corporate Strategy, PTT   |
| 1 October 2014 - Present | : Senior Executive Vice President, PTT, working on a secondment as President and Chief Executive Officer, PTT Global Chemical Public Company Limited |



**Relevant Important Positions in Listed Company - The Stock Exchange of Thailand**

- Director/ Secretary to the Board/  
Member of Risk management Committee,  
PTT Global Chemical Public Company Limited
- Vice Chairman, Vinythai Public Company Limited
- Director, Global Power Synergy Public Company Limited

**Relevant Important Positions in Non-listed Company/ Other Organizations**

- Director, PTT Chemical International Private Limited (CH INTER)
- Director, PTT Chemical International (Asia Pacific ROH) Limited
- Chairman of the Board of Directors,  
Thai Oleo Chemical Company Limited
- Member, Council of Trustees, Petroleum Institute of Thailand
- Chairman of the Community Partnership
- Vice Chairman, Rayong Institute of Science & Technology (RAIST) Foundation and Rayong Science Academy (RSA) Foundation

**Relation among Family with other Directors and Executives**

- None

**Mr. Atikom Terbsiri**

Age 53

President and Chief Executive Officer,  
Thai Oil Public Company Limited**(%) Share Possession:** None**Appointed**

- 1 October 2014

**Educations**

- Bachelor of Business Administration,  
Assumption University, Thailand
- M.B.A., (Finance & International Business),  
High Distinction, Armstrong University, Berkeley,  
California, USA

**Certifications**

- Director Certification Program (DCP125/2009),  
Thai Institute of Directors (IOD)
- Diploma, National Defence College,  
The State Private Sector and Political Sectors Course, Class 5
- Advanced Security Management Program (ASMP1),  
The National Defence College Association of Thailand

- Top Executives Program, Capital Market Academy  
(Class of 17<sup>th</sup>), Thailand
- Executive Education Program, Harvard Business School,  
Harvard University, USA
- Certificate in Top Executives in the Energy Education Program  
(Class of 6<sup>th</sup>), Thailand Energy Academy (TEA)

**Work Experiences**

- |                          |  |
|--------------------------|--|
| 2009 - 2011              | : Senior Executive Vice President,<br>Corporate Strategy & Planning,<br>Acting Senior Executive Vice President,<br>Port & Asset Management Business Unit,<br>IRPC Public Company Limited |
| 2011 - 2013              | : President IRPC Public Company Limited  |
| 2013 - 2014              | : Senior Executive Vice President,<br>Petrochemicals & Refining Business Unit,<br>PTT Public Company Limited   |
| 1 October 2014 - Present | : Senior Executive Vice President, PTT,<br>working on a secondment as<br>President and Chief Executive Officer,<br>Thai Oil Public Company Limited                                       |

**Relevant Important Positions in Listed Company - The Stock Exchange of Thailand**

- Director and Secretary to the Board of Directors,  
Thai Oil Public Company Limited
- Director, Global Power Synergy Public Company Limited

**Relevant Important Positions in Non-listed Company/ Other Organizations**

- Chairman, Thai Lube Base Public Company Limited
- Chairman, Thail Marine Co., Ltd.
- Chairman, Thail Solvent Co., Ltd.
- Chairman, TOP Solvent Co., Ltd.
- Chairman, Thail Power Co., Ltd.
- Chairman, TOP SPP Co., Ltd.
- Chairman, LABIX Co., Ltd.
- Chairman, Thai Paraxylene Co., Ltd.
- Director, Rayong Institute of Science & Technology (RAIST)  
Foundation and Rayong Science Academy (RSA) Foundation
- Council, Vidyasirimedhi Institute of Science and Technology

**Relation among Family with other Directors and Executives**

- None



**Mr. Sukrit Surabotsopon**

Age 57

President, IRPC Public Company Limited

**(%) Share Possession:**

0.000070 (Own 0.000070; Spouse 0)

**Appointed**

- 1 October 2013

**Educations**

- Bachelor of Engineering (Chemical Engineering) (2<sup>nd</sup> Class Honor), Chulalongkorn University, Thailand

**Certifications**

- Director Certification Program (DCP 132/2010), Audit Committee Program (ACP 38/2012), Monitoring the System of Internal Control and Risk Management (MIR 12/2012), Thai Institute of Directors Association (IOD)
- Executive Development Program (EDP 3) 2009, Thai Listed Companies Association (TLCA)
- Democratic Politics and Governance for High-Level Administrators (Class 15/2012), King Prajadhipok's Institute
- Top Executives Program, Capital Market Academy (Class of 16<sup>th</sup>), Thailand
- Diploma, The Joint State-Private Sector Course (Class 26/2013), National Defence College
- Energy Literacy Executive Management Program (TEA 6/2015), Thailand Energy Academy
- The Board's Role in Strategic Formulation, Governance Matters, Australia (2015)

**Work Experiences**

- 2007 - 2008 : Assistant Managing Director - Business, Thai Oil Public Company Limited (TOP)
- 2008 - 2009 : Assistant Managing Director - Strategic Planning & Business Development, TOP
- 2009 - 2010 : Executive Vice President, Subsidiary Planning & Management Petrochemicals & Refining Business Unit, PTT

- 2010 - 2013 : Senior Executive Vice President - Petrochemicals & Refining Business Unit, PTT
- 2013 - Present : Senior Executive Vice President, PTT, working on a secondment as President, IRPC Public Company Limited

**Relevant Important Positions in Listed Company - The Stock Exchange of Thailand**

- Director/ Secretary of the Board/  
Member of the Risk Management Committee,  
IRPC Public Company Limited

**Relevant Important Positions in Non-listed Company/ Other Organizations**

- Director, UBE Chemicals (Asia) Public Company Limited
- Chairman, IRPC Oil Company Limited
- Chairman, THAI ABS Company Limited
- Chairman, IRPC Polyoil Company Limited
- Chairman, IRPC A&L Company Limited
- Chairman, IRPC Technology Company Limited
- Chairman, IRPC PCC Company Limited
- Chairman, Petroleum Refining Industry Club, The Federation of Thai Industries (Term 2014 - 2016)
- Vice President, Petrochemical Cluster (Petroleum Refining, Petrochemicals, Plastics, and Chemical Industries)
- Director and Executive Director, the Institute of Industrial Energy, The Federation of Thai Industries (Term 2014 - 2016)
- Director, Water Institute for Sustainability (Term 2014 - 2016)
- Director (Chemical Engineering Sector), The Engineering Institute of Thailand under H.M. The King's Patronage - Director, Vidyasirimedhi Institute of Science and Technology
- Director, Rayong Institute of Science & Technology (RAIST) Foundation and Rayong Science Academy (RASA) Foundation
- Member Board of The Federation of Thai Industries (Term 2014 - 2016)
- Advisory of the Board of directors, Plastics Institute of Thailand
- Advisor, Chulalongkorn University Alumni Association under the Patronage of His Majesty the King (2015 - 2017)

**Relation among Family with other Directors and Executives**

- None

## Positions held by The Management and Authorized Controllers of PTT Plc., Subsidiaries, Associates, and Related Companies for 2015

<div>Company As of 31 December 2015</div> <div>PTT Executive As of 1 February 2016</div>																																		
				Mr. Piyasvasti Amranand	Mr. Kittipong Kittayarak	Mr. Watcharakiti Watcharohtai	Mr. Areepong Bhoocha-oom	Gen. Chatchalerm Chalermsook	Mr. Chanvit Amatamatucharti	Mrs. Nuntawan Sakuntanaga	Mr. Vichai Assarasakorn	AM Boonsulb Prasit	Mr. Somchai Sujjapongse	Mr. Don Wasantapruet	Mr. Somsak Chottrattanasiri	Mr. Prasert Bunsumpun	Mr. Chavalit Pichalai	Mr. Tevin Vongvanich	Mr. Pitipan Tepartimargorn	Mr. Sarun Rungkasiri	Mr. Chavalit Punthong	Mr. Wirat Unanarumit	Mr. Kris Imsang	Mrs. Sriwan Eamungroj	Mr. Noppadol Pinsupa	Mr. Autapol Rerkpiboon	Mr. Chansin Treenuchagorn	Mrs. Boobpha Amornkiatkajorn	Mr. Somporn Vongyuthipornchai	Mr. Supattananong Punmeechaow	Mr. Atikom Terbsiri	Mr. Sukrit Surabolsopon	Mr. Samrit Samnang	Mrs. Nitima Thepvanangkul
PTT Public Company Limited				PTT	x	/	/	/	/	/	/	/	/	/	/	/	0	//	//	//	//	//	//	//	//									
Subsidiaries*	E&P Business Group	1	PTT Exploration and Production Public Co., Ltd.	PTTEP													/	/		/														
		2	PTT Natural Gas Distribution Co., Ltd.	PTTNGD																														
	GAS	3	PTTLNG Co., Ltd.	PTTLNG																				x										
		4	PTT Green Energy Pte. Ltd.	PTTGE																														
	International Business	5	PTT Energy Resources Co., Ltd.	PTTER																														
		6	PTT (Cambodia) Limited	PTTCL																													/	
	OIL	7	PTT Retail Business Co., Ltd.	PTTRB																														
		8	Thai Lube Blending Co., Ltd.	TLBC																														
		9	Subic Bay Energy Co., Ltd.	SBECL																														
		10	PTT Tank Terminal Co., Ltd.	PTT TANK																														
		11	PTT Oil Myanmar Co., Ltd.	PTTOM																														
	Petrochemical & Refining	12	PTT Polymer Logistics Co., Ltd.	PTTPL																														
		13	PTT Polymer Marketing Co., Ltd.	PTTPM																														
		14	PTT PMMA Co., Ltd.	PTTPMMA																														
		15	PTT Global Chemical Public Co., Ltd.	PTTGC									/	x				/							/	/			*0/					
		16	Thai Oil Public Co., Ltd.	TOP																	/	/	/	/	/						*0/			
	Trading	17	IRPC Public Co., Ltd.	IRPC			/											x	/	/						/					0/			
		18	PTT International Trading Pte. Ltd.	PTTT																													/	
	Others	19	PTT Regional Treasury Center Pte. Ltd.	PTTRTC																														
		20	Business Services Alliance Co., Ltd.	BSA																														
	Infrastructure	21	PTT ICT Solutions Co., Ltd.	PTTICT																														
		22	Global Power Synergy Co., Ltd.	GPSC																	/									/	/			
		23	Energy Complex Co., Ltd.	EnCo																			/											
		24	Thaioil Power Co., Ltd.	TP																														
		25	PTT Energy Solutions Co., Ltd.	PTTES																														
		26	PTT Maintenance and Engineering Co., Ltd.	PTTME																														
Associated and Related Companies*	GAS	27	Trans Thai-Malaysia (Thailand) Ltd.	TTM(T)																														
		28	Trans Thai-Malaysia (Malaysia) Sdn. Bhd.	TTM(M)																														
	OIL	29	Thai Petroleum Pipeline Co., Ltd.	THAPLINE																														
		30	Petro Asia (Thailand) Co., Ltd.	PAT																														
		31	Bangkok Aviation Fuel Services Public Co., Ltd.	BAFS																														
		32	Intoplane Services Co., Ltd.	IPS																														
		33	Fuel Pipeline Transportation Co., Ltd.	FPT																														
		34	KELOIL-PTT LPG Sdn. Bhd.	KPL																														
		35	Petro Asia (Maoming) Co., Ltd.	PA-Maoming																														
		36	Petro Asia (Sanshui) Co., Ltd.	PA-Sanshui																														
	Petrochemical & Refining	37	HMC Polymers Co., Ltd.	HMC																														
		38	Star Petroleum Refining Public Co., Ltd.	SPRC																														
		39	PTT Asahi Chemicals Co., Ltd.	PTTAC																				/										
	Others	40	PTT MCC Biochem Co., Ltd.	PTTMCC																				/										
		41	Dhipaya Insurance Public Co., Ltd.	TIP																														
	Infrastructure	42	District Cooling System and Power Plant Co., Ltd.	DCAP																														

**Notes:** Symbol x = Chairman — = Vice Chairman \* = President O = CEO / = Director // = Executive

as of 1 January 2015, the first four executives, excluding the President & CEO, under SEC's Announcement are Mr. Pitipan Tepartimargorn, Mr. Sarun Rungkasiri, Mr. Surong Bulakul, and Mr. Wirat Unanarumit

\* The Company has classified new subsidiary in according to the International Financial Reporting Standards No. 10 Consolidated Financial Statement, effective since 1 January 2015.

## Awards of Thai Pride

PTT values sustainable business conduct in a social and environmentally responsible manner regarding to good governance, information transparency, and innovation and technology promotion. In 2015, PTT won 77 awards and prestigious rankings in addition to certifications from 45 entities (a total of 57 awards from 34 entities at the national level and 20 awards from 11 entities at the international level).

## Business Excellence

### National Level

#### The Prime Minister's Industry Award 2015: Excellence in Energy Management

for PTT's clear goals in energy management and efficient execution

**Presented by:**  
Ministry of Industry



**Date:**  
25 September 2015



1. PTT gas stations were voted the Most Popular Brand for 12 consecutive years (2004 - 2015) based on a consumer survey.
2. PTT lubricant won the Most Trusted Brand for five consecutive years.

**Presented by:**  
BrandAge Magazine

**BrandAge**

**Date:**  
20 February 2015



**No. 1 Brand Thailand 2014 - 2015:**  
PTT gas stations, lubricants, and Café Amazon (Coffee Shop) were voted the most popular brand for four consecutive years.

**Presented by:**  
Marketeer Magazine

**Marketeer**

**Date:**  
11 June 2015



- ASEAN Communication Program 2015 (ACP'15):**
1. ASEAN Excellent Enterprises and Businessman:  
Mr. Tevin Vongvanich, President & CEO
  2. ASEAN Admired Brands
  3. ASEAN Quality Goods and Services

**Presented by:**  
Standard and Quality Association of Thailand (SQAT) in conjunction with Vietnam Quality Association of Ho Chi Minh City



**Date:**  
30 November 2015



**Asia's Best CFO of 2014:**  
**Mr. Wirat Uanarumit**

**Presented by:**  
Corporate Treasurer at  
ASEAN Treasury Summit Event



**Date:**  
March 2015



**International Level**

01

02

03

04

05

06

**The 5<sup>th</sup> Asian Excellence Recognition Awards 2015:**

**Individual Awards**

- Asia's Best CEO (Investor Relations)**  
**Mr. Pailin Chuchottaworn**  
*(for five consecutive years)*
- Asia's Best CFO: Mr. Wirat Uanarumit**
- Best Investor Relations Professional:**  
**Mr. Phichin Aphiwantaporn**  
*(for two consecutive years)*

**Organizational Awards**

- Best Investor Relations**  
*(for five consecutive years)*
- Best Environment Responsibility**  
*(for five consecutive years)*
- Best CSR**  
*(for three consecutive years)*

**Presented by:**  
Corporate Governance Asia Magazine



**Date:**  
10 April 2015



**Asia's Most Admired Brand 2014**  
**(Energy Business)**

PTT achieved a Top 100 among oil companies  
from over 500 Asian entries.

**Presented by:**  
World Consulting and Research Center (WCRC)



**Date:**  
27 May 2015



**Top Corporate Borrowers in Asia - Thailand**  
*(for three consecutive years)*

**Presented by:**  
FinanceAsia Magazine



**Date:**  
11 November 2015



**PTT was ranked 93<sup>rd</sup> from 500 companies worldwide**

and was placed in the Top 100 companies  
for four consecutive years.

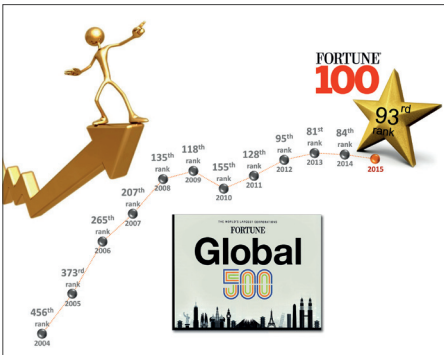
**Presented by:**  
Fortune Global 500 Magazine



**Date:**  
July 2015

**Past ranking:**

- 84<sup>th</sup> in 2014
- 81<sup>st</sup> in 2013
- 95<sup>th</sup> in 2012
- 128<sup>th</sup> in 2011
- 155<sup>th</sup> in 2010
- 118<sup>th</sup> in 2009
- 135<sup>th</sup> in 2008
- 207<sup>th</sup> in 2007
- 265<sup>th</sup> in 2006
- 373<sup>rd</sup> in 2005
- 456<sup>th</sup> in 2004



**The Asset Corporate Awards 2015:**  
**The Platinum Award Winners**

PTT was the sole Thai winner of  
the platinum award for  
seven consecutive years.

**Presented by:**  
The Asset Magazine



**Date:**  
15 December 2015





# Business Sustainability

## Environmental Awards

### 1. Certificate for Thailand's Voluntary Emission Reduction Program (T-VER\*): Forestry Category

#### Presented by:

Thailand Greenhouse Gas Management Organization (Public Organization) (TGO)



#### Date:

February 2015

\* Thailand Voluntary Emission Reduction Program: T-VER



### 2. Carbon Footprint Certification for NGV Products for vehicles

#### Presented by:

Thailand Greenhouse Gas Management Organization (Public Organization) (TGO)



#### Date:

28 March 2015



### ESG100 Certificate for Top 100 companies with outstanding environmental, social, and governance performance

#### Presented by:

Thaipat Institute



#### Date:

27 March 2015

## National Level

01

02

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### Token of Appreciation from PM Gen. Prayuth Chan-ocha, in recognition of PTT Group companies with outstanding sustainability performance

#### Presented by:

PM Gen. Prayuth Chan-ocha at Thai Corporate Moving toward Sustainable Growth, DJSI, hosted by The Stock Exchange of Thailand



#### Date:

26 February 2015

### Thailand Green Label Award

in recognition of PTT's participation in the Green Label Program over the past 10 years in consideration to the national environment

#### Presented by:

Thailand Environment Institute (TEI)



#### Date:

19 March 2015



### Green Meetings Certification Award for three consecutive years

#### Presented by:

Thailand Business Council for Sustainable Development (TBCSD) and TEI



#### Date:

27 May 2015



### Certificate for PTT as "100% Foam-Free Organization"

#### Presented by:

Department of Health, Ministry of Public Health



#### Date:

5 June 2015





#### National Safety Awards 2015

1. Outstanding Occupational Safety Officers (Professional Level):  
Mr. Nattapong Ruzhe and Mr. Preeda Sagoonto
2. Outstanding Committee on Safety, Occupational Health and Work Environment: Rayong Gas Separation Plant
3. Outstanding Workplace for Safety, Occupational Health, and Work Environment

##### Presented by:

Department of Labour Protection and Welfare at the 29<sup>th</sup> National Safety Week



##### Date:

June 2015 and 2 July 2015

07

#### PTT Wanarom Eco-Zone Industries (PTT WEcoZI)

was certified for its eco-industrial standard, environment management, and greenhouse gas emissions as follows:

1. Eco-industrial City - Eco Champion, Thailand's first eco-industrial zone, from IEAT
2. ISO 14001 : 2004 (Environmental Management System) from MASCI
3. Thailand Voluntary Emission Reduction Program (T-VER) from TGO; PTT's Rayong Wanarom Eco-Forest was registered by TGO for successfully reducing GHG emission over 1,000 tons of CO<sub>2</sub> equivalent emission per year.

##### Presented by:

Industrial Estate Authority of Thailand (IEAT)/ Management System Certification Institute (Thailand) (MASCI) and TGO



##### Date:

August 2015



#### Green Industry, Level 4 (Green Culture) Award 2015

##### Presented by:

Ministry of Industry



##### Date:

11 August 2015

08



#### Token of appreciation for Workplaces certified from the Zero Accident Campaign 2015

1. Silver: Rayong Gas Separation Plant
2. Silver: Khanom Gas Separation Plant
3. Bronze: PTT Research and Technology Institute

##### Presented by:

Department of Labour Protection and Welfare



##### Date:

August 2015

10

#### Outstanding State Enterprise Awards 2015

1. Outstanding Information Disclosure and Transparency Award
2. Outstanding Social and Environmental Operation Award for  
“Project on Community Energy Development in Biogas System from Pig Farms, Tha Manao, Chai Badan, Lopburi”
3. Outstanding Innovation Award (for six consecutive years),  
for PTT Flange Corrosion Preventive System, initiated by  
PTT's researchers from Geo-Science & Petroleum Research Department,  
PTT RTI, consisting of an anti-corrosion specialty formulated with raw materials  
attached to pipes, valves, and other equipment to prevent corrosion potentially  
leading to gas leakage, reducing costs and benefiting the organization.

##### Presented by:

State Enterprise Policy Office (SEPO)



##### Date:

22 September 2015



11

12



#### Sustainability Awards from The Stock Exchange of Thailand (SET)

1. Sustainability Awards
2. Thailand Sustainability Investment Award 2015

##### Presented by:

SET



##### Date:

16 October 2015





HRH Princess Maha Chakri Sirindhorn

graciously presided over the 6<sup>th</sup> International Vetiver Conference at Danang Science and Technology University, Vietnam, and presented “The King of Thailand Vetiver Awards”.

PTT won two awards:

1. The King of Thailand Vetiver Awards: Outstanding People  
Participation: Disaster Mitigation/ Environmental Protection
2. The King of Thailand’s Certificate of Excellence:  
Outstanding Promotion and Application of the Vetiver System

Presented by:

Chaipattana Foundation, Office of the Royal Development Projects Board, and The Vetiver Network International (VNI)



Date:  
12 May 2015



13

Thailand Corporate Excellence Awards 2015

1. Corporate Social Responsibility Excellence
2. Outstanding Achievement in Leadership Excellence
3. Outstanding Achievement in Human Resource Management Excellence
4. Outstanding Achievement in Financial Management Excellence

Presented by:

Thailand Management Association (TMA) and Sasin Graduate Institute of Business Administration of Chulalongkorn University



Date:  
24 November 2015



14

15



PTT Lubricant Bottling Plant, Phra Khanong, has been certified with ISO 14001 (Environmental Management System)

Presented by:

MASCI, Ministry of Industry



Date:  
December 2015

16

Thailand Automotive Quality Award (TAQA) 2015

1. Automotive Products: Fuels
2. Gas Stations (for six consecutive years)

PTT was also certified with GREEN FOR LIFE emblem for its new-look lubricant package.

Presented by:

Inter-Media Consultant Co., Ltd., with Custom Asia Co., Ltd., and Manager Newspaper



Date:  
9 December 2015



17



Sustainability Report Award 2015 in Best Sustainability Report Award

for three consecutive years

Presented by:

Office of the Securities and Exchange Commission (SEC), Thai Listed Companies Association (TLCA), and Thaipat Institute



Date:  
15 December 2015

Ranked 111<sup>th</sup> worldwide by Green Rankings 2015 against 136<sup>th</sup> in 2014, and 2<sup>nd</sup> in energy category against 10<sup>th</sup> in 2014.

Presented by:

Newsweek Magazine



Date:  
26 June 2015



International Level

01

02

Ranking and Membership of Dow Jones Sustainability Indices (DJSI)  
PTT retained membership of DJSI 2015: Dow Jones Sustainability World Index (DJSI World) and Dow Jones Sustainability Emerging Markets Index (DJSI Emerging Markets) in the Oil and Gas Industry (OIG) of DJSI World for four consecutive years.

Presented by:

Dow Jones Sustainability Indices (DJSI)



Date:  
September 2015





# Good Governance and Transparency

## Most Popular Stock Award: Resources Group

for three consecutive years

### Presented by:

Kao Hoon Newspaper, University of the Thai Chamber of Commerce, and SET



### Date:

21 May 2015

## National Level

PTT's seven service stations met the required assessment criteria, earning certificates for promoting good attitudes in drug prevention and handling in its workplaces in Bangkok Metropolis and for being a role model in anti-drug management.

### Presented by:

Department of Labour Protection and Welfare



### Date:

17 June 2015



## 2015 Role Models in Business Sector of the Year Award: Energy and Infrastructure Business Sector

1. Mr. Tevin Vongvanich, President & CEO
2. Mr. Sarun Rungkasiri, Chief Operating Officer  
Downstream Business Group

### Presented by:

Foundation of Science and Technology Council of Thailand (FSTT)



### Date:

19 October 2015



Based on the Corporate Governance Report (CGR) of Thai Listed Companies 2015, PTT was ranked excellent (five emblems) for seven consecutive years, and in the Top Quartile of listed companies with market values of at least THB 10,000 million.

### Presented by:

Thai Institute of Directors (IOD)



### Date:

20 October 2015



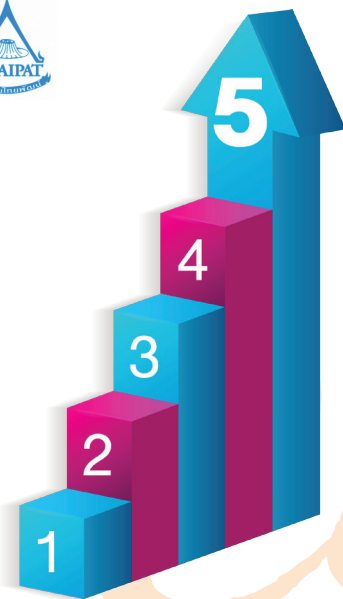


PTT achieved Level 5 (Extended) of the Anti-corruption Progress Indicator, the highest level of the sustainability development assessment of Thai listed companies in 2015

**Presented by:**  
SEC and Thaipat Institute



**Date:**  
21 October 2015



PTT Ordering and Customer Relations Center earned a token of appreciation as outstanding entrepreneurs for two consecutive years.

**Presented by:**  
Office of the Consumer Protection Board (OCPB) and MSCI at the seminar on Call Center Capability Development and Complaint-Handling Project, and Award Presentation Ceremony



**Date:**  
October 2015



1. Most Organised Investor Relations  
(for two consecutive years)
2. Strongest Adherence to Corporate Governance
3. Most Consistent Dividend Policy  
(for five consecutive years)
4. Best Annual Report in Thailand  
(for two consecutive years)

**Presented by:**  
Alpha Southeast Asia Magazine



**Date:**  
14 September 2015

## International Level

1. Outstanding Board of the Year Award 2015
2. Board with Consistent Best Practices

**Presented by:**  
IOD in conjunction with SET, Thai Chamber of Commerce, Federation of Thai Industries, Thai Bankers' Association (TBA), TLCA, and Federation of Thai Capital Market Organization (FETCO)



**Date:**  
17 November 2015



ASEAN Corporate Governance Award as a Thai listed company ranked in the Top 50 ASEAN PLCs based on the criteria set in ASEAN Corporate Governance Scorecard 2015

**Presented by:**  
Corporate Governance Report of Thai Listed Companies under ASEAN Corporate Governance Scorecard 2015



**Date:**  
November 2015





# Innovation and Technology

GODJI The Adventure, PTT's first 3D animation cartoon won the "Best Animation TV Series 2015" from the Bangkok International Digital Content Awards 2015 (BIDC Awards)

**Presented by:**  
Software Industry Promotion Agency (Public Organization) (SIPA), Department of International Trade Promotion (DITP), Thailand Convention and Exhibition Bureau (TCEB), in cooperation with the private sector: Thai Animation and Computer Graphics Association (TACGA), Thai Game Software Industry Association (TGA), Digital Content Association of Thailand (DCAT), e-Learning Association of Thailand (e-LAT), and Bangkok ACM Siggraph Association (BASA)



**Date:**  
29 April 2015

## National Level

PTT's researcher from the Applied Energy Technique and Engine Testing Department, PTT RTI, Mr. Kietsakul Watcharinyanon, received an award for "Flexible Bi-Fuel CNG ECU for Gas Quality Variation"

- 1. 1<sup>st</sup> Prize for Outstanding Research Paper Award
- 2. 1<sup>st</sup> Prize for Outstanding Presenter for Research Paper Award

**Presented by:**  
National Defence Studies Institute (NDSI) at NDSI Security Week



**Date:**  
29 April 2015



Thailand ICT Excellence Awards 2015:  
PTT Group companies won four awards in 2015:

- 1. Business Enable Projects: Max Attention Project
- 2. Business Enable Projects: Inventory Decision Support System (DSS) Project
- 3. Core Process Improvement Project: Continuous Control Monitoring and Auditing System (CCMS) Project
- 4. Business Enabler Project: PTT Fill & Go (RFID Ring Technology) Project, a smart refueling system

**Presented by:**  
TMA in conjunction with National Electronics and Computer Technology Center (NECTEC), Software Park Thailand, and College of Innovation, Thammasat University (CITU)



**Date:**  
23 June 2015



**National Public Sector Services  
Awards 2015: Excellent Service Development,  
for PTT's Contact Center 1365  
and Direct Approve**

**Presented by:**  
Office of the Public Sector Development  
Commission (OPDC)



**Date:**  
29 September 2015



**Research on Colorful PV Rest Area received  
the Creative Technology for Society 2015 Award**

**Presented by:**  
Ministry of Science and Technology  
and Thai Machinery Association at  
the Excellence Award Competition for  
Technology and Machinery 2015



**Date:**  
15 November 2015



04

05

06

07



**PTT DIESEL CNG won a Merit Award for Economic Contribution  
presented by the National Innovation Award 2015**

**Presented by:**  
National Innovation Agency (Public Organization) (NIA), Ministry of Science and Technology



**Date:**  
5 October 2015



**Best Customer Experience Management Award  
from PTT Blue Card Mobile Application Project  
at ICT Best Practice Awards 2015**

**Presented by:**  
CAT Telecom Public Company Limited  
in conjunction with Association of Thai ICT Industry  
(ATCI), Assumption University (ABAC),  
and E LEADER Magazine, a leading magazine  
for corporate ICT leaders



**Date:**  
18 December 2015



# Thai Energy *Thai Pride*









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