

Annual Report 2014
PTT Public Company Limited



TOWARD A SUSTAINABLE FUTURE FOR THAIS



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Striving hard for economic prosperity
of the kingdom, PTT integrates knowledge
leading to self-reliance for Thais.

Most constructive questions we ask
bring energy innovations to Thais.

Our technologies fit harmoniously
with life, nature, and the surroundings.

Our ongoing efforts
strive for sustainable
co-existence for all of us.



Member of
DJSI World
& DJSI Emerging
Markets (oil & gas
industry), third
consecutive
year (2014)



Ranked 24th,
Platts Top 250
Global Energy
Company Ranking
(Overall Global
Performance
in Asia) (2014)



Ranked 84th,
Fortune
Global 500
(2014)

Economic Security, Robust Society

Leveraging corporate growth and worldwide acceptance, PTT drives the economy in tandem with Thais' improved quality of life. In view of the energy security we've enhanced, we're even more committed to robust management marked by transparency.

Quality Workforce for Society

As a Thai entity, we have been investing in developing our personnel's caliber through knowledge and quality, all the while cultivating their sense of public service. That way, we derive the human element of social constructiveness.



SPiRiT values
behind PTT's
sustainable
excellence

Fulfilling
the corporate
culture of smart,
noble workforce

Phalang Thai
Volunteer Club
devoted to
public service

PTT
Leadership
and Learning
Institute
(PLLI)



These academies produce future-generation personnel that are adept in driving Thailand toward sustainability through knowledge.

Kamnoetwit Science Academy, an upper-secondary science school, the ultimate scientific and mathematical center for talents

Vidyasirimedhi Institute, an advanced science and technology university for elite scientists and researchers to nurture international competitiveness



Seed of Knowledge for a Viable Future

Because today's world is knowledge-driven, PTT supports mental exercise on the basis of scientific and technological knowledge in search of total self-reliance. To this end, we've established academies for new-generation keen minds, idealism, and virtue.

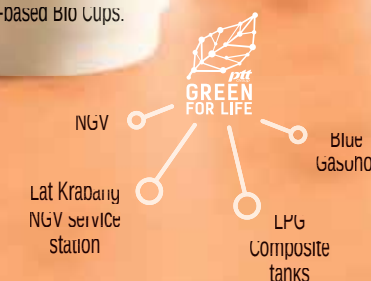


The Bio Cup: A green mission success, from laboratory to the coffee shop.

Roughly 200 tons a year of waste is averted through the use of 100% biodegradable PBS-based Bio Cups.

Innovation Heralds Changes

Competition today happens in an all-new arena. That's why PTT is promoting knowledge-based innovation with a focus on science and technology addressing day-to-day needs for quality. For it is quality that fosters caliber for strides into future decades.





Green areas make towns more livable, promoting learning centers for reforestation, and planting saplings in urban people's hearts

Demonstration of sustainable eco-reforestation

PTT Forest in the Park

The name bestowed by HRH Princess Maha Chakri Sirindhorn, Urban Learning Center of Forests: a learning center and sustainable interaction center for forests and cities

PTT's Forestry Institute: building on forest stewardship knowledge

Better Environmental Quality Through Integrated Knowledge

Lush forests herald a viable future for our children's children and beyond. That's why we must keep on reforesting and passing on reforestation knowledge to them, while planting green areas in their hearts. For in one way or another, human beings do rely on forests.

Intellect Fuels Thai Wisdom and Equilibrium

Real development hinges on proper equilibrium between business growth, a viable environment, and contented human lives. This we hold as our No. 1 mission. When broadened, the concept inspires society for a better world: a world filled with balance and sustainability.



Green Globe Awards

TAGNOC

Forest Conservation and Human Development in 84 Tambon on A Sufficient Path Project



The 1-million-rai Reforestation Project in Honor of HM the King on the occasion of the 50th Anniversary of the Accession to the Throne of yesteryears, and 1 million rai over future years: an infinite inspiration

National Energy Company

Green Roadmap

Wanarom Eco Zone Industries (PTT WEcoZI)
Asia Industrial Estate, Ban Chang, Rayong, Thailand

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

TO THE COUNTRY
Ensuring long-term energy security by providing sufficient high-quality energy supply at fair prices to support economic growth

TO COMMUNITY AND SOCIETY
Maintaining a good standing corporate status in Thai society by exercising environmental stewardship or internationally accepted standards and helping to improve the quality of life for community and society

TO SHAREHOLDERS
Operating profitable business that leads to sustainable growth while generating optimum returns

TO CUSTOMERS
Ensuring customer satisfaction and loyalty by delivering world-class quality products and services at fair prices

TO BUSINESS PARTNERS
Conducting fair business practice with all partners while promoting trust, relationship, and cooperation to expand business capability and increase efficiency in long-term business partnership

TO EMPLOYEES
Promoting capability building professionally and ensuring employees well-being is on the level with other leading companies

PTT GROUP VALUES



Synergy

Performance
Excellence

Innovation

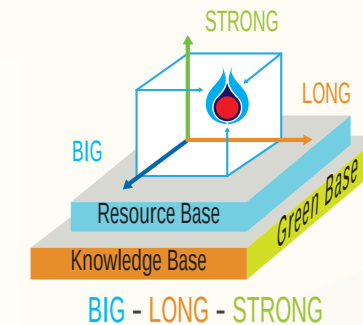
Responsibility
for Society

Integrity &
Ethics

Trust &
Respect

SPIRIT

BUSINESS DIRECTION



BIG
A world class Company to be listed in FORTUNE 100 by 2020

LONG
A Company with sustainable growth to be listed in DJSI in 2013

STRONG
Operational excellence to achieve 100 Quartile Performance by 2020

PTT STRATEGIC FRAMEWORK



TAENOC

Technologically Advanced and Green National Oil Company

TA: Technologically Advanced
Leading-edge technology to maximize value of the business

G: Green Roadmap
Growth and profits are achieved in a sustainable manner

NOC: National Oil Company
- Energy security
- National wealth
- Support Thailand into a knowledge based economy

CSR STRATEGY



"The Balance and Harmony among Economy, Social and Ecology will be a new framework for sustainable growth"



"TRUST & CONFIDENCE"

CSV

Creating Shared Value
Creating Shared Value for the business and society

Financial Highlights

	2012	2013	2014
Statement of Income (Million Baht)			
Sales and Service Income	2,793,833	2,842,408	2,834,732
Earnings before Finance Costs, Income Taxes, Depreciation, and Amortization including Other Non-operating Income and Expenses (EBITDA)	227,843	228,541	251,025
Net Income (Loss)	104,608	93,091	55,795
Statement of Financial Position (Million Baht)			
Total Assets	1,629,511	1,805,039	1,779,179
Total Liabilities	899,615	982,197	911,837
Total Equity	729,896	822,842	867,342
Total Equity Attributable to Equity Holders of the company	603,920	682,311	697,578
Shares or Information about Common Shares			
Shares and Fully Paid-up Share Capital (Million Shares)	2,856	2,856	2,856
Book Value per Share ^{1/} (Baht)	211.43	238.88	244.22
Earnings per Share ^{1/} (Baht)	36.59	32.52	19.33
Dividend per Share (Baht)	13.00	13.00	11.00 ^{2/}
Dividend Payout Ratio to Net Income (%)	35.5	40.0	56.9
Share Price at the End of Financial Period (Baht)	332.00	286.00	324.00
Financial Ratios			
Net Income to Net Revenues (%)	3.74	3.28	1.97
Return on Equity (%)	18.06	14.46	8.09
Return on Total Assets (%)	6.90	5.41	3.11
Debt to Equity (Times)	0.62	0.59	0.55
Net Debt to Equity (Times)	0.43	0.40	0.29
Net Debt to EBITDA (Times)	1.37	1.42	1.00
Interest Coverage ^{3/} (Times)	10.66 ^{3/}	10.52 ^{3/}	13.59 ^{3/}

Remarks

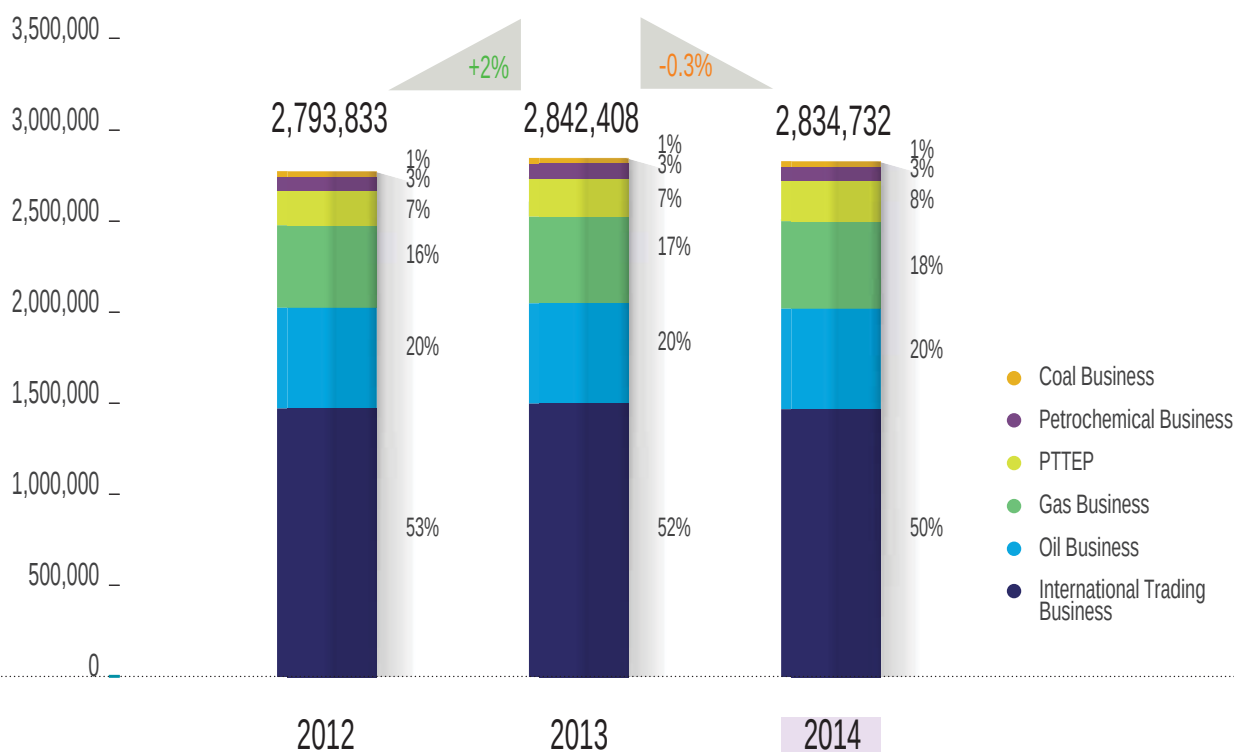
1/ Based on the weighted common shares of 2,856.30 million (as of December 31, 2013) and 2,856.30 million (as of December 31, 2014).

2/ The Board of Directors on February 19, 2015, approved the rate of dividend paid to the shareholders, which will be tabled for the 2014 AGM's approval on April 9, 2015.

3/ Interest Coverage = (Net cash flow from operating activities + Taxes paid from operating activities)/ Interest paid from financing activities. The formula has changed from interest coverage ratio = Profit before finance cost, income taxes, depreciation and amortization expenses and non-related expenses and income (EBITDA)/ Interest from business operation and investment.

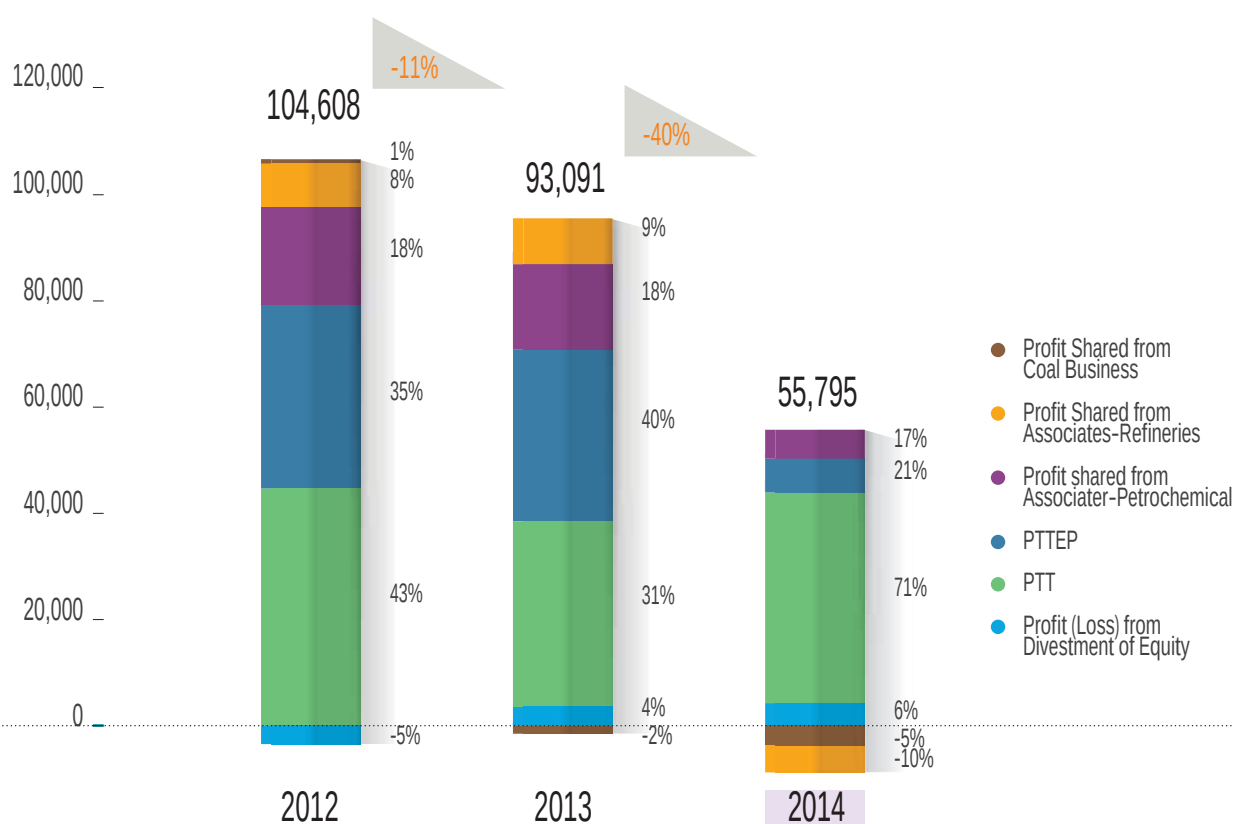
Sale and Service Income

Unit: Million Baht



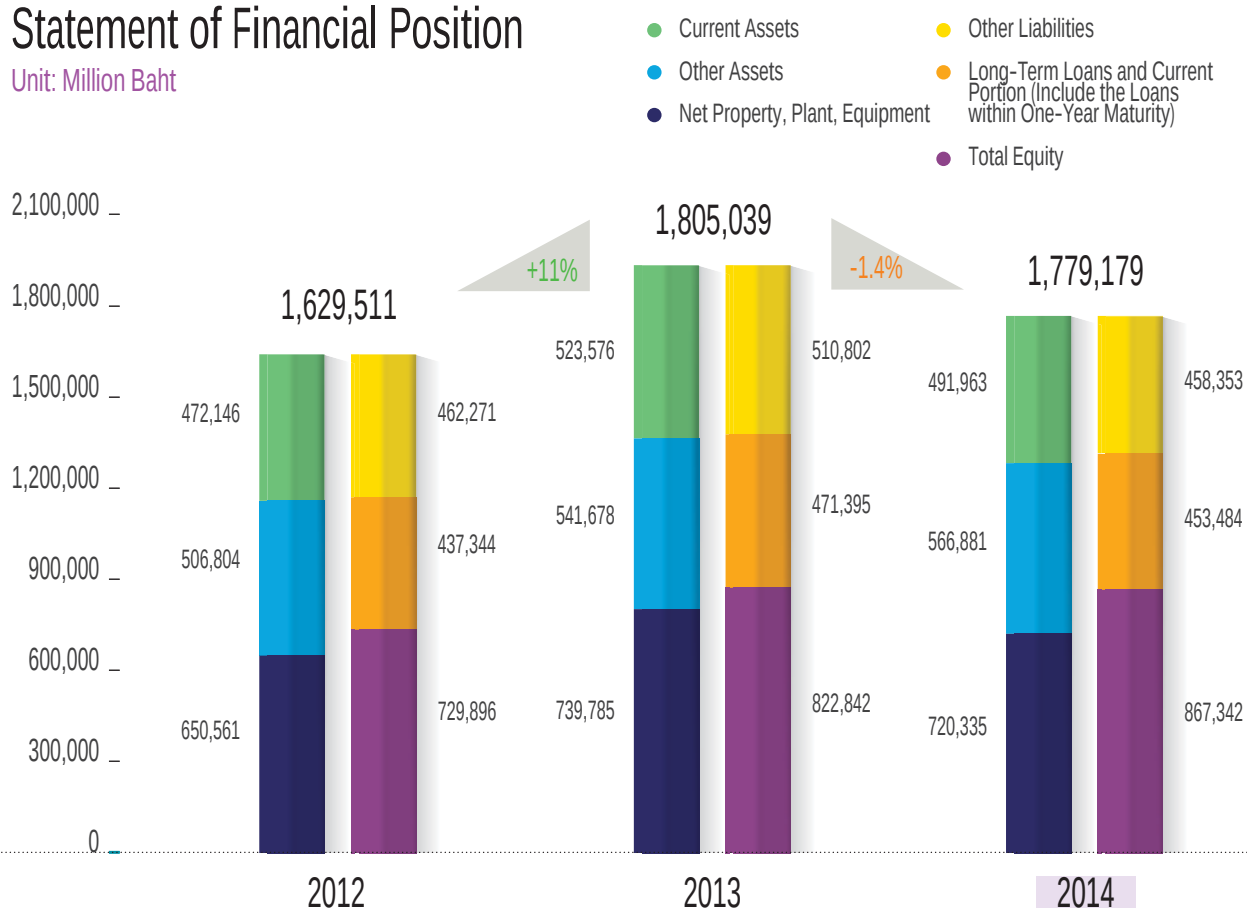
Net Income

Unit: Million Baht



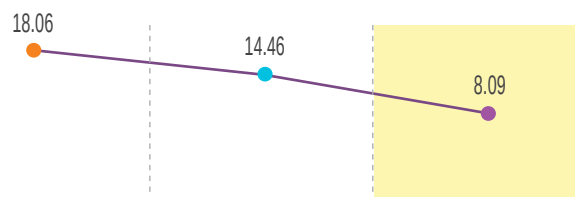
Statement of Financial Position

Unit: Million Baht

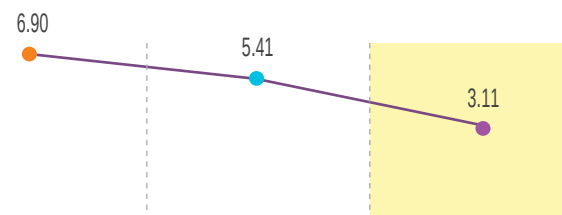


Financial Ratios

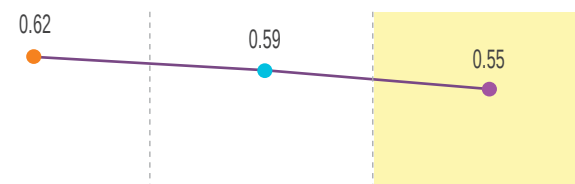
Return on Equity (%)



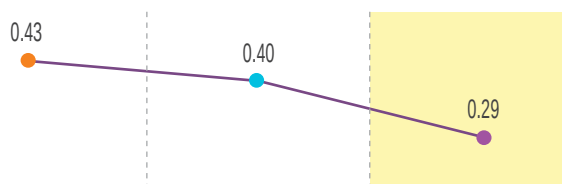
Return on Total Assets (%)



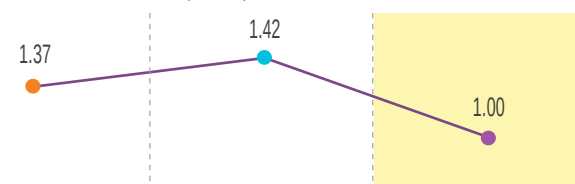
Debt to Equity (Times)



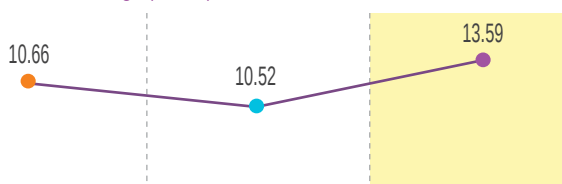
Net Debt to Equity (Times)



Net Debt to EBITDA (Times)



Interest Coverage (Times)



PTT Information

Name	PTT Public Company Limited
Initial	PTT
Registered Number	0107544000108
Type of Business	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.
Registered Capital	THB 28,572,457,250, including 2,857,245,725 common shares, THB 10 per share (as of December 31, 2014)
Paid of Capital	THB 28,562,996,250 including 2,856,299,625 common shares, THB 10 per share (as of December 31, 2014)

Location	555 Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900, Thailand Telephone: 66 (0) 2537-2000 Telefax: 66 (0) 2537-3498-9 Website: www.pttplc.com
Corporate Communication Department	Telephone: 66 (0) 2537-2150-1 Telefax: 66 (0) 2537-2572, 66 (0) 2537-2171 E-mail: corporate@pttplc.com
Investor Relation Department	Telephone: 66 (0) 2537-3518 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 4 th Floor, SET Building, 62 Ratchadapisek Road, Klongtoey, Bangkok 10110, Thailand Telephone: 66 (0) 2229-2888 Telefax: 66 (0) 2359-1259
• 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 nd Building, 3 rd Floor, 1060 Petchaburi Road, Ratchathawee, Bangkok 10400, Thailand Telephone: 66 (0) 2256-2334-40 Telefax: 66 (0) 2256-2410-6 Corporate Trust Sale, Corporate Trust 9 Ratchadapisek Road, Chatuchak, Bangkok 10900 Telephone: 66 (0) 2544-6881, 66 (0) 2544-2923 Telefax: 66 (0) 2544-7475

Message from the Board of Directors



Dear Shareholders

The year 2014 is yet another challenging one for PTT, for it was a year beginning with political unrest leading to temporary closure of PTT Head Office. With full cooperation from all management and personnel together with the Business Continuity Management (BCM) implementation, PTT successfully maintained its business and operations to secure national energy supply and economic development amid overwhelming and surrounding pressure.

Another crucial challenge encountered during much of the year was the tremendous volatility of oil demand and supply on a global scale, making the oil prices nosedive in the second half of the year. This situation is expected to continue into most of 2015. Despite our several price risk management measures, heavy stock losses resulting from crude oil, feedstock and raw materials, as well as refined products earlier procured at higher prices, were booked for all petroleum and petrochemical operators, as these products were later sold at lower prices. Additional financial losses were recorded following the year-end inventory report, and the accounting impairment showed much lower asset values due to stock losses and devaluation of assets.

Thanks to the higher sales and strong discipline on cost control, PTT Group managed to confront these challenges and crises during the year, reporting a net income of THB 55,795 million and sales revenue of THB 2,834,732 million. With this achievement, we maintained our status among the Fortune 100 companies for a third consecutive year. Ranked 84th among the world's 100 largest enterprises, PTT illustrated positive markets and investor responses to itself, together with its products and services in Thailand and world markets.

For a third consecutive year, PTT has maintained its membership of DJSI World (Dow Jones Sustainability World Indices) under the oil and gas producer industrial group (OIX). This is a phenomenal success, given that only 14 companies under the OIX group were selected as part of the world's 2,000 leading largest enterprises. Ranked 180th, we are in fact the sole Thai company among the top 500. The assessment criteria were success and effectiveness of business operations regarding contribution to economic growth along with social and environmental development. The DJSI awards truly reflected the markets and foreign investors' confidence in PTT and its business operations. During the same period, we won several domestic awards, including the SET Award of Honor on Excellence in CSR for a fourth consecutive year and the 2014 Top Corporate Governance Report Award from Stock Exchange of Thailand (SET), Thai Institute of Directors (IOD) and the Money & Banking journal. PTT was uniquely honored with an extraordinary "Honorable Engineer" lifetime award for organization management, graciously bestowed by HRH Princess Maha Chakri Sirindhorn. With our commitment to running business with corporate governance, transparency, integrity, accountability, and striving for full confidence by all stakeholders, PTT qualified as Thailand Private Sector Collective Action Coalition Against Corruption (CAC) member during the year.

In addition to the mission of enhancing national energy security, and as a SET-listed state enterprise generating economic growth by delivering optimal returns to the State, PTT is committed to pursuing all its businesses while strictly adhering to a public company's role with activities promoting national sustainable development, striving for not only the highest economic returns, but also the highest attention to society, communities, and the environment. Numerous public and community projects were carried out this year, including the CSR Green Energy project, a construction of a weir to provide clean water for community water works and hydropower generation, created under a royal initiative of using vetiver to protect topsoil erosion from heavy rain. The pilot project of CSR Green Energy has been implemented at Ban Khanun Khli, Tambon Tha Khanun, Amphoe Thong Phaphum, Kanchanaburi province. Protection of topsoil from rainwater erosion helps maintain the water volume and quality within the weir. One of our sustainability concepts is to combine the environmental friendly innovation with business practices. We also introduced the Greenery Station, an energy

conservation fully integrated with a community mall to provide the most modern gasoline products and other conveniences on a 15 Rai land plot on Ratchaphruek Road. Our first PTT FIT Auto branch was also introduced there to provide fully integrated automotive services.

PTT has also introduced Creating Shared Value (CSV) to its operations on top of the business philosophy toward society, communities, and the environment. The R&D project of coffee plantation and production under the natural resource conservation concept of the sustainable development program, and a project to trade crude coffee beans at the Royal Agricultural Station Inthanon at Amphoe Chom Thong, Chiang Mai province, are two of our many projects promoting local community development balance with nature under the Sufficiency Economy philosophy. Amazon Café is another example of co-development between coffee providers who use high-quality local coffee beans and consumers who support a higher-quality living standard for Thai farmers. PTT actively pursues its “Learning Triad for Sustainability” strategy to prepare youths, students, and its employees for ASEAN economic community integration. Major projects under this strategy include the establishment of Rayong Institute of Science & Technology (RAIST), also known as Vidyasirimedhi Institute, a name graciously bestowed by HRH Princess Maha Chakri Sirindhorn, and Rayong Science Academy (RSA), also known as Kamnoetwit Science Academy and graciously named by the princess), Thailand Energy Academy (TEA), and PTT Leadership and Learning Institute (PLLI). Execution of the contracts to begin Phase 1 construction and architectural design of the post-graduate institute and science school in the Eastern Region was carried out in 2014, with a target to have the maiden enrollment of RAIST and RSA in the 2015 academic year.

From the business perspective, PTT continues to drive its strategy toward sustainability by focusing on balancing the drive toward organizational excellence, good corporate governance, and corporate social responsibility—the foundation of a long-term organizational development and preparedness for the changing domestic and international situations. Thanks to such preparation and cooperation with all parties under the openness and transparent work practices, we managed to survive all the crises of 2014 with hardly any impacts on our overall operations and stakeholders. These crises included energy procurement during Myanmar’s Yetagun field’s maintenance shutdown from December 31, 2013 to January 14, 2014 political unrest in Thailand, numerous public seminars with our clarification of energy data and information, and confirmation statement to separate pipelines from PTT to an authorized entity for the benefit of the State. These were our valuable lessons learned. These crises notwithstanding, PTT remitted THB 53,476 million to the State. This investment return would form part of the national budget for developing the country and the quality life of Thais.

Since PTT is a Thai company competing with others in the global arena, all our achievements belong to all Thais. Our competitive caliber is warranted by many domestic and international awards. On this occasion, the Board of Directors thanks all stakeholders for their continued support and trust in PTT Group, leading to consistent successes amid various challenges. On behalf of the Board, we reaffirm our commitment to pursuing businesses under good corporate governance, transparency, and accountability, with our utmost capability, efforts, and professional conduct under sustainable growth principles to become a leading Thai company in the international market with equitable treatment of all stakeholders. These principles form a foundation for energy security and economic growth for the nation and for a better quality life of Thais. We are convinced that they will also turn PTT into a truly sustainable organization and forever as the “Thai Energy Company”.



Mr. Piyasvasti Amranand
Chairman



Mr. Pailin Chuchottaworn
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 consists of three independent directors: Mr. Kittipong Kittayarak as the chairman, Ms. Nuntawan Sakuntanaga and Mr. Vichai Assarasakorn as committee members.

In the fiscal year 2014, the committee members were as follows:

- January 1 - 31: Mr. Boonsom Lerdhirunwong and Mr. Waroonthep Watcharaporn
- February 1 - June 30: Mr. Boonsom Lerdhirunwong as the chairman, Mr. Waroonthep Watcharaporn, Mr. Insorn Buakeow, and Mr. Montri Sotangkul. Mr. Waroonthep Watcharaporn resigned on June 16.
- July 5 - August 28: Mr. Pornchai Rujiprapa as the chairman, Mr. Kittipong Kittayarak, Ms. Nuntawan Sakuntanaga, and Mr. Montri Sotangkul
- September 4 - December 31: Mr. Kittipong Kittayarak as the chairman, Ms. Nuntawan Sakuntanaga, Mr. Vichai Assarasakorn, and Mr. Montri Sotangkul, who resigned on September 15.

Ms. Nitaya Direksathapon, Executive Vice President, Office of Corporate Audit, serves as secretary to the committee.

The committee carried out its duties as assigned by the Board of Director in accordance with the audit committee charter and in agreement with the regulations of the Stock Exchange of Thailand (SET). Its policies focus on compliance with the principles of corporate good governance, awareness creation and preparation for risk management mechanisms, especially with significant risk exposure, efficient and effective internal audit system as summarized below:

- Pushed forward for the upgrading of internal audit among PTT Group on a par with international standards to establish confidence in the group's efficiency, effectiveness, and image, including proactive audits, technological development for audits, and encouragement of internal auditors to become knowledgeable and competent on a par with international standards.

- Valued and monitored key issues to ensure that PTT commanded management practices to accommodate oil price volatility, which significantly affected the organization.
- Focused on revised investment plans by taking into account risk factors and impacts of assorted factors, including volatile prices of PTT Group's crude oil and key products. As well as, defined accounting measures to promptly acknowledge or assess various risks, with teams assigned to closely monitor such risks. For new investment plans, consideration should be given to their compatibility with prevailing circumstances and the government's policy, including alternative and renewable energy.
- Valued executives' and employees' business conduct marked by righteousness, transparency, accountability, and compliance with laws, regulations, and relevant requirements. Supported innovations by applying IT systems to audit work and prevent corrupt practices.

This year the committee held 15 meetings upon consultations with the management, the internal auditor, and the external auditor as necessary. The committee's main activities in 2014 as summarized below:

1. Financial reports review: The committee reviewed quarterly, annually and consolidated financial statements this year, including connected transactions and items with potential conflicts of interest with the management and the internal audit. The external auditor was invited when these financial statements were reviewed. The committee discussed with the external auditor about the accuracy and completeness of the financial statements, adjustment entries materially affecting the statements, adequacy and suitability of account recording methods, audit scope, accuracy and adequacy of information disclosure as well as the external auditor's independence. All these ensured that the financial statements preparation was in conformity with legal requirements and accounting standards under the generally accepted accounting principles, reliable and in timely manner, and information was sufficiently disclosed in such statements for the benefit of investors or financial statement users. To review the external annual audit plan and approach, the committee also held one meeting with the external auditor in the absence of the management.

2. Risk management review: The committee reviewed PTT's risk management policy, plans and approaches under the corporate risk profile, risk management arising from the impacts of continuing oil price dropping, which affected PTT Group's operations and PTT's investment plans as well as the sourcing of energy and other event risks. Moreover, the committee also reviewed the risk management mechanism of both risks arising from internal and external, including risks of engaging in international businesses and investment decision-making under the public policy. The committee held meetings with the management to review the efficiency and suitability of risk management processes every quarter and provide recommendations for improvement.

3. Internal control effectiveness review: The committee reviewed the internal control system together with the external auditor and the chief audit executive every quarter by reviewing operation; resource consumption; stewardship of properties; prevention or reduction of errors or damage, losses, waste, or corrupt practices; 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 the Office of Corporate Audit has developed the Continuous Control Monitoring and Auditing Systems (CCMS) to detect and monitor irregular transactions or exceptions in procurement process as a pilot project. The project scope will expand to other processes in the coming year.

In addition, PTT also had internal control assessment under the Audit Commission Regulations concerning the Definition of Internal Control Standard, B.E. 2544 (2001). Complete cooperation was provided by all executives, who had answered the internal-control questionnaire by the year-end. PTT has developed an internal control database system to compile various data, in addition to improving its control self-assessment forms on the basis of the list of key controls by functional description and executives' responsibilities under The Committee of Sponsoring Organizations of the Treadway Commission (COSO) for greater confidence. Assessment by the management and the Office of Corporate Audit found that PTT internal control was adequate and effective to its businesses.

4. Corporate good governance: The committee reviewed PTT's performance against the defined process and found that PTT's overall business conduct is ethical and complies with securities and exchange legislation, SET's requirements, and other laws related to its businesses, particularly matters concerning connected transactions among PTT affiliates to ensure regular, sensible business conduct. It also reviewed complaint and whistleblowing processes for compatibility with good governance practices and PTT's philosophy, and pushed for an anti-corruption policy in writing. This policy was declared on July 4, this year for executives and employees to acknowledge and observe in their work, and was publicized for all stakeholders to acknowledge and observe. In addition, as PTT applied for Anti-corruption program with the Private Sector Collective Action Coalition against Corruption (CAC), PTT had its self-evaluation on anti-corruption verified by the committee. Moreover, PTT became a certified company by CAC on October 3, this year.

Incidentally, the committee assessed its own performance outcomes as a whole, through cross-assessment, and self-assessment under the recommended guidelines of audit committees of state enterprises and SET. The conclusion was that it ranked "very good".

5. Internal audit oversight: The committee reviewed the Office of Corporate Audit's strategic plans, annual and long-term internal audit plans, audit performance, audit findings and recommendations as well. The committee provided recommendations and monitored corrective actions for significant aspects for good governance and adequate internal control. To ensure that PTT's internal audit system conforms to the international standards, the committee considered amending PTT Audit Committee and Internal Audit Charters as well as the internal audit manual. The committee reviewed the internal audit annual budget, personnel development, recruitment, rotation, and training plans, the adequacy and suitability of resource consumption and KPIs. The committee also considered the annual merit for the chief audit executive and the internal audit quality assessment. The committee concluded that PTT internal audit and information management systems were suitable and effective with continually quality development of audits, in both personnel and task performance for international standards.

The committee also advocated the development of a compliance framework to enhance work processes and proactive audits as well as the concept of Governance Risk Compliance (GRC). It advocated training for continuing development of the internal auditor's competence, particularly business and IT knowledge, together with participation in emerging businesses, including a role in consulting others on risks and internal control so as to promptly ward off misunderstanding or mistakes.

6. Appointment of the external auditor for 2015: The committee endorsed the Office of the Auditor General of Thailand (OAG) as PTT's external auditor for 2015 for the Board's concurrence and the shareholders' approval at the AGM 2015, together with its audit fees.

In summary, the Audit Committee performed its duties and responsibilities stated in its Board-approved charter with competence, care, prudence, and adequate independence for the equitable benefit of stakeholders. Its opinion is that PTT financial reports are accurate, reliable, and in accordance with the generally accepted accounting principles. In addition, PTT commands adequate risk management practices and a suitable, effective internal audit, has in place work practices aligning with good governance, and complies with laws, requirements, and obligations related to its businesses.

Report of the Nominating Committee



A handwritten signature in black ink, appearing to read 'W Watcharothai'.

Mr. Watcharakiti Watcharothai
Chairman of the Nominating Committee

Dear Shareholders

Since 2003, PTT Plc. has announced its corporate governance principles for its directors, executives, and employees to acknowledge and observe the precepts. Such principles have been regularly revised and adjusted to compatibility with international laws and practices, including OECD (The Organisation for Economic Co-operation and Development), ASEAN Corporate Governance Scorecard, guidelines of SET (Stock Exchange of Thailand) and SEC (Office of the Securities and Exchange Commission). 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 to be an independent director. For transparency, the committee is authorized and mandated to select and nominate suitable persons for appointment as PTT's directors or the President & Chief Executive Officer through its definition of selection procedures and criteria.

In 2014, the committee has performed its duties with prudence, care, and sensibility. With six meetings held, the directors for the board and its committees have been selected from a variety of professions that are qualified by applicable laws, PTT's regulations and criteria, with an extensive expertise that suitable for PTT's businesses, and with unblemished background. This year the committee allowed minor shareholders to nominate those regarded as a candidate for directors' appointment. However, no such nomination was given by them for the director nomination process at the 2015 annual general meeting of shareholders.

In appointing directors to replace those that had completed their terms, under the defined process, the committee proposed a list for the Board to forward to the shareholders' meeting for eventual appointment. As for the appointment of directors to replace those that had resigned during the year, the committee also came up with a list for the Board's approval. For transparency, the details are appeared in this annual report.

Report of the Remuneration Committee



A handwritten signature in black ink, appearing to read 'Rungson'.

Mr. Rungson Sriworasat
Chairman of the Remuneration Committee

Dear Shareholders

The Remuneration Committee's duties are to deliberate guidelines for the compensation paid to directors and the President & CEO and to define fair and sensible procedures and criteria for compensation-setting. Since remuneration is a key factor to attract, retain and motivate key personnel to work for PTT Plc., in which they can exert work most efficiently. As a result, in deliberating the compensation for directors and the President & CEO, the committee exercises prudent and sensible consideration with due regard for comparison of performance outcomes with their goals and related factors such as the practical guidelines for peer listed companies, leading corporations worldwide, and listed state enterprises together with good corporate governance and corporate performance outcomes.

Because of PTT's performance outcomes and business sizes expanded to great intricacy, directors' compensation deliberation needs to align with business reality. Today's director compensation rates remain the same as that adjusted and endorsed by the 2013 Annual General Shareholder Meeting, regarded to today's economic circumstances.

This year the committee held one meeting in which the committee has disclosed the compensation of the directors and the members of committees and management compensation all of which are included in this annual report for transparency.

Report of the Corporate Governance Committee



A handwritten signature in black ink that reads "Chat."

Gen. Chatchalerm Chalermsook
Chairman of the Corporate Governance Committee

Dear Shareholders

The Board of Directors highly values PTT's promotion of and emphasis on corporate governance (CG), the code of business conduct, and PTT Group's framework of sustainable development to improve PTT's CG system for greater efficiency which results in greater confidence among all its stakeholders.

To this end, the Board has assigned the Corporate Governance Committee, which consists of three independent directors, to propose CG guidelines and oversee the conduct of directors and the management to ensure conformance to CG principles, SET's CG principles, and the international principles of The Organization for Economic Cooperation and Development (OECD). The committee's mandate also encompasses the management of sustainability and framework formulation for oversight of PTT's anti-corruption tasks.

This year the committee held five 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), developed the annual report, and constantly disclosed quarterly performance and key information for shareholders, investors, and the public, complete with essential, adequate, credible, and prompt details through assorted channels, including SET's publicity channels and www.pttplc.com. The core units for information distribution were Investor Relations and Corporate Communications.

- Developed the annual sustainability report for 2014 on the basis of Sustainability Reporting Guidelines and Oil and Gas Sector Supplement (OGSS), version 4 (G4) of Global Reporting Initiative (GRI), with a goal to pass reviews by external parties together with satisfactory inspection by GRI (core level). The report is due for completion concurrently with the annual report.

- Developed the quarterly PTT Bizway newsletter for common-stock holders to keep them informed and foster understanding.

- Developed the quarterly Happiness newsletter for debenture holders to keep them informed and foster relations.

Rights of the shareholders

- Held the annual general meeting of shareholders (AGM) for the year and provided in advance adequate and timely information on the date, time, venue, and agenda, as well as all information relevant to matters needing decisions at the meeting.
- Informed the shareholders about meeting protocols and distributed such information at the company's website before sending the meeting notices, so that they may have adequate time to study details. Facilitated their full exercising of their meeting participation and voting rights. As a result, PTT scored "outstanding" on the AGM Checklist assessment.

Equitable treatment of shareholders

- Allowed all shareholders to propose additional agenda items and nominate directors in advance from October 1 to December 31, 2014, 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 report their conflicts of interest for the year by using the electronic report version on the PTT intranet. No significant conflict was reported this year.
- Required all directors and executives to report their stock portfolios as required by law and assigned the Corporate Secretary to collect and report this information to the Board every quarter.

Responsibilities of the Board

- Assessed Board performance in four ways (overall, self-assessment, cross-assessment, and subcommittee assessment), with excellent outcomes for the year.
- Directors attended key training courses hosted by the Thai Institute of Directors (IOD), including Director Accreditation Program and Anti-Corruption for Executive Program; participation in CG Forum 2/2014: Corporate Governance in the Perspective of Investors, Chairman Forum 2014: Clean Business – What is the Chairman's Role?, Thailand's 5th National Conference on Collective Action Against Corruption: Tackling Corruption through Public-Private Collaboration. Finally, they attended senior executive training at the Thai Energy Academy.
- PTT directors underwent the Corporate Governance Effectiveness and Accountability in the Boardroom, organized by Kellogg School of Management, Northwestern University, USA.
- Participated in PTT Group's domestic and international site visits.
- Held one Independent Directors Committee Meeting.
- Held one Non-Executive Directors Meeting.

Recognition of stakeholders

- Endorsed an action plan on PTT's CG and anti-corruption for the year so that PTT's business may align with good governance and its CG practices may be internationalized; promoted confidence among shareholders and all stakeholders; stressed and cultivated values among all personnel for strict compliance with CG principles, ethics standards, and the code of business conduct.

- Endorsed PTT's and PTT Group's anti-corruption policy and enforced it among all so that executives and employees may acknowledge and observe it in their business conduct. Publicized it among all stakeholders to acknowledge and observe as PTT's requirement.
- Developed a self-assessment form for anti-corruption measures and earned certification as a CAC member on October 3, 2014, illustrating PTT's suitable policies and procedures for coping with potential corrupt practices. To ensure that future tasks can establish confidence among all stakeholders, PTT focused on earnest practices by all across the company to maximize efficiency for the assorted systems and processes as well as the audit processes.

Social responsibility and sustainable development

- Defined a social responsibility approach in support of the sustainability management framework for PTT Group by committing to corporate citizenship everywhere PTT operates and in society at large as required by international practices; valuing participation by all sectors for the stewardship of the environment and ecology; and improving lives of communities and society in a sustainable way through three strategies: conservation of natural resources and the environment, social and community development, and human resource development. PTT currently undertakes some 41 social projects.
- Passed assessment and was ranked as a member for a third consecutive year - one of the 14 companies and the first Thai company on DJSI (Dow Jones Sustainability Indices) out of 110 applicants, and one of the five companies and the first Thai company on DJSI Emerging Markets in the Oil and Gas Industry (OIX) category out of 33 applicants.

Awards of pride

Thanks to its firm commitment to operating businesses with transparency and fairness for the benefit of all stakeholders, in 2014 PTT earned extensive recognition from domestic and international entities alike for CG and social responsibility practices. Awards included an "Excellent" ranking of its CG report based on a survey of listed companies in 2014; SET Awards 2014 for being a listed company with continued excellence in social responsibility (for four consecutive years) and Best Corporate Governance Report Award (for two consecutive years); CSRI Recognition Award 2014; Outstanding Sustainability Report Award 2014; Asian Corporate Director Recognition Awards 2014 (for five consecutive years); Corporate Governance Asia Recognition Awards 2014: Asia's Icon in Corporate Governance (for nine consecutive years); Corporate Awards 2014 (Platinum), presented by The Asset magazine (in the sixth consecutive year), among others.

The Corporate Governance Committee remains committed to improving its efficiency in steering PTT's CG, social responsibility, and sustainable development practices for greater effectiveness and in the best interests of PTT, shareholders, communities, society, the environment, and all stakeholders - which will benefit Thailand as a whole.

Report of the Enterprise Risk Management Committee



Kurujit Nakornthap

Mr. Kurujit Nakornthap
Chairman of the Enterprise
Risk Management Committee
(September 4, 2014 - January 12, 2015)

Chanvit

Mr. Chanvit Amatamatucharti
Chairman of the Enterprise
Risk Management Committee
(January 30, 2015 - Present)

Dear Shareholders

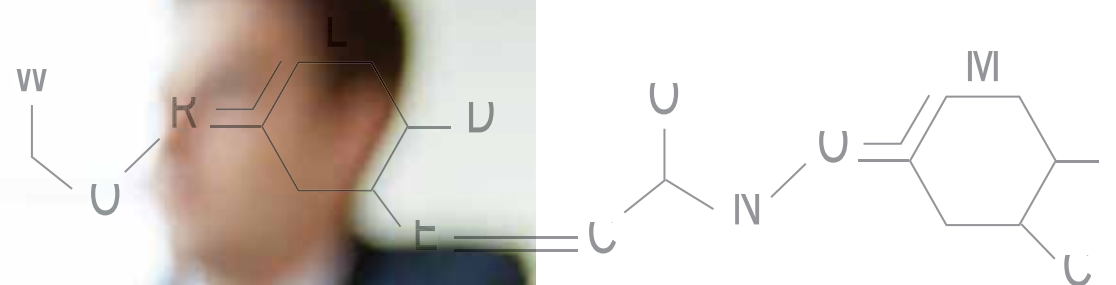
To foster confidence in the achievement of organizational goals, meet all stakeholders' needs in a balanced manner, and prevent potential losses, PTT highly values the efficient management of risks, while seeking opportunities to add value to its business for sustainable growth amid uncertain business settings and volatility. In 2013, the Board of Directors therefore appointed the Enterprise Risk Management Committee to be responsible for defining policies and framework for risk management, supervising corporate risk management matters in line with PTT's strategies and goals, and providing recommendations for risk management. This committee is made up of knowledgeable and experienced experts.

This year 2014, the committee held five meetings, summarized below:

1. Reviewed the Enterprise Risk Management Policy in line with the ISO 31000 Risk Management Standard and leading companies' policies.
2. Provided comments on the mitigation plans for corporate risk items for 2014 and tracked progress every quarter to keep such risks manageable. To this end, it values key risks, including the risk to public confidence, risk arising from natural gas supply, and risk arising from volatile prices of raw materials, feedstock, and products.
3. Provided guidance, monitored, and assessed corporate risk management for 2014 for the Risk Management and Internal Control Committee to take actions to improve the risk management system's efficiency.
4. Provided comments on the corporate risk items for 2015, which are parts of the 2015 - 2019 Enterprise Plan and Budget, before seeking the Board's endorsement, by ensuring that these items align with business directions, strategies, corporate goals, and evolving circumstances.
5. Reported its performance to the Board.

World Economic, Petroleum, and Petrochemical Reviews

Annual Report 2014
PTT Public Company Limited



Annual Report 2014
PTT Public Company Limited



2014 WORLD ECONOMIC, PETROLEUM, AND PETROCHEMICAL REVIEWS

WORLD ECONOMIC REVIEW

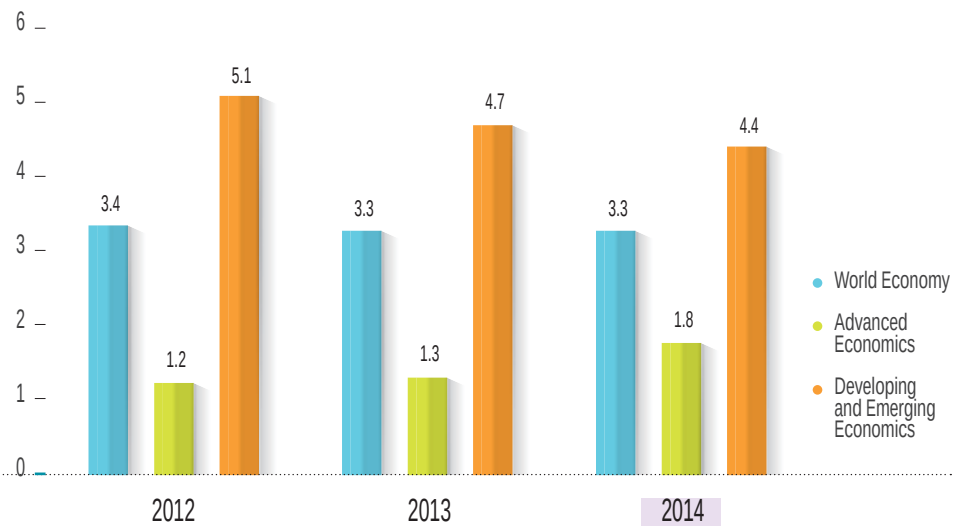
The world economic growth this year was on a par with 2013 amid higher economic growth in advanced economies; particularly in the US which resulted from higher domestic consumption and private investment as well as improving labor market. The US Federal Reserve (Fed) decided to gradually taper the Quantitative Easing (QE) and eventually ceased the QE measure in October. However, the policy interest rate was maintained at a low level in order to stimulate the economy. The Euro zone returned to growth but was stalled by a steady fall in inflation, prompting the European Central Bank (ECB) to launch several economic stimuli, including pushing down the policy interest rate and deposit rate to an all-time low of

0.05% and -0.20%, respectively, and purchasing of covered bonds and asset-backed securities. Meanwhile, the Japanese economy slowed down amid sales tax hike from 5% to 8% in April. In addition, slower rates of growth were observed in most developing and emerging economies. China's economic growth this year went abysmal in its 24-year run, stemming from an ongoing economic structural reform that focuses on domestic consumption rather than public investment, sluggish property market, and uncertainty in exports. Moreover, the Russian economy was adversely affected by the economic sanction imposed by advanced economies and the rapid fall in the world oil price, leading to the decrease in oil export revenues. In its January 2015 report, the International Monetary Fund (IMF) projected the world's 2014 economic growth at 3.3%, similar to the 2013 level, with 4.4% growth recorded for the developing and emerging economies and 1.8% for the advanced economies (Figure 1).

Figure 1:
World's
Economic
Growth
2012 - 2014

Unit: % YoY

Source: IMF as of January 2015



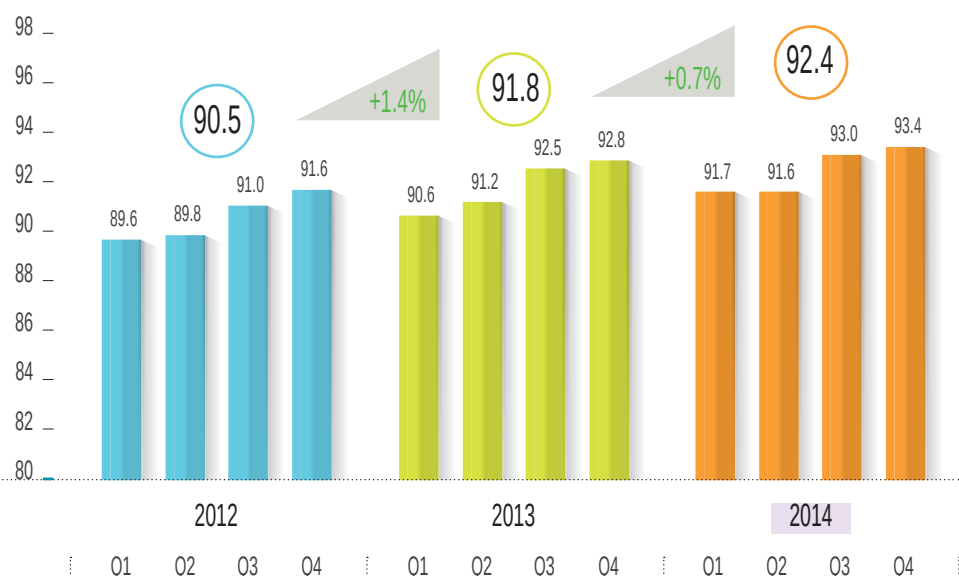
WORLD PETROLEUM AND PETROCHEMICAL REVIEW

Driven by the world's economic growth, the global demand for oil rose in 2014, led by the developing and emerging economies, particularly China, India, and countries in the Middle East. On the other hand, the oil demand for the advanced economies dropped. The International Energy Agency (IEA) reported in its January 2015 issue that the 2014 world oil demand had increased by 0.7% from the 2013 demand level, equivalent to 0.6 million barrels (bbl) per day, leading to the world's total oil demand of 92.4 million bbl per day (Figure 2).

Figure 2:
World Crude Oil
Demand
2012 - 2014

Unit: million barrels/day

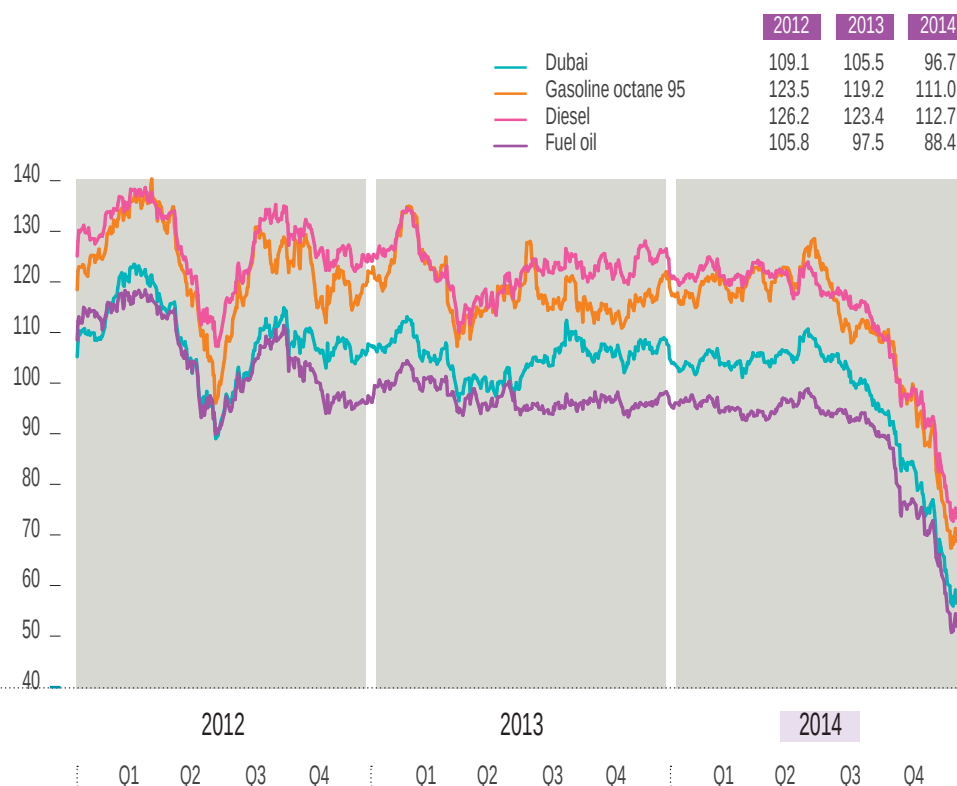
Source: IEA as of January 2015



Because the global oil demand in 2014 was up only slightly while the supply glutted, especially from the US shale oil and OPEC production that was maintained at the 30 million bbl per day level after the OPEC meeting on November 27. The average Dubai oil price plunged from the 2013 average level of USD 105.5 per bbl to USD 96.7 per bbl. (Figure 3).

Figure 3:
Dubai
and Petroleum
Product Prices
2012 - 2014

Unit: US Dollar/barrel



The overall prices of refined products in 2014 dipped in line with the crude prices. The average 2014 gasoline 95 price fell to USD 111.0 per bbl from USD 119.2 per bbl recorded in 2013. However, the margin between gasoline and the Dubai crude prices was up slightly due to higher demand for gasoline in Vietnam and Indonesia and the lower supply of gasoline because of certain refinery maintenance shutdowns. The average 2014 diesel price fell from the 2013 level of USD 123.4 per bbl to USD 112.7 per bbl due to higher supply from the Middle East. Because of the lower demand for power generation in Japan, Teapot refineries in China, and in the global marine transport this year, the average fuel oil price went from USD 97.5 per bbl down to USD 88.4 per bbl. Similarly, the average price of cooking gas, LPG CP, also dropped from USD 868 per ton to USD 799 per ton.

Amid declining demand for petroleum products, the average 2014 price dropped from the 2013 level, causing the lower cracker's average refining margin in Singapore to fall from USD 6.2 per bbl in the previous year to USD 5.8 per bbl.

The 2014 petrochemical product prices stayed high in the first 7 months, following the 2013 market trend, but fell in line with the prices of crude oil and naphtha, beginning in August. Because of higher import demand for polyethylene (PE) and polypropylene (PP) in China, amounting to 9.2 and 4.8 million tons respectively, the 2014 prices of polyolefins went up. New capacity additions failed to meet the Chinese market demand, pushing the PP production operating rate to the record of 84%, causing the average 2014 price of high density polyethylene (HDPE) to go up from the 2013 level of USD 1,487 per ton to USD 1,544 per ton. Similarly to the PP products, the average 2014 price went up to USD 1,537 per ton from USD 1,512 per ton last year. The prices of aromatics, on the other hand, fell with the market oversupply. While the demand for benzene (BZ) rose only by 0.9 million tons, the supply went up by 1.7 million tons, especially from China, South Korea, Singapore, and Taiwan, pushing the average 2014 BZ price from USD 1,302 per ton last year to USD 1,212 per ton. Similarly, the

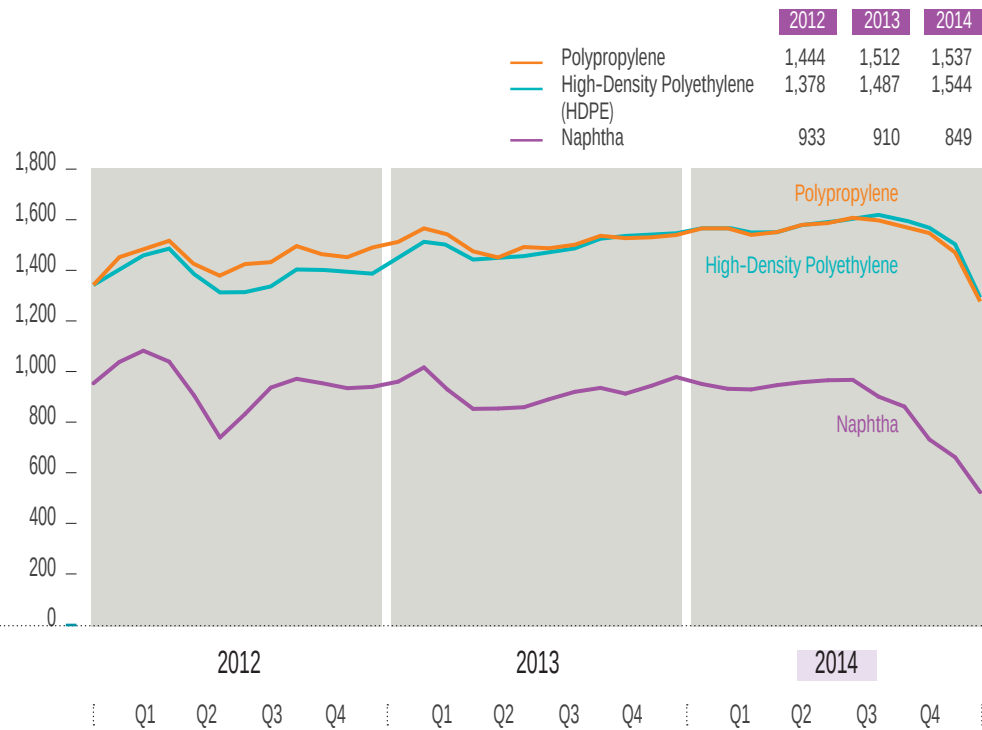
average 2014 paraxylene (PX) price dropped from USD 1,471 per ton last year to USD 1,200 per ton, due mainly to the imbalanced world demand and supply. The global demand for PX rose slightly by 1.4 million tons, following the slowdown in demand for polyester, whereas the supply soared by 5.2 million tons, with 2.4 million tons alone from China and Singapore, thus leading the PX production operating rate to drop from 83.3% to 76.2% (Figure 4).

Figure 4:
Prices of
Petrochemical
Products in
Asia Market
2012 - 2014

OLEFINS

Unit: US Dollar/Ton

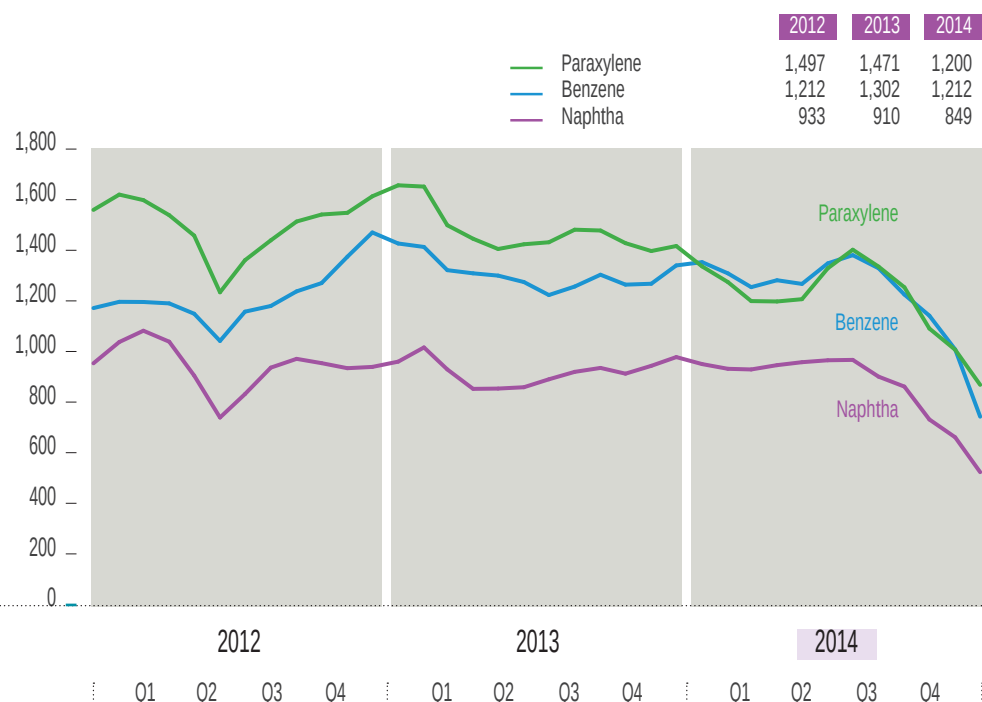
Source: ICIS



AROMATICS

Unit: US Dollar/Ton

Source: ICIS



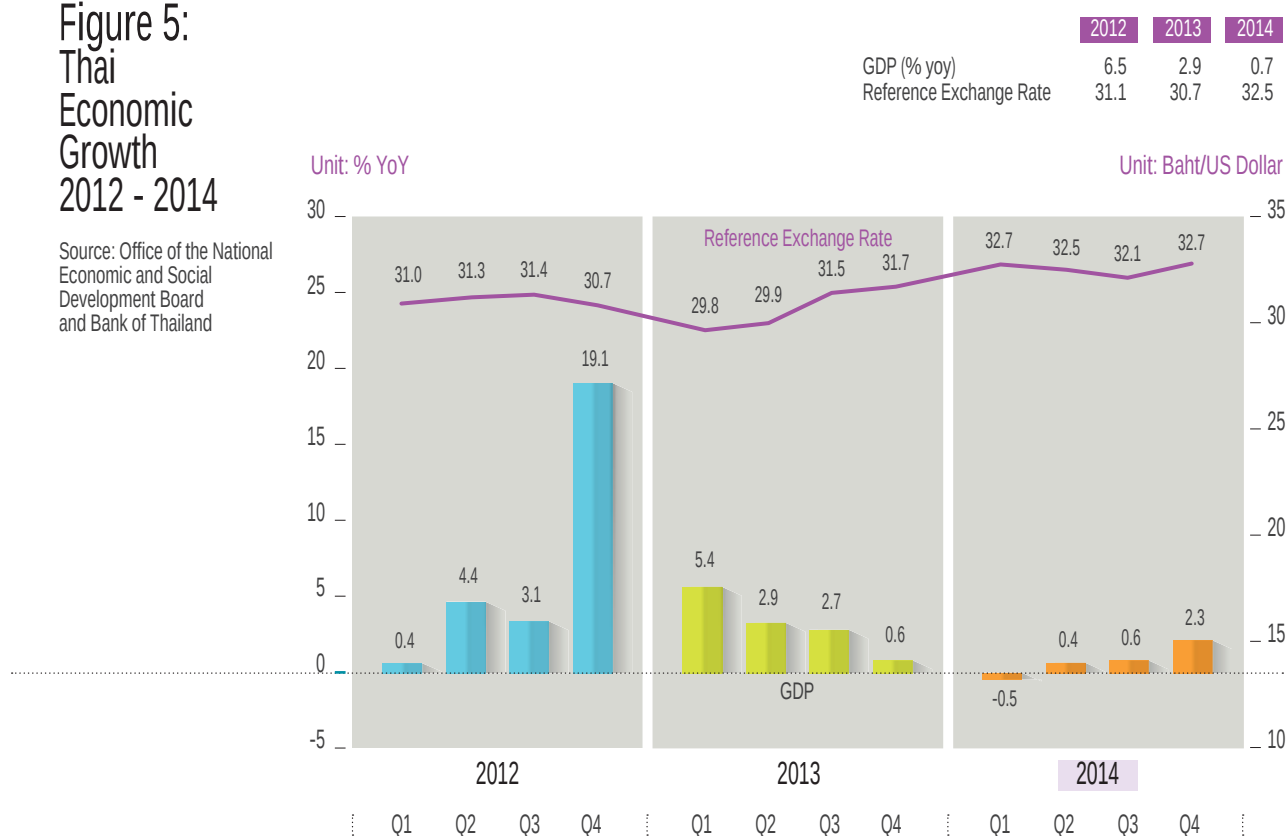
2014 THAILAND ECONOMIC AND PETROLEUM REVIEWS

ECONOMIC REVIEW

The Thai economy expanded 0.7% in 2014, down from 2.9% in 2013, due to falling exports following slow economic recovery of trading partners, declining tourism, consumption, and private investment caused by political unrest in the first half of the year, and below-target public spending. The economic growth clearly picked up later in the year, with improved consumer and investor confidence. However, high household debts and overcapacity remained obstacles to economic expansion. This weaker-than-expected growth of the Thai economy, amid improving economic conditions in the US, caused capital flight, reflecting in a weakening of the Thai baht against the US dollar to an average level of THB 32.5 per US dollar for 2014 (Figure 5).

Figure 5:
Thai
Economic
Growth
2012 - 2014

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



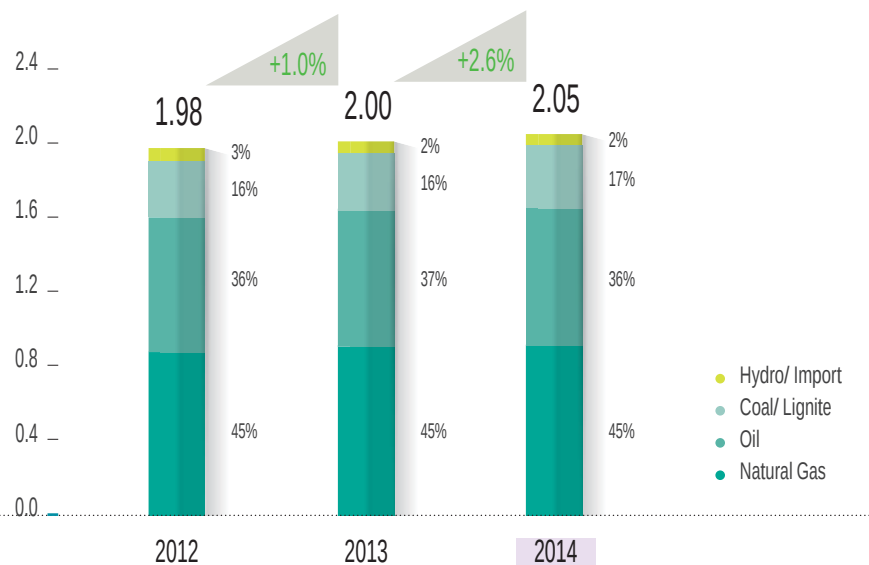
PETROLEUM REVIEW

As the Thai economy expanded, primary commercial energy consumption in 2014, excluding renewables, was up by 2.6% to 2.05 million bbl per day (Figure 6). The consumption of natural gas, oil, and coal was up by 0.8%, 0.6% and 12.9%, respectively. Total LPG consumption, on the other hand, dropped by 0.9%, including a 11.2% rise in the transport sector, a 9.2% drop in the household sector, and a 4.1% drop in the industrial sector. Nevertheless, Thailand remained a net importer of LPG in 2014, importing more than 2.0 million tons. Meanwhile, NGV consumption rose by 3.3% to 317 million standard cubic feet per day.

Figure 6:
Thailand's Primary
Commercial Energy
Consumption
2012 - 2014

Unit: million barrels/day

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



Domestic energy consumption by sector in 2014 can be summarized as follows.

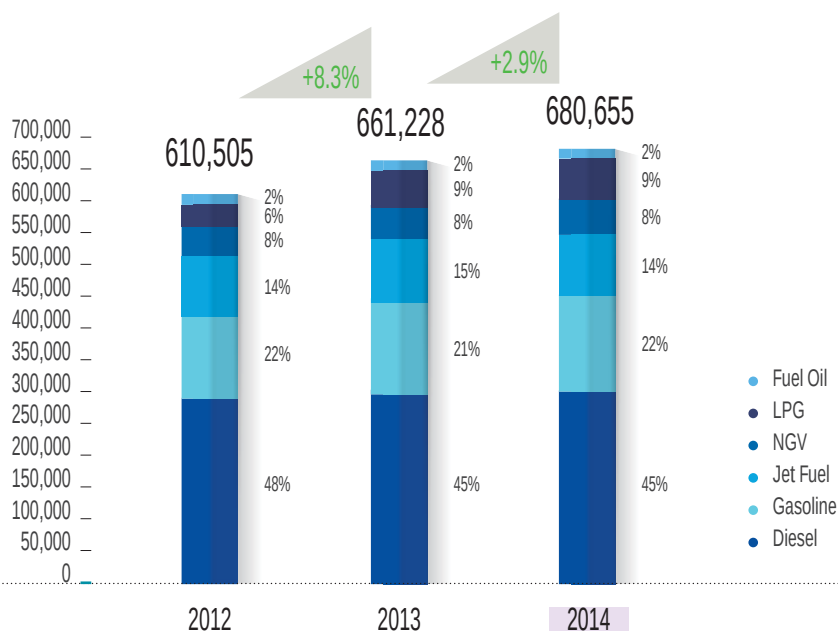
1. The transport sector consumed 680,655 bbl per day of energy in 2014, up by 2.9% from 2013 (Figure 7). Gasoline consumption rose by 4.1% following the unwinding of the political situation and drops in retail gasoline prices. With diesel price capped at THB 30 per liter and lower global oil prices, consumption of diesel surged by 2.2%. LPG consumption continued to rise by 11.2% as a result of a strict control by the government in early 2013 which prohibited transfer of household LPG to transport sector, and cheaper household prices during March to October 2014. NGV consumption rose only by 3.3%.

Ethanol consumption jumped by 25.0% to 3.2 million liters per day in 2014 following the abolishment of gasoline 91 from January 1, 2013, and consumers therefore switched to gasohol. Biodiesel (B100) consumption soared by 23.7% to 3.5 million liters per day as the Department of Energy Business increased blending requirement of B100 in diesel from 5% to 7%.

Figure 7:
Thailand's
Transport Energy
Consumption
2012 - 2014

Unit: barrel/day

Remark: Excluding renewable energy
Sources: Department of Energy
Business, Energy Policy
and Planning Office, and PTT

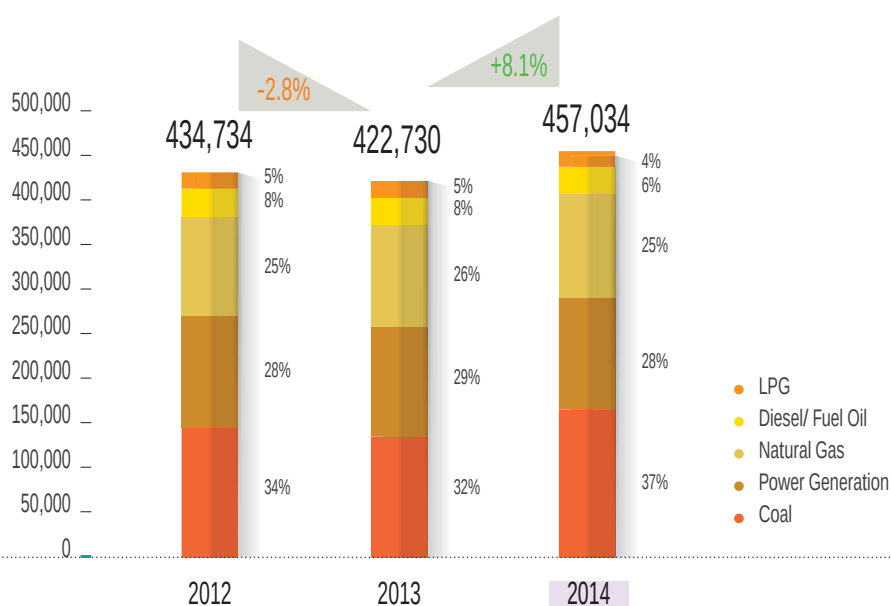


2. The industrial sector energy consumption increased by 8.1% to 457,034 bbl per day (Figure 8). The uses of natural gas and electricity were up by 2.9% and 1.7%, respectively. LPG consumption dropped by 4.1%. Coal consumption jumped by 23.4% as it was cheaper relative to other sources of energy.

Figure 8:
Thailand's
Industrial Energy
Consumption
2012 - 2014

Unit: barrel/day

Remark: Excluding renewables
energy
Sources: Department of Energy
Business, Energy Policy

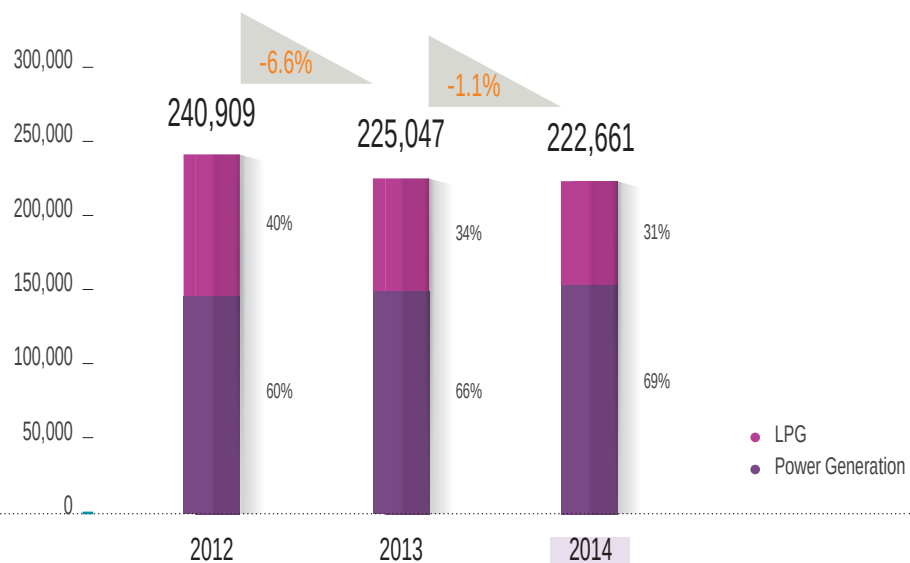


3. The household and commercial sectors consumed 222,661 bbl per day of energy, falling 1.1% from 2013 level (Figure 9). LPG consumption, meanwhile, fell by 9.2% as a result of a strict control by the government in early 2013 which prohibited transfer of household LPG to other sectors as well as LPG price adjustment. Electricity consumption was up by 3.1% from increased demand in retail, restaurants, and the hotel industry.

Figure 9:
Thailand's
Household and
Commercial Energy
Consumption
2012 - 2014

Unit: barrel/day

Remark: Excluding renewable energy
Sources: Department of Energy
Business, Energy Policy
and Planning Office, and PTT



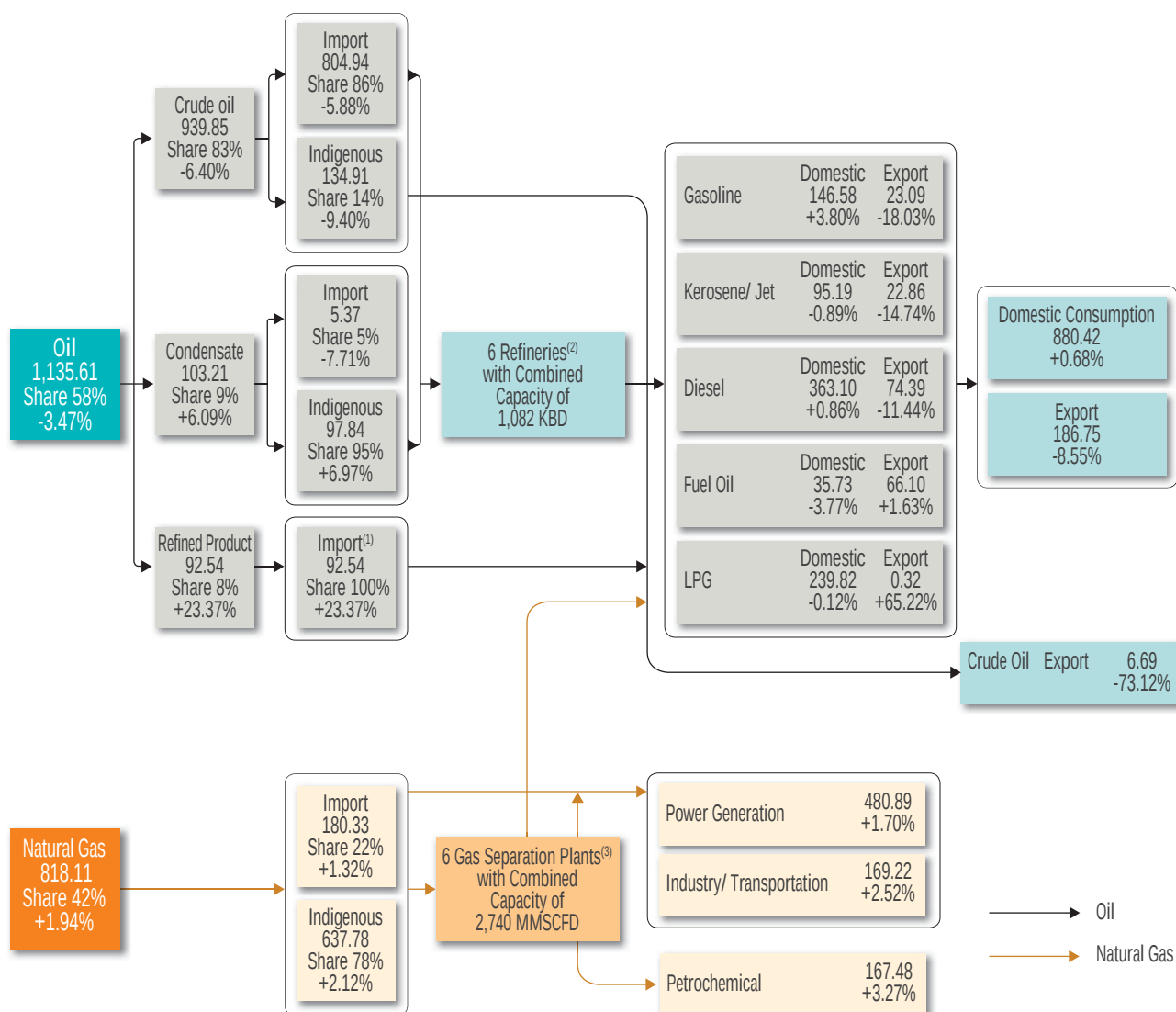
The overall 2014 petroleum procurement amounted to 1,953.72 thousand bbl per day, a drop of 1.27%. Oil accounted for 58%, a drop of 3.47% to 1,135.61 thousand bbl per day. Natural gas accounted for 42%, a rise of 1.94% to 818.11 thousand bbl per day. For crude procurement, 86% was imported, equivalent to 804.94 thousand bbl per day. The total natural gas imports averaged 180.33 thousand bbl per day. The domestic sales of petroleum totaled 1,698.01 thousand bbl per day, an increase of 1.40%, including a 0.68% increase of refined products to 880.42 thousand bbl per day and a 2.19% rise of natural gas to 817.59 thousand bbl per day. Exports of petroleum products included 186.75 thousand bbl per day of refined products, a drop of 8.55%, and 6.69 thousand bbl per day of crude oil, a decrease of 73.12%.

Figure 10: Thailand Petroleum Balance 2014

PROCUREMENT

DOMESTIC CONSUMPTION/ EXPORT

Unit: KBD



Total	Procurement	Consumption	Export
	1,953.72	1,698.01	193.44
	-1.27%	+1.40%	-15.55%
		Refined Product	Refined Product
		880.42	186.75
		+0.68%	-8.55%
		Natural Gas	Crude
		817.59	6.69
		+2.19%	-73.12%

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

Notes: (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. The Petroleum Procurement and Domestic Consumption Export excludes Bitumen.

2015 WORLD ECONOMIC, PETROLEUM, AND PETROCHEMICAL OUTLOOK

WORLD ECONOMIC OUTLOOK

The global economy in 2015 is expected to grow at a faster rate than in 2014. Reports in January 2015: IMF estimated the global economy to rise from 3.3% in 2014 to 3.5% in 2015. Advanced economies continue to grow. In the US, higher domestic consumption is expected, following the drop in the world oil price and the current implementation of loosened monetary policies, even though the Fed is likely to increase its policy rate within 2015. Facing increasing risk of deflation in the Euro zone, ECB launched a QE measure by purchasing government bonds and private debt at EUR 60 billion a month from March 2015 to September 2016 for a total of more than EUR 1 trillion. The Japanese economy remains weak. The developing and emerging economies are likely to decelerate. Under the ongoing economic restructuring, China continues to face sluggish growth, particularly in the property sector. In addition, Russian economy will be affected by an economic sanction by advanced economies, and a drop in export revenues following a declining world oil price. India, on the other hand, will grow more rapidly amid its economic reforms which benefit investment and manufacturing sector. Downside risks to the world economy include stagnation and deflation in the Euro zone and Japan; volatility in global financial market; geopolitical problems in Russia, the Middle East, and North Africa (MENA); and high level of non-performing loans in the Chinese property sector.

WORLD PETROLEUM & PETROCHEMICAL OUTLOOK

The global demand for oil is bound to rise by 0.9 million bbl per day in 2015, leading to a total of 93.3 million bbl per day according to the IEA report of January 2015. The rise in demand will be from developing and emerging countries, led by China, India, and the Middle East. Oil demand in the advanced economies, including the US and Europe, is likely to stay put. Even with the rise in demand from 2014, the global oil price is predicted to be capped around USD 50 - 60 per bbl due to the oversupply resulting from the US shale oil production and continued high output from OPEC. The oil price is predicted to rise gradually in the latter half as supply from high-cost producers will likely to decline, and the lower oil price incentives will drive up demand.

The 2015 Singapore referenced refining margin is to average around USD 6 - 7 per bbl, close to the 2014 level.

The 2015 polyolefin prices tend to decline as a result of oversupply. The global demand for PE is expected to grow by 0.9 million tons, while the additional global supply will exceed 4.9 million tons, especially from China. Like PP, the additional global supply will exceed 6.0 million tons while the global demand is expected to increase by only 2.8 million tons. The prices of HDPE and PP are set to fall to USD 1,145 and USD 1,062 per ton respectively. Aromatics prices are set to fall in line for the same reason, that is, cumulative oversupply from the previous year. The BZ price is expected to fall to USD 720 per ton, pushed down by 1.2 million tons of new supply from South Korea, China, and Singapore. With 1.6 million tons additional supply of PX from China and Singapore, the PX price is set to drop to USD 856 per ton, and the PX production operating rate is set to fall to 75.9%.



2015 THAILAND ECONOMIC AND PETROLEUM OUTLOOK

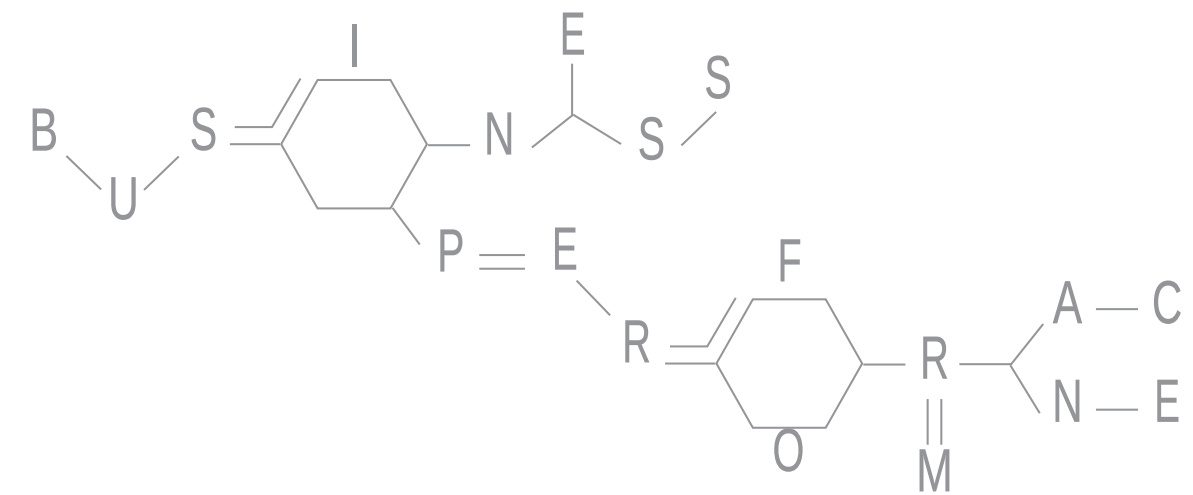
ECONOMIC OUTLOOK

The Thai economy in 2015 is expected to grow at a faster rate than in 2014, driven mainly by public investment, especially mega-infrastructure projects, with concrete public policy helping to boost private-sector confidence. Other growth drivers include previously approved BOI investment projects, demand-boosting falling global oil prices, and improving global economic conditions and rising exports. However, there are several foreseeable risks. Among them are high household debts, delays in public spending and negative political developments affecting investors' confidence, and slow global economic recovery. Moreover, adjustments in global financial market can result in volatile exchange rates, with Thai baht expected to range between THB 33 and 34 per US dollar. In February 2015, the Office of the National Economic and Development Board (NESDB) forecasts Thai GDP growth of 3.5 - 4.5% for 2015.

PETROLEUM OUTLOOK

Primary commercial energy consumption in 2015, excluding renewables, is forecasted to grow by 3.5 - 4.0% from 2014 level amid improving economic conditions both globally and domestically. The demand for oil next year is expected to rise by 1.5 - 2.0% and for natural gas 2.0 - 2.5%, prompted by improving economic conditions and increased use at power plants. The consumption of gasoline and diesel is expected to eclipse that of 2014. However, the consumption growth for NGV and LPG is likely to be sluggish, following the price adjustment to reflect the real costs.

Nature of Business



NATURE OF BUSINESS

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

PTT's operations cover the business value chain from upstream to downstream with a focus on incremental value addition in tandem with the creation of innovation. The overall operations of PTT, including those conducted by both PTT directly and through PTT Group companies, are summarized below.





PTT-OPERATED BUSINESSES

Gas Business Unit

The business unit consists of natural gas supply, transmission, processing and marketing. Natural gas supply includes indigenous gas, imports gas from neighboring countries, and import liquefied natural gas (LNG) to sufficiently meet the continuous growing demand. As for the natural gas infrastructure network, to strengthen the country security, PTT have invested in LNG Receiving Terminal, which consists of LNG storage and LNG re-gasification, via PTT wholly-owned subsidiary company called PTT LNG Co., Ltd. to regas and transport natural gas to customers in all sectors such as power sector, industrial sector, and transportation sector in which PTT have invested in NGV service stations to promote sales of natural gas in transportation sector as an alternative fuel for vehicles, in addition to gasoline and diesel. Moreover, to vertically integrated into natural gas value chain and create value added to natural gas. PTT also invest in gas separation plants (GSPs) to supplement business value by extracting a variety of valuable chemical components from natural gas to provide petrochemical with feedstock, which in turn represents essential elements of all other subsequent industries driving national economic growth. One of these products is LPG, using in households, industry, and transport.

Today, natural gas supply procurement, transmission, and distribution businesses are operated under the Energy Industry Act, B.E. 2550 (2007), supervised by the Energy Regulatory Commission (ERC), a body appointed by HM the King. The supply procurement and pricing structure to power producers and piped gas management fees are strictly controlled with a constant rate of return, while the pricing structure of procured gas to industrial users fluctuates with the world market price to ensure competitiveness with domestic fuel oil. For GSPs, this depends on the price of their products sold as petrochemical raw materials or feedstock, which are tied to world markets. As for LPG sold domestically as a fuel, this year, out of the government's

policy to help the public, PTT still maintained LPG price control for the household sector that is sold by GSPs at USD 333 per metric ton, which is below world-market prices. NGV faced two price rises, each THB 1 per kg, in October and December this year. At the year-end, the NGV retail price was THB 12.50 per kg, with the exception of public transport, namely taxi-cabs, tuk-tuks (motor-tricycle taxis), BMTA-associated and Transport Company buses and vans, for which the retail price was THB 9.50 per kg. These factors have made the prices of LPG and NGV more in tune with their costs.

Supply of natural gas consisted of 78% from indigenous production, and the remaining consists of piped gas from Myanmar and LNG.

Oil Business Unit

The business unit is in charge of distribution of quality petroleum products, which break down into three core products. First, petroleum products, consisting of gasoline, diesel, and LPG. Second, lubricating oil and other lubricating products. Third, retail businesses.

All these are sold through three major distribution channels. First, retail through service stations, which have been constantly upgraded and modernized into PTT Life Stations, catering to modern consumers' lifestyles that favor one-stop service made possible by diverse retail businesses found at service stations. This year PTT launched the Fit Auto business; an integrated auto-service center offering replacement of lubes, batteries, tires, parts, as well as other light maintenance and lubrication services and car detailing services like color polishing, air-conditioner cleaning with a microscope, and glass coating-to expand the catering to consumers to constantly nurture consumer engagement. Since last year's inaugural launch of the royalty card, PTT Blue Card, the numbers of membership has risen to some 800,000, with a goal to raise more member steadily. Also launched was the PTT Blue Card Mobile Application for both the Android and iOS systems, under which members earn privileges from leading stores through their smartphones and enjoy ongoing special activities. Besides service stations, PTT conducts LPG sale through bottling plants, LPG stand-alone



outlets, and lubricant sale through lubricant outlets. Second, the commercial market, sold to civil servant groups, state enterprise workers, industries, aircraft, ocean liners, fishing vessels, and exports. And finally, sales of products to customers under Article 7 and Article 10 of the Fuel Trade Act.

Moreover, the business unit manages investments 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 petroleum products and petrochemicals, among others.

The oil business has become more liberalized and highly competitive under several laws, including the Fuel Trade Act, B.E. 2543 (2000) and Fuel Oils Control Act, B.E. 2542 (1999). As of December this year, PTT was one of 41 petroleum traders registered with the Department of Energy Business. Moreover, the oil business is heavily regulated by various authorities, including the Energy Policy and Planning Office, Department of Energy Business, Department of Internal Trade, and Office of the Consumer Protection Board. Its financial performance therefore relies primarily on marketing margins in service stations, other supplementary products, and world energy prices.

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, to solvents and chemicals, and crude palm oil and palm kernel shells. The business unit is also in charge of providing price risk management and 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 comprehensive supervision, which is why the business unit has utilized a three-dimensional risk control system, a best practice among leading international trading houses. This system consists of (1) policy-based control and supervision, that is, a steering committee defines a trading framework/ risk management policy and trade credits, while regularly controlling and monitoring risks, (2) structural and responsibility control, that is, the work structure is clearly divided and roles clearly spelled out as front-mid-back, with checks and balances to ensure proper examination, and (3) technology control, that is, the implementation of an electronics trading control system to enable quick, transparent, and efficient control and auditing.

To expand PTT's trading markets and become a regional leader in petroleum and petrochemical trading, PTT International Trading has founded and appointed subsidiaries and agencies in many countries, including PTT International Trading Pte. Ltd. (PTTT) in Singapore, PTT International Trading DMCC in Dubai, United Arab Emirates, PTT International Trading Guangzhou Representative in the People's Republic of China, and the latest office in Jakarta, Indonesia, known as PTT International Trading Jakarta Representative. As a result, today the business unit is managing business transactions in more than 50 countries covering all regions of the world.





Infrastructure Business Unit

The Infrastructure Business Unit was set up on October 25, 2013, with the following business description: natural gas transmission system (Gas Transmission pipeline and NGV distribution for Vehicle), power and utilities business, land development business, standards and operating systems for sustainability business, engineering and project management business, operating and maintenance services, and asset and property management business. This year is considered the initial phase of the business unit, which is made up of the following businesses and affiliates:

Sustainability Management Business: this consists of QSSHE (quality, security, safety, health, and environment), PTT Group Sustainability Management, and PTT Group Excellence Transformation.

Engineering and Project Management Business: this consists of engineering and construction project management together with land management and project evaluation concerning safety, environment, society, and communities, and formulation of terms of reference supporting PTT's assorted projects for objective and goal accomplishment.

This year the PTT Group companies under the Infrastructural Business Unit consist of PTT Maintenance and Engineering Company Limited (PTTME), which deals with engineering, construction design, and project construction, together with maintenance services for petrochemical plants and all industrial plants, and PTT Energy Solutions Company Limited (PTTES), which provides engineering techniques supporting assorted efficiency improvement for PTT Group companies.

In addition, since January 1, 2015, two other PTT affiliates have been transferred to the business group: Global Power Synergy Plc. (GPSC) and Energy Complex Co., Ltd. (ENCO).



BUSINESSES INVESTED THROUGH PTT GROUP COMPANIES

Petroleum exploration and production business

PTT Exploration and Production Plc. (PTTEP) operates domestic and international petroleum exploration and production (E&P) and invests in associated businesses for PTT. The bottom-line business objective is to seek and secure competitively priced crude oil and natural gas to ensure Thailand's energy security. PTTEP demonstrates this responsibility through its petroleum sales agreement with PTT on all produced petroleum in neighboring countries, mostly natural gas, for consumption in Thailand. Moreover, this year PTTEP has expanded its petroleum E&P business to other global regions, including the equity change in the Mariana Oil Sands Project (formerly known as the Canada Oil Sands KKD Project), acquisition of an affiliate of Hess Corporation, signing of a production-sharing contract under the Myanmar MOGE 3 Project, acquisition of shares in the Barreirinhas AP1 Project and the Brazil BM ES 23 Project. Part of petroleum production from these overseas projects is destined for distribution in Thailand, although it is sold internationally to produce a revenue inflow to support national economic growth.

PTTEP's financial performance is primarily dependent on the world oil price, petroleum exploration and field development success, cost management of E&P projects, investment opportunities, and organizational competency development. E&P activities and petroleum pricing structures are governed by the Petroleum Act, B.E. 2514 (1971), under the supervision of the Petroleum Committee.

Power business

PTT is engaged in the power business through Global Power Synergy Plc. (GPSC), the power-business flagship for the Group, consisting of four joint venturers: PTT (30.10%), PTTGC (30.31%), TOP (11.88%), and TP (27.71%). Today the company produces public utilities (electricity, steam, and demineralized water)



domestically and internationally to supplement value to PTT Group and enhance national energy security. GPSC's customers are the Electricity Generating Authority of Thailand (EGAT), PTT Group's petrochemical plants, and others. In addition, GPSC has expanded investment in the ASEAN region, like a hydropower plant in Laos, to generate revenue for Thailand. GPSC undertook a feasibility study on investing in assorted power plants in and outside Thailand, including a plant in Myanmar and renewable-energy power plants (solar, wind energy, garbage, and biomass) in suitable areas.

GPSC registered as a public company limited on November 27 this year and submitted its filing to the Securities and Exchange Commission (SEC) in a move to prepare initial public offering on the stock exchange to mobilize investment to accommodate its future growth.

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, and efficient cost and operating expense management, and investment opportunities and corporate capability development.

Coal business

PTT conducts its energy business abroad in search of new energy sources and renewable-energy sources to bolster energy security for the kingdom, while building on current businesses on the basis of personnel's knowledge, skills, and experience and cooperation among PTT Group in international investment expansion. PTT invests through its wholly owned company PTT Energy Resources (PTTER), which today invests in the coal mining business in Indonesia and Madagascar, together with a joint-venture investigation of coal potential in Brunei.





Petrochemical business

PTT invests in the petrochemical business to add value to its domestic natural gas and products from its refineries. This helps reduce Thailand's dependence on petrochemical imports as well as foster the development of petrochemical and related-industry, such as automotive industry, construction industry, and packaging industry, in Thailand. PTT operates its petrochemical business through its investment in seven Group companies, namely 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). This wide range of investments covers the processing and distribution of upstream, midstream and downstream plastic products, as well as marketing, logistics and distribution in both domestic and international markets.

Performance is primarily subject to world petrochemical prices, moving up and down with supply and demand, and the year-end inventory (stocks). The main feedstock in petrochemical production comes from PTT's gas separation plants (GSPs), including ethane, propane, liquefied petroleum gas (LPG) and natural gas liquids (NGLs), together with products from PTT Group's oil refineries, like naphtha and reformat.

Refining business

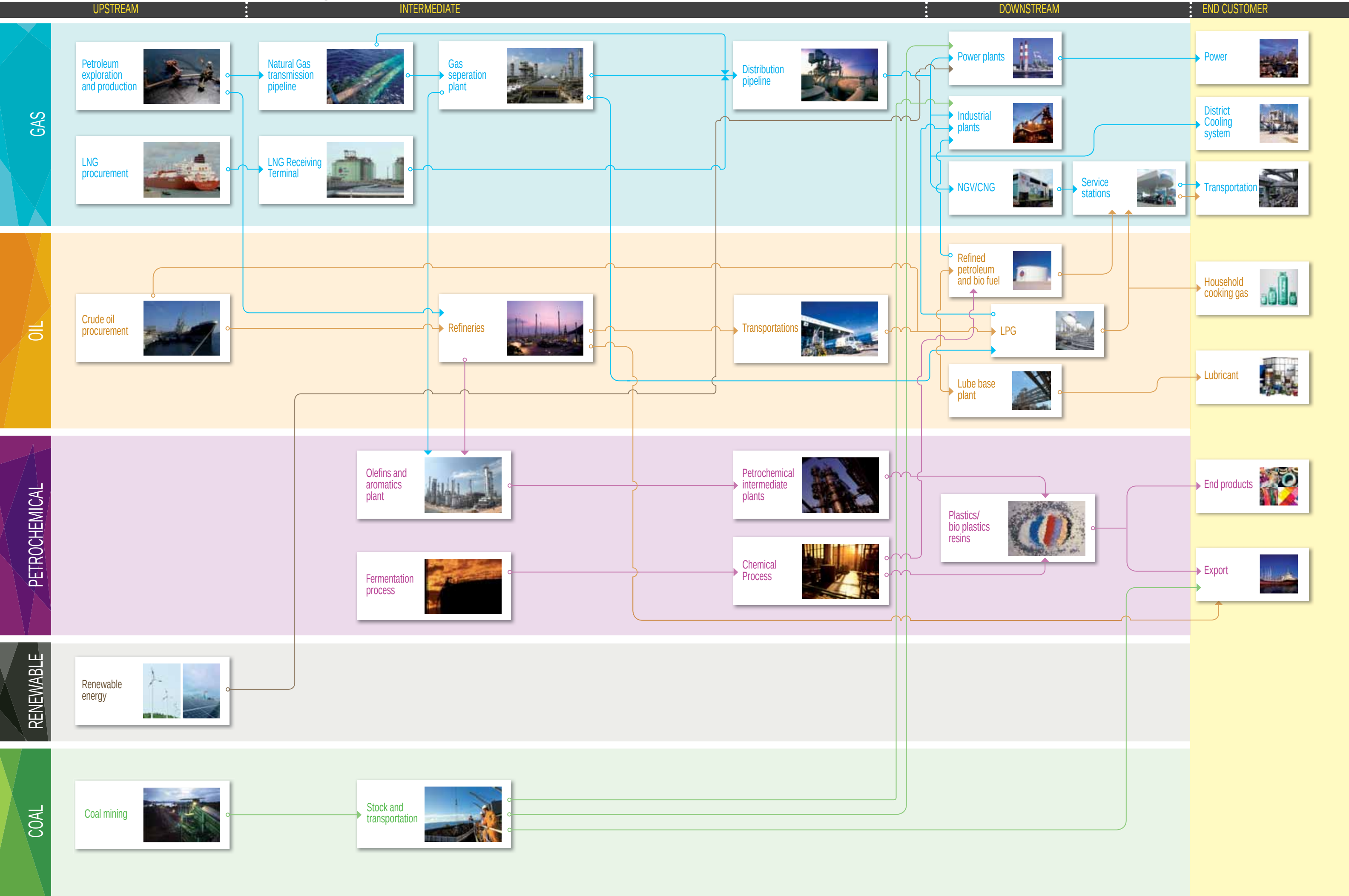
PTT invests in the refining business to secure refining product supply to the country and reduce dependence on imports. PTT operates its oil refining business through investments in Group companies, consisting of Thai Oil Plc. (TOP), IRPC Plc. (IRPC), Star Petroleum Refining Co., Ltd. (SPRC), Bangchak Petroleum Plc. (BCP), where PTT procures crude oil as feedstock to the refineries as well as buys refined

and petrochemical products from them for domestic distribution and exports.

Performance is primarily subject to the refining margin defined as the average value of refined products less the average cost of crude runs, which varies according to the world market price, as well as the petrochemical prices which vary according to the supply and demand balance and the year-end inventory (stocks).



Creates Value Through Business Chain



PERFORMANCE OUTCOMES OF 2014

This year, PTT Group's net profits amounted to THB 55,795 billion, down by THB 37,296 billion from last year, primarily because of the sharp, steady fall in world oil prices from the middle of the year. As a result, PTT Group suffered heavy stock losses, and the product spreads between aromatics products and feedstock shrank.

In late April, PTT Group (through PTTEP) acquired an affiliate of Hess Corporation in Thailand, which accounted for 15% of the Contract 4 Project in the Gulf of Thailand and 35% of the Sinphuhorm Project of the Northeast. These raised PTT Group's petroleum sales, while securing natural gas for domestic use from the Zawtika Project. Interestingly, this year the Energy Regulatory Commission (ERC) endorsed a regulation called Third Party Access Regime (TPA Regime), which includes the LNG station. This regulation appeared in the Royal Gazette, with effect from October 14 this year onward. As a result, natural gas sellers and users are now able to use PTT's gas transmission system.

For the downstream businesses, PTT Group supplemented value from the Operational Excellence Project (OpEx) and capacity expansion of companies of the petrochemical and refining group. PTT remained the domestic retail sales champion. Thanks to the TAGNOC (Technologically Advanced and Green National Oil Company) strategic plan and continual technological support of PTT Group, this year PTT Group earned an R&D 100 Award, a world-class accolade, for its development of PTT DIESEL CNG product.

Below are detailed performance outcomes of each business unit.

PTT-OPERATED BUSINESSES

Gas Business Unit

This year's operational success of the business unit resulted largely from the rising sales volumes of petrochemicals derived from GSP products, rising prices of petrochemicals during the first half of the year, effective operating expense management, and the additional import shipment of LNG to meet rising demand across the sectors, including power, industrial, and transportation sectors, together with GSPs. Key operational performance results this year appear below:



Natural Gas procurement

Supply procurement totaled 4,691 MMSCFD, a rise of 88 MMSCFD (2%) from last year at 4,603 MMSCFD, consisting of 3,657 MMSCFD from indigenous gas and 1,034 MMSCFD from import, or an equivalent indigenous/import ratio of 78:22.

Gas sales to the power sector

Sales to this sector totaled 2,757 MMSCFD, about 59% of total sales, representing a 2% rise from last year (at 2,710 MMSCFD), due to the rising demand for power. Sales were completed to EGAT at 1,206 MMSCFD, or 44% of the total; to nine independent power producers (IPPs) at a total of 852 MMSCFD, or 31% of the total; and to 34 small power producers (SPPs) at 699 MMSCFD, or 25% of total sales.

Gas sales to the industrial sector

Sales to this sector totaled 653 MMSCFD, equivalent to 14% of the total sales, an increase of 2% from last year (at 639 MMSCFD). A total of 354 entities used industrial gas this year: 322 in the industrial process, 29 in the co-generating, and 3 in the commercial group. Accounting for the rise in sales was investment in expanded gas distribution pipelines to users in the industrial group, including Thai Malaya Glass in the Hemaraj Industrial Estate in Sara Buri, Asia Pacific Gas in Samut Prakan, Siamese Merchandise in Ratchaburi, and Sak Chaisidhi in the Map Ta Phut Industrial Estate in Rayong.

Gas sales to the transportation sector

Sales to the transportation sector averaged 317 MMSCFD (7%) of the total sales, recording a 3% increment from last year (307 MMSCFD) due to the ever-rising number of service stations. Currently, there are 497 PTT service stations, of which 394 are directly invested by PTT and 103 invested by independents, covering 54 provinces. Consumption of natural gas in the transport sector to replace gasoline and diesel rose from 11% last year to 13.4%. At the year-end, the number of vehicles fueled by natural gas increased by 5.4% from last year's 438,821 to 462,414 units.

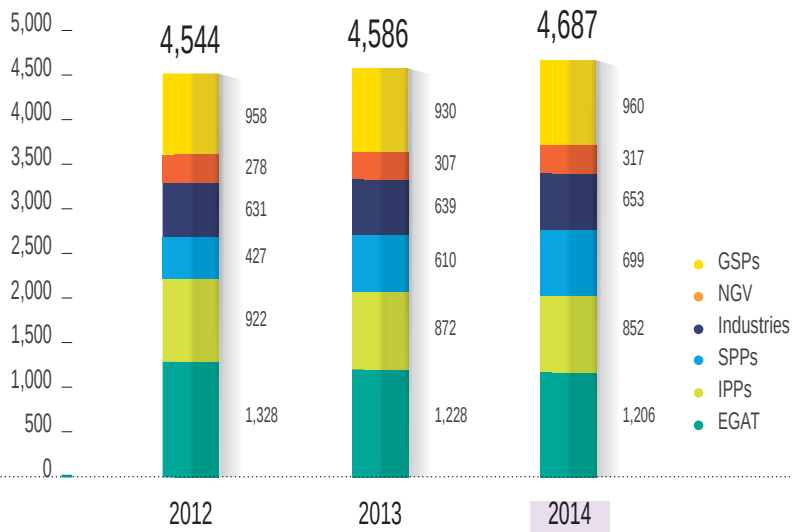
Sales of products from GSPs

GSPs processed 960 MMSCFD of natural gas this year, or 20% of total sales, a 3% drop from last year (930 MMSCFD). GSP Unit 5 faced a prolonged shutdown because the waste heat recovery unit was struck by lightning on August 14, 2013. PTT installed a back-up unit in April this year, which enabled it to resume full capacity and ease impacts by importing LPG to meet energy demand. In September this year, PTT installed a brand-new waste heat recovery unit, which has passed its trial-run period, with additional design and improvement of incident prevention system.

The total output this year, therefore, was a drop in total processed product volume by 4% from last year to 6,196,138 tons a year this year from last year at 6,452,137 tons. The products included 2,074,447 tons of ethane, 726,952 tons of propane, 2,690,389 tons of LPG, and 704,350 tons of NGLs.

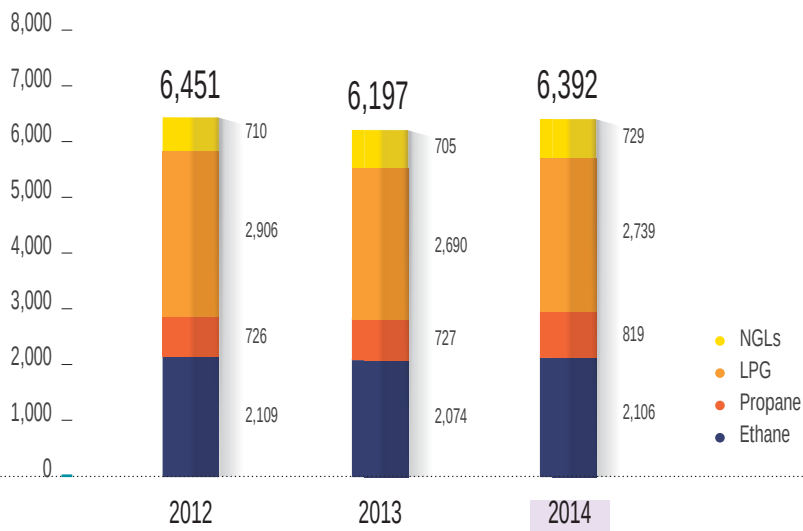
Natural Gas
Sales

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



Products
from Gas
Separation
Plants

Unit: thousand tons



GAS BUSINESS UNIT MILESTONES

JANUARY

- Signed a Gas Sales Agreement (GSA) with IPPs (Chonburi Power Generation and Siam Eastern Power) with a daily contractual quantity (DCQ) of 381.2 MMSCFD each (1,000 Btu/cubic foot) for 25 years for increased energy efficiency through efficient power generation.

- A pipeline-laying project from the Myanmar-Thailand border to Amphoe Thong Pha Phum, Kanchanaburi, was completed for PTTEP to begin gas delivery from Zawtika Field, Moattama Bay, Myanmar, into PTT's gas transmission pipeline on August 5. The contractual delivered volume was 240 MMSCFD. This new gas supply enhanced national potential while sustaining domestic requirements. It could also ease energy shortage should a maintenance shutdown occur on the western part of the kingdom.

FEBRUARY

- PTT transferred its investment shares in Nava Nakorn Electricity Generating, with a prorated capacity of about 38 MW to Global Power Synergy Plc. (GPSC) in line with the policy of having GPSC serve as a power flagship for PTT Group.

APRIL

- PTT in conjunction with Rayong's Deputy Provincial Governor inaugurated "The Miracle of Natural Gas: Miracle Romance" at HRH Princess Maha Chakri Sirindhorn Herb Garden in Rayong in its fourth successive year to display cold-season produce grown with surplus cool air from LNG liquefaction. This collaboration between GSP, Office of the Royal Development Projects Boards, Chiang Mai University, and King Mongkut's University of Technology Thonburi under a project leveraged cold-air energy and carbon dioxide for research on cold-season plants under a royal initiative, undertaken since 2011.



The Miracle of Natural Gas: Miracle Romance

- As a stop-gap solution, GSP Unit 5 installed a temporary heater in place of the lightning-struck waste heat recovery unit (WHRU) in August 2013. The unit returned to virtually full capacity, easing impacts caused by LPG production and import, while accommodating energy users' needs. In September, it installed a brand-new set. GSP Unit 5 has a throughput capacity of 570 MMSCFD with a maximum LPG capacity of 2,500 tons per day. Natural gas and LPG are delivered to power plants, the industrial sector, and the petrochemical sector. During the repair period, PTT managed its LPG volume to match domestic demand by lowering its delivery to the industrial and petrochemical sectors, thus averting impacts on the household sector, which depended more on the LPG.

- The Power and Heat Recovery Project for Rayong GSP saw the installation of a 25-MW generator for internal consumption and a WHRU to save Rayong GSP some 41.6 MW of fuels. Production came on stream on April 16.

MAY

- Signed a GSA with SPPs (Gulf NC and Bang Pa-in Cogeneration 2 (Project 2)) for a DCQ of 21.91 MMSCFD and 20.65 MMSCFD (1,000 Btu/cubic foot) for 25 years. The move would supply clean energy and raise energy efficiency through efficient power generation.

JUNE

- Transferred shares in Ratchaburi Power's power-generation business with a prorated capacity of about 210 MW to GPSC in line with the policy to have GPSC serve as PTT Group's power flagship.

JULY

- Mechanical completion of a project to install a Sai Yok Compressor Station unit 4 for the Sai Yok Compressor Station, which raised the overall natural gas deliverability under the western onshore gas transmission system network.

SEPTEMBER

- Signed a GSA with SPPs (IRPC Clean Power, Project 1 and Project 2) for a DCQ of 24 MMSCFD (1,000 Btu/cubic foot) for 25 years, which would raise energy efficiency by way of efficient power generation.

- The Energy Policy Administration Committee (EPAC) adjusted retail LPG and NGV prices in stages in line with a directive of the National Council for Peace and Order (NCPO) of August 26 ("Urgent measures to restructure the prices of oil and natural gas"). The price of transport LPG would rise by THB 0.62 per kg (from THB 21.38 to THB 22 per kg) and that of NGV by THB 1 per kg (from THB 10.50 to 11.50 per kg). However, BMTA-associated buses and Transport Company buses would retain the THB 8.50 per kg price. Effective October 1, this move would more realistically reflect NGV costs.

- ERC endorsed the "Regulation on the criteria for the terms of reference on TPA Regime", to be announced in the Royal Gazette with effect from October 14.

DECEMBER

- EPAC adjusted retail NGV prices for personal-passenger cars by THB 1 per kg (THB 11.50 to THB 12.50 per kg) and for public buses by the same margin (THB 8.50 to 9.50 per kg), affecting from December 3.

Natural Gas Transmission Pipeline System and Gas Separation Plants

Myanmar

Vietnam

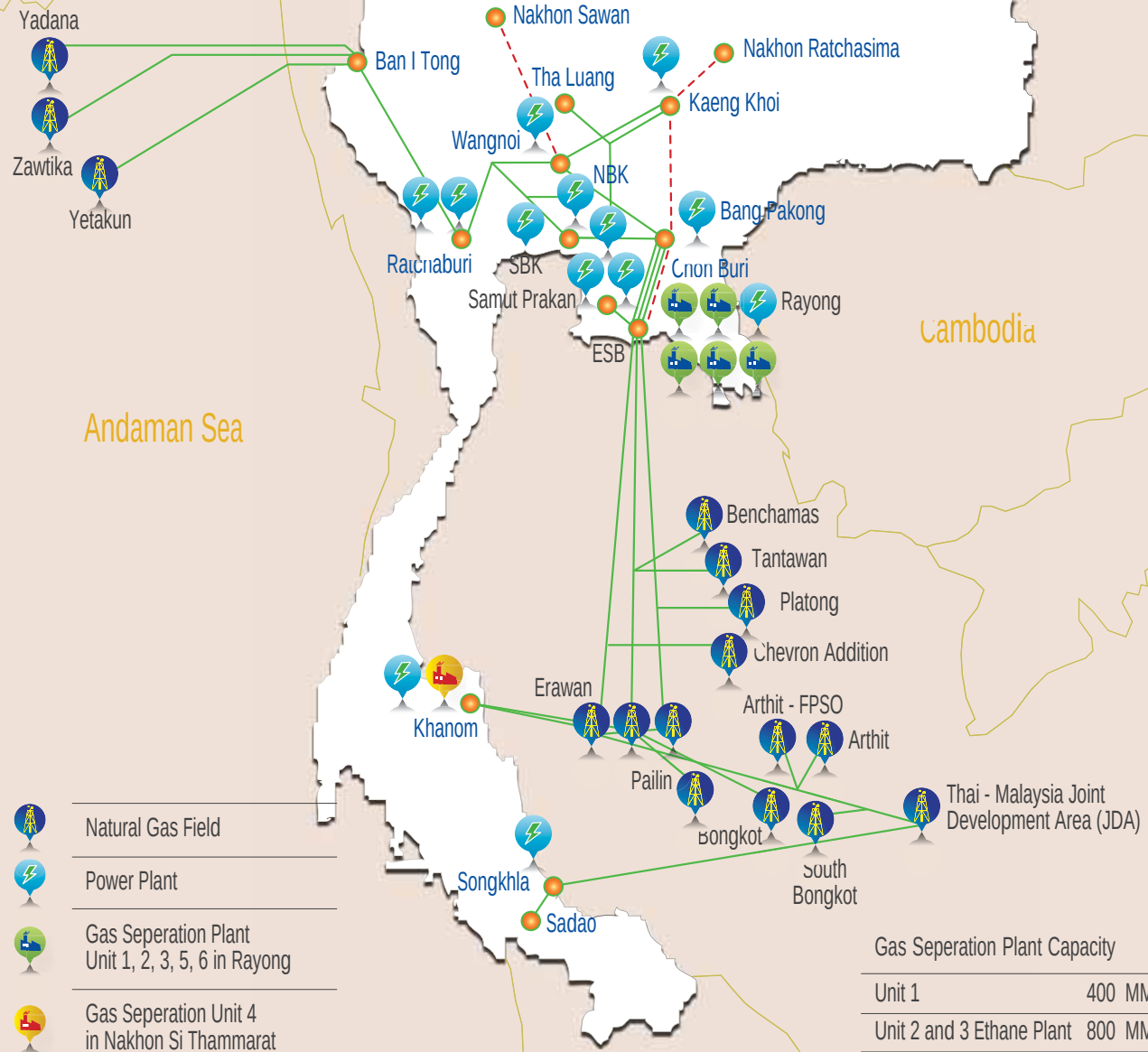
Laos

Thailand

Cambodia

Malaysia

Andaman Sea



-  Natural Gas Field
-  Power Plant
-  Gas Separation Plant
Unit 1, 2, 3, 5, 6 in Rayong
-  Gas Separation Unit 4
in Nakhon Si Thammarat
-  Existing Pipeline
-  Future Pipeline

Gas Separation Plant Capacity

Unit 1	400 MMcf/d
Unit 2 and 3 Ethane Plant	800 MMcf/d
Unit 4	170 MMcf/d
Unit 5	570 MMcf/d
Unit 6	800 MMcf/d



Oil Business Unit

PTT continued to maintain its top position in the domestic fuel retail market for 22 consecutive years, with a 39.4% market share, some 0.7% higher than last year. For the lubricating oil market, PTT also succeeded in maintaining its top position for six straight years, with a market share of 39.2%. This year's business performance of the business unit appears below:

Marketing of Petroleum Product

This year PTT sold 18,099 million liters of refined petroleum product, an increase of 451 million liters from the previous year. Sales consisted of 3,482 million liters of gasoline, 7,504 million liters of diesel, 2,408 million liters of jet fuel and kerosene, 1,614 million liters of fuel oil, and 3,090 million liters of LPG.

The year's average marketing margin was THB 1.56 per liter, against the suitable margin of THB 1.50-2.00 per liter, based on the coverage of operating expenses and appropriate financial returns for Article 7 traders and traders that are service station owners.

As of December 2014, PTT operated 1,396 service stations across the country, or 5.5% of the total,

11 jet (aviation) fuel stations, 19 oil terminals (PTT owned nine and the others were joint/rented ones), three LPG terminals, five petroleum terminals, four LPG-bottling plants, 1,145 Seven-Eleven convenience stores, 1,197 Café Amazon outlets, and 143 auto-service centers.

Marketing of Lubricating oil

PTT is determined to drive PTT Lubricants, a Thai brand, into a global brand. To this end, it seeks 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 31 countries. This year the company is still committed to developing new products. A total of 15 new products were launched to address customers' needs and step up to technology and environmental leadership.

National energy security enhancement

As the national energy company, PTT provides service and operation of product terminals, as well as sourcing and transporting petroleum for national energy security.

This year PTT has taken steps to enhance the efficiency of energy management in line with national demand:

- Expanded the product transfer capacity under a project to raise the capability of LPG import, dispensation, and transport system so as to accommodate future gas consumption. This year PTT completed the construction of LPG storage tanks at Khon Kaen Gas Terminal and Surat Thani Gas Terminal to raise regional storage capacities by 3,000 tons each. Meanwhile, Khao Bo Ya Gas Terminal Jetty is under construction, due for completion in 2015, to raise PTT's import capacity to 250,000 tons per month.

Formulated is a facility master plan for the oil business infrastructure to develop a network of terminals and transport systems to further enhance national energy security. During the year PTT expanded the capacity of Surat Thani Oil Terminal to accommodate rising oil demand in the South and secured oil products to distribute from the new distribution point in the Northeast to replace Udon Thani Oil Terminal and Khon Kaen Oil Terminal, both of whose land leases expired this year.

CSV activities

Apart from the core mission of national energy security enhancement, PTT constantly recognizes and values the stewardship of society, communities, and the environment, which will be instrumental to lead Thailand's development to sustainability. This year, PTT signed an agreement with the Royal Project Foundation on an R&D project for the planting and production of coffee seeds under natural resource conservation for sustainable development. The move would promote community strength through self-reliance and balanced development under the Sufficiency Economy philosophy. The project covers vocational skill development, improvement of community lives, and participation in the rehabilitation and conservation of indigenous natural resources and surroundings, particularly watershed areas. At the same time, Café Amazon would acquire quality coffee seeds for its consumers, who would then play

a part in supporting Thai farmers' better lives. This is a new business approach of focusing on development with communities for joint, sustainable benefits.

Fulfilling the Green Strategies of PTT Group

This year the Oil Business Unit's activities aligned with the corporate goals by valuing and conforming to PTT's operating directions and policies on the environment.

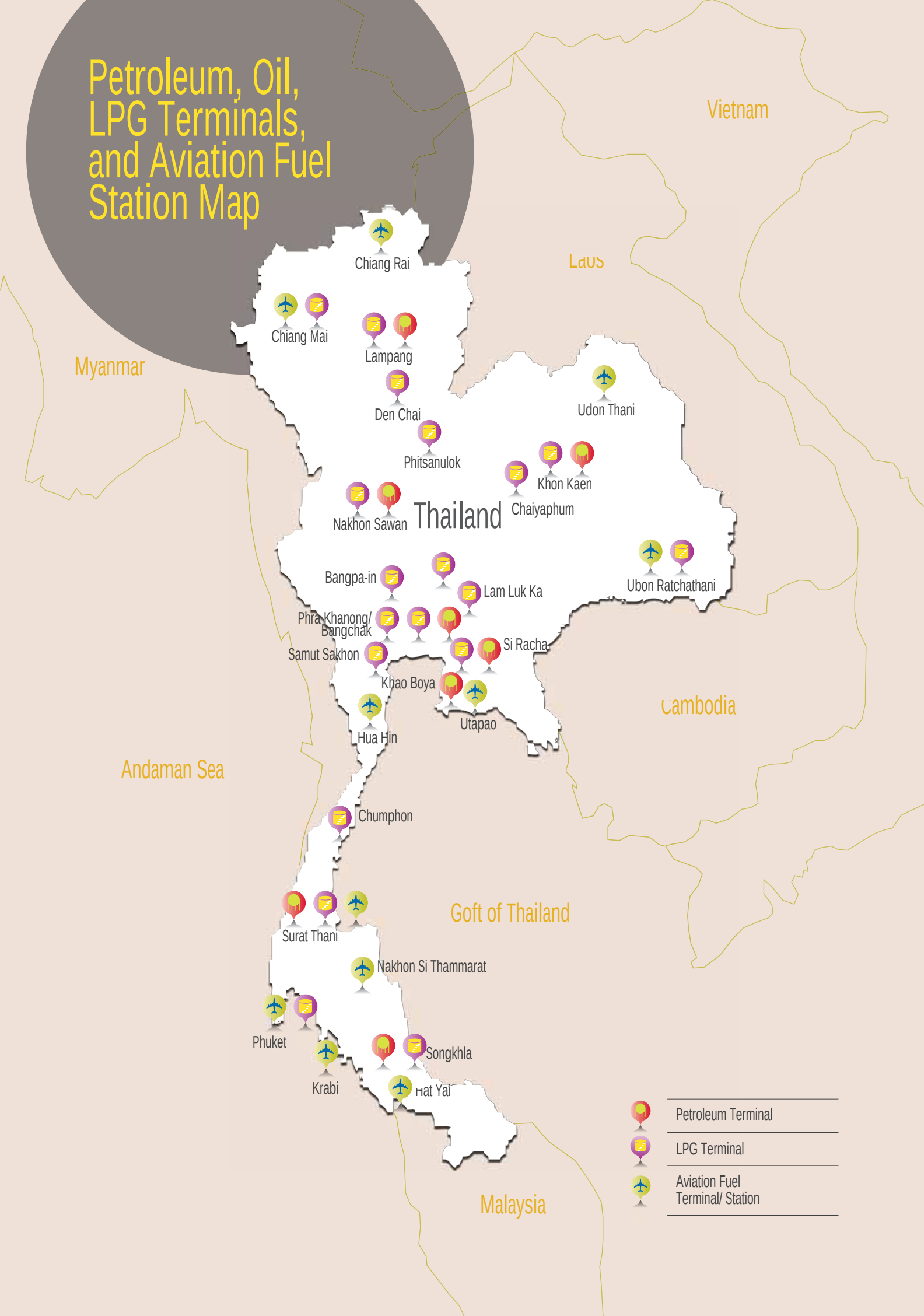
- Constantly promoted biofuel sales through expanded gasohol markets. The number of service stations with E85 gasohol has grown to 300, and those with E20 gasohol to 1,182. This year, PTT's E10 gasohol market share is 38%; E20 gasohol, 55%; and E85 gasohol, 44%.

- Supported renewable-energy consumption through cooperation with Mitr Phol in expanding the E85 gasohol market to cover consumers in the Northeast and part of the North. To this end, PTT would transport E85 gasohol from Chaiyaphum to Khon Kaen Oil Terminal, its fuel distribution center in the Northeast. In the old days, PTT had distributed the fuel only from its Sara Buri Oil Terminal. The move enabled PTT to accommodate future E85 gasohol service-station expansion.

- Developed PTT RUBBERA 1245, a lubricating oil that reduces pollution. This product belongs to the processing oil group. With a "Low Aromatic" formula, it promotes the production of rubber like automotive tires with lower pollution, no harm to those on the job, and environmentally friendly properties. In addition, PTT came up with PTT POWERTRAC SUPER PLUS, a new-formula transmission oil that reduces friction and saves more fuels while prolonging its own life. Developed under the green concept, this product aligns with PTT's TAGNOC strategy.

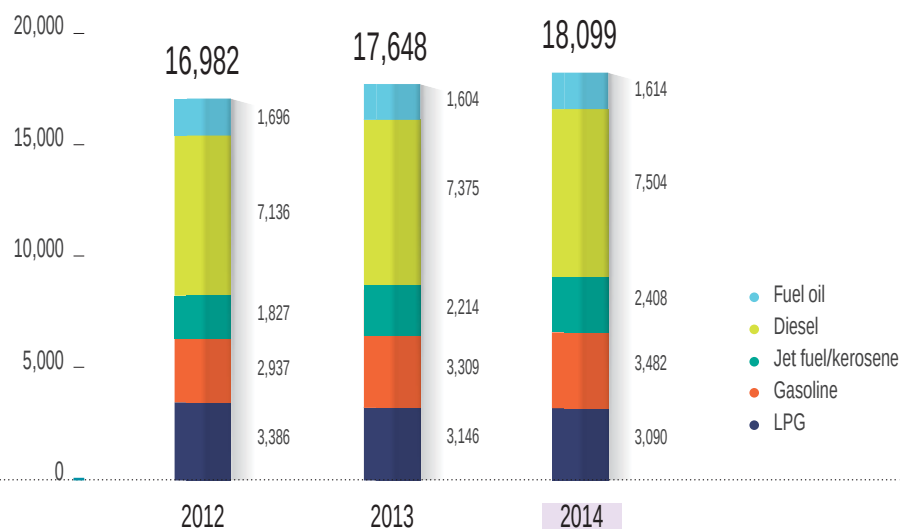
Finally, PTT secured the Carbon Footprint label for seven products, namely ULR 91, ULG 95, Gasohol 91, Gasohol 95, E20 Gasohol, PTT Performa Super Synthetic (1-liter and 4-liter sizes). PTT also secured the PTT Green for Life labels for E20 Gasohol and HyForce Premium Diesel.

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



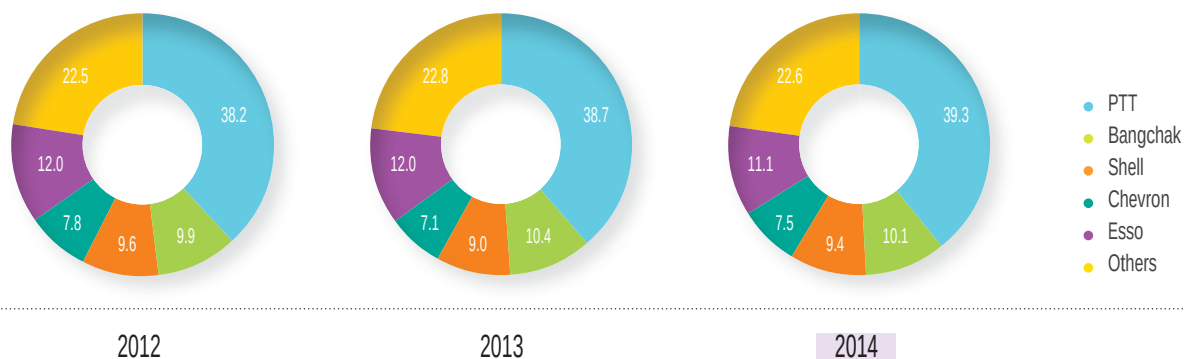
Domestic Petroleum Product Sales

Unit: million liters



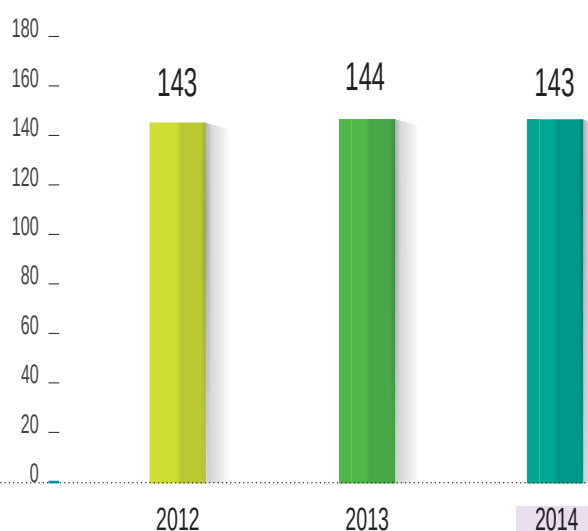
Domestic Market Share

Unit: percentage



Domestic Lubricant Sales

Unit: million liters



Note: Excluding LPG used as petrochemical feedstock.
Source: Department of Energy Business, Ministry of Energy

OIL BUSINESS UNIT MILESTONES

FEBRUARY

Launched a project on joint development of credit card swiping machines at PTT service stations for all Seven Cards and Smart Purse cards. Under this project, customers can pay for their fuels with cards instead of cash to provide them with convenience and speedy services.

MARCH

Launched a “Fully self-serve station”, the first in Thailand, taking advantage of technologies in facilitating consumers while developing PTT’s products and services to cater to today’s innovative lifestyles.

Fully Self-Serve Station



MAY

- Launched a “PTT Greenery Station” and “Jiffy Plus Supermarket”, complete with a modern PTT Fit Auto full-circuit lubricating oil change center and incorporating solar energy as part of the project to lower pollution. This pilot project for renewable energy consumption, which is both clean and sustainable, is found at The Crystal PTT, Chaiyaphruek Road community mall.

- Presented a novel business model to commercial airline customers for PTT’s supplementary service of Jet A-1 hedging as fitting individual customers. The move would establish sustainable relationship while addressing the customer centric strategic direction. To date, the service has been provided to Nok Air and Thai Air Asia X.

DECEMBER

- Participated in restoring happiness to Thais during the New Year Festival by selling lubricating oil at 15-30% discounts together with free replacement.

- Launched a “Gold-Hugging & Vying for Gold with Godji Family at PTT Life Station” activity. With THB 800’s worth of refueling or by accumulating enough Godji pictures through an application, customers are eligible for gold Godji prize draws.

- The PTT Life Station application on smartphones eases consumers’ travel by searching for PTT service stations and desired products.



PTT Greenery Station

International Trading Business Unit

The business unit's success this year is attributed to the sufficient supply and import of crude oil, condensate, LPG, and petroleum products for rising demand in addition to income generation by expanding its trading bases to other regions to maintain high trading volumes amid assorted negative factors, domestic political uncertainty, and the volatile oil price that plummeted during the last two quarters of the year.

This year the business unit posted a total of 67,675 million liters of trading volumes of petroleum and petrochemical products (1,166 Kbbbl/d of crude oil equivalent), a reduction of 3,929 million liters (6%) from last year. This was made up of 41,739 million liters of crude oil, 7,297 million liters of condensate, 15,838 million liters of petroleum products and LPG, and 2,800 million liters of petrochemicals.

Besides these, the business unit is engaged in more diversified product transactions, which grow value in other commodity markets in line with PTT Group's core strategies, including crude palm oil and palm-related products like palm kernel shells. The total trading volume this year was 25 million liters.

Uncertainty in economic stability, international politics, and basic supply and demand factors, both of which are extremely fluid—all these contributed to the high volatility of the world oil price, which directly affected the operating costs and income throughout the petroleum and petrochemical supply chains. The business unit has therefore engaged in price-hedging exercises for trading, refining, and production for PTT and PTT Group, leveraging swaps and options, among others. This year a total of 16,105 million liters in risk management was undertaken for PTT and 8,505 million liters for PTT Group refineries.

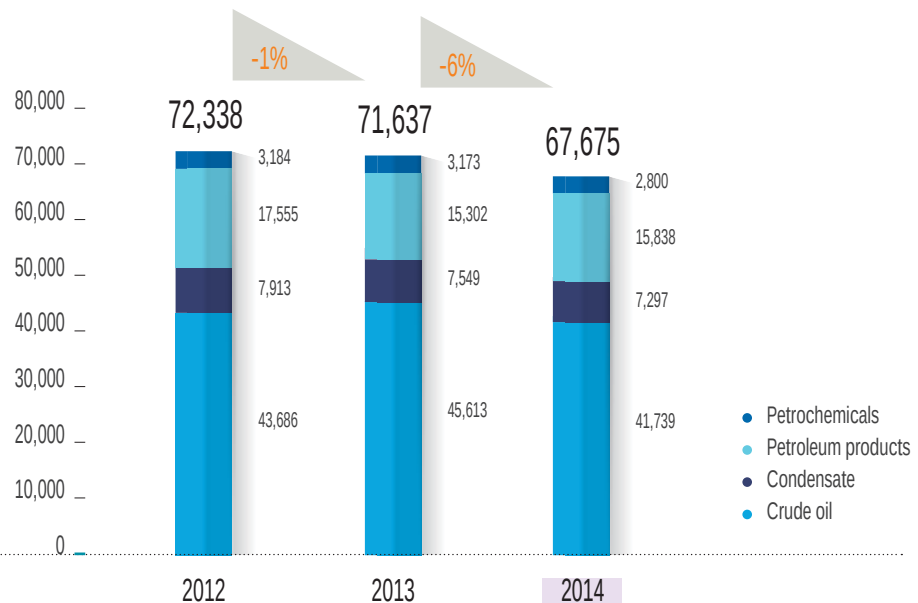


To support secure growth for international trading, marked by safety and absence of negative impacts on communities, society, and the environment, and to improve its competitiveness, the business unit provided hiring services for overseas transport vessels for crude oil, condensate, petroleum products,

LPG, petrochemicals, solvents, chemicals, and palm kernel shells for PTT and PTT Group, as well as business partners worldwide. The services fall under the Oil Company International Marine Forum (OCIMF) standard. This year saw a total of 530 transport trips.

International Trading Volumes

Unit: million liters



Enhancement of National Energy Security

Under the strategic framework for enhanced national energy security in tandem with maximum value addition for the country, the procurement of sufficient volumes of energy for the country is the business unit's key mission, made up of:

1) Supply procurement of indigenous crude oil and condensate: In support of the government's policy of lowering import dependency, the business unit entered into long-term agreements for the bulk of indigenous outputs for subsequent allocation to refineries and petrochemical plants in suitable volumes and quality fitting each refinery and petrochemical plant. This year a total of 11,573 million liters was procured from indigenous sources.

2) Import of crude oil and condensate: The business unit has established cordial relationships and entered into long-term purchase agreements with Middle Eastern countries and other regions so as to import crude oil and condensate for domestic refineries and petrochemical plants to at least match PTT's shares, as well as importing for other refineries in which PTT did not hold shares, again with desired qualities for each refinery and petrochemical plant, at competitive prices and conditions. This ensures that Thailand will have access to adequate volumes of crude oil and condensate, even in crises. This year a total of 26,764 million liters of crude oil and condensate was imported, accounting for 57% of Thailand's total imports.

3) Import of LPG: Today the business unit is Thailand's importer of LPG. The imported volumes have posted steady growth as a result of rising demand by the industrial, transport, and household sectors. To ensure adequate LPG supply to meet domestic demand, the business unit established supply procurement security by entering into long-term agreements to buy LPG from the world's top producers and exporters that are national oil companies. It also formed alliance network with other major Asian importers just in case LPG cannot be transported from the Middle East to Asia. This year a total of 3,767 million liters (100%) of LPG was imported.

4) Import of fuel oil: The business unit imported fuel oil as a back-up power generation fuel in case natural gas (the main fuel) supply falls short. Interestingly, imported fuel oil bears different qualities from fuel oil generally available in the market, and its import volumes are diversified. Yet, the business unit managed to secure and transport it for power plants in a timely manner. This year a total of 377 million liters of fuel oil was imported.

INTERNATIONAL TRADING BUSINESS UNIT MILESTONES

FEBRUARY

- Signed LPG purchase agreements with the world's leading energy traders, Qatar and Kuwait, for use as a raw material for energy production throughout the year, and in supporting PTT's enhancement of national energy security.

APRIL

- Signed LPG purchase agreements for 220,000 tons with business partner companies that are South Korea's and North Asia's major importers, for use as a raw material for domestic energy production throughout the year, underscoring PTT's mission of ensuring adequate supply of energy.



Crude oil sale contract signing ceremony with Brunei

- Signed a crude oil purchase agreement with Brunei's biggest oil and gas producing company for 3 million tons for use as a raw material for domestic refineries throughout the year, a fourth consecutive annual agreement, illustrating confidence in Thailand's energy company in the international arena.

JUNE

- Signed a trading term agreement for 88,000 tons of LPG this year with Japan's major importer and major supplier of LPG in Southeast Asia, a fifth consecutive annual agreement, underscoring warm relationship with leading regional companies and PTT's mission of enhancing national energy security.



LPG Signing ceremony with Japan's major LPG importer

AUGUST

- Signed an MOU on the feasibility of cooperation under the “Integrated Petrochemical Complex” of world-scale capacity, the first in Brunei. This represented Brunei’s business opportunity handed to PTT to accommodate the move into AEC as well as PTT’s goal of becoming a leading multinational energy company.

NOVEMBER

- Signed an MOU on the acquisition of 120,000 tons of palm kernel shells to fuel biotechnical and major petrochemical plants of South Korea. This move established cordial relationship and business expansion in pursuit of a multinational trading company, not to mention a move into the green market in support of PTT’s green roadmap, focusing on optimal renewable-energy consumption.

DECEMBER

- Signed a memorandum on the exchange of marine intelligence with the Operating Coordination Center for Thailand’s Marine Interests and the Royal Thai Navy. This move represented sharing of information and a tracking mechanism for PTT Group’s energy transport vessels venturing into areas fraught with pirate-like attacks for the benefit of safest marine transport. This was another mission for enhancing national energy security that PTT has always taken seriously.

BUSINESSES INVESTED THROUGH
PTT GROUP COMPANIESPetroleum Exploration and Production
Business

For fiscal year 2014, PTTEP and its subsidiaries generated USD 8,017 million in consolidated revenue,



an 8% rise from the year before (USD 7,445 million), mainly driven by rising sales volumes. The average 2014 sales amounted to 321,886 BOED, a 10% rise from the year before or 292,629 BOED, mainly because of the rising sale for the entire year of 2014 of PTTEP Australasia Project, which had begun sale in August 2013, and because of the sale from Myanmar acreage (Zawtika Field) in March this year for exporting to Thailand in August. Also, PTTEP saw its stake in Contract 4 fields rise by 15%. However, the average sales price dropped to USD 63.38 per BOE, against USD 65.58 per BOE last year.

PTTEP and its subsidiaries netted USD 677 million in profit this year against USD 1,847 million last year. Primarily accounting for this drop were the realized losses from the impaired assets of the PTTEP Australasia and the Mariana Oil Sands projects, together with depreciation, depletion, and amortization, not to mention the rising exploration expenses.

At the end of 2014, PTTEP was operating 43 projects in 11 different countries.

Projects in Thailand:

Of the 17 domestic projects, most were in the producing phase on shore and in the Gulf of Thailand. This year, production continued smoothly to meet domestic energy demand. PTTEP also expanded its domestic production base by acquiring a Hess Corporation affiliate in late April that held a 15% share in Contract 4 in the Gulf and a 35% share in the Sinphuhorm Project in the Northeast, both of which were producing natural gas.

In the exploration phase this year were key activities like B6/27 in the Gulf, where exploration well NKW-N01 found no commercial petroleum. The project is under the petroleum geological investigation.

As for projects in Southeast Asia

PTTEP has a total of 15 in Myanmar, Vietnam, and Indonesia.

As far as producing projects, first, PTTEP was running a key offshore project

- Zawtika Project, in the Moattama Bay, with gas delivery started for MOGE (Myanma Oil and Gas Enterprise) for domestic consumption in March. Delivery to PTT for Thailand's consumption began in early August this year. The project has successfully stabilized and maintained its targeted output, averaging 310 MMSCFD (47,950 BOED) in sale. Incidentally, construction of additional platforms designed to maintain its output is ongoing. As for the plan to raise petroleum reserves and maintain long-term outputs, the project is drilling about 10 appraisal wells, starting in the third quarter of this year and due for completion by 2015.

- Vietnam 16-1 Project, lying offshore southeast Vietnam, proved successful after appraisal wells meant to maintain output had been drilled in the H5 area, south of Te Glac Trang Field (TGT). Production platforms have been prepared to accommodate production from this area, with an on-stream date by 2015. This year the project posted an average of 34,000 barrel per day along with an average natural gas sale of 22 MMSCFD (around 5,500 BOED).

In the exploration phase was the offshore Myanmar M3 Project, also in Moattama Bay. Today the project is under additional appraisal well drilling (six wells planned), which began in the third quarter of this year and due for completion by the first half of 2015.

- Myanmar PSC-G and EP-2 Project: Lying in the Central Myanmar Basin, this onshore project is under geological structure study and will see its first exploration well drilled, the first of four wells.

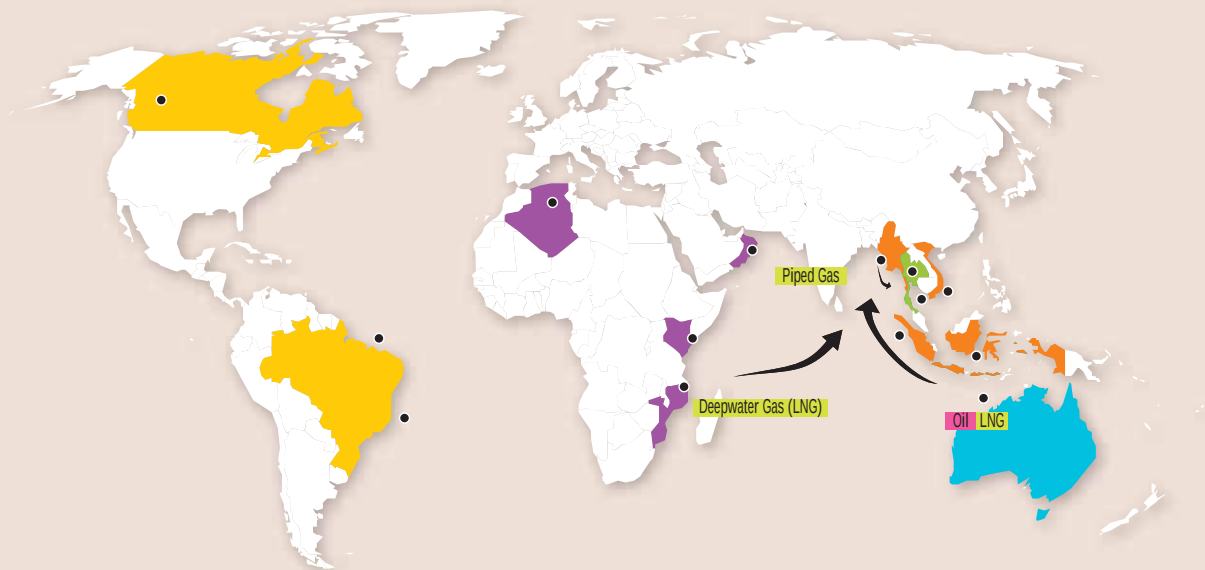
- Myanmar MOGE-3 Project: Also onshore in the Central Myanmar Basin, this project has PTTEP holding an 85% share and serving as operator. In August this year, PTTEP South Asia Limited (PTTEP SA), another subsidiary of PTTEP, signed a PSC (production sharing contract) with MOGE for the right to conduct exploration and production in the block. Today the project is under the EIA preparation stage, due to be completed by the first quarter of 2015.

Australasia projects

- PTTEP has one project (PTTEP Australasia) located in Australia, with 15 concession blocks.

Diversified International Portfolio

Worldwide operations: 43 projects* in 11 countries



North America (1)

- 1 Exploration
- Canada

South America (2)

- 2 Exploration
- Brazil

Africa and Middle East (7)

- 1 Production
- 1 Development
- 5 Exploration
- Algeria
- Mozambique
- Kenya
- Oman

Southeast Asia (15)

- 6 Production
- 9 Exploration
- Vietnam
- Indonesia
- Myanmar

Thailand (17)

- 14 Production
- 1 Development
- 2 Exploration

Australasia (1)

- 1 Production
- Australia

Notes: * Exclude 3 projects that are pending official withdrawal approval

In the producing phase, Montara Field's output this year averages 18,000 barrel per day. Since the infamous offshore incident, its successful claim for fines from the insurance company has amounted to USD 244 million. As for the compensation from the oil spill claimed by Indonesia, PTTEP stands ready to negotiate with the Indonesian government on the basis of scientific evidence and impacts.

As for exploration phase work, this year PTTEP engaged in key activities, including Cash Maple Field, where it completed the Maple-East exploration well without commercial finds. Currently, geological and geophysical studies are underway, as is production engineering design, in addition to an analysis of the field's commerciality and development options.

Projects in America

PTTEP has three projects in this region, namely Mariana Oil Sands, Barreirinhas AP1, and Brazil BM ES 23.

- Mariana Oil Sands (formerly known as Canada Oil Sands KKD): In May, PTTEP completed the exchange of properties under the conditions of the PURA (Partnership Units Redemption Agreement) with SCL (Statoil Canada Limited). As a result, PTTEPCA holds all shares in Thornbury, Hangingstone, and South Leismer Fields, while earning about USD 419 million. Today the project is under the WDC (Winter Delineation Campaign), with its drilling work and development plan study underway, which includes preliminary engineering design (Pre-FEED) for Thornbury Phase 1.

- In Brazil, this April PTTEP Brazil Investments in Oil and Gas Exploration and Production Limitada (PTTEP BL), a PTTEP subsidiary, invested in 25% of Barreirinhas AP 1 Project, which consists of BAR-M-215, BAR-M-217, BAR-M-252, and BAR-M-254, located in the Barreirinhas Basin, off the eastern coast of the country. Having secured government approval in August, it conducted an EIA for 3D seismic exploration, which is expected to begin in the second quarter of 2015.

- In September this year, PTTEP BL acquired a 20% share in Brazil BM ES 23 Project, which includes the BM-ES-23 exploration block, located in Espirito Santa Basin, offshore eastern Brazil. Government approval was secured in November. The year saw two exploration and appraisal wells drilled, with one finding crude oil. The year 2015 will see two additional wells drilled.

Africa and Middle East projects:

PTTEP has seven projects in this region, located in Oman, Algeria, Mozambique, and Kenya

- Development Phase projects: PTTEP's key activities dealt with Algeria 433a and 416b, onshore in the east of the country, where production process equipment is under construction, as are transmission pipelines. Production is expected to begin in the second half of 2015 at 20,000 barrel per day.

- Exploration Phase: PTTEP engaged in exploration work in Hassi Bir Rekaiz Project, also onshore in the east of the country, with an ongoing Second Drilling campaign. This year 2D and 3D seismic work was done, and the plan is to drill a total of five exploration and appraisal wells, with drilling already begun in the third quarter.

- **Mozambique Rovuma Offshore Area 1:** A sizeable natural gas field offshore Mozambique, this project will see six exploration and appraisal wells drilled to assess additional potential. This year the project has notched up five such wells, among which the Tubarao Tigre-1 exploration well successfully struck more gas deposits. The second well (Tubarao Tigre-2) of the same campaign was drilled in the fourth quarter and expected to be completed by the first quarter of 2015. As for LNG project development, the project has continually followed the LNG engineering and construction development plan. LNG production and sale is scheduled to begin in 2019.

- **Mozambique Rovuma Onshore:** This onshore project lies in the north of the country, where two exploration wells are planned. This year saw the completion of one exploration well (Tembo-1), which is under commerciality appraisal. The project began drilling the Kifaru-1 exploration well in late 2014, which is expected to be wrapped up by the first quarter of 2015.

- **Kenya Block L10A:** This offshore project has seen one exploration well (Sunbird-1) completed without any commercial finds. Today the company is studying data from the well for geological application.

- **Kenya L5, L7, L11A, L11B, and L12:** This project is under geological and geophysical investigation to locate the exploration well, with actual drilling work set to begin in 2015.

In portfolio management, this year PTTEP continually pursued such work, with the following highlights:

- **Shareholding restructuring in Mariana Oil Sands Project** (formerly known as Canada Oil Sands KKD) to allow the company to administer its investment plan and derive satisfactory outcomes under current circumstances.

- **Acquisition of a Hess Corporation affiliate:** This affiliate held shares in offshore and onshore projects (as previously mentioned). The move conformed to PTTEP's growth strategy of pursuing producing assets to grow its income, output growth rate, and petroleum reserves immediately, in addition to strengthening its domestic production base.

- **Signing of a PSC for Myanmar MOGE-3:** This move built on the development strategy and extended investment in Myanmar.

- **Acquisition of Barreirinhas AP-1 and Brazil BM-ES-23 in Brazil:** This was PTTEP's maiden move into Brazil, a high-potential petroleum district.

This year, however, saw PTTEP relinquish Block L21/48 in Thailand, Indonesia South Sakari, New Zealand Great South, Block L10B of Kenya, Block AC/P4 of PTTEP Australasia, Indonesia Semai II, Indonesia Sadang, A4/48 and A5/48 Projects. These latter two projects are awaiting approval of the Australian and Indonesian governments and the Department of Mineral Fuels.



Power Business

The merger of Independent Power Co., Ltd. (Thailand) (IPT) and PTT Utility Co., Ltd. (PTTUT) was completed on January 10, 2013, culminating in the formation of Global Power Synergy Plc. (GPSC), which has registered its transformation into a public company limited. GPSC is the power business flagship of PTT Group, with a current nameplate capacity of 1,038 MW and a steam capacity of 1,500 tons per hour. Its equity share of capacity is 514 MW and that of steam is 96.8 tons per hour. In all, GPSC's power generation capacity totals 1,552 MW and steam capacity totals 1,596.8 tons per hour.

Performance Summary of 2014

GPSC continually expanded its investment in Thailand and ASEAN. Driving for excellence through the PTT Group Operational Excellence project, GPSC strives for sustained top-quartile world-class performance marked by efficiency and effectiveness.

For greater efficiency of PTT's operation, PTTER transferred the Nam Lik 1 hydropower plant project to GPSC on December 5 this year.

At the year end, GPSC posted THB 22,363.64 million in total revenue, thanks to the sale of 10,471,180 MW-hours of electricity, 4,981,345 tons of steam, and 3,661,141 cubic meters of demineralized water, exclusive of sales to affiliates. For the year, its net profit totaled THB 1,789.05 million. Incorporating its affiliates, the net profit stood at THB 1,970.62 million.

GPSC MILESTONES

JUNE

- Acquired the transfer of two power companies from PTT Group, namely Nava Nakorn Electricity Generating (February 7) and Ratchaburi Power (June 25).

JULY

- On July 25, joined in the STORA project investment with a company called 24M at the Series B2 stage. This company was set up for lithium-ion battery production process research and development. Commercial sale is expected in 2016.

SEPTEMBER

- On September 18, signed an MOU on a project on integrated community waste management in Rayong with Rayong Provincial Administration and Rayong Provincial Administrative Organization.

OCTOBER

- On October 9, signed an MOU on the feasibility study of a 1,800-2,000 MW coal-fired power plant project in Myanmar with Marubeni Corporation of Japan, EGAT Inter, Sri Synergy, and Ayeyar Holding Company of Myanmar.

NOVEMBER

- On November 27, registered its transformation into a public company limited, and submitted its filing to SEC on November 28.

DECEMBER

- The Nam Lik 1 hydropower plant project was transferred to GSPC on December 5, 2014.

Coal Business

Currently investing in the coal mining business in Indonesia and Madagascar, PTTER also joins an investment to investigate the potential of coal resources in Brunei.

The business in Indonesia is undertaken by Sakari Resources Limited (SAR), in which PTTER holds a 95.26% share.

Performance Summary

For the year, SAR posted 9.8 million tons in coal sale, with a net profit of USD7 million. Its constant focus is on lowering mining cash costs through negotiation with contractors and mine planning modification in line with the down-cycle coal prices. Reduction of operating expenses is ongoing.





PTTER MILESTONES

- The coal project in Madagascar, in which PTTER holds an 80% share, won exploitation permits for five blocks, with about 67 million tons of coal reserves. The project is currently under the pre-development stage, with a feasibility study and a JORC Coal Reserves Report under preparation for loan - application submission to a Chinese financial institution. They are expected to be completed by early 2015, with construction and production due to start by 2015 and by late 2018.

- PTTER raised its management and administration profile in SAR by appointing one of PTT high-level executives acting Chief Executive Officer of SAR on August 1 and appointing four additional executives and employees for secondment to SAR and its affiliates.

- The Brunei coal project, in which PTTER holds a 35% share, is awaiting approval consideration under the coal business law of Brunei.

Petrochemicals and Refining Business Unit

The Petrochemicals and Refining Business Unit has expanded its production capacity as well as developed new products and services to capture new market opportunities. Also, it has constantly searched for new investment opportunities both in and outside Thailand along the existing supply chain and in the green business, in order to raise PTT Group's competitiveness. The restructuring of investments in petrochemical and refining subsidiaries is also executed during the year to enhance performance and group synergy. In addition, several projects and plans, including Petrochemical and Refining Integrated Synergy Management (PRISM) and PTT Group Operational Excellence (OpEx), were carried out to boost synergy and achieve continuous operational excellence. These efforts were aimed to take companies in the business unit to the goal of delivering outstanding performance at the Asia-Pacific level while backing up PTT Group in its

role to ensure energy security and prosperity for the nation. Companies in the business unit, namely PTT Global Chemical Plc. (PTTGC), Thai Oil Plc. (TOP), and IRPC Plc. (IRPC), have now been included on the Dow Jones Sustainability Indices (DJSI). The former two companies in particular have been on the list for the second consecutive year. Performance of the business unit is summarized below:

Petrochemical and refining performance

PTTGC's total product distribution is made up of three major product groups: (1) Petroleum products and public utilities group – This group of products totaled 67.45 million barrels, up by 11% from the previous year. Refining capacity utilization rose to 102% against 91% in 2013, in which operation was suspended for maintenance shutdown of the refinery for 38 days and nine days for hydrocracking unit maintenance. (2) Aromatics group – The volume of these products, totaling 3.16 million tons, fell by 6% from last year with 81% utilization of production capacity, down from 90% last year, due to an emergency shutdown of Aromatics Complex II, coupled with the 42-day planned shutdown of Aromatics Complex I. (3) Olefins and derivatives group -- Totaling 1.99 million tons, this group of products recorded an increase of 9% from the previous year with capacity utilization of 105%, up from 99% last year. This was caused by the shutdown of GSP Unit 5 in 2013 which made PTTGC unable to fully receive feedstock, coupled with the 77-day shutdown of the LDPE plant for cylinder maintenance. As for the refinery's accounting GRM, the margin fell from that of last year following the stock loss and realization of the sharp fall in NRV. Meanwhile, marketing GRM and profit from commodity hedging surged. Also decreased was the spread of product-to-feed of aromatics products due to the narrower gap between paraxylene and condensate, coupled with the oil stock loss and NRV realization of the narrower spread,

as dictated by the dipping crude price. On the contrary, the spread of product-to-feed of olefins products and derivatives rose, thanks to better prices. In 2014, PTTGC made a provision of THB 1,142 million for business restructuring of Vencorex, which resulted in the weaker performance this year.

HMC Polymers, meanwhile, registered 691,475 tons of product distribution, an increase of 6% from the year before. With a wider product-to-feed spread and less loss from currency exchange due to the weaker THB against the US dollar during the year when compared to 2013, HMC's performance improved this year.

PTT Asahi Chemical (PTTAC) saw an increase in total product distribution by 55% from the previous year to 379,458 tons, thanks to higher production efficiency, which brought about full utilization of production capacity. Moreover, the spread between AN and MMA products and feedstock was improved with a lower loss from currency exchange when compared to last year's situation. The overall performance of HMC therefore improved.

PTT Polymer Marketing (PTTPM), the main distributor of PTT Group's petrochemical products, registered a total distribution volume of 1,764,211 tons, an increase of 6% from last year. However, due to the higher operating costs, proportional to the distribution volume, and some losses from currency exchange, the 2014 performance of PTTPM recorded a decline from the previous year.

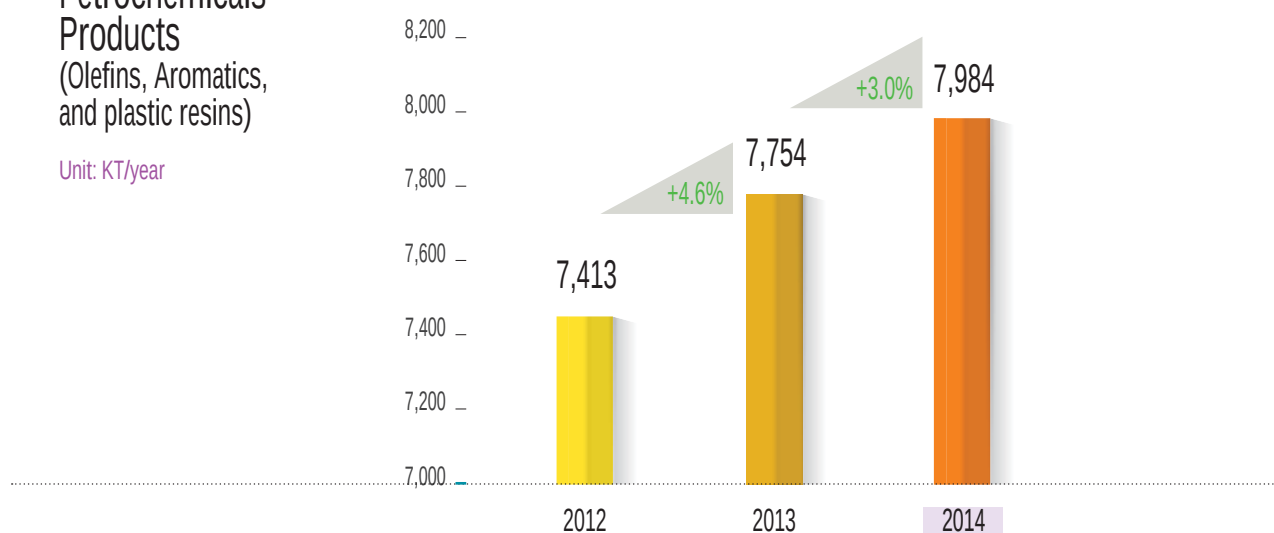
PTT Polymer Logistics (PTTPL), PTT Group's provider of integrated logistics services for plastic pellet producers, registered a total service volume of 9,450,033 tons. The volume reflected an increase of 7% over last year's performance following the expansion of services for existing customers and new ones both in and outside PTT Group. PTTPL's 2014 business therefore outperformed that of 2013.

In the refining business, PTT holds a 36% overall share of the domestic refining capacity of 1,045,000 barrel per day (including the 135,000 barrel per day capacity of the condensate splitters of PTTGC and the 135,000 barrel per day capacity of Rayong Purifier, which was indefinitely suspended since February 7, 2012). The combined volumes of feedstock for PTT Group's entire oil production processes (comprising refineries and condensate splitters of PTTGC) registered 889,000 barrel per day, a decrease of 57,000 barrel per

day from 2013's volume. CDU utilization averaged 90% against 94% in 2013, as a result of planned maintenance shutdowns of SPRC, BCP, and TOP during Q1/2014 and Q2/2014. The sharp fall in crude price in the latter half of the year brought about high stock losses, compared to some gains in 2013, despite some profits reaped from commodity hedging. The overall performance of PTT Group's refining business was inferior to that of 2013 with a gross integrated margin (GIM) of USD 2.12 per barrel against USD 6.64 per barrel the year before.

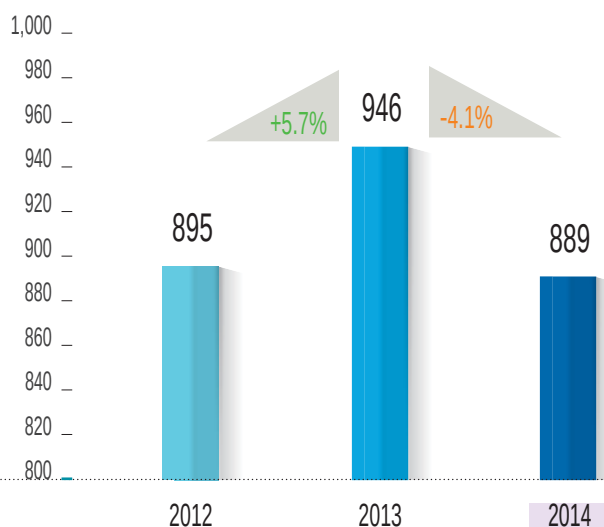
PTT Group's
Total Sales
Volume of
Petrochemicals
Products
(Olefins, Aromatics,
and plastic resins)

Unit: KT/year



Total Feedstock for Refineries in PTT Group

Unit: Kbd



PETROCHEMICALS AND REFINING BUSINESS UNIT MILESTONES

JULY

- TOP completed its gradual phasing of commercial operations following various improvement projects, such as emission improvement, CDU-3 crude preheat train improvement, and HVU-2 revamp. The scope of improvement also included expansion of solvent production capacity to 141,000 tons/year at Thairoil Solvent, an affiliate of Thairoil established to cope with higher demand, both domestic and regional.

- IRPC inaugurated its Treated Distillate Aromatic Extract (TDAE) venture into the China market. The company's shipment of feedstock to a automotive tire production plant resulted in IRPC's expanded market share in China in addition to the existing lubricant market.

- Bangchak Petroleum Plc. (BCP) established BCP Energy International Pte. Ltd. (BCP Energy) in Singapore to buy shares in Nido Petroleum Limited, an Australian natural gas exploration and production company. This was BCP's attempt to expand its

investment portfolio into the upstream business to diversify its business risks. The share purchase also reflected BCP's overseas investment expansion of 19.66%. An additional 61.75% share was bought over the counter, resulting in BCP's total shareholding of 81.41% in Nido. The share purchase was completed in October this year.

- BCP bought an 85% share in BCP Bioethanol from Sima Inter Product to strengthen its presence in the renewable-energy business, which has become one of the company's key business strategies. The attempt followed commercial solar farms carried out in three phases for a total capacity of 118 MW in April 2014.

AUGUST

- PTTGC joined PT Pertamina, Indonesia's national oil company, in establishing PT Indo Thai Trading - a joint-venture company intended for expansion of the polymer market among Indonesian consumers. This was an attempt to build a market base for the joint investment in the construction of a petrochemical complex in Indonesia, which is under a detailed study.

- PTTGC joined Dairyhome and NatureWorks Asia Pacific in launching bioplastics packaging for organic yogurt, the first of its kind in Thailand and Asia.

- IRPC officially opened its NANO Chemical factory, which spurred its lubricant blending capacity to 72 million liters per year in response to higher demand in the domestic industrial sector and in preparation for AEC inauguration.

- PTTTPM joined TMB Bank in running the Triple S Project, or Service Solution Series, to enhance business transactions through an electronic system, including the e-Guarantee system. PTTTPM is the first among PTT Group to become an electronic platform company, which not only helps strengthen PTT Group's financial chain, but also corresponds with the government's policy on the digital economy.

SEPTEMBER

- PTT handed over the result of a feasibility study of the Petrochemical Refinery Complex project with a refining capacity of 400,000 barrel per day and 4,900,000 tons per year of petrochemical products to be constructed in the Nhon Hoi economic zone in Binh Dinh province of Vietnam. This will be the first integrated refinery and petrochemical plant in Vietnam.

- IRPC and the Liewpairat Group signed an MoU to end all disputes and legal cases.

- PTTGC, TOP, and IRPC were listed in the 2014 Dow Jones Sustainability Indices (DJSI). PTTGC was listed in the DJSI World group and TOP and IRPC were listed in the DJSI Emerging Markets group.

OCTOBER

- IRPC joined Picnic Plast Industrial in launching natural color compounds, the first of its kind in Thailand, produced from a mixture of conventional plastic pellets and natural extract colors, which replace synthetic colors without changing the physical properties of plastic pellets. Natural color compounds are produced with international food-grade quality and the initial focus on its application will be in food-packaging before expanding into other types of applications

In addition to business performance, PTT and other PTT Group companies took on some other key endeavors as summarized below:

STRATEGY FORMULATION

PTT's strategy formulation is a year-round process starting from the Top Executive Thinking Session (TTS), which involves a review and definition of business directions of PTT Group for the next 5-10 years to ensure adaptability with the changing situation and business environment. This is to make PTT Group's three ambitions achievable: (1) being listed of the Fortune 100 list by 2020; (2) being listed in the Dow Jones Sustainability Indices (DJSI); and (3) being one of the top-quartile performance companies by 2020. When TTS agreed on the business directions for the next 5-10 years, all business units and supporting functions as well as companies in the group will formulate their respective strategies for consideration by the Strategic Thinking Session (STS). With STS endorsement, the strategies will then be presented to the PTT Board of Directors for approval. In 2014, business directions and strategies towards 2020 are made up of:



- Institutionalizing the concept of TAGNOC to turn PTT into a knowledge-based organization, by evolving the TAGNOC concept into a part of the corporate culture, it will be the next growth platform of PTT Group. Reviews and analyses into problems and obstacles as well as their solutions will be carried out to ensure that the TAGNOC initiative could move forward and reach its goals. Strategies in this regard consist of:

- Technology initiative
- Green initiative
- PTT Group portfolio initiative
- Thailand integrated natural gas initiative
- PTT Group CSV initiative
- AEC readiness initiative
- People initiative

- Re-imaging PTT-50th: PTT Group's vision, mission, and aspiration will be redefined ahead of the year 2028 when PTT clocks its 50th anniversary. In this regard, PTT Group assigned management members at the executive vice president level, who are future leaders, to take charge of drawing up a new vision of PTT. The process starts from analyzing global trends in terms of socio-political shifts, disruptive technologies, global energy trends toward 2030, and the rise of the Circular Economy. Global trends in these four dimensions will be put into scenario assessment, which focuses on what could be expected for 2028, in order to narrow down diverse ideas into PTT's vision for 2028. The new vision and business direction for 2028 will then be announced. PTT, however, will still hold on to its three main mandates: enhancing national energy security, establishing economic stability, and forging sustainable growth.

- Directions and strategies of each business unit and supporting function.

PTT GROUP'S FINANCIAL MANAGEMENT

With market capitalization of over THB 925,441 million, or 7.1% of total market capitalization at the year-end, PTT is the largest company on SET. If all listed companies under PTT Group are included, the market capitalization would exceed THB 1,820,048 million, or about 13.2% of SET's total market capitalization. PTT Group continues to grow steadily. To ensure a strong financial status and discipline with credit ratings compatible with industry peers, financial management must therefore be efficient and well-disciplined, and disclosure of information to all investors must be equitable and transparent. To this end, PTT has applied its treasury and credit policy as a guideline in managing the finances of PTT and PTT Group.

This year, PTT manages its financial portfolio, including cash liquidity, risk management on exchange rates and interest rates to reduce costs, or add value to the corporation, or both, by taking the following actions:

- Issued financial derivatives to lower risks arising from long-term loans, which resulted in a reduction of the loan cost by about THB 118 million (only for the first tranche of interest payment)
- Managed its foreign-exchange risks in its commercial transactions in the import, export, international sales, and procurement of crude oil to the refineries under PTT Group, valued at USD 30,208 million, and added about THB 905 million in value to the Group.

PERFORMANCE MANAGEMENT AND IMPROVEMENT OF MANAGEMENT EFFICIENCY

PTT values the development of organizational capability toward becoming a high-performance organization through continuous improvement of its organizational efficiency and business processes to achieve the benchmark of world-class management under the Thailand Quality Award (TQA) criteria. The TQA criteria share a basis with the Malcolm Baldrige National Quality Award (MBNQA) of the US, which is universally accepted and the prototype award emulated by several countries worldwide. This year some key business processes have been developed, including customer focus by making PTT's Blue Card more responsive to customers' needs with more values and privileges attached, and by upgrading the iMind customer relationship system to be more rapid and better match customer requirements. Some other benchmarking methods were also developed, and those that are applicable with PTT's business directions were selected. A KPI Dashboard was initiated to follow up some major key undertakings, resulting in more rapid and efficient decisions made. PTT We Can and Innovation Award projects were introduced to create an innovation-alert atmosphere among staff and foster innovative projects with high-ranking personnel assigned as consultants for each project. What is more important is the staff development process, since human resources are considered vital to the organization. To realize the

idea, PTT Leadership and Learning Institute (PLLI) and Functional Academy were established to raise staff potential to get PTT workforce prepared for the change from a resource-based to knowledge-based organization in response to the TAGNOC strategy and business expansion overseas.

Regarding investment, the decision-making process was improved with criteria and consideration steps added to ensure that PTT Group's investment is prudently made. The improved process is intended to protect PTT Group's advantage as expected by the regulation on PTT Group's investment criteria and corporate governance in companies with PTT's shareholding, issued this year.

PTT won Outstanding State Enterprise Awards for 2014, organized by the Ministry of Finance, which comprised the Best Corporate Management Award,

Best Innovation Award (which PTT has won for five consecutive years), and Best CEO Award. These awards demonstrate the continuous capability of the Board, executives, and employees in all dimensions. The Best Corporate Management Award for 2014 is a proof of public confidence in a government unit with prime responsibility for the nation's energy security, capable of defining its own vision and management strategies to become a Thai energy entity in the world arena and drive the country's economy. The Best Innovation Award is a proof of a government unit's capability for promoting knowledge, technology, and innovation in driving the organization. Meanwhile, the Best CEO Award reflects the capability of the organization's leader in his successful management with vision and ability to drive the organization to attain its goals.





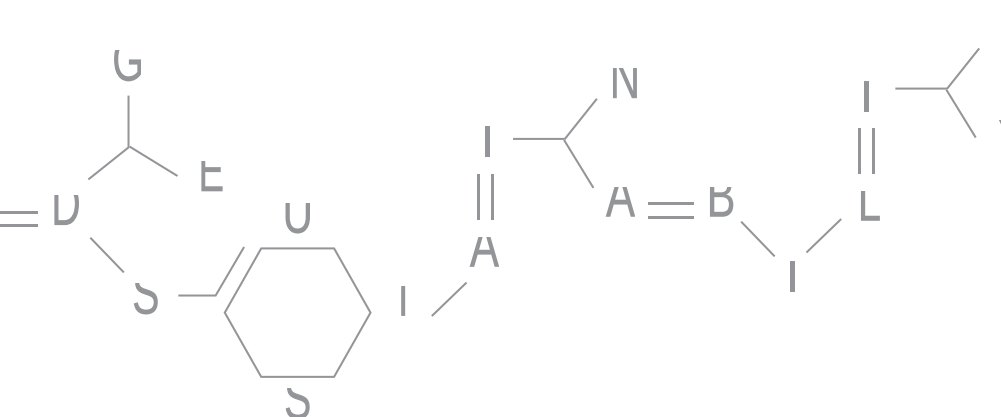
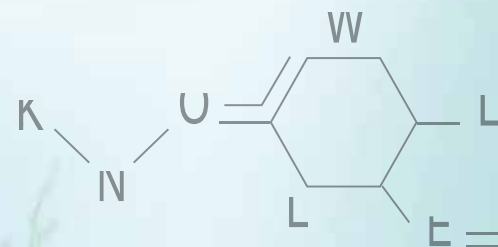
PRODUCT INNOVATIONS

This year, PTT Diesel CNG won an R&D 100 Award, a world-class award for innovation. Other domestic awards included Machinery Technology Award 2014 for its Colorful PV. PTT Research and Technology Institute came up with development of new products as summarized below:

- More than 40 formulae of fuels and lubricants, the outstanding ones of which are PTT HyForce Series 2, PTT Dynamic Premier API CI-4, Performa Gas Tech, and PTT Drivera W-460
- Development of polymer products, including bioplastic formulae for the production of Amazon Café hot drink lids, clear film for food wrapping, as well as purging materials for IRPC and PTTPM for further distribution
- Development of a flange coater for application on P/L III and VI
- Development and installation of the Flex CNG ECU on PTT vehicles to test its compatibility with natural gas with WI values of as low as 35 without any engine problem
- Application for 19 patents with approval for seven petty patents and one patent for Soil Slurry Bioreactor – PTT first patent among 60 applications.

Toward a Sustainable Future for Thais

Annual Report 2014
PTT Public Company Limited



2014

**PTT, PTTGC, PTTEP
***TOP, IRPC

MEMBER OF

**Dow Jones
Sustainability Indices**

In Collaboration with RobecoSAM

2013

**PTT, PTTGC
***TOP

2012

**PTT

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Apart from being a national energy company with a mission to enhance national energy security and economic prosperity, PTT remains committed to its responsibilities for the well-being of communities, society, and the environment. This is to plant a seed for sustainable future in every operating area of PTT across the country. In this respect, PTT issued a policy on corporate social responsibilities to support PTT Group's business conduct for sustainability, of which the sixth element stresses good corporate citizenship. The policy is also recognized as part of PTT's 13 core policies (PTT Way of Conduct), which keeps all business units in PTT Group moving in the same direction.

The year was the third consecutive year in which PTT attained membership of both Dow Jones Sustainability World Index (DJSI World) and Dow Jones Sustainability Emerging Markets Index (DJSI Emerging Markets) in the oil and gas industry group. This demonstrates PTT's determination to be a Thai premier multinational energy company in creating sustainability for the country, which regards responsibilities for communities and society as critical to its business operations to ensure sustainable growth. Domestically, the company has earned the SET Award of Honor: Excellence in Corporate Social Responsibility for four years in a row.



The root of sustainability

With the confidence that “Knowledge Grows the Future” concept, PTT has applied its knowledge, innovation, and technology for sustainable development of communities, society, and the environment through natural resource and environmental conservation, society and community development, and human resource development.

PLANTING THE KNOWLEDGE IN NATURAL RESOURCE AND ENVIRONMENTAL CONSERVATION

PTT has applied its knowledge of natural resource and environmental conservation for the development and restoration of natural resources while creating awareness of sustainable conservation of soil, water, and forests. The mission has been undertaken with the support of communities, networks, and academics through various projects, namely:

- Sirinath Rajini Mangrove Ecosystem Learning Center, Amphoe Pran Buri, Prachuap Khiri Khan

On January 9, 2014, HM the King graciously paid a private visit to Sirinath Rajini Mangrove Ecosystem Learning Center to follow up its work progress. Welcomed by PTT executives and staff as well as community people, His Majesty called for joint efforts in protecting watershed forests and mangroves as habitats for wildlife. He also encouraged cooperation of those involved to plant the seed of awareness and knowledge of natural resource conservation among the public and community people for the benefit of all parties.

Sirinath Rajini Mangrove Ecosystem Learning Center welcomed a total of 19,002 visitors - students and the public - from January to May 2014 before temporary closure for nature study trail improvement and building renovation began. The center was planned for reopening in the beginning of 2015.



- Vetiver development project under HM the King's initiative

PTT joined Chaipattana Foundation, Office of the Royal Development Projects Board, and Land Development Department in organizing "The 8th Vetiver Development and Promotion of the Use of Vetiver under HM the King's initiative Project". The event featured various methods of vetiver planting and promotion of the use of vetiver as well as products from vetiver. As many as 314 pieces of products made from vetiver were entered into the contest, 44 of which won awards, given by Mr. Sumet Tantivejkul, Chaipattana Foundation secretary-general, on June 23, 2014, at Burapha University. The event reflected fruitful cooperation of communities and agencies involved, which resulted in the more extensive use of vetiver for soil and water conservation.

Besides, PTT joined the Network of Vetiver Application in planting vetiver to prevent soil erosion. Vetiver planting was applied in conjunction with other tactical methods on 14 pilot plots of land. The cooperation also encouraged the use of vetiver for wastewater treatment at Lampang Petroleum Depot and Saraphi Petrol Station in Chiang Mai.

- PTT Forest in the Park

PTT organized the "PTT Forest in the Park" activity during November 28 - 30, 2014, at Wachirabenchathat Park (Rot Fai Park) to raise city people's awareness of the value of forests and nature. At the event, participants were invited to jointly extend best wishes to HM the King and vow to follow his footsteps in protecting the forests and natural resources on the occasion of his 87th birthday anniversary on December 5, 2014, and on the 20th anniversary of PTT's reforestation project in honor of HM the King.



- Biodiversity research project

In cooperation with Biodiversity Research and Training Program (BRT), PTT worked with academics, researchers, and target communities to create knowledge and return the knowledge to communities through two major projects, namely:

1. Coastal biodiversity research project

The project involves the study of coastal biodiversity around Khanom Beach - Khao Nan in Nakhon Si Thammarat. PTT provided support for research on "Ability of Genus Halimeda (a kind of seaweed) to absorb carbon dioxide and restoration of coastal biodiversity". Two sessions of youth camp were also carried out to develop children's awareness of environmental conservation. One of them was the "Love the Native Land of Khanom Youth Camp", held for the 4th consecutive time in Nakhon Si Thammarat. The other was the "PTT Loves the Thai Sea Youth Camp", held for the 9th consecutive time in Nakhon Si Thammarat and Phuket. A large number of students joined the camps and learned how to properly conserve their local coastal area and the sea.



2. Biodiversity research project in West Thong Pha Phum

PTT developed Phu Nong Pling Forest in Tambon Huai Kayeng, Amphoe Thong Pha Phum, Kanchanaburi, into a community learning center and a nature study center of the western region of the country. This year, PTT launched the Phu Nong Pling nature study trail and organized the 3rd Phu Nong Pling Young Guide Camp as a wake-up call for conservation of nature in a more serious manner.



PLANTING THE SEED OF SUSTAINABLE FUTURE THROUGH COMMUNITY AND SOCIAL DEVELOPMENT

PTT takes responsibility for its stakeholders at all its operating areas by raising the quality of local people's life in various aspects, giving support for sufficiency living, promoting self-reliance of energy among community people, and developing communities into a nice place to live through the following projects:

- R&D on coffee planting using natural resource conservation method for sustainable development

It has become a new dimension of doing business when cooperation with communities is embraced as part of business operations. PTT joined Royal Project Foundation in R&D (research and development) of coffee-planting technology and production of Arabica coffee that meets international standard quality. The company also promotes and supports coffee planting with application of natural resource conservation methods while raising the capability of coffee-planting profession on highland plantations. PTT's endeavor in this area covers promoting agricultural knowledge, developing community by using the self-sufficiency philosophy, promoting engagement of communities and allies, developing community people's skills, and encouraging communities to adopt efficient natural resource management and community energy management.



- Buffer zone and protection strip

To increase green areas and promote a better environment around operating areas, PTT, together with the Treasury Department and Lampang Provincial Administration, opens the Happiness Center in Tambon Sop Tui, Amphoe Mueang, Lampang, on an area of 8 rai and 12 square wa, on May 29, 2014. The center consists of Lampang Pavillion, a lotus pond, a zodiac garden, an outdoor amphitheater, and an eco-forest.

PTT built a protection strip between its operating areas and the community to ensure safety for people living nearby. This year, PTT planted trees around the areas and took continuous care of the 5 areas as follows: Khon Kaen Petroleum Terminal, Surat Thani Petroleum Terminal, Sara Buri Oil Terminal, Songkhla Petroleum Terminal, and Khanom Gas Separation Plant in Nakhon Si Thammarat. Plus, two more areas which are being develop are Phitsanulok Oil Terminal and Rong Po LPG Terminal in Chon Buri.



- Environment and landscape improvement around EnCo and Km.-11 Nikhom Rot Fai Community

PTT and the State Railway of Thailand (SRT) jointly ran the project, which comprised of construction work and public utility development to create pleasant surroundings of PTT Head Office. The construction work has been finished since October 2014, by the office of PTT Group's Energy Volunteers, and the place is now ready to be use by the community living in that area.

- Community energy

PTT developed community energy learning centers in 16 tambons which are scattered in four regions of the country.

PTT conducted several R&D projects, including one on the potential of renewable energy at the community level and biogas production from the mixture of napier grass and animal waste. PTT won the "Best Paper Award from Thailand Renewable Energy for Community Association (TRECA)" as a result of research on "Economic and social returns on investment in biogas from pig farming, a case study: Tambon Tha Manao, Amphoe Chai Badan, Lop Buri."

- Donation of traffic cones

PTT presented 30,000 traffic cones to the Royal Thai Police and police stations around the country as well as other government offices to facilitate traffic management to reduce accidents, one of the major urban problems.



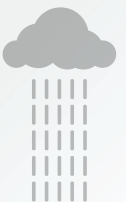
- Inspection of household LPG tanks

PTT provided inspection of cooking gas tanks for households around PTT operating areas across the country in its effort to raise people's quality of life and safety standards. A total of 1,848 households received the service.



- Mobile clinic

PTT arranged a mobile clinic to provide basic medical services around PTT operating sites countrywide. A total of 10,461 people received such services as physical check-ups, basic medical advice and treatment, as well as eye examination with free distribution of glasses.



- Urgent assistance for natural disaster victims

PTT participated in the restoration of Ban Dong Lan, Amphoe Phan, Chiang Rai -- the center of a recent major earthquake. The management and staff of PTT Group jointly made a cash contribution of THB 200,000 and played a part in the knowledge creation process and procurement of construction materials for a pilot community classroom under the "Dong Lan Model". Designed to strengthen community management during earthquakes, the model teaches community people how to repair their houses with the correct engineering and architectural methods so that they can rebuild an even stronger house. This is a form of sustainable assistance.

Last year, PTT donated a total of 17,500 blankets worth THB 2,222,500 and 2,290 bags of disaster relief kit worth THB 1,259,500 for disaster victims around the country.

Planting
the seed of
knowledge through
human resources
development

PTT values education in all aspects, from infrastructure and school quality to enhancement of skills, integrity, and ethics through various projects, including:

- Phalang Thai School

PTT aims to raise educational standards in all aspects, whether development of knowledge sources, development of teachers, or raising the potential of children in the network of schools located around PTT operating sites nationwide. This year, PTT held the 2nd “From the Teaching Profession to Professional Teaching” project to enhance teachers’ thinking processes and primary-school teaching technique for teachers of Hin Kong School (Phibun Anusorn) in Sara Buri. A total of 53 teachers attended the training.

- Construction of school buildings and libraries

PTT grants constant support for the construction of school buildings and libraries for needed schools in rural areas. This year, the company presented the 27th school building to Wat Ban Chang School in Rayong and the 33rd PTT Phalang Thai Library to Wat Rat Charoen Tham in Ratchaburi.

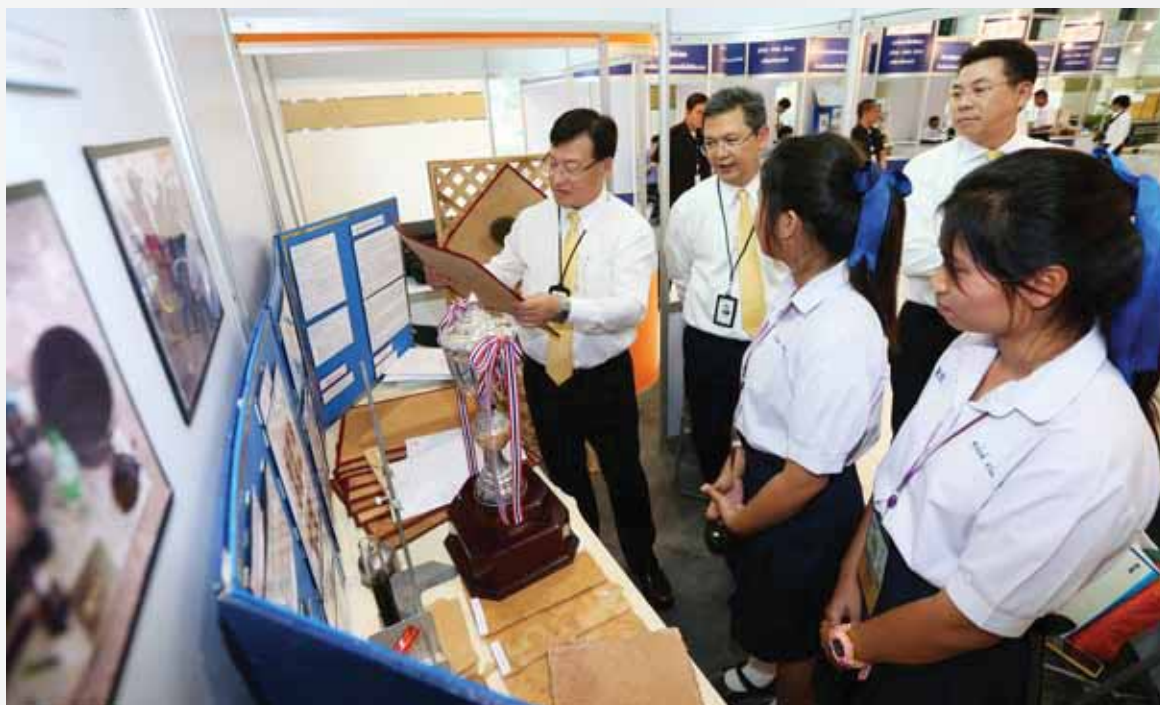


- Scholarships

PTT grants scholarships for potential students that lack financial support. This year, a total of 2,549 scholarships valued at THB 10,721,250 were granted, being THB 3,000 each for the primary level, THB 5,000 each for the lower secondary level, THB 6,000 each for the upper secondary level, and THB 10,000 each for the university level.

- PTT Youth Camp

PTT organized a campaign to provide knowledge about energy, promote invention, and raise energy efficiency awareness among the young generation. This year, PTT arranged a contest on the “Innovation Creates the Next” theme to encourage students to apply knowledge and experience obtained from the project to innovation that helps protect the environment. PTT attracted a total of 515 entries from 268 educational institutes. The winning school won a trophy from HRH Princess Maha Chakri Sirindhorn on December 3, 2014, at PTT Head Office.





- PTT Science Challenge

PTT Science Challenge was held as a stage for science contest, in which are fun and challenging yet scientifically explicable. The project aims to remind the public that science is close to everybody, and Thais are capable enough to apply their knowledge about science and technology to national development. The six winners of the contest earned a trip to NASA's Kennedy Space Center in the United States.

- PTT CSR Star Team

To support young generation who are bright, have high ethical moral and realize of their responsibility to society, PTT collaborate with The Stock Exchange of Thailand (SET) organized the Young Financial Star Competition (YFS). A PTT CSR Star Team Award was given to the team with an outstanding CSR initiative that could make the best presentation on their CSR activities. This year, PTT brought the 50 finalists in YFS 2014 to join the PTT CSR Star Team event at Tambon Dong Khi Lek, Prachin Buri. Winning students were taken to a study trip at Khao Bo Ya and Si Chang Island in Chon Buri.





- PTT Art Contest

PTT and Silpakorn University held the 29th PTT Art Contest on the “Move Forward Together to Tomorrow” theme. The contest drew 347 entries from 307 artists, 24 of whom won awards bestowed by HRH Princess Soamsawali, who presided over the award presentation ceremony at the main hall of Art Center, Silpakorn University (Wang Tha Phra Campus) on July 25, 2014.

PTT has also expanded the art contest project to the provinces. This year, PTT joined Thaksin University for the 11th year, Khon Kaen University for the 9th year, and Chiangmai University for the 15th year in organizing art contests in their respective regions. A total of 1,074 entries were received in the three provincial contests.



SOCIAL CONTRIBUTION ACTIVITIES IN RAYONG

Because Rayong is the prime operating site of PTT Group, PTT Group is determined to co-exist all local stakeholders in a sustainable manner. A number of activities for the benefit of the Rayong society have been carried out under the responsibility of the PTT Group CSR and Communication Committee for Rayong Steering Committee.

- PTT joined PTT Group companies operating in Rayong in running the following projects:

- Medical equipment support for Map Ta Phut Hospital

PTT Group signed MOU on a project titled “Medical Equipment Support for Map Ta Phut Hospital by PTT Group (2014 – 2018)”. The project has been carried out in conjunction with Map Ta Phut Hospital to jointly upgrade the hospital with medical equipment that is modern and of the required standard and adequate for rendering service for local people. PTT takes charge of equipment procurement for donation to the hospital during 2014 – 2018 worth THB 10,015,000 per year.



- PTT Group Energy Plus

The project seeks to broaden the horizons of the children in the field of petroleum and refining businesses as well as other industries in Rayong. During 2014, PTT organized the project at 14 schools with over 5,000 students participating.

- PTT joined industrial factories in Map Ta Phut under the “Community Partnership Association” name
- PTT joined leading industrial plants operating in the Map Ta Phut area, such as SCG, DOW, BCLP, and Glow in organizing social activities with a focus on education, health, and the society.



Organizing four tuition camps to prepare students for their GAT-PAT and O-NET exams with 3,800 students participating



Staging mobile clinic for 26 sites, serving over 3,000 people



Granting 27 university scholarships for students in engineering, science, and education



PTT GROUP'S PHALANG THAI JAI ASA CLUB

PTT's employee joined hands in hands in organizing volunteer activities based on their expertise and ability, leading to a society of sharing and caring. Significant activities that took place this year were “Big Cleaning Day 2014” - to donate fire extinguishers and help clean areas around Rot Fai Community near PTT Head Office; “Joining Hands to Clean Thailand” - to help collect waste in the Chao Phraya River; “One Team - One Rai; Volunteer Reforestation” - to take care of saplings at PTT's land use development plot at Tambon Pa Yup Nai, Amphoe Wangchan, Rayong; and “Share the Dream with Children” - to renovate libraries and award scholarships to students at the patrol police school at Ban Tham Hin, Tambon Suan Phung, Amphoe Suan Phueng, Ratchaburi.

Innovation for a Sustainable Future



PTT has initiated a policy to promote employees' innovative ideas in order to benefit business, public, and the environment, which will be leading continuous practice and eventually become a corporate culture. In order to achieve the goal, PTT has linked innovation activities to human resource administration processes namely: development and learning promotion, assessment, selection, recognition, and compensation.

In 2012, Innovation Committee and Working Team were appointed to channel employees' creativity into corporate innovation, coordinate collaboration between PTT Group and leading private companies, stage annual PTT Innovation Award and knowledge sharing among awardees to inspire employees. Moreover, the innovation frameworks are publicized throughout the corporation where the PTT Group KM Portal, is established to track the emergence of creative ideas that would lead to commercial innovations. In addition, a workshop training is staged for employees where executive plays 2 crucial roles in setting an example.

This year PTT's employees have achieved outstanding valuable innovations, benefiting the corporation, consumers, stakeholders, society, communities, and the environment, listed by category below:

- Innovations in addressing the needs of society, communities, and the environment:

A project to generate electricity and water supply for communities from clean energy, which resulted from the construction of weirs for the Mae Fa Luang hilltribe community learning center at Ban Khanun Khli, a non-formal education and leisurely education center of Amphoe Thong Pha Phum, and the Ban Khanun Khli community.

Benefit: Electricity generation (1,500 watts) for communities and a 22,000 kilogram reduction of carbon dioxide (Co₂); a new communities learning center for a better quality of life, sustainable communities, and a good corporate image.





- Innovation in Renewable energy

Fabrication of “Solar Cell Colorful PV” panels, an innovative construction material that stores solar energy for subsequent electricity generation in buildings or Café Amazon outlets. A real-life application is evident at PTT Head Office.

Award: Outstanding Mechanical Technology Award, and First Prize: Mechanical Equipment for Energy and the Environment from National Innovation Agency.



- Innovation in Service and motor accident reduction:

“Café Amazon Drive Awake” is the name given to a smartphone application for the public to download which is free of charge for installation on the windshield. Emitting an alarm when the motorist is about to doze off to prevent motor accidents. The application also shows the locations of Café Amazon outlets nearby, where motorists can take a good rest and enjoy some drinks.

Award: Outstanding advertising media, Cannes, France



- Industrial innovation

PTT Diesel CNG resulted from the invention of a fuel system (Dual Fuel, natural gas/diesel) installation kit for modified common-rail pick-up trucks to achieve higher energy efficiency at the same engine performance. Diesel-saving is 70% and natural gas-saving is 50%. Furthermore, longer distances are covered for each natural gas refueling.

Benefit: This innovation could generate about THB 76 million in licensor's fees, cut down about 2,500 tons/year of natural gas consumption, lower pollutant emission from engine exhausts, and establish safety and energy-saving standards.

Award: R&D 100 Awards selected by R&D Magazine: OSCARS of INVENTION, the US.

- Commercial innovation

“The Power of Bio-laminate” is the name given to an innovative BioPBS (bioplastic) coating on paper. Buried in soil, the paper disintegrates completely into carbon dioxide, soil, and water within about six months. This innovative material can replace the common PE-coated paper container, which is not biodegradable.

Application: The innovation is already deployed for Amazon hot-drink cups and popcorn buckets.



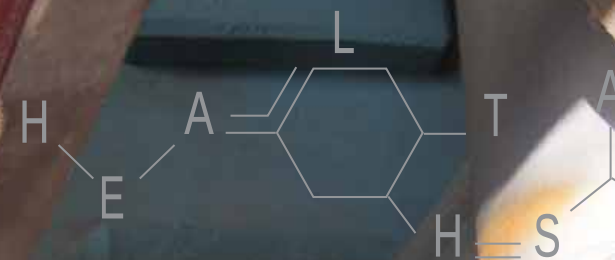
PTT was invited by the Department of International Trade Promotion, Ministry of Commerce, to participate in the Thailand Innovation and Design Expo 2014 event.



PTT won the SOE Best Innovation Award 2014, presented by the State Enterprise Policy Office.

SSHE: Shielding Against Damage and Losses for Sustainability

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An efficient Security, Safety, Occupational Health, and Environment (SSHE) Management is likened to a shield against risks and negative impacts on communities, society, and the environment. SSHE also complements operation control while minimizing damage and losses for a smooth, sustainable business. It can also enhance corporate performance in all aspects, thus ensuring vision and goal attainment. PTT constantly values serious, continuous SSHE management, of which this year's results are summarized below:



- PTT has in place an efficient SSHE management process under the SSHE management framework on par with the world's leading companies in the petroleum industry. The SSHE management process is intended for corporate control of SSHE policy implementation and its results. "PTT Group SSHE Management Standard" advocates basic requirements for management of SSHE risks, which all business units must adopt and apply to the different nature of risks in their respective operations. Moreover, standards, manuals, procedures, and work instructions have been comprehensively made available as written references. Management standards of operating units that had already won OHSAS/TIS 18001 and ISO/TIS 14001 certification were further upgraded.

- PTT values issue management to ensure control, prevention, and minimization of SSHE material risks. Strategies, roadmaps, proactive measures, KPIs, long-term strategic goals, and management procedures were drawn up and responsible persons identified; to ensure efficient control, prevention, and minimization of risks as targeted.



Key SSHE Issues	Proactive measures	KPIs	Long-term strategic goals for 2020
Truck transportation accident	Project: PTT Group Logistics Zero Accident and Zero Accident Fleet (ZAF)	Number of major accidents involving product transportation by truck	Number of major accidents = 0
Work-related Injuries of staff and contractors	Project: Safety Culture Promotion	Number of lost time accidents (LTA)	LTA = 0
	Project: PTT Group Contractor Management	Total Recordable Injuries Rate (TRIR)	TRIR for • Employees: Up to 0.066 • Contractors: Up to 0.086
Air pollution	• Project: Volatile Organic Compounds (VOCs) Emission Control via Modified Top Loading System • Project: Equipment Upgrade to Reduce Venting of Oxides of Nitrogen and Sulfur Dioxide	• Quantity of VOCs emission • Quantity of oxides of nitrogen (NO_x) emission as nitrogen dioxide • Quantity of sulfur dioxide emission (SO₂)	Growth rate of air pollution emissions = 0
Industrial waste disposal	Project: PTT Group Zero Industrial Waste to Landfill	Volume of hazardous waste sent to secured landfill	Volume of industrial waste sent to landfill = 0
Efficient use of natural resources and environment conservation	Project: Green Process Initiatives	Greenhouse gas emissions intensity	Reduction of greenhouse gas intensity by 5% by 2020 from 2012 level
	Project: PTT Group Energy Efficiency Management	Energy intensity in GJ/ton	Reduction of energy intensity by at least 11.4% from the Business as Usual (BAU) level by 2017, or equivalent to an average reduction of 1.9% per year using 2011 as the base year
	Project: PTT Group Roadmap to Water Efficiency	Volume of water consumption	Reduction of water consumption in high-risk areas and control of peak water consumption in areas with high consumption

Details of each project's performance and KPIs can be obtained from the Corporate Sustainability Report 2014.

- PTT strives to develop and expand its SSHE management process to all stakeholders in the supply chain. This is to minimize hazards and impacts from products and services throughout their life cycles, which will enhance sustainability of the corporate business value chain.

In 2014, PTT, with cooperation from various groups of stakeholders, made improvements to its SSHE management process through the following projects:

Project	Stakeholders in supply chain
Project: Zero Accident Fleet (ZAF) – Upgraded the truck fleet for product transportation using “PTT Group’s Guidelines for Land Transport Safety Management”, which aims for zero major fleet accident by 2020, as reference.	Truck fleet operators contracted for transportation of oil products, NGV, and petrochemical products.
Project: Contractor SSHE Management – Systematically enhanced quality of work associated with high SSHE risks and performed by contractors, such as construction, maintenance, and NGV transportation - ranging from procurement, control during operations, handover of complete work, to the assessment of work done.	Contractors of construction, maintenance, and NGV transportation
PTT Group Green for Life Certification – Developed criteria and certification process, while encouraging manufacturers within and outside PTT Group, as well as customers who use PTT products as their raw materials, to develop environmentally friendly products as PTT requirements.	Customers using PTT products as raw materials/ feedstock
Performance assessment of contractors, agents, and customers – Ensured/encouraged contractors, agents, and customers in charge of high-risk work to follow criteria, standards, and related laws.	Contractors, agents, and customers, such as contractors in charge of general and hazardous waste treatment, private LPG-cylinder filling plants, and LPG retailers

Details of SSHE performance can be obtained from the Corporate Sustainability Report 2014.

Financial Status and Performance

PTT AND ITS SUBSIDIARIES' PERFORMANCE

Unit: Million Baht

	2013	2014	% Increase/(Decrease)
Sales & services	2,842,408	2,834,732	(0.3)
Earnings before finance costs, income taxes, depreciation and amortization including other non-operating income and expenses (EBITDA)	228,541	251,025	9.8
Share of net income from investment in associates	26,356	2,942	(88.8)
Gain (loss) on foreign exchange	(210)	11,156	n.m.
Earning before interest and tax (EBIT)	152,297	142,685	(6.3)
Income taxes	47,649	41,029	(13.9)
Net income	93,091	55,795	(40.1)

In 2014, sales revenue of PTT and its subsidiaries was THB 2,834,732 million, slightly decreasing by THB 7,676 million or 0.3%, mainly from lower average product selling prices of international trading business in line with reference crude oil prices. Although the average product selling prices of oil business and PTT Exploration and Production Public Company Limited (PTTEP) were affected from lower oil prices, the sales revenue of these business groups still increased due to the continuous growth of sales volume. Nevertheless, the average product selling prices of gas business increased in relation to reference petrochemical prices and the Thai Baht depreciation against US dollar. The sales volume also increased because PTT's GSP Unit 5 has resumed its normal production. Although Natural Gas Business had retroactive adjustments of natural gas feed costs in the fourth quarter of 2014 (Q4/2014), earnings before finance costs, income taxes, depreciation and amortization expenses, and other non-operating income and expenses (EBITDA) of PTT and its subsidiaries was THB 251,025 million, increasing by THB 22,484 million or 9.8%. In 2014, the share of net income from investments in associates was THB 2,942 million, decreasing by THB 23,414 million

or 88.8% mainly from the performance of aromatics petrochemical associates decreased due to the decreases in spread margins of paraxylene (PX) and benzene. In addition, in third quarter of 2014 (Q3/ 2014) and Q4/2014, there were both planned and unplanned shutdowns of aromatics plants. Nevertheless, the performance of olefins petrochemical associates increased because spread margins of olefins and derivatives increased in accordance with demand in the market. However, the performance of refining business associates decreased because Accounting GRM (excluding PTTGC's refining unit) of refineries in PTT Group decreased from USD 4.75 per bbl in 2013 to USD 1.17 per bbl in 2014. The main reasons were stock losses and inventory losses from Net Realizable Value (NRV) at the end of Q4/2014. Additionally, there were major turnaround in all refineries of PTT Group in 2014.

In 2014, PTT and its subsidiaries had gains on foreign exchange increased from THB 210 million losses in 2013 to THB 11,156 million gains in 2014. In addition, the corporate income taxes were THB 41,209 million, decreasing by THB 6,620 million or 13.9% from THB 47,649 million in 2013. However, in 2014, there

were losses from impairment of assets THB 36,707 million because PTTEP recognized losses from impairment of assets from PTTEP Australasia and Mariana Oil Sands projects, due to the decrease in oil prices, totaling THB 32,796 million. Furthermore, PTTGE, a subsidiary of PTT which operates palm business, recognized losses from impairment of operating assets amounting to THB 2,816 million. Consequently, net income of PTT and its subsidiaries was THB 55,795 million in 2014, decreasing by THB 37,296 million or 40.1% from THB 93,091 million in 2013.

Non-recurring items of PTT and its subsidiaries in 2014:

January 2014	- PTT Group has activated Business Continuity Management (BCM). - PTTEP has signed a Partnership Unit Redemption Agreement (PURA) to restructure the ownership of Mariana Oil Sands project.
February 2014	PTTGC had planned shutdown of Olefins Plant I-1 and unplanned shutdown of Plant I4-1.
April 2014	PTTEP completed its acquisition of subsidiaries of Hess Corporation, including Hess Thailand Holdings II Limited (HTH) and Hess Exploration Thailand Company Limited (HETCL). As a result, PTTEP has 60% and 55% of participating interests in the Contract 4 and Sinphuhorm projects, respectively.
May 2014	PTTEP fulfilled the condition in Partnership Units Redemption Agreement (PURA) with Statoil Canada Limited, resulting in PTTEP holding 100% ownership and operator of Thornbury, Hangingstone, and South Leismer fields and receiving USD 200 million and USD 219 million in cash calculated from price revision in order to reflect the asset swap transaction.
June 2014	IRPC had a fire incident in Vacuum Gas Oil Hydro Treating Unit (VGOHT), which provided feedstock to crackers mainly for propylene production. The incident resulted in a temporary shutdown. Currently, other units have normal production, except for VGOHT which IRPC is in the process of ordering for equipment replacement. Additionally, the insurance covers the damage up to USD 1,200 million and IRPC received insurance compensation amounting to THB 1,710 million.
July 2014	BCP set up a new subsidiary in Singapore to purchase of ordinary shares in Nido Petroleum Limited.
August 2014	- The National Energy Policy Council (NEPC) passed a resolution calling for PTT to separate natural gas pipeline business from its gas procurement and distribution business to set up a subsidiary. Initially, PTT will own 100% of the subsidiary. Prior to separating the natural gas pipeline business, PTT needs to complete Third Party Access Code (TPA code). - PTTEP's Zawtika Project began producing and delivering natural gas to Thailand.
September 2014	- The Energy Policy Management Committee (EPMC) approved to raise LPG price for transportation by THB 0.62 per kilogram to THB 22.00 per kilogram and NGV price by THB 1 per kilograms to THB 11.50 per kilogram, effective on October 1, 2014. - PTTEP participated in the Concession BM-ES-23 exploration block in the Federal Republic of Brazil. - PTTGC shut down the Aromatics Complex 2 to repair the reactor of the Platforming Unit. - IRPC dispute settlement with Liaopairattana family.
October 2014	- EPMC approved to raise LPG price for transportation by THB 0.63 per kilogram making retail price for household and transportation sector equal to THB 22.63 per kilogram, effective on October 21, 2014. - PTT approved the sale of investment in PT Mitra Aneka Rezeki (PT. MAR).
November 2014	EPMC approved to raise LPG price for transportation and household sector by THB 0.50 per kilogram to THB 23.13 per kilogram, effective on November 18, 2014, as well as gradually reduced collection on oil fund 2 from industry sector.
December 2014	- EPMC approved to raise LPG price for transportation and household sector by THB 1.03 per kilogram, making retail price for all sectors equal to THB 24.16 per kilogram, and to raise NGV price by THB 1 per kilogram for both private and public cars to THB 12.50 per kilogram and THB 9.50 per kilogram, respectively, effective on December 3, 2014. - PTT and PTTEP approved a resolution to dissolve PTT FLNG Limited. - IRPC approved the Joint Venture with PCC Rokita SA, Poland. - BCP approved the purchase of shares in Galoc Production Company WLL by its subsidiary.
January 2015	- EPMC approved to restructure LPG price in order to reflect the actual price by setting the weighted average cost from three new producers at USD 488 per ton (THB 16.11 per kilogram), while retail price maintained at THB 24.16 per kilogram, effective on February 2, 2015. - EPMC approved to raise NGV price by THB 0.50 per kilogram for both private and public cars to be at THB 13.00 per kilogram and THB 10.00 per kilogram, respectively, effective on January 31, 2015.

PTT and its subsidiaries' financial performance comparison by business group

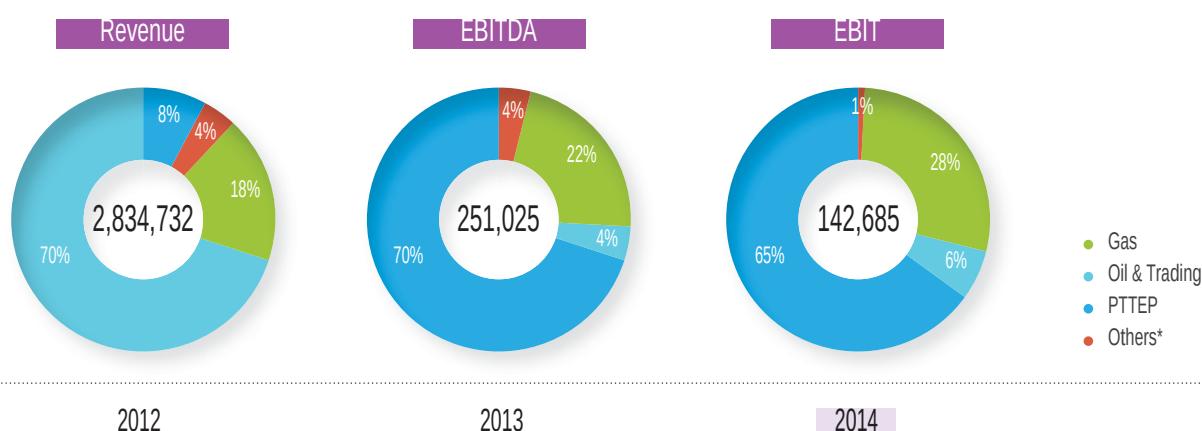
Unit: Million Baht

	2013	2014	% Increase/(Decrease)
Sales & services	2,842,408	2,834,732	(0.3)
• Exploration & Production	224,973	247,817	10.2
• Natural Gas	529,051	558,018	5.5
• Oil	617,305	638,409	3.4
• International Trading	1,656,735	1,599,101	(3.5)
• Petrochemical	93,054	111,851	20.2
• Coal	24,978	20,557	(17.7)
• Others	4,027	4,191	4.1
EBITDA	228,541	251,025	9.8
• Exploration & Production	161,273	174,740	8.4
• Natural Gas	44,836	54,102	20.7
• Oil	13,297	11,578	(12.9)
• International Trading	(1,151)	(751)	34.8
• Petrochemical	2,041	4,113	n.m.
• Coal	5,809	4,475	(23.0)
• Others	1,600	1,538	(3.9)
EBIT	152,297	142,685	(6.3)
• Exploration & Production	110,922	91,525	(17.5)
• Natural Gas	30,985	39,780	28.4
• Oil	10,652	8,716	(18.2)
• International Trading			
- Excluding Effect of FX.	(1,163)	(787)	32.3
- Including Effect of FX.	4,679	7,154	52.9
• Petrochemical	769	2,801	n.m.
• Coal	(591)	(234)	60.4
• Others	(115)	(348)	n.m.
Depreciation and amortization expenses	76,244	108,341	42.1
Finance costs	20,593	22,218	7.9
Gain (loss) on foreign exchange	(210)	11,156	n.m.
Loss from impairment of assets	49	36,707	n.m.
Income taxes	47,649	41,029	(13.9)
Net income (loss)	93,091	55,795	(40.1)
Earnings per share (Baht/share)	32.52	19.33	(40.6)

SEGMENTATION PERFORMANCE OF PTT AND ITS SUBSIDIARIES

The details of revenue, EBITDA and EBIT of 2014 by segmentation are as follow;

Unit: Million Baht



* Including petrochemical business, coal business, and others businesses.

Upstream Business

PETROLEUM EXPLORATION AND PRODUCTION BUSINESS: PTT EXPLORATION AND PRODUCTION PUBLIC CO., LTD. (PTTEP)

	2013	2014	% Increase/(Decrease)
Average selling price (USD/BOE)	65.6	63.4	(3.4)
Average sales volume (BOED)	292,629	321,886	10.0

In 2014, sales revenue of PTTEP was THB 247,817 million, increasing by THB 22,844 million or 10.2% from 2013, mainly due to the followings:

The average sales volume primarily increased in 2014 from Montara Field of PTTEP Australasia project, which began offloading crude oil for sales in August 2013, Project-Contract 4 and Sinphuhorm projects generated by the share acquisition of Hess Corporation's subsidiaries, and Zawtika project from its first gas sales in March 2014 and export to Thailand in August 2014.

The average selling price dropped by 3.4% from USD 65.6 per BOE in 2013 to USD 63.4 per BOE in 2014, in relation to the drop in reference crude oil prices.

In 2014, EBITDA was THB 174,740 million, increasing by THB 13,467 million or 8.4%, mainly due to the rise in the sales revenue as aforementioned. However, the exploration expenses increased by THB 5,475 million in 2014 mainly due to exploratory well write-off costs in PTTEP Australasia, L 28/48 and Kenya L10A projects.

In 2014, EBIT was THB 91,525 million, decreasing by THB 19,397 million or 17.5% due to higher depreciation expenses in relation to increases in complete assets, production and sales volume mainly from PTTEP Australasia Project-Contract 4, and Zawtika projects.

NATURAL GAS BUSINESS

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

Unit: Ton

	2013	2014	% Increase/(Decrease)
LPG	2,690,389	2,738,633	1.8
Ethane	2,074,467	2,105,650	1.5
Propane	726,952	819,349	12.7
NGL	704,931	728,542	3.3
Total	6,196,739	6,392,174	3.2

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

Unit: USD per Ton

	2013	2014	% Increase/(Decrease)
LPG ^{1/, 4/}	868	799	(7.9)
Ethylene ^{2/}	1,352	1,395	3.2
Propylene ^{2/}	1,327	1,245	(6.2)
HDPE ^{2/}	1,487	1,544	3.8
PP ^{2/}	1,515	1,556	2.7
Naphtha ^{3/}	842	786	(6.7)

Notes:

1/ Contract price (CP) 60:40

2/ South East Asia Spot Price

3/ Mean of Platts Singapore (MOPS)

4/ LPG price is controlled by the Government via the Committee on Energy Policy Administration (the Committee). LPG ex-refinery price (LPG selling price at gas separation plants) was fixed at THB 10.6101 per kilogram. However, on August 27, 2009, the Committee approved the new LPG ex-refinery price to be capped at USD 332.7549 per ton with floating foreign exchange rate. The adjustment of the exchange rate will be based on the average exchange rate in the previous month.

In 2014, sales revenue of Natural Gas Business was THB 558,018 million which increased by THB 28,967 million or 5.5% from 2013 as a result of higher sales revenue of PTT's natural gas business unit due to the followings:

Natural Gas Supply sales

Increases in average natural gas selling prices in 2014 resulted from the Baht depreciation against US dollar. Moreover, the average natural gas sales volume increased in 2014, especially from SPP customers.

GSP product sales volume

The product selling prices of the GSP in 2014 increased in most products in relation to the global reference petrochemical prices and the baht depreciation against US dollar.

The total sales volume of products from GSP increased in 2014, especially propane, because utilization rate of GSP increased. Additionally, PTT's GSP Unit 5, which shut down from lightning strike incident in August 14, 2013, has resumed its normal production by using temporary equipment since April 2014 and completed the replacement of Waste Heat Recovery Unit (WHRU) on September 16, 2014. Furthermore, the shutdown period of gas separation plant decreased in 2014.

EBITDA of Natural Gas Business in 2014 was THB 54,102 million, increasing by THB 9,266 million or 20.7%. The main reason was the rise in profit of products from the GSP as a result of the increase in GSP product selling prices, in relation to global petrochemical prices and the Baht depreciation against US dollar. In addition, there were gas discounts from producers that were unable to supply gas as committed in agreements (Shortfall) mainly from Zawtika field. However, the natural gas feed costs also increased due to higher feed costs. Moreover, the loss from NGV business increased in relation to an increase in sales volume. Consequently, EBIT in 2014 was THB 39,780 million, increasing by 28.4%, in relation to the increase in EBITDA.

Downstream Business

OIL BUSINESS

Unit : Million Liter

	2013	2014	% Increase/(Decrease)
Average sales volume	23,981	24,657	2.8

Sales revenue of Oil Business in 2014 was THB 638,409 million, increasing by THB 21,104 million or 3.4% because sales volume increased in 2014, especially aviation fuel, due to an increase in number of flights, and gasoline. However, the average Dubai crude oil price decreased from USD 105.5 per bbl in 2013 to USD 96.6 per bbl in 2014.

EBITDA in 2014 was THB 11,578 million, decreasing by THB 1,719 million or 12.9 % due to higher stock losses, together with inventory losses from NRV at the end of 2014, in relation to the drop in market oil prices. In addition, profits from diesel, fuel oil and lube oil also decreased. Consequently, EBIT in 2014 was THB 8,716 million, decreasing by THB 1,936 million, in line with the decrease in EBITDA as aforementioned.

INTERNATIONAL TRADING BUSINESS

Unit : Million Liter

	2013	2014	% Increase/(Decrease)
Average sales volume	75,545	74,200	(1.8)

Sales revenue of International Trading Business was THB 1,599,101 million in 2014, decreasing by THB 57,634 million or 3.5% which resulted mainly from the drop in major oil product selling prices. Additionally, the sales volume in this quarter decreased mainly due to the drop in sales volume of crude oil import as there were major turnaround of refineries.

In 2014, EBITDA was THB 751 million losses, which decreased by THB 400 million losses. Nevertheless, EBIT, which included effect of foreign exchange, in 2014 was THB 7,154 million, increasing by THB 2,475 million from 2013 mainly due to the higher margin of domestic sales of condensate and the Baht depreciation against US Dollar.

PETROCHEMICAL BUSINESS

Unit : USD per Ton

	2013	2014	% Increase/(Decrease)
HDPE - Naphtha (MOPJ)	556	678	21.9
PP - Naphtha (MOPJ)	585	687	17.5
BZ - Naphtha (MOPJ)	371	349	(5.9)
PX - Naphtha (MOPJ)	552	344	(37.7)

Notes: Mean of Platts Japan: MOPJ

Sales revenue of petrochemical subsidiaries and joint venture (JV) in 2014 was THB 111,851 million, increasing by THB 18,797 million or 20.2% mainly due to the increases in both petrochemical average selling price and sales volume of HMC. Moreover, the sales volume of PTTAC increased as a result of maintenance shutdowns of PTTAC and HMC plants in 2013.

In 2014, EBIDA was THB 4,113 million, increasing by THB 2,072 million. EBIT was THB 2,801 million, increasing by THB 2,032 million, mainly caused by the rise in average selling price and sales volume as aforementioned. Moreover, spread margins of PP and AN increased.

COAL BUSINESS

	2013	2014	% Increase/(Decrease)
Average selling price (USD/ton)	72.4	63.6	(12.2)
Sales volume (million ton)	11.2	9.8	(12.5)

In 2014, sales revenue of Coal Business was THB 20,557 million, decreasing by THB 4,421 million or 17.7% mainly due to the drop in both sales volume and average selling prices. The average selling price decreased by USD 8.8 per ton or 12.2% and the sales volume decreased by 1.4 million tons or 12.5% mainly from Jembayan mine.

In 2014, EBITDA was THB 4,475 million, decreasing by THB 1,334 million or 23.0% mainly due to the drop in both sales volume and average selling prices as aforementioned. EBIT was THB 234 million losses, decreasing by THB 357 million losses or 60.4% which was caused by the decreases in depreciation and amortization expenses in line with the drop in production volume.

**NET INCOME WAS THB 55,795 MILLION
IN 2014, DECREASED BY THB 37,296
MILLION OR 40.1% FROM 2013.**

In 2014, net income of PTT and its subsidiaries was THB 55,795 million, decreasing by THB 37,296 million or 40.1% from THB 93,091 million in 2013. The main reasons were the recognition of impairment losses of PTT Group's assets THB 36,707 million in Q4/2014 and the increase in depreciation and amortization expenses of PTTEP in accordance with higher production volume and completed assets. Nonetheless, these transactions did not affect the cash flow of PTT Group; therefore, EBITDA of PTT and its subsidiaries still increased from the previous year due to the higher performance of Natural Gas Business. However, impacts of stock loss and lower petrochemical spread margins resulted in the significant

decreases of operating results of petrochemical and refining associates from previous year.

In 2014, the share of net income from investments in associates was THB 2,942 million, decreasing by THB 23,414 million or 88.8% mainly from the following reasons: The performance of aromatics petrochemical associates decreased due to the decreases in spread margins of PX and benzene. The main reasons were oversupply and lower growth in demand of downstream-products in accordance with global economic. In addition, in Q3/2014 and Q4/2014, there were both planned and unplanned shutdowns of aromatics plants, whereas there were shutdowns only in some units in 2013. Nevertheless, the performance of olefins petrochemical associates increased because spread margins of olefins and derivatives increased in accordance with demand in the market. Although olefins plants had maintenance shutdowns in Q1/2014, production and average sales volume in 2014 still increased from the previous year.

The performance of Refining Business associates decreased because Accounting GRM (excluding PTTGC's refining unit) of refineries in PTT Group decreased from USD 4.75 per barrel in 2013 to USD 1.17 per barrel in 2014. The main reasons were stock losses and inventory losses from NRV at the end of Q4/2014, while there were stock gains in 2013, as a result of a drop in crude oil prices since Q3/2014. Additionally, there were major turnaround in all refineries of PTT Group in 2014. In 2014, PTT had gains on disposal of investments mainly from disposal of Vietnam LPG Co., Ltd. (VLPG), Nava Nakorn Electricity Generating Co., Ltd. (NNEG), and Ratchaburi Power Co., Ltd. (RPCL).

PTT and its subsidiaries' depreciation and amortization expenses increased by THB 32,097 million or 42.1% from THB 76,244 million in 2013 to THB 108,341 million. This was resulted from the higher depreciation and amortization expenses of PTTEP in PTTEP Australasia project, which produced and sold crude oil for the whole year of 2014, while it began offloading crude oil for sales in August 2013, Project - Contract 4 and Zawtika projects in relation to increases in production volume and completed assets.

Gains on foreign exchange increased from THB 210 million losses in 2013 to THB 11,156 million gains in 2014. This was mainly resulted from the higher gains on exchange rate of PTT in relation to the lower Baht depreciation rates against US dollar compared with 2013.

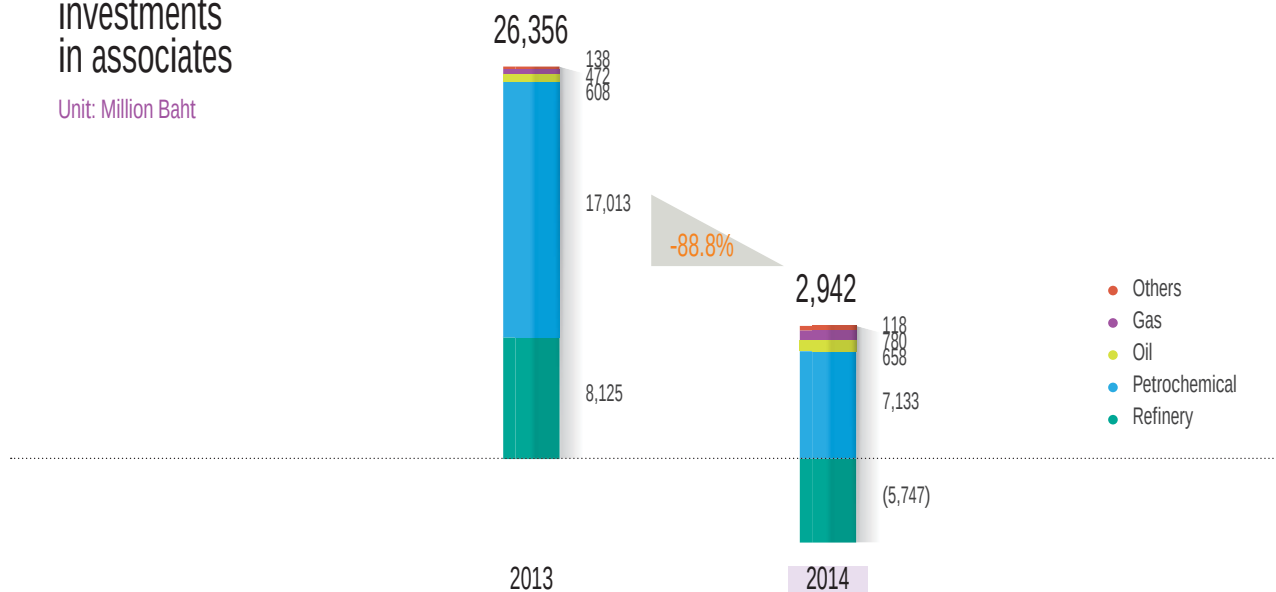
Finance costs increased by THB 1,625 million or 7.9% from THB 20,593 million in 2013 to THB 22,218 million in 2014.

In 2014, losses from impairment of assets were THB 36,707 million because PTTEP recognized losses from impairment of assets from PTTEP Australasia and Mariana Oil Sands projects, due to the decrease in oil prices, totaling THB 32,796 million. Furthermore, PTTGE, a subsidiary of PTT which operates Palm Business, recognized losses from impairment of operating assets amounting to THB 2,816 million.

The corporate income taxes were THB 41,209 million, decreasing by THB 6,620 million or 13.9% from THB 47,649 million in 2013. The drop was mostly from the lower domestic petroleum income taxes of PTTEP, following the lower performance, as a result of maintenance shutdowns of Bongkot and lower selling price of S1 projects in relation to declining oil prices. Nonetheless, income taxes of PTT increased in relation to higher operating income.

Share of net income (loss) from investments in associates

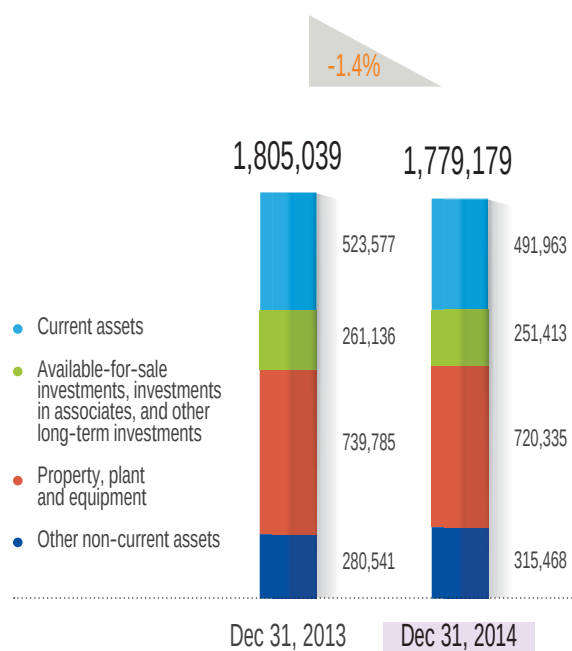
Unit: Million Baht



THE ANALYSIS OF PTT AND ITS SUBSIDIARIES' CONSOLIDATED FINANCIAL POSITION AS OF DECEMBER 31, 2014, COMPARED WITH DECEMBER 31, 2013.

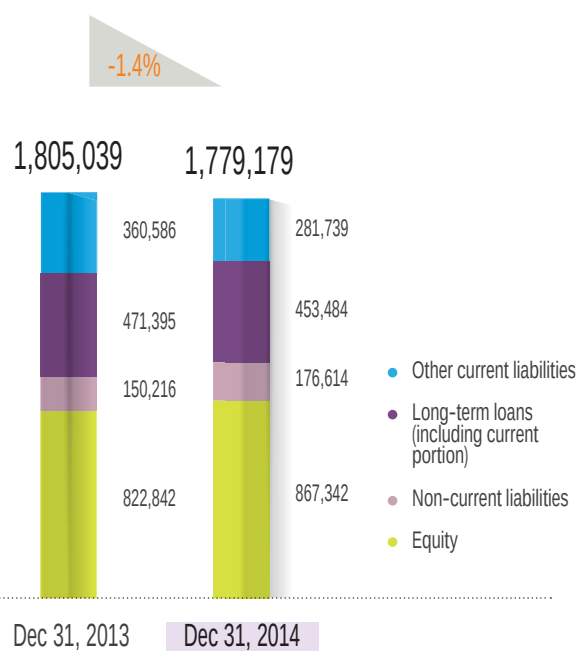
Total Assets

Unit: Million Baht



Total Liabilities and Equity

Unit: Million Baht



Assets

As of December 31, 2014, total assets of PTT and its subsidiaries were THB 1,779,179 million, decreasing by THB 25,860 million or 1.4% compared with December 31, 2013. This decrease was mainly from the net effect of the followings:

- A decrease of THB 31,614 million or 6.0% in current assets was mainly from the followings:

- A decrease of THB 98,321 million in accounts receivable, mainly from decreases in sales volume and selling prices of an International Trading Business, in relation to the drop in crude oil prices in the global market.

- An increase of THB 46,102 million in cash and cash equivalents mainly due to the net effect of cash inflow from asset swap of Mariana Oil Sands project and an issuance of debentures of PTTEP, offset with cash outflow in the additional investments in property, plant and equipment, the acquisition of subsidiaries of Hess Corporation, the repayment of debentures, and dividends payment for second half of 2013 (2H/2013) and for first half of 2014 (1H/2014) performances of PTT and PTTEP.

- A decrease of THB 19,450 million or 2.6% in property, plant and equipment was primarily from a decrease in petroleum exploration and production assets of PTTEP, mainly due to asset swap of Mariana Oil Sands project with Statoil Canada Limited, and recognition of impairment losses on assets for PTTEP Australasia project. However, during 2014, PTTEP completed its 100% shareholding acquisition of subsidiaries of Hess Corporation, including Hess Thailand Holdings II Limited (HTH) and Hess Exploration Thailand Company Limited (HETCL), and PTTEP had additional investment in production phase project such as Arthit, Zawtika, and Bongkot projects.

- An increase of THB 34,927 million or 12.5% in other non-current assets mainly owing to an increase of goodwill and exploration and evaluation assets of PTTEP. This was caused by asset swap of Mariana Oil Sands project and the acquisition of subsidiaries of Hess Corporation. However, PTTEP has recognized impairment losses in Mariana Oil Sands project.

Liabilities

As of December 31, 2014, PTT and its subsidiaries had total liabilities of THB 911,837 million, decreasing by THB 70,360 million or 7.2% from the year-ended 2013. This decrease was mainly from the net effect of the followings:

- A decrease of THB 78,847 million or 21.9% in other current liabilities was primarily from a decrease of THB 87,651 million in trade accounts payable of PTT. This was caused by a decrease in purchasing volume and prices of International Trading Business.

- Long-term loans (including the current portion within 1 year) were THB 453,484 million, decreasing by THB 17,911 million or 3.8%. The decrease was mainly from PTT's redemption of matured foreign debentures totaling to USD 685 million or approximately THB 24,882 million, while PTT issued Baht currency debentures amounting to THB 10,000 million. In addition, PTTEP redeemed its matured Baht currency debentures amounting to THB 11,696 million by issuing Baht currency debentures amounting to THB 19,535 million. The maturities of long-term loans and debentures are as follows:

Unit: Million Baht

Maturity (since December 31, 2014)	PTT	PTTEP	TTM(T)	PTTAC	HMC	EnCo	TTM(M)	DCAP	PTTPL	PTTNGD	Total
Within 1 year (December 31, 2015)	34,604	24,696	631	695	575	450	120	131	300	76	62,278
Over 1 year - 2 years	36,499	-	631	695	574	450	212	131	125	-	39,317
Over 2 years - 5 years	83,474	64,233	1,894	2,100	2,742	1,400	604	381	-	-	156,828
Over 5 years	134,371	50,462	3,628	699	-	900	1,202	37	-	-	191,299
Total	288,948	139,391	6,784	4,189	3,891	3,200	2,138	680	425	76	449,722

Note: Excluding liabilities under finance leases of THB 3,762 million.

- The outstanding loans (including long-term loans, debentures and bonds due within 1 year and later than 1 year) as of December 31, 2014 consisted of loans in Baht currency and foreign currencies. Details of which are as follows:

Unit: Million Baht

Long-term loans	PTT	PTTEP	TTM(T)	PTTAC	HMC	EnCo	TTM(M)	DCAP	PTTPL	PTTNGD	Total
Baht currency	185,924	27,074	-	-	1,953	3,200	-	680	425	76	219,332
Foreign currency	103,024	112,317	6,784	4,189	1,938	-	2,138	-	-	-	230,390
Total	288,948	139,391	6,784	4,189	3,891	3,200	2,138	680	425	76	449,722
Proportion of long-term foreign currency loans to total long-term loans (%)	36	81	100	100	50	-	100	-	-	-	51

As of December 31, 2014, the loans THB 4,500 million were guaranteed by the Ministry of Finance.

Equity

As of December 31, 2014, PTT and its subsidiaries had total shareholders' equity of THB 867,342 million, increasing by THB 44,500 million or 5.4% from the year-ended 2013 principally from the followings:

- An increase of THB 13,765 million in unappropriated retained earnings mainly due to the performance of PTT and subsidiaries during the year 2014 amounting to THB 55,795 million and dividends paid for 2H/2013 and for 1H/2014 performances totaling to THB 39,985 million.
- An increase of THB 29,232 million in non-controlling interests mostly from issuance of subordinated capital debenture (Hybrid Bond) of PTTEP, amounting to THB 32,207 million.

Liquidity

For the year-ended December 31, 2014, PTT and its subsidiaries had net increase in cash and cash equivalents amounting to THB 46,102 million, and cash and cash equivalents at the beginning of the period was THB 157,683 million. As a result, cash and cash equivalents at the end of the period was THB 203,785 million. Details of cash flow by activities are as follows:

Unit: Million Baht

	2014
Net cash flow provided by operating activities	235,367
Net cash flow used in investing activities	(144,061)
Net cash flow used in financing activities	(47,315)
Effects of exchange rates on cash and cash equivalents	1,527
Currency translation differences	811
Cash and cash equivalents attributable to non-current assets held-for-sale	(227)
Net increase in cash and cash equivalents during the period	46,102
Cash and cash equivalents at the beginning of the period	157,683
Cash and cash equivalents at the end of the period	203,785

In summary, PTT and its subsidiaries' financial status are strong, evidenced through liquidities, debt to equity ratios, and returns on equity.

PTT and Its Affiliates

As at December 31, 2014

E&P Business Group Percentage

PTT Exploration and Production Public Co., Ltd.	PTTEP	65.29
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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
District Cooling System and Power Plant Co., Ltd.	DCAP	35.00
Thai Oil Power Co., Ltd.	TP	26.00
PTT LNG Co., Ltd.	PTTLNG	100.00
Global Power Synergy Co., Ltd.	GPSC	30.10

Oil Business Group Percentage

PTT (Cambodia) Limited	PTTCL	100.00
Subic Bay Energy Co., Ltd.	SBECL	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
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Petrochemical Business Group Percentage

PTT Global Chemical Public Co., Ltd.	PTTGC	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	100.00
PTT MCC Biochem Co., Ltd.	PTTMCC	50.00
PTT PMMA Co., Ltd.	PTTPMMA	100.00

Refining Business Group Percentage

Thai Oil Public Co., Ltd.	TOP	49.10
IRPC Public Co., Ltd.	IRPC	38.51
Star Petroleum Refining Public Co., Ltd.	SPRC	36.00
Bangchak Petroleum Public Co., Ltd.	BCP	27.22

Infrastructure Business Group Percentage

PTT Maintenance and Engineering Co., Ltd.	PTTME	40.00
PTT Energy Solutions Co., Ltd.	PTTES	40.00

Other Business Group Percentage

Business Services Alliance Co., Ltd.	BSA	25.00
Energy Complex Co., Ltd.	EnCo	50.00
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

Revenue Structure of PTT and Subsidiaries by Product Line

Product/ Service	Operated by	% Shareholding of the company	2012		2013 (Revised)		2014 (Audited)	
			Million Baht	%	Million Baht	%	Million Baht	%
1. Natural Gas Products	PTT Plc. (Gas Business Unit)		473,042.64	16.62	490,481.29	17.02	515,917.63	18.00
	PTT Plc. (Oil Business Unit and International Trading Business Unit)		91,229.81	3.21	83,948.22	2.91	85,825.23	2.99
	PTT Exploration and Production Plc. (PTTEP)	65.29	94,781.65	3.33	101,955.11	3.54	123,731.96	4.32
	PTT Natural Gas Distribution Co., Ltd. (PTTNGD)	58.00	8,690.18	0.31	10,154.87	0.35	10,313.01	0.36
	Combined Heat and Power Producing Co., Ltd. (CHPP ¹)	-	174.86	0.01	182.13	0.01	-	0.00
	Less PTTEP's gas revenue paid by PTT Plc.		(89,693.85)	(3.16)	(97,325.70)	(3.38)	(114,289.75)	(3.99)
	Total Revenue from Natural Gas Products		578,225.29	20.32	589,395.92	20.45	621,498.08	21.68
2. Oil Products	PTT Plc. (Oil Business Unit and International Trading Business Unit)		1,769,343.68	62.18	1,646,289.35	57.11	1,613,205.13	56.27
	PTT Exploration and Production Plc. (PTTEP)	65.29	113,069.79	3.97	118,381.95	4.11	119,610.42	4.17
	Less PTTEP's crude revenue paid by PTT Plc.		(74,056.06)	(2.60)	(84,399.51)	(2.93)	(93,635.66)	(3.27)
	PTT International Trading Pte. Ltd. (PTTT)	100.00	148,385.84	5.22	322,417.32	11.19	299,658.06	10.45
	PTT (Cambodia) Limited (PTTCL)	100.00	7,977.18	0.28	7,330.44	0.25	7,715.74	0.27
	Subic Bay Energy Co., Ltd. (SBECL ²)	100.00	22,172.38	0.78	21,172.93	0.73	1,013.18	0.04
	PTT Retail Business Co., Ltd. (PTTRB ²)	100.00	38,772.21	1.36	38,247.88	1.33	63,773.24	2.23
	Total Revenue from Oil Products		2,025,665.02	71.19	2,069,440.36	71.79	2,011,340.11	70.16
3. Petrochemical Products	PTT Plc. (Oil Business Unit and International Trading Business Unit)		59,374.79	2.09	46,579.53	1.62	28,451.58	0.99
	PTT Polymer Marketing Co., Ltd. (PTTPM)	50.00	70,916.80	2.49	76,300.43	2.65	90,304.14	3.15
	HMC Polymers Co., Ltd. (HMC)	41.44	10,721.30	0.38	10,741.38	0.37	12,675.36	0.44
	PTT Asahi Chemical Co., Ltd. (PTTAC)	48.50	620.39	0.02	4,828.15	0.17	7,429.12	0.26
	PTT International Trading Pte. Ltd. (PTTT)	100.00	-	-	-	0.00	21,345.12	0.75
	Total Revenue from Petrochemical Products		141,633.28	4.98	138,449.48	4.81	160,205.32	5.59
4. Mining Products	PTT Energy Resource Co., Ltd. (PTTER ³)	100.00	28,738.50	1.01	24,977.75	0.87	20,436.37	0.71
	PTT International Trading Pte. Ltd. (PTTT)	100.00					605.47	0.02
	Total Revenue from Mining Products						21,041.84	0.73
5. Other Products	PTT Green Energy Pte. Ltd. (PTTGE)	100.00	1,246.14	0.05	532.08	0.02	608.51	0.02
	Business Services Alliance Co., Ltd. (BSA)	25.00	4.59	-	8.60	0.00	9.84	0.00
	Total Revenue from Other Products		1,250.73	0.05	540.68	0.02	618.35	0.02
6. Utilities Products	District Cooling System and Power Plant Co., Ltd. (DCAP)	35.00	926.45	0.03	1,002.38	0.03	1,063.75	0.04
	Thai Solar Renewable Co., Ltd. (TSR ⁴)	-	-	-	65.73	0.00	-	0.00
	Energy Complex Co., Ltd. (EnCo)	50.00	44.54	-	48.50	0.00	45.06	0.00
	Total Revenue from Utilities Products		970.99	0.03	1,116.61	0.03	1,108.81	0.04

Product/ Service	Operated by	% Shareholding of the company	2012		2013 (Revised)		2014 (Audited)	
			Million Baht	%	Million Baht	%	Million Baht	%
7. Revenue from Non-Core Business	PTT Plc. (Oil Business Unit and International Trading Business Unit)		3,207.89	0.11	4,109.00	0.14	4,669.14	0.16
	PTT Retail Business Co., Ltd. (PTTRB)	100.00	4,564.07	0.16	4,765.56	0.17	4,834.20	0.17
	PTT (Cambodia) Limited (PTTCL)	100.00	1.15	-	6.79	0.00	33.76	0.00
Total Revenue from Non-Core Business			7,773.11	0.27	8,881.35	0.31	9,537.10	0.33
8. Revenue from Services	PTT Exploration and Production Plc. (PTTEP)	65.29	4,685.26	0.17	4,635.63	0.16	4,474.74	0.16
	Trans Thai-Malaysia (Thailand) Co., Ltd. (TTM(T))	50.00	1,716.42	0.06	1,501.98	0.05	1,208.72	0.04
	Trans Thai-Malaysia (Malaysia) Sdn.Bhd. (TTM(M))	50.00	145.96	0.01	151.42	0.01	161.46	0.01
	PTT Polymer Logistics Co., Ltd. (PTTPL)	100.00	1,123.84	0.04	1,154.85	0.04	1,317.32	0.05
	Energy Complex Co., Ltd. (EnCo)	50.00	553.69	0.02	568.55	0.02	509.40	0.02
	Business Services Alliance Co., Ltd. (BSA)	25.00	685.81	0.02	817.70	0.03	868.84	0.03
	PTT Retail Business Co., Ltd. (PTTRB)	100.00	305.71	0.01	395.40	0.01	420.23	0.01
	PTT (Cambodia) Limited (PTTCL)	100.00	-	-	0.26	0.00	-	0.00
	PTT LNG Co., Ltd. (PTTLNG)	100.00	-	-	-	0.00	0.00	0.00
	PTT Tank Terminal Co., Ltd. (PTT TANK)	100.00	359.45	0.01	380.37	0.01	420.15	0.01
	PTT Oil Myanmar Co., Ltd. (PTTOM)		-	-	-	0.00	1.71	0.00
Total Revenue from Services			9,576.14	0.34	9,606.16	0.33	9,382.57	0.33
Total Revenue from Products and Services			2,793,833.06	98.19	2,842,408.31	98.61	2,834,732.18	98.88
9. Others								
9.1	Other Revenue		17,178.96	0.60	14,027.21	0.49	18,053.63	0.63
9.2	Gain/loss from Foreign Exchange		7,434.06	0.26	(210.37)	(0.01)	11,155.53	0.39
Total Other Revenue			24,613.02	0.86	13,816.84	0.48	29,209.16	1.02
10. Share of net income/loss from investment under equity method			27,014.79	0.95	26,356.15	0.91	2,942.06	0.10
Grand Total			2,845,460.87	100.00	2,882,581.30	100.00	2,866,883.40	100.00

Notes:

- 1/ PTT had held all shares in CHPP until December 24, 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 October 1, 2014. PTTRB's sales revenue has incorporated this subsidiary's sales revenue since January 1, 2014.
- 3/ Formerly known as PTT International Co., Ltd. (PTTI).
- 4/ PTT held 40% of the shares in TSR from May 3, 2013, to December 24, 2013, before disposing of all its shares to GPSC.

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 November 26, 2002, required government agencies and state enterprises buying 10,000 liters of fuel and more must do so from either PTT Plc. or Bangchak Petroleum Plc. only. PTT sold fuels to the following state enterprises: Electricity Generating Authority of Thailand (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.

2. Transactions between PTT and subsidiary PTTEP Plc.

Transaction

PTTEP and its subsidiaries produce and sell crude oil, natural gas, condensate, LPG, and bitumen. In 2014, PTT was the major buyer (86.59% by volume) of these. As for natural gas, the two reached a long-term deal of 25-30 years, stipulating annual minimum contractual quantities. Both companies were engaged in crude oil and condensate agreements, whereas PTT sold jet fuels and high-speed diesel to PTTEP under world market prices. These prices were identical to those sold to PTT by PTTEP's joint-venture partners or were standard reference, competitive prices under sensible conditions.

3. Transactions between PTT 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. Through a written notice sent at least 12 months in advance under the Product Offtake and Crude Supply Agreement (POCSA) terms and conditions, either party may revoke this agreement.

PTT secured natural gas for TOP's use in its refinery as required by the agreement between them at regular market prices under a 15-year contract (July 26, 2007 - July 25, 2022) and a 10-year contract (January 1, 2014 - December 31, 2023) under regular market prices.

PTT entered into a 15-year land lease agreement (September 2011 - August 2036) with TOP for the latter's construction of crude oil and petroleum product storage tanks.

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 prices. For any surplus volume, PTT and Chevron (Thai) Co., Ltd. - as shareholders - have the first right of refusal to buy them at domestic market prices before any sale to a third party.

PTT secures for the refinery's consumption natural gas volumes required by an agreement between them at regular market prices under 10-year contracts (March 17, 2009 - March 16, 2019 and January 1, 2009 - December 31, 2018).

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

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) at market prices. Both agreements are for 12 years from the commercial operation date of the Product Quality Improvement project in 2011.

PTT secured natural gas for BCP's use in its refinery under a 10-year agreement, with effect from August 3, 2009, to August 2, 2019. The price is as stated in the agreement under regular business conditions.

PTT entered into an agreement with BCP to buy electricity and steam on February 25, 2008. PTT built a cogeneration plant with a steam generation capacity of 90 tons per hour and a power generation capacity of 19.7 megawatts (MW) for sale to BCP, with a commercial operation date in June 2010 and sales prices as stated in the agreement and conforming to regular business conditions.

PTT signed a 15-year petroleum and gas terminal (depot) service agreements with BCP, effective January 1, 2009, to December 31, 2023. Service fees are as stated in the agreement.

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 with IRPC under market prices, effective January 1, 2013, with possible annual extensions, at market prices.

PTT also made another agreement for the service of IRPC's Chumphon Depot for loading, storage, and distribution of oil, effective January 1, 2014, with possible annual extensions.

PTT has a gas sales agreement with IRPC for the consumption of gas in combined-cycle gas turbine engines, effective June 9, 2009, for 10 years at market prices.

PTT engaged in hedging through derivative contracts made with IRPC to ease the impacts of crude and product price volatility.

4. Transactions between PTT and affiliates in the petrochemical business

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

PTTGC was founded on October 19, 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.

Raw material	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	> 156,000	2021
LPG	336,000	2020
NGL	380,000 - 470,000	2021

Under these agreements, the price structure of ethane varies with that of film-grade HDPE in Southeast Asian markets - reflecting the entire petrochemical chain and the HDPE market. Similarly, the price structures of propane and LPG vary with that of film-grade PP in the 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 raw materials, the public sector had collected THB 1 per kilogram, effective since January 13, 2012, for which PTTGC was responsible for the contribution. In 2015, the public sector revoked such contribution from the petrochemical sector, effective since February 2, 2015.

The above agreements are extendable for 5 years, subject to the conditions of individual agreements.

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

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

Refining and Petroleum Product Supply Business

PTT secures crude oil supply under an feedstock supply agreement with effect from February 1, 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 at no less than 70% of the latter's refined products at domestic market prices under an 18-year agreement from February 9, 2006, beyond which the contract is assumed to remain valid unless otherwise notified in advance.

PTT signed a 18-year New Complex Product Offtake Agreement with PTTGC (formerly PTTAR), effective since February 9, 2006, beyond which the agreement is assumed to remain valid unless otherwise notified in advance. Under the contract, PTT is to buy from PTTGC all products 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 the consumption of gas in product refining and another one for use in power generation, which is due to expire in 2018.

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

PTT concluded a feedstock supply agreement with HMC in 2006. A long-term propane feedstock supply agreement spans 15 years from the plant's start-up in 2010, with five-year extension at a time, under which the price of propane varies with that of Southeast Asia's PP (film grade).

In 2009, the propane qualifications 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 (January 19, 2013) and expiry date (January 18, 2028) of the agreement, with five years extendable each time; the propane price was revised with effect from December 1, 2012, and still varies with that of PP (film grade). The assumption, however, was amended to reflect current circumstances, resulting in a higher product value. THB 1 per kilogram contribution to the Oil Fund by the petrochemical sector, which uses propane, butane, and LPG as feedstock. HMC has remitted to this fund as required by the public sector since January 13, 2012.

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

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

PTT signed a 15-year propane supply agreement in 2008 with PTTAC for its feedstock. The agreement will take effect from the plant's start-up, with five-year extension each time. The price structure varies with that of 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 the petrochemical sector, which uses propane, butane, and LPG as feedstock at Baht 1 per kilogram, which PTTAC has remitted to this fund as required by the public sector since January 13, 2012.

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

5. Transactions between PTT and affiliate in infrastructure business

Transactions and agreement with PTT Energy Solutions Co., Ltd. (PTTES)

PTT signed a five-year technical service agreement with PTES at an annual lump-sum fee, to be revised annually in line with the consumer price index announced by the Ministry of Commerce. The agreement is due to expire on August 31, 2016.

POLICY ON FUTURE CONNECTED TRANSACTIONS

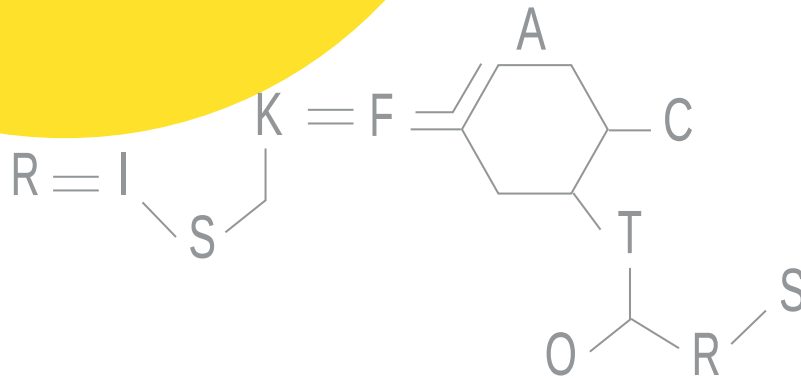
PTT's future connected transactions will be conducted as part of its normal course of business, without special favors or transfer of benefits between PTT, its subsidiaries, associated companies, related companies, or shareholders. Pricing will continue to be on an arm's length basis, and the prices of products supplied by PTT's subsidiaries will be market-based. Disclosure of connected transactions will conform to the announcement of the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET), and to the accounting standard on information disclosure about related parties or businesses, announced by the Federation of Accounting Professions.

Review of Business Assets

As of December 31, 2014, 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 720,335 million, with THB 166,158 million in net intangible assets, and THB 32,467 million in net mining properties. For details, please see the notes to the financial statements for PTT and its subsidiaries ended December 31, 2014: item 17 (property, plant and equipment - net), item 18 (intangible assets - net), and item 19 (mining properties - net).



Risk Factors



Due 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 STRATEGY IMPLEMENTATION

For continued, sustainable business growth, PTT has set a goal of becoming a Thai premier multinational energy company along with its international venture goals. To this end, strategic plans have been defined by each business unit with focuses on preserving its competitiveness, investment expansion to supplement business value, internationalization of businesses through investment in properties, mergers and acquisitions of entities capable of competing but are faced with problems during crises, and investment in new, related businesses.

Economic uncertainty, unrest around the world, oil price volatility, investors' expectations, and the varied needs of its stakeholders - all these could prevent PTT from achieving its goals and business strategies due to the likes of skewed energy demand and supply, petroleum and petrochemical product price fluctuation, investment risks resulting from overseas investment and new businesses, and risks associated with overseas investment. These could affect PTT's overall performance and returns on investment.

To cope with this, PTT has initiated a Top Executive Thinking Session (TTS) and a Strategic Thinking Session (STS) among senior PTT Group executives to define and review the vision, directions, and business strategies under prevailing economic and energy circumstances, and a business plan in the form of scenario planning, in which assumptions are made for different economic growth figures and oil prices and for PTT to command plans for future changes and uncertainty. In addition, monthly performance monitoring is in place, and at least every quarter senior PTT Group executives meet to monitor group performance and share views on the adjustment of business plans and short-term strategies to ensure confidence in meeting such goals.

1.2 RISKS FROM IMPROVEMENT OF ORGANIZATIONAL CAPABILITY TO ACCOMMODATE PTT'S BUSINESSES UNDER ECONOMIC UNCERTAINTY AND BUSINESS GROWTH OPPORTUNITIES

Thanks to PTT Group's vision of focusing on continued, sustainable growth in a bid to become a Thai premier multinational energy company, the group has expanded swiftly over the past few years, with investment in emerging businesses, expansion abroad, and business expansion for greater growth. The current group businesses, marked by diversity, are likened to a chain. Compounded by volatile economic circumstances, resulting in demand uncertainty of the markets and prices, its businesses could be disrupted unless its personnel are well prepared to cope.

To ease such human resource risks, PTT has relied on two career management mechanisms. First, for the management group, the PTT Group format is applied under the care of PTT Group Executive Development and management committee, which accommodates the needs for senior executives in both quantity and quality. Second, for other employees, it takes the form of line management with a similar approach to the first, supervised by a career advisory panel; here, a career management consultation committee ensures

that for each career path a manpower requirement plan is prepared, in which key positions are stated, and individual development plans are prepared and implemented. PTT's Young People to Globalize (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. PTT Leadership and Learning Institute (PLLI), in the meantime, was founded to groom personnel for their highest potential by focusing on leadership development and promoting lifelong learning. These moves ensure that PTT will consistently command an adequate supply of quality executives and employees.

1.3 REPUTATION RISKS

As a state enterprise under the wings of the Ministry of Energy, PTT plays a key role in enhancing national energy security in tandem with the continual establishment of national economic prosperity. Yet, its future business and business expansion could face a host of problems ranging from social/ economic/ political uncertainty, energy policy, regulations, public sector's regulatory tools, varied expectations of stakeholders, events and news issues harming PTT (evident in various current media) that may undo its image, and finally, the public's confidence in PTT.

To manage these risks, PTT reviews its current business conduct 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. Guidelines for corporate communication and reputation management have been defined in line with corporate directions; issue management analysis and anticipation; proactive communication through mainstream media, online media, service stations, Café Amazon outlets, and extended through assorted networks; and clarification of facts by executives to the mass media together with their participation in various public forums to establish a proper understanding of energy matters, products and services, and PTT's businesses.

1.4 INVESTMENT RISKS

PTT's investment in search of new energy sources and renewable/ alternative energy sources worldwide is designed to enhance national energy security and extend current businesses for greater long-term growth opportunities. Today, PTT's investment policies focus on continuing expansion by its own investment and PTT Group's investment.

To ease risks of low returns on investment, PTT executes a process known as SIM (Strategic Investment Management), which is made up of four stages, namely: investment planning, investment analysis, execution, and operation/ audit. In addition, PTT has set up an Strategic Investment Management Committee, made up of executives with expertise in various disciplines, which screens investment for the PTT Management Committee and the Board to ensure the most useful and efficient investment for PTT's limited capital and to track the outcomes of investment and stay vigilant for changes in factors that would deviate returns on investment from goals. That way, PTT can swiftly and efficiently resolve problems.

2. BUSINESS RISKS

2.1 RISKS FROM GAS SUPPLY SOURCING

This year PTT kept up its sourcing negotiation efforts for additional gas supplies from domestic deposits (onshore and in the Gulf of Thailand) and supplies of LNG (liquefied natural gas) from sellers in various regions to meet the current gas demand and the demand called for by future economic circumstances.

Each gas sales agreement (GSA) 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. Such take-or-pay sums were paid by PTT under the terms of the Yadana and

Yetagun GSAs of Myanmar. PTT has taken delivery of all Yetagun make-up gas, with only that from Yadana still outstanding.

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. Under this scenario, 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 recovery, oil and LNG price volatility, and various factors, including future gas demand, may differ 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, regional gas supply negotiations, an LNG market that does not favor desired supply sourcing (in volume or quality), the inability to take pre-paid gas or to secure enough gas supply to accommodate rising demand, changes in business circumstances, its inability to deliver contractual volumes of gas, and the volatility of the oil price (which in turn affects gas prices). These risks could hurt PTT's financial bottom line and performance.

To cope with these risks, PTT monitors gas supply and demand movement while closely coordinating with the sellers and the buyers preparation of efficient gas supply plans for the long term, and regularly reviews them as well as negotiating with the sellers and the customers to identify solutions to possible crises.

2.2 RISKS FROM PTT'S FEEDSTOCK AND PRODUCT PRICE VOLATILITY

Domestic and international product costs and sales prices of natural gas, condensate, crude oil, petroleum products, and petrochemicals of PTT and PTT Group are referenced to posted prices for each period and subject to volatility of the world market. Thus, PTT Group's performance is inevitably affected.

To lower these risks, PTT Group management has appointed the Price strategy & 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, the group is engaged in hedging through short-term and long-term derivative contracts with business partners. Each transaction involving derivatives abides by PTT's policy on price risk management hand in hand with price, volume, and time targets 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, in place is a structure and process for supervising risk management and checks and balances on a par with international standards.

2.3 RISKS FROM GOVERNMENT ACTIONS CREATING POTENTIAL IMPACTS ON 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. Because of the above-mentioned act, NEPC 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. Under an act designed to resolve and prevent fuel shortages of 1973, the prime minister can issue orders containing measures for the sale of all fuels to resolve and prevent fuel shortages. In short, such policy formulation and energy-related measures of the state may directly impact PTT's businesses, including delay of the price adjustment of LPG and NGV to reflect actual cost.

2.4 RISKS FROM PTT'S PERFORMANCE BEING PARTLY SUBJECT TO ITS AFFILIATES PERFORMANCE

PTT has achieved steady business growth as a result of its direct investment and investment through its affiliates, while focusing on forging link-ups of

integrated businesses (meaning upstream petroleum to downstream), as well as investment in new related businesses, both domestic and overseas. Besides, to date PTT's affiliates have undergone mergers and acquisitions, joint investment, capacity expansion, and process improvement to supplement product values. Such business expansion has inevitably subjected PTT's performance to those of affiliates. However, its affiliates are facing risks arising from the nature of businesses, including volatile product and feedstock prices, success in petroleum exploration and production, accidents or natural catastrophes, down cycles of petrochemical and refining businesses, competitors from the Middle East with lower production costs, and risks from changes in laws and regulations. These could hurt PTT's financial status and performance.

To lower these risks, PTT has focused on a Group Management approach with policies and management systems like OEMS (Operational Excellence Management System) and SSHE MS (SSHE Management Standards) and good corporate governance on which to base its sustainable business growth and its maximization of value for the Group. PTT's restructuring of shareholding and proportions contributes to management efficiency improvement, value addition, and greater competitiveness.

3. OPERATIONAL RISKS

3.1 RISKS FROM THE NATURE OF PTT OPERATIONS

As Thailand's national energy company engaging in integrated petroleum and petrochemical businesses, with several operated sites worldwide, PTT faces many potential natural catastrophes, fires, accidents, threats of political instability, together with terrorist activities and other unexpected hazards. These could prove detrimental to PTT's personnel, assets, environment, business operation, reputation, financial standing, and business opportunities.

To lower the likelihood and impacts of such threats, PTT requires all executives and employees to anticipate, assess, develop management plans to control, monitor, and prevent risks and threats to operations, while assessing impacts on stakeholders

if core processes are interrupted, either under normal circumstances or in crises. This implies measures to control, prevent, manage, monitor, and systematically improve situations under the PTT Group Business Continuity Management System Standard (BCMS), developed from the ISO 22301 standard and PTT Group Security, Safety, Health and Environmental Management Standard (PTT Group SSHE MS), which was based on the Plan-Do-Check-Act principles leading to continuous improvement in line with international standards like TIS/OHSAS 18001, ISO 14001, Process Safety Management and ISO 28000 with modified guidelines to suit PTT Group's nature of businesses and culture. They serve as the common criteria for business units, support units, and affiliates to develop and link up with the system to prevent value-adding activities throughout PTT's business chain from being disrupted. Also, like 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 ENVIRONMENTAL AND SAFETY REGULATORY RISK

PTT's business operations must conform to relevant legislation and regulations on environmental impacts and safety, which are bound to get increasingly tough. If such new laws are promulgated or if changes are made to the enforcement policy, they may shackle PTT's operation 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 delay. These could therefore affect its future businesses and income 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, they will urgently map out corrective and preventive

measures. In addition, in place are the monitoring and analysis of the impacts of changes in environmental and safety laws and regulations on its operation. PTT also 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 participation.

3.3 PROJECT RISKS

Key factors supporting PTT's successful business expansion include a continued rise in gas consumption and the ability to expand its gas transmission system, PTT's management of gas delivery to meet customers' desired quality, and creation of value to sustain rising gas demand. In addition, PTT's business expansion is limited by the reach of its gas transmission system to customers, its administration of the LNG receiving terminal, the maintenance of gas transmission systems for the longest service life, its gas separation capacity, and the success in building PTT Group's petrochemical plants. Development of projects could fall behind schedules for various reasons, including the many hiring procedures under public policy, contractors' lack of financial liquidity, political uncertainty, procurement of equipment with long lead time and transport time, communities' and landlords' cooperation, raw-material costs, currency exchange rates, and climate variation. Therefore, if projects are delayed, PTT's financial standing and performance outcomes will be at stake.

PTT takes seriously the administration of critical-path matters, including the acceleration of construction contractor hiring, close monitoring of construction equipment purchases, preparation of mitigating measures for 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 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 status 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 effective, uniform guideline for 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 adjusts 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 may not yet be financially strong, so 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. 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 can 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 harm PTT's performance and financial standing. 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 this 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 FUNDING RISKS

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 factors beyond its control, thus potentially affecting its project successes and capital costs.

Thanks to PTT's business conduct that focuses on fostering long-term growth and good corporate governance, it has continuously grown. 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 industries. 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 December 31, 2014, 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 December 31, 2014, PTT's domestic loans amounted to THB 4,500 million in the form of PTT bonds, guaranteed by the Ministry of Finance, and PTT debentures not guaranteed by the Ministry, worth THB 166,808 million, for a total of THB 171,308 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 76,465 million. A summary of these appears below.

Bonds and Debentures	Amount (THB million)	Redemption Date	Guarantee
Ministry of Finance-guaranteed PTT bonds			
• Domestic bonds	4,500	2015 - 2020	None
PTT debentures not guaranteed by the Ministry of Finance			
• Domestic debentures ^{1/ 4/}	166,808	2015 - 2110	None
• Foreign debentures ^{2/ 3/ 4/}	76,465	2015 - 2042	None
Total	243,273		
Grand total	247,773		

Notes:

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
PTTC150A	2,550	(Year 1 - 3) 5, (Year 4 - 5) 5.50, (Year 6 - 7) 6 (every six months)	Seven/ 2015
PTTC150B	2,600	(Year 1 - 3) 5, (Year 4 - 5) 5.50, (Year 6 - 7) 6 (every six months)	Seven/ 2015
PTTC153A	6,000	4.86 (every six months)	Eight/ 2015
PTTC156A	4,040	4.75 (every six months)	Ten/ 2015
PTTC15NA	5,000	7.40 (every six months)	Ten/ 2015
PTTC150C	1,951	3.80 (every six months)	3 years, 8 months and 20 days/ 2015
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
PTTC17DA	1,500	5.87 (every six months)	Ten/ 2017
PTTC17DB	1,000	(Year 1 - 4) 3.20, (Year 5 - 6) 4.20, (Year 7) 5 (every six months)	7 years and 15 days/ 2017
PTTC18DA	500	5.91 (every six months)	Eleven/ 2018
PTTC18NA	9,049	(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 and 11 months / 2021

Symbol	Amount (THB million)	Annual Coupon Rate (%) (Payment Frequency)	Maturity Period (Years)/ Redemption Schedule
PTTC239A	10,000	6.58 (once at the end of redemption period)	Ten/ 2023
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	5.90 (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)
Total	166,808		

FOREIGN, UNSECURED, UNSUBORDINATED DEBENTURES

Symbol	Amount (THB million)	Annual Coupon Rate (%) (payment frequency)	Maturity Period (Years)/ Redemption Schedule
USD Bond, 2005	11,317	5.875 (every six months)	Thirty/ 2035
Samurai Bond, 2007	9,620 ^{1/}	2.71 on Yen-denominated principal (every six months)	Ten/ 2017
USD Bond, 2012	16,509 ^{2/}	3.375 (every six months)	Ten/ 2022
USD Bond, 2012	19,645 ^{3/}	4.50 (every six months)	Thirty/ 2042
PTTC172A swapped to USD	2,631 ^{4/}	4.10 on Baht-denominated principal (every six months)	Seven/ 2017
PTTC17DB swapped to USD	3,300 ^{5/}	(Year 1 - 4) 3.20, (Year 5 - 6) 4.20, (Year 7) 5 on Baht-denominated principal (every six months)	Seven/ 2017
PTTC18NA swapped to USD	9,451 ^{6/}	(Year 1 - 4) 4, (Year 5 - 6) 4.40, (Year 7) 5.50 on Baht-denominated principal (every six months)	6 years, 9 months and 19 days/ 2018
PTTC222A swapped to USD	3,992 ^{7/}	4.50 on Baht-denominated principal (every six months)	Twelve/ 2022
Total	76,465		

Notes:

- 1/ 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.
- 2/ PTT entered into an interest rate swap from 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 October 25, 2018.
- 3/ PTT entered into an interest rate swap from dollar-denominated debenture worth USD 400 million at a fixed interest rate to a floating rate of LIBOR + a fixed interest rate per year on dollar-denominated principal.
- 4/ PTT entered into a cross-currency swap from baht-denominated debentures worth THB 2,636 million to dollar-denominated ones worth USD 79.45 million at a floating rate of LIBOR + a fixed rate per year on dollar-denominated principal.
- 5/ PTT entered into a cross-currency swap from baht-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.
- 6/ PTT entered into a cross-currency swap from baht-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.
- 7/ PTT entered into a cross-currency swap from baht-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.

PTT WARRANTS

PTT has issued and offered 60,000,000 warrants to the President & CEO, 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 August 31, 2010, and PTT-W2 (20,000,000 units), offered in 2006 with the last exercise date on September 28, 2011. The warrants were all exercised, and no new ones have been issued.

BILL OF EXCHANGE

As of December 31, 2014, none was outstanding.

SHAREHOLDERS

Below was PTT's shareholding structure as of September 18, 2014, the book closing date for 2014 interim dividend payment.

Item	Shares (in million)	Value (THB million)	%
Registered Capital	2,857.2	28,572	-
Paid-up Capital as of September 18, 2014	2,856.3	28,563	99.967
• 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
Unpaid Capital	0.9	9	0.033

PTT'S TOP 15 SHAREHOLDERS AS OF SEPTEMBER 18, 2014, WERE:

No.	Name	Shares	%
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.	148,267,992	5.191
5.	Chase Nominees Limited 42	53,937,301	1.888
6.	HSBC (Singapore) Nominees Pte. Ltd.	46,772,185	1.638
7.	State Street Bank Europe Limited	42,489,245	1.488
8.	State Street Bank and Trust Company	24,663,690	0.863
9.	Social Security Office (2 cases)	23,647,600	0.828
10.	Nortrust Nominees Ltd.	22,204,556	0.777
11.	The Bank of New York Mellon	21,269,900	0.745
12.	GIC Private Limited - C	18,357,000	0.643
13.	The Bank of New York Mellon	16,918,533	0.592
14.	East Fourteen Limited - Dimensional EMER MKTS Value FD	15,379,600	0.538
15.	The Bank of New York (Nominees) Limited	14,812,838	0.519
	Total	2,334,066,015	81.717

Notes:

1. Number 5, 6, 10, and 15 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 single 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 four above-mentioned ones, did not exercise any influence over PTT's management policy formulation, for example, nominating directors.
2. 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 policy, 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 payments 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.

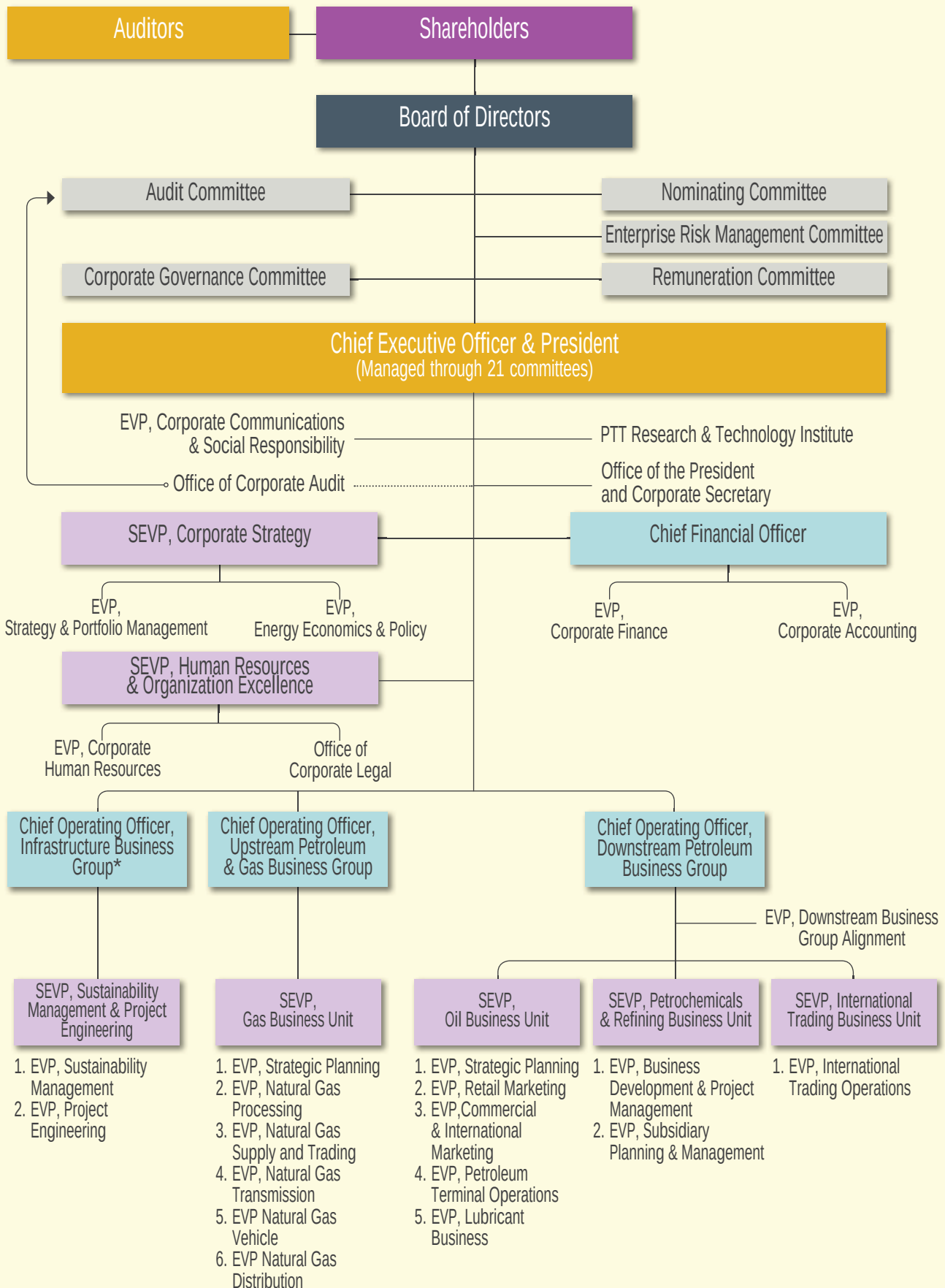
Management Structure



RESPONSIBILITY OF THE BOARD OF DIRECTORS

The organization structure of PTT as of December 31, 2014 comprises the Board of Directors and five specific 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 3 main types of management committee which divide into 21 sub-committees.





Notes: EVP = Executive Vice President

* Held office since May 1, 2014

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 February 5, 2015, the present Board of PTT Plc. consists of 13 directors:

- 12 non-executive directors (nine of whom are independent directors, which exceeds half of the Board)
- One executive director

The current Board of Directors consists of:

No.	Name	Position	Appointed Date
1.	Mr. Piyasvasti Amranand	Independent Director (from July 1, 2014)/ Chairman of the Board (from July 4, 2014))	July 1, 2014 (First term)
2.	Mr. Kittipong Kittayarak	Independent Director/ Chairman of the Audit Committee	July 1, 2014 (First term)
3.	Mr. Watcharakiti Watcharothai	Independent Director/ Chairman of the Nominating Committee/ Member of the Remuneration Committee/ Member of the Corporate Governance Committee	April 10, 2009 April 10, 2012 (Second term)
4.	Mr. Rungson Sriworasat	Director/ Chairman of the Remuneration Committee	July 26, 2014 (First term)
5.	Gen. Chatchalerm Chalermsook	Independent Director/ Chairman of the Corporate Governance Committee	September 4, 2014 (First term)
6.	Mr. Chanvit Amatamatuchart	Independent Director/ Chairman of the Enterprise Risk Management Committee Member of the Remuneration Committee	September 4, 2014 (First term)
7.	Mrs. Nuntawan Sakuntanaga	Independent Director/ Member of the Audit Committee	July 1, 2014 (First term)
8.	Mr. Vichai Assarasakorn	Independent Director/ Member of the Audit Committee	September 4, 2014 (First term)
9.	AM Boonsuib Prasit	Independent Director/ Member of the Nominating Committee	September 4, 2014 (First term)
10.	Mr. Don Wasantapruet	Independent Director/ Member of the Corporate Governance Committee	July 26, 2014 (First term)
11.	Mr. Prasert Bunsumpun	Director/ Member of the Enterprise Risk Management Committee	April 11, 2013 (First term)
12.	Mr. Areepong Bhoocha-oom	Director	July 7, 2014 (First term)
13.	Mr. Pailin Chuchottaworn	Director and Secretary to the Board/ Member of Nominating Committee (President and CEO)	September 10, 2011 April 10, 2012 (Second term)

Notes: For 2014, the Board appointed new directors to replace those that either completed their terms or resigned as follows:

- No. 1, Mr. Piyasvasti Amranand replaced Mr. Parnpree Bahiddha – Nukara, who resigned on June 15, 2014.
- No. 2, Mr. Kittipong Kittayarak replaced Mr. Sihasak Phuangketkeow, who resigned on June 30, 2014.
- No. 4, Mr. Rungson Sriworasat replaced Mr. Somchai Sujjapongse, who resigned on July 21, 2014.
- No. 5, Gen. Chatchalerm Chalermsook replaced Gen. Paiboon Koomchaya, who resigned on August 25, 2014.
- No. 6, Mr. Chanvit Amatamatucharti replaced Mr. Arkhom Termpittayapaisith, who resigned on August 28, 2014.
- No. 7, Ms. Nuntawan Sakuntanaga replaced Mr. Insorn Buakeow, who resigned on June 30, 2014.
- No. 8, Mr. Vichai Assarasakorn replaced Mr. Pornchai Rujiprapa, who resigned on August 28, 2014.
- No. 9, AM Boonsuib Prasit replaced ACM Prajin Juntong, who resigned on August 23, 2014.
- No. 10, Mr. Don Wasantapruek replaced Mr. Boonsom Lerthirunwong, who resigned on June 30, 2014.
- No. 12, Mr. Areepong Bhoocha-oom replaced Mr. Suthep Liumsirijareern, who resigned on June 28, 2014.

* Mr. Kurujit Nakornthap was appointed director on July 1, 2014, replacing Mr. Athapol Yaisawang, who resigned on June 17, 2014. Mr. Kurujit Nakornthap later tendered his resignation on January 13, 2015. (Replacement is in process.)

* Mr. Montri Sotangkul vacated the office on December 26, 2014. (Replacement is in process.)

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 to the Board as appropriate.

Duties and Responsibilities of the Board

The Board is to:

- Carry out its duties under the Company's Articles of Association, and ensure that management of the Company complies with applicable laws, objectives, articles of associations and resolutions of shareholders' meetings.

- Define the Company's vision, directions, and strategies.
- Endorse the Company'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; 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.
- 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.

DIRECTORS AUTHORIZED TO SIGN AND BIND FOR THE COMPANY

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

APPOINTMENT AND DISMISSAL OF DIRECTORS

1. The Board consists of 5 -15 persons, elected at 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 the Company's articles of associations. 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 February 5, 2015, it had nine independent directors, all of whom resided in Thailand. Five directors are experts in accounting and finance: Ms. Nuntawan Sakuntanaga, Mr. Rungson Sriworasat, Mr. Areepong Bhoocha-oom, Mr. Prasert Bunsumpun, and Mr. Pailin Chuchottaworn.

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 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 a 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 the Company. Such resignation will take effect from the date the resignation letter reaches the Company.

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 FOR 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 revision, on term holding, a director can hold office up to the following:

1. A maximum of three directorships in the state enterprises/ juristic persons which the state enterprise is a shareholder.
2. A maximum of five directorships in SET's 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 members of specific committee shall serve no more than nine consecutive years.

BOARD MEETING

Board meetings are planned for the entire year. For 2014, the meetings are to be 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 them for the meeting.

Currently, Board meetings have been made paperless (electronics), for which meeting agenda are put on CD, and the meetings are conducted through iPad application software for speed and convenience, while considerably reducing accompanying documents. It also shortens the process and provides speed in the delivery of the agenda and facilitates decision-making of the management with efficient information access.

In 2014, PTT held 15 Board meetings (12 regular and five special ones), and one non-executive directors meeting on Knowledge Sharing "Corporate Governance: Effectiveness and Accountability in the Boardroom", presented by a director who had been trained on the subject, which showed that the Board recognized the importance of knowledge-based companies and knowledge management (KM). PTT also held one independent directors' meeting on "Duties of independent directors in monitoring PTT's action against corruption" where independent directors had a discussion on the role, duties, and problems and obstacles in corruption monitoring. At the meetings, directors openly and freely expressed their views.

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 that portion of the meeting. The minutes of each meeting for each agenda 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 were summarized as follows:

Attendance Record of the Board of Directors Meetings for 2014

Name	1/2014	2/2014	3/2014	4/2014	5/2014	6/2014	Special 1/2014	7/2014	Special 2/2014	8/2014	Special 3/2014	9/2014	10/2014	11/2014	12/2014
X Mr. Parnpree Bahiddha-Nukara	/	/	/	/	/	Resigned with effect from June 15, 2014									
1. Mr. Piyasvasti Amranand	Appointed with effect from July 1, 2014						/	/	/	/	/	/	/	/	/
X Mr. Sihasak Phuangketkeow	/	/	x	/	/	x	Resigned with effect from June 30, 2014								
2. Mr. Kittipong Kittayarak	Appointed with effect from July 1, 2014						/	/	/	/	/	x	/	/	/
3. Mr. Watcharakiti Watcharothai	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
X Mr. Somchai Sujjapongse	/	x	/	/	/	/	x	Resigned with effect from July 21, 2014							
4. Mr. Rungson Sriworasat	Appointed with effect from July 26, 2014								/	/	/	/	/	/	/
X Mr. Waroonthep Watcharaporn	/	/	/	/	/	Resigned with effect from June 16, 2014									
X Gen. Paiboon Koomchaya	Appointed with effect from July 1, 2014						/	/	/	/	Resigned with effect from August 25, 2014				
5. Gen. Chatchalerm Chalermsook	Appointed with effect from September 4, 2014											/	/	/	x
X Mr. Athapol Yaisawang	/	/	/	/	/	Resigned with effect from June 17, 2014									
6. Mr. Kurujit Nakornthap***	Appointed with effect from July 1, 2014						/	/	/	/	/	/	/	/	/
X Mr. Insorn Buakeow	/	/	/	/	/	/	Resigned with effect from June 30, 2014								
7. Mrs. Nuntawan Sakuntanaga	Appointed with effect from July 1, 2014						/	/	/	/	x	/	/	/	/
X Adjunct Prof. Dr. Thosaporn Sirisumphand	/	/	/	/	/	/	Resigned with effect from June 30, 2014								
X Mr. Pornchai Rujiprapa	Appointed with effect from July 1, 2014						/	x	/	/	Resigned with effect from August 28, 2014				
8. Mr. Vichai Assarasakorn	Appointed with effect from September 4, 2014											/	/	/	/
9. Mr. Montri Sotangkul	/	x	x	x	/	x	x	/	/	x	x	x	/	/	x
															* Vacated with effect from Dec.26, 2014
X Mr. Chitrapongse Kwangsuksathit	/	/	/	Term completed April 10, 2014											
X ACM Prajin Juntong	Appointed on April 10, 2014			/	/	/	/	/	/	/	Resigned with effect from August 23, 2014				
10. AM Boonsuib Prasit	Appointed with effect from September 4, 2014											/	/	/	/
X Mr. Arkhom Termittayapaisith	/	x	x	/	/	/	/	/	/	x	Resigned with effect from August 28, 2014				
11. Mr. Chanvit Amatamatucharti	Appointed with effect from September 4, 2014											/	/	/	/
X Mr. Boonsom Lerdhirunwong	/	/	/	/	/	/	Resigned with effect from June 30, 2014								
12. Mr. Don Wasantapruek	Appointed with effect from July 26, 2014								/	/	/	/	/	/	/
13. Mr. Prasert Bunsumpun	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
X Mr. Suthep Liumsirijareen	/	/	/	/	/	/	Resigned with effect from June 28, 2014								
14. Mr. Areepong Bhoocha-oom	Appointed with effect from July 7, 2014							/	/	/	/	/	/	/	/
15. Mr. Pailin Chuchottaworn	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Total attendance	15	12	12	14	15	10	11	12	15	13	9	13	15	15	13
Total directors	15	15	15	15	15	12	13	13	15	15	11	15	15	15	15

Attendance Record of the Board of Directors and the Specific Committee Meetings for the Year 2014 (5 committees)

Name	Meeting Attendance 2014						Appointment during the Year
	Board of Directors (Total 15)	Audit Committee (Total 15)	Corporate Governance Committee (Total 5)	Nominating Committee (Total 6)	Remuneration Committee (Total 1)	Enterprise Risk Management Committee (Total 5)	
1. Mr. Piyasvasti Amranand	9/9						July 1, 2014 (replacing Mr. Parnpree Bahiddha-Nukara)
2. Mr. Kittipong Kittayarak	8/9	8/8					July 1, 2014 (replacing Mr. Sihasak Phuangkitkeow)
3. Mr. Watcharakiti Watcharothai	15/15		5/5	6/6			-
4. Mr. Rungson Sriworasat	7/7						July 26, 2014 (replacing Mr. Somchai Sujjapongse)
5. Gen. Chatchalerm Chalermsook	3/4		2/2				September 4, 2014 (replacing Gen. Paiboon Koomchaya)
6. Mr. Kurujit Nakornthap***	9/9					3/3	July 1, 2014 (replacing Mr. Athapol Yaisawang)
7. Mrs. Nuntawan Sakuntanaga	8/9	7/8					July 1, 2014 (replacing Mr. Insorn Buakeow)
8. Mr. Vichai Assarasakorn	4/4	6/6					September 4, 2014 (replacing Mr. Pornchai Rujiyapra)
9. AM Boonsuib Prasit	4/4			1/1			September 4, 2014 (replacing ACM Prajin Juntong)
10. Mr. Chanvit Amatamatucharti	4/4					3/3	September 4, 2014 (replacing Mr. Arkhom Termpittayapaisith)
11. Mr. Don Wasantapruek	7/7		2/2				July 26, 2014 (replacing Mr. Boonsom Lerdhirunwong)
12. Mr. Prasert Bunsumpun	15/15					5/5	-
13. Mr. Areepong Bhoocha-oom	8/8						July 7, 2014 (replacing Mr. Suthep Liumsirjarern)
14. Mr. Pailin Chuchottaworn	15/15			6/6			-

*** Mr. Kurujit Nakornthap resigned with effect from January 13, 2015.

Attendance Record of Retired / Resigned Directors for the Year 2014 (Total 15 Directors)

Name	Meeting Attendance 2014						Appointment during the Year
	Board of Directors (Total 15)	Audit Committee (Total 15)	Corporate Governance Committee (Total 5)	Nominating Committee (Total 6)	Remuneration Committee (Total 1)	Enterprise Risk Management Committee (Total 5)	
1. Mr. Parnpree Bahiddha-Nukara	5/5						-
2. Mr. Sihasak Phuangketkeow	4/6		2/2		1/1		-
3. Mr. Somchai Sujjapongse	5/7				1/1	2/2	-
4. Mr. Waroonthep Watcharaporn	5/5	7/7					-
5. Gen. Paiboon Koomchaya	4/4		1/1				-
6. Mr. Athapol Yaisawang	5/5					1/1	-
7. Mr. Insorn Buakeow	6/6	5/6		1/1			-
8. Adjunct Prof. Dr. Thosaporn Sirisumphand	6/6		2/2			2/2	-
9. Mr. Pornchai Rujiprapa	3/4	2/2					-
10. Mr. Chitrapongse Kwangsuksathit	3/3						-
11. ACM Prajin Juntong	7/7		0/1	1/1			-
12. Mr. Arkhom Termpittayapaisith	7/10				1/1		-
13. Mr. Boonsom Lerdhirunwong	6/6	7/7					-
14. Mr. Suthep Liumsirijarern	6/6						-
15. Mr. Montri Sotangkul	6/15	2/8					-

Notes: A total of 15 Board meetings were held during the year: 12 regular meetings and three special meetings, as well as one non-executive directors meeting and one independent directors meeting.

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

CORPORATE MANAGEMENT (THE MANAGEMENT)

MANAGEMENT TEAM MEMBERS AS OF JANUARY 31, 2015 ARE:

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

Name	Position
1. Mr. Pailin Chuchottaworn	President & CEO
2. Mr. Nuttachat Charuchinda	Chief Operating Officer, Upstream Petroleum & Gas Business Group
3. Mr. Sarun Rungkasiri	Chief Operating Officer, Downstream Petroleum Business Group
4. Mr. Surong Bulakul ^{1/}	Chief Operating Officer Infrastructure
5. Mr. Wirat Uanarumit ^{2/}	Chief Financial Officer
6. Mr. Pitipan Teparitarn	Senior Executive Vice President, Human Resources & Organization Excellence
7. Mr. Chansin Treenuchagron ^{3/}	Senior Executive Vice President, Corporate Strategy
8. Mr. Charcrie Buranakanonda	Senior Executive Vice President, Gas Business Unit
9. Mr. Chavalit Punthong ^{4/}	Senior Executive Vice President, Oil Business Unit
10. Mr. Sarakorn Kulatham ^{5/}	Senior Executive Vice President, Petrochemicals & Refining Business Unit
11. Mrs. Boobpha Amornkiatkajorn ^{6/}	Senior Executive Vice President, International Trading Business Unit
12. Mr. Auttapol Rerkpiboon ^{7/}	Senior Executive Vice President, Sustainability Management and Project Engineering
13. Mr. Tevin Vongvanich	Senior Executive Vice President, seconded to President and CEO, PTT Exploration and Production Plc.
14. Mr. Atikom Terbsiri ^{8/}	Senior Executive Vice President, seconded to President and CEO, Thaioil Plc.
15. Mr. Supattanapong Punmeechaow ^{9/}	Senior Executive Vice President, seconded to President and CEO, PTT Global Chemical Plc.
16. Mr. Sukrit Surabotsopon	Senior Executive Vice President, seconded to President, IRPC Plc.
17. Mr. Pamin Phantawesak	Senior Executive Vice President, seconded to PTT Global Chemical Plc., as President of PTT Phenol Co., Ltd.
18. Ms. Pannalin Mahawongtikul ^{10/}	Executive Vice President, Corporate Finance
19. Mrs. Nitima Thepvanangkul ^{11/}	Executive Vice President, Corporate Accounting

Notes: As of December 31, 2014, No. 1 - 5 are PTT Management under SEC's announcement.

- 1/ Appointed on May 1, 2014.
- 2/ Appointed on May 1, 2014, replacing Mr. Surong Bulakul, who was appointed Chief Operating Officer Infrastructure
- 3/ Appointed on October 1, 2014, replacing Mr. Supattanapong Punmeechaow, who was appointed Senior Executive Vice President, seconded to President and CEO, PTT Global Chemical Plc.
- 4/ Appointed on April 1, 2014, replacing Mr. Sarun Rungkasiri, who was appointed Senior Executive Vice President, Downstream Petroleum Business Group
- 5/ Appointed on October 1, 2014, replacing Mr. Atikom Terbsiri, who was appointed Senior Executive Vice President, second to President and CEO, Thailoil Plc.
- 6/ Appointed on October 1, 2014, replacing Mr. Sarakorn Kulatham, who was appointed Senior Executive Vice President, Petrochemicals & Refining Business Unit, PTT Plc.
- 7/ Appointed on October 1, 2014
- 8/ Appointed on October 1, 2014, replacing Mr. Veerasak Kositpaisal, who retired.
- 9/ Appointed on October 1, 2014, replacing Mr. Bowon Vongsinudom, who retired.
- 10/ Appointed on August 1, 2014, replacing Mr. Wirat Uanarumit, who was appointed Chief Financial Officer.
- 11/ Appointed on May 1, 2014, replacing Ms. Prisana Praharnkhasuk, who was seconded to Thailoil Plc.

DUTIES AND RESPONSIBILITIES OF THE PRESIDENT & CEO (THE PRESIDENT)

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.
- 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 October 1, 2001, with the mandate of operating PTT's business. As of January 31, 2015, the committee consists of 12 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	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, Petrochemicals & Refining Business Unit	Member
10. Senior Executive Vice President, International Trading Business Unit	Member
11. Senior Executive Vice President, Sustainability Management & Project Engineering	Member
12. Senior Executive Vice President, Corporate Strategy	Member and Secretary

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

The Management Committee meets at least once a month. This year there were altogether 36 meetings.

Duties and Responsibilities

- Provide advice and recommendations to the President & CEO on significant issues on 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 in 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 investment 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. (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 to it that 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 operation of PTT Group.
- Screens meeting agendas before presenting to the Board.
- Ranks decisions made by the Board to ensure effective implementation.
- Appoints committees or working groups, or both, to assist the tasks of the Board.
- Performs other work as may be assigned by the Present & CEO.

In efficiently managing 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 and Gas Business Group Alignment and Coordination Management Committee (UAC)
 - 2.2 Downstream Business Group Alignment and Coordination Committee (DAC)
 - 2.3 Infrastructure Business Group Alignment and 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 and Refining Business Strategic Alignment Committee (PRSC)
 - 2.9 Trading Business Strategic Alignment Committee (TBSC)
 - 2.10 Trading Risk Management Committee (TRMC)
3. Support Committees:
 - 3.1 Corporate Plan Committee (CPC)
 - 3.2 Risk Management and Internal Control Committee (RMCC)
 - 3.3 Human Resources Group Alignment and Coordination Management Committee (HRAC)

- 3.4 Finance and Accounting Group Alignment and Coordination Management Committee (FAAC)
- 3.5 KM Committee
- 3.6 PTT Group Internal Audit Management Committee
- 3.7 PTT Group Quality, Security, Safety, Health, and Environment Management Committee (QSHEGMC)
- 3.8 PTT Group ICT Committee
- 3.9 PTT Group Policy and Strategic Sourcing 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.

The Board appointed Ms. Wantanee Jaruke, Vice President, Office of the President and Corporate Secretary, to also serve as the Corporate Secretary, with effect from December 1, 2013.

Corporate Secretary



Ms. Wantanee Jaruke Age: 54
Corporate Secretary
(December 1, 2013 - present)

Number of shares held: 0.000903

Education

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

Company Secretary Training Record

- Thai Institute of Directors Association (IOD)
Company Secretary Program (CSP2/2002)
Effective Minutes Taking (EMT1/2006)
Board Reporting Program (BRP9/2012)
Company Reporting Program (CRP4/2012),
- TLCA: Executive Development Program (EDP7),
Thai Listed Companies Association
- Company Secretaries, Trueeventus, Philippines (2013)
- Leadership Development Program, Centre for Creative,
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 Position Held

- None

Relationship with Executives

- None

Special Activity

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

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 each director's responsibility, its financial performance, and compatibility with industry peers. Remuneration consists of meeting allowances and bonuses. Directors appointed to the specific committees receive additional allowances for additional responsibilities. Directors' remuneration rates approved by shareholders are as follows:

BOARD'S REMUNERATION

- **Board's Remuneration**

The following Remuneration structure for the Board was approved at the 2014 AGM on April 10, 2014:

1. Meeting Allowances

1.1 Board Meeting Remuneration consisted of:

- Monthly 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. Payment of meeting allowances per year must not exceed 15.

1.2 Remuneration for Specific 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 Remuneration for the Nominating Committee, Remuneration Committee, and Corporate Governance Committee consisted of:

- Meeting allowance of THB 24,000 for each meeting for those in attendance only.

1.2.3 Remuneration for the Enterprise Risk Management Committee established in 2013 and any other committees as may be appointed by the Board as necessary, consisted of:

- Meeting allowance of THB 24,000 for each meeting for those in attendance only.

1.3 Remuneration for the Chairman of each committee was 25% higher than for others.

- **Directors' Bonuses in 2014**

Bonus payouts to each director, at 0.05% of the net profit for 2014, corresponded to PTT's performance and net profit and 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 Individual Directors in 2014

Unit: Baht

No.	Name	Days of Service	2014 Bonus*	Meeting Allowance (Inclusive of Monthly Allowance)	Specific Committee Meeting Allowance	Total Allowance	Total Remuneration
1.	Mr. Piyasvasti Amranand	184	1,168,126.79	786,774.19	-	786,774.19	1,954,900.98
2.	Mr. Kittipong Kittayarak	184	937,558.69	580,000.00	245,189.52	825,189.52	1,762,748.21
3.	Mr. Watcharakiti Watcharothai	365	1,859,831.10	1,110,000.00	276,000.00	1,386,000.00	3,245,831.10
4.	Mr. Rungson Sriworasat	159	810,173.00	505,806.45	-	505,806.45	1,315,979.45
5.	Gen. Chatchalerm Chalermasukh	119	606,355.89	267,000.00	60,000.00	327,000.00	933,355.89
6.	Mr. Kurujit Nakornthap	184	937,558.69	630,000.00	90,000.00	720,000.00	1,657,558.69
7.	Mrs. Nuntawan Sakuntanaga	184	937,558.69	580,000.00	193,064.52	773,064.52	1,710,623.21
8.	Mr. Vichai Assarasakorn	119	606,355.89	317,000.00	148,500.00	465,500.00	1,071,855.89
9.	AM Boonsuib Prasit	119	606,355.89	317,000.00	24,000.00	341,000.00	947,355.89
10.	Mr. Chanvit Amatamatucharti	119	606,355.89	317,000.00	72,000.00	389,000.00	995,355.89
11.	Mr. Don Wasantapruerk	159	810,173.00	505,806.45	48,000.00	553,806.45	1,363,979.45
12.	Mr. Prasert Bunsumpun	365	1,859,831.10	1,110,000.00	48,000.00	1,158,000.00	3,017,831.10
13.	Mr. Areepong Bhoocha-oom	178	906,986.13	574,193.55	-	574,193.55	1,481,179.68
14.	Mr. Pailin Chuchottaworn	365	1,859,831.10	1,110,000.00	144,000.00	1,254,000.00	3,113,831.10
Total			14,513,051.85	8,710,580.65	1,348,754.04	10,059,334.69	24,572,386.54

Notes: No. 1, Mr. Piyasvasti Amranand was appointed director on July 1, 2014, and Chairman on July 4, 2014
 No. 2, Mr. Kittipong Kittayarak was appointed on July 1, 2014
 No. 4, Mr. Rungson Sriworasat was appointed on July 26, 2014
 No. 5, Gen. Chatchalerm Chalermasukh was appointed on September 4, 2014
 No. 6, Mr. Kurujit Nakornthap was appointed on July 1, 2014, and resigned with effect from January 13, 2015
 No. 7, Mrs. Nuntawan Sakuntanaga was appointed on July 1, 2014
 No. 8, Mr. Vichai Assarasakorn was appointed on September 4, 2014
 No. 9, AM Boonsuib Prasit was appointed on September 4, 2014
 No. 10, Mr. Chanvit Amatamatucharti was appointed on September 4, 2014
 No. 11, Mr. Don Wasantapruerk was appointed on July 26, 2014
 No. 13, Mr. Areepong Bhoocha-oom was appointed on July 7, 2014

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

Retired and Resigned Directors (2014)

Unit: Baht

No.	Name	Days of Service	2014 Bonus*	Meeting Allowance (Inclusive of Monthly Allowance)	Specific Committee Meeting Allowance	Total Allowance	Total Remuneration
1.	Mr. Pampree Bahiddha-Nukara	165	1,050,931.96	517,500.00	-	517,500.00	1,568,431.96
2.	Mr. Chitrapongse Kwangsukstith	100	509,542.77	250,000.00	-	250,000.00	759,542.77
3.	Mr. Waroonthep Watcharaporn	166	845,840.99	415,000.00	187,500.00	602,500.00	1,448,340.99
4.	Mr. Athapol Yaisawang	167	850,936.42	411,766.13	-	411,766.13	1,262,702.55
5.	Mr. Suthep Liumsirijarearn	178	906,986.13	477,000.00	-	477,000.00	1,383,986.13
6.	Mr. Boonsom Lerthirunwong	180	917,176.98	479,000.00	235,625.00	714,625.00	1,631,801.98
7.	Mr. Insorn Buakeow	180	917,176.98	479,000.00	173,500.00	652,500.00	1,569,676.98
8.	Mr. Sihasak Phuanketkeow	180	917,176.98	379,000.00	72,000.00	451,000.00	1,368,176.98
9.	Adjunct Prof. Dr. Thosaporn Sirisumphand	180	917,176.98	479,000.00	60,000.00	539,000.00	1,456,176.98
10.	Mr. Somchai Sujjapongse	201	1,024,180.96	449,354.84	24,000.00	473,354.84	1,497,535.80
11.	ACM Prajin Juntong	135	687,882.74	482,290.32	30,000.00	512,290.32	1,200,173.06
12.	Gen. Paiboon Koomchaya	55	280,248.52	253,225.81	30,000.00	283,225.81	563,474.33
13.	Mr. Pornchai Rujiprapa	58	295,534.81	206,129.03	70,161.30	276,290.33	571,825.14
14.	Mr. Arkhom Termpittayapaisith	239	1,217,807.21	586,129.03	30,000.00	616,129.03	1,833,936.24
15.	Mr. Montri Sotangkul	359	1,829,258.53	654,193.55	142,000.00	796,193.55	2,625,452.08
Total			13,167,858.96	6,518,588.71	1,054,786.30	7,573,375.01	20,741,233.97

Notes: No. 1, Mr. Pampree Bahiddha-Nukara was appointed director on June 29, 2013, and Chairman on July 5, 2013, and resigned on June 15, 2014

No. 2, Mr. Chitrapongse Kwangsukstith was appointed on October 25, 2011, and completed his term on April 10, 2014

No. 3, Mr. Waroonthep Watcharaporn was appointed on April 11, 2013, and resigned on June 16, 2014.

No. 4, Mr. Athapol Yaisawang was appointed on April 10, 2014, and resigned on June 17, 2014.

No. 5, Mr. Suthep Liumsirijarearn was appointed on February 23, 2013, and resigned on June 28, 2014

No. 6, Mr. Boonsom Lerthirunwong was appointed on April 11, 2013, and resigned on June 30, 2014.

No. 7, Mr. Insorn Buakeow was appointed on April 10, 2012, and resigned on June 30, 2014

No. 8, Mr. Sihasak Phuanketkeow was appointed on April 10, 2014, and resigned on June 30, 2014

No. 9, Adjunct Prof. Dr. Thosaporn Sirisumphand was appointed on April 10, 2014, and resigned on June 30, 2014

No. 10, Mr. Somchai Sujjapongse was appointed on June 29, 2013, and resigned on July 21, 2014

No. 11, ACM Prajin Juntong was appointed on April 10, 2014, and resigned on August 23, 2014

No. 12, Gen. Paiboon Koomchaya was appointed on July 1 2014 and resigned on August 25, 2014

No. 13, Mr. Pornchai Rujiprapa was appointed on July 1, 2014 and resigned on August 28, 2014

No. 14, Mr. Arkhom Termpittayapaisith was appointed on April 10, 2012, and resigned on August 28, 2014

No. 15, Mr. Montri Sotangkul was appointed on April 10, 2014, and vacated on December 26, 2014

Directors' Remuneration Profile of 2011-2014

Unit: Baht

Remuneration	2011		2012		2013		2014	
	Person	THB	Person	THB	Person	THB	Person	THB
Total Meeting Allowance	15	11,355,399.76	14	11,316,572.58	15	16,324,759.22	14	17,632,709.70
Total Bonus*	15	28,802,739.73	14	30,122,950.82	15	45,129,452.06	14	27,680,910.81
Total		40,158,139.49		41,439,523.40		61,454,211.28		45,313,620.51

* Including Bonus paid in 2015.

REMUNERATION TO INDEPENDENT DIRECTORS SERVING AS INDEPENDENT DIRECTORS OF SUBSIDIARIES IN 2014

In 2014, one independent director who served as an independent director at PTTEP, a subsidiary of PTT, resigned during the year. He tendered his resignation from PTTEP with effect from May 1, 2014. Remuneration made by PTTEP was:

Unit: Baht

Name	Remuneration		Specific Committee Meeting Allowance	Total
	Bonus	Meeting and Monthly Allowance		
Mr. Athapol Yaisawang	463,301.89	320,000.00	0	783,301.89

MANAGEMENT'S REMUNERATION

- Management's Remuneration

The Board defined the policy and criteria on management's remuneration with correspond with 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 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 May 1, 2014. Accordingly, under SEC's definition, PTT's management before the restructuring (January 1, - April 30, 2014) which was 10 will be reduced to five after May 1, 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 as detailed below:

Total Remuneration Paid to Top Management (CEO and EVP) in 2014

Unit: Baht

Remuneration	2014				
	President & CEO	Management (under SEC's criteria)		Total	
		Person (Jan - Apr)/ (May - Dec)	THB	Person (Jan - Apr)/ (May - Dec) (Including President & CEO)	THB
Total Salary	20,622,360.00	9/4	35,832,600.00	10/5	56,454,960.00
Total Bonus	9,395,160.00	9/4	25,032,972.00	10/5	34,428,132.00
Total	30,017,520.00		60,865,572.00		90,883,092.00

Total Remuneration Paid to the Management (2011 - 2014)

Unit: Baht

Remuneration	2011		2012		2013		2014	
	Person	THB	Person	THB	Person	THB	Person	THB
Total Salary	10	62,091,720.00	9	62,769,000.00	10	69,023,520.00	10/5	56,454,960.00
Total Bonus	6	24,581,820.00	9	23,993,379.77	10	30,772,449.50	10/5	34,428,132.00
Total		86,673,540.00		86,762,379.77		99,795,969.50		90,883,092.00

Provident Fund Contribution to the Management (2011 - 2014)

Unit: Baht

Remuneration	2011		2012		2013		2014	
	Person	THB	Person	THB	Person	THB	Person	THB
Provident Fund	8	3,980,468.00	9	6,276,900.00	9	6,652,851.60	10/5	4,937,228.80

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 energy security of the country.

HEADCOUNT AND REMUNERATION

As of December 31, 2014, the PTT employee headcount (including those seconded to PTT's affiliates) stood at 4,516. 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 2011 to 2014 are as follows:

Unit: Persons

Business Unit	2011		2012		2013		2014	
	PTT	PTT Group	PTT	PTT Group	PTT	PTT Group	PTT	PTT Group
1. Gas	1,270	-	1,367	-	1,424	-	1,323	-
2. Oil	1,387	-	1,296	-	1,496	-	1,409	-
3. Petrochemicals and Refining	68	-	103	-	95	-	93	-
4. Infrastructure Business Group							201	-
5. Support staff/ secondees to PTT affiliates	1,045 ^{1/}	276 ^{2/}	1,197 ^{1/}	265 ^{2/}	1,098 ^{1/}	282 ^{2/}	1,218 ^{1/}	272 ^{2/}
6. Subsidiaries and jointly-controlled entities	-	17,964	-	20,551	-	24,969	-	25,714
Total	3,770	18,240	3,963	20,816	4,113	25,251	4,244	25,986

Notes: 1/ Excludes PTT secondees

2/ PTT secondees

Remuneration for Personnel (excluding the President & CEO and Senior Management) from 2011 to 2014 are as follows:

Unit: Baht

Remuneration	2011	2012	2013	2014
Salary	3,044,018,589.00	3,311,831,273.00	3,549,202,456.00	3,729,946,652.00
Bonus	1,465,345,881.00	1,653,647,970.00	1,756,840,371.00	1,869,490,435.00
Provident fund contribution	293,871,121.00	318,714,613.00	415,284,584.00	434,836,637.00
Others (if applicable)	2,076,671,038.00	2,331,060,076.00	2,364,683,270.00	2,750,517,905.00
Total	6,879,906,629.00	7,615,253,932.00	8,086,010,681.00	8,784,791,629.00

OTHER REMUNERATION

PTT has instituted employee welfare and other compensation 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 motivation, 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, revised compensation and benefits for overseas staff working with PTT's affiliates, among others.

This year, expenses on these welfare schemes included a life insurance premium at THB 2,986 per person per year and medical care expenses, through PTT's operated welfare system and health insurance systems, for all PTT staff at an average of THB 106,790.07 per person per year.

Tuition fees for year 2014 (January 1 - December 31, 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.

HUMAN RESOURCE SYSTEM DEVELOPMENT AND IMPROVEMENT

To become a sustainability organization, PTT keeps on developing and improving the process and mechanism for human resource management to ensure higher efficiency and realize the full potential of its employees, which will lead the company 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 the Company. To this end, it has instituted a process in which the senior management of PTT and its affiliates along with support staff 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 the 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 the missions and creating values for the organization. PTT has applied this model in developing its employees in all levels for greater efficiency by dividing employees into two professional groups with clear and efficient interconnected (senior management and staff) with a system on recruitment, assessment, and individual development plan 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. Management of this group is supervised by a panel of CEOs in PTT Group called the PTT Group Management Committee (PTTGMC) with responsibility for defining directions and the policy on development plan for senior management. Another team, called Human Resources Group Alignment and Coordination Management Committee (HRAC), provides counseling and recommendations to the Senior Vice President, Human Resources and Organization Excellence, on decision-making on key coordination issues on human resource development strategies and directions of PTT Group to align with those of PTT.

- Staff (Division Manager or equivalent downward): this internal management is specific to PTT or a PTT Group company in developing employees to suit operation needs. The Corporate Human Resources Committee (HRC) was established to

promote and monitor the career development plan to ensure that it achieves the goals. A Career Counseling Teams (CCT) for 14 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 development of their career paths and put value in their work in line with PTT's direction and goals. Such staff 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 them to develop skills in their new positions, as do suitable appointments and promotions for their responsibilities and potential. Finally, development of staff to suit their competencies and needs of both staff and the organization would in time lead PTT to its goals.

In 2014, PTT held its second "Young People to Globalization (YP2G)" program to select qualified personnel to station overseas in line with PTT's strategies. These personnel will receive additional training from last year to prepare and develop them for the 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 experience in business acumen through on-the-job training (OJT). In addition, PTT had included vocational management on Quality Assurance and Engineering Career in human resource development to be prepared for its infrastructure business unit.

The Career and Competency Management was also improved, the success profile of each position prepared and reviewed, competency assessment system and individual Development Plan (IDP) under COACH system improved, and the operation handbook on human resources career development revised to develop each staff member for his or her position and in line with PTT's business.

PTT implemented a Lifetime Learning Organization Mechanism and evolved its knowledge management system for essential, relevant information, while encouraging the management and all to do the same and update this regularly. It made this system available for all to facilitate learning and efficient problem-solving, while actively promoting employees' own development of their potential, since this is a cornerstone to

a sustainability organization, that is "To become a sustainability organization, we rely on human intelligence Learning is an ongoing, lifelong process". PTT provided training and development programs to its management and employees from their recruitment to retirement to enable them and enhance their competence toward corporate directions and needs so that they may become competent and righteous citizens of the organization and society.

Besides a human resource management system focusing on making employees both smart and responsive to its expectations, PTT valued its role of turning out 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	2011	2012	2013	2014
Employee	44.0	60.1	63.0	35.24
Executive	44.8	41.8	43.0	22.61

Unit: Baht/person/year

Training Expense/person/year	2011	2012	2013	2014
Employee & Executive	41,182.00	54,611.00	58,000.00	55,435.37

Note: Training hours and expenses per person per year in 2014 were lower than that of the previous year due to political unrests, emergency situations, and office blockage during January - May 2014.

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 should be allowed to share their views and take part in business efficiency improvement. Each year, besides the monthly labor relations committee meetings, PTT held joint consultation committee (JCC) meetings between its management team and staff of regional offices nationwide. In addition, the President & CEO not only continually held regular meetings with employees and attended meetings among the management and staff (both in and outside PTT), but also surveyed employees' satisfaction for views and suggestions for improvement. PTT is convinced that proper communication and information exchange among all will induce smooth relationship cooperation, thus moving the organization forward to its goals. Moreover, PTT surveyed 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 once by an external human resource management adviser. There was also cooperation with PTT Group to jointly develop a database of the management as well as development plans of senior management.

PTT GROUP CORE VALUES

PTT's management and employees believe that the PTT Group Core Values, known as SPIRIT, will help PTT Group, the executives, and staff create a common work path, direction, and belief that align with the vision of PTT Group to become a sustainability organization. These core values serve as guidelines in formulating ideas and beliefs which influence work practice and

behavior. Thus, SPIRIT is a key element to strengthen the PTT culture supporting our decisions to establish mutual trust and a sense of belonging, while inspiring employees to be both smart and conscientious. SPIRIT consists of:

S	=	Synergy
P	=	Performance Excellence
I	=	Innovation
R	=	Responsibility for Society
I	=	Integrity & Ethics
T	=	Trust & Respect

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.

In 2011, the Board recruited a new President & CEO to replace Mr. Prasert Bunsumpun, who completed his term under his employment contract on September 9, 2011. A New President & CEO Selection Committee was appointed under the Standard Qualifications of Directors and State Enterprise Act. A total of four candidates, three from PTT executives and one non-PTT person applied for the position. The selection process was conducted transparently under the guidelines on senior executive position selection under Article 8, paragraph 3 of the Standard Qualifications of Directors and State Enterprise Act (No. 6) B.E. 2550 (2007).

This committee proposed Mr. Pailin Chuchottaworn to the Board for consideration. The Board, on May 27, 2011, approved Mr. Pailin Chuchottaworn as the new President & CEO, replacing Mr. Prasert Bunsumpun, with effect from September 10, 2011, for a four-year term.

PTT has taken steps to develop its executives and prepared them for the nomination of the next President & CEO. PTT also prepared for the retirement of senior management team members in 2014 - 2018 under succession planning under PTT Group's policy/guidelines. A management pool has been developed, consisting of 354 management executives, and another potential pool for key areas.

PTT has, since 2007, set up a Group Leader Development Program (GLDP) to lay down 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 and Coordination Management Committee (HRAC)
- Corporate Human Resources Committee (HRC)

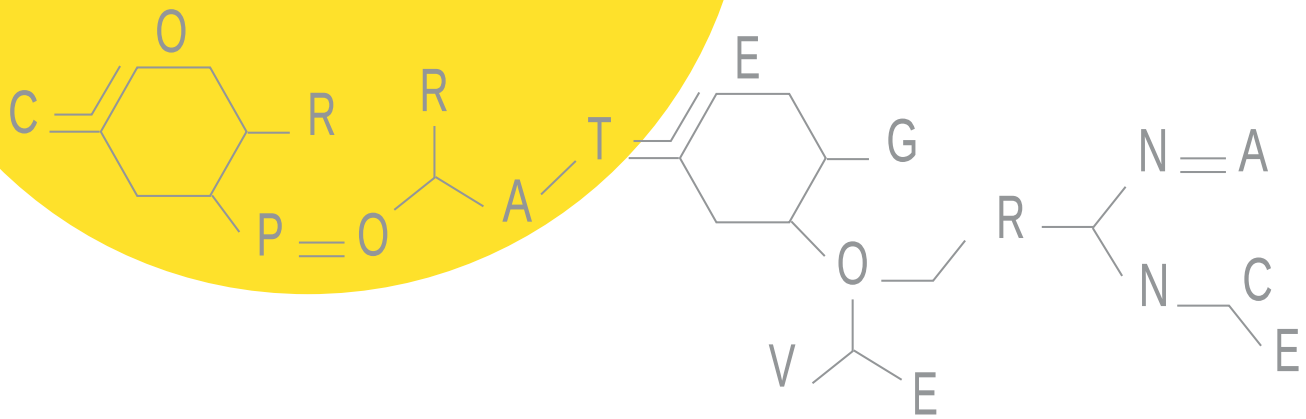
Performance in 2014

- Selection of SEVP pool members from EVPs (PTT Group)
 - 53 pool members (as of December 31, 2014)
 - 19 pool members already promoted (2008 - 2014)
- Selection of EVP pool members from VPs (PTT Group)
 - 128 pool members (as of December 31, 2014)
 - 35 pool members already promoted (2009 - 2014)
- Selection of VP pool members from PTT division managers (PTT)
 - 155 pool members (as of December 31, 2014)
 - 87 pool members already promoted (2009 - 2014).

LABOR DISPUTES

No report of PTT's labor disputes was made during the past three years.

Corporate Governance



CORPORATE GOVERNANCE POLICY

In conducting its businesses, PTT recognizes that all shareholders own this company. What gives the shareholders trust and confidence in their investment with PTT is its policy and operations that preserve the basic, lawful rights of the shareholders, or more, in addition to suitable, efficient, and most effective management that is consistently acceptable to investors and relevant parties.



Ever since the privatization into PTT Plc. and distribution of its shares on the Stock Exchange of Thailand (SET) in late 2001, it has valued corporate governance (CG) as its guiding principles. PTT regulations state: "The Company must issue 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 corporate governance practices as its code of conduct to point out the proper guideline for the organization with a high standard." PTT has imposed its rules on good corporate governance in 2001, revised in 2014, and published a handbook on principles of corporate governance 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 - 2014. The latest revision complied with SET's corporate governance principles of listed companies as well as suggestions and recommendations from IOD's Corporate Governance Assessment Report, which was revised in line with the ASEAN Corporate Governance Scorecard (ASEAN CG Scorecard) and good practices of leading international companies. The handbook was renamed "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 to create explicit conformance and outline punishment in case of 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 of, 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 counter item (1). Therefore, directors can hold a total of five positions.
3. Independent directors and directors of specific committees cannot hold positions longer than 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.

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

• CORPORATE GOVERNANCE POLICY

PTT duly reviewed its CG policy and handbook to suit prevailing economic and social circumstances. The company also 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 business code of conduct to their jobs. The Board's policy on CG is as follows:

1. The Board, the 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 fairly balances the roles of the Board, the management, and the shareholders.

2. Directors must perform their duties independently with full commitment and responsibility. 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 with due regard for risk factors and suitable risk management, the Board must also ensure the credibility of the accounting system, financial statements, and accounting audits.

4. Leading the rest of PTT on ethics and CG, the Board must supervise the management and provide solutions to any conflict of interest or connected transactions.

5. The Board may appoint specific committees to help it screen and scrutinize 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 to observe, in addition to PTT's rules and 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 compliance with anti-corruption measures.

PTT publicized the “Corporate Governance, Ethical Standard, and Code of Business Ethics Handbook”, 3rd revision, on its intranet and website.

CG performance can be summarized as follows:

1. RIGHTS OF SHAREHOLDERS

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, asking of questions, and voting, apart from election of directors to supervise PTT’s operation on behalf of the shareholders. 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 relate to conditions, regulations, or laws that require the shareholders’ approval, it calls an extraordinary meeting of the shareholders.

In 2014, the AGM fell on April 10 at Exhibition Hall 101-102 on the First Floor of 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

For the 2014 AGM, the Board at the meeting No. 2/2014 on February 21, 2014, decided to call a shareholders’ meeting on April 10, 2014. Its decision, meeting date, and meeting agenda was disclosed in details ahead of time by announcing on SET’s website to alert the shareholders before sending meeting notices. PTT assigned Thailand Securities Depository Co., Ltd. (TSD), its securities registrar, to mail meeting 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 March 21, 2014, and 3 days ahead of the meeting, the invitation was announced through one Thai and one English newspaper, each for 3 consecutive days (April 4-6, 2014), 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>) 30 days ahead of the meeting date (starting March 10, 2014).

1.3 On the Meeting Date

Before the meeting, the chairman of the meeting introduces the directors, management team members, the external auditor and the legal adviser who acts as a moderator. After explaining PTT’s rules on balloting and vote counting for individual agenda items, the chairman must clearly address how to vote on

each agenda item. Once information has been provided for each item, the chairman gives the floor to all attendants to express opinions or recommendations and ask questions, giving adequate time for debate. The chairman and the management are to address and answer all questions clearly and precisely, treating all questions with due respect. For the election of directors, individual votes are required.

The chairman ensures that the meeting proceeds according to the order of the agenda and does 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 vote of the shareholders in attendance. Alternatively, the shareholders with at least one-third of all the sold shares may ask the meeting to consider other matters

not mentioned in the meeting notice. At the 2014 AGM, the order of the agenda was not changed, and there was no request to consider any other matter.

At every meeting, the minutes must be completely and accurately recorded with the vote tally of each applicable agenda item. As a rule, shareholders' each meeting last 3 - 4 hours. The 2014 AGM began at 9.30 a.m., with registration beginning at 7.30 a.m. At the meeting's opening, a total of 4,568 shareholders registered, of whom 1,806 were shareholders and 2,762 were proxy holders, holding a total of 1,817,397,942 shares, accounting for 63.63 % of the total shares sold, which exceeded one-third of all the sold shares of 2,856,299,625 with the following attendees:

BOARD OF DIRECTORS

1. Mr. Parnpree Bahiddha-Nukara	Chairman
2. Mr. Athapol Yaisawang	Independent Director/ Chairman of Nominating Committee/ Member of Enterprise Risk Management Committee
3. Mr. Sihasak Phuangketkeow	Independent Director/ Member of Corporate Governance Committee/ Member of Remuneration Committee
4. Mr. Watcharakiti Watcharothai	Independent Director/ Member of Nominating Committee/ Member of Corporate Governance Committee
5. Mr. Suthep Liumsirijarern	Director
6. Mr. Chitrapongse Kwangsukstith	Director
7. Mr. Boonsom Lerdhirunwong	Independent Director/ Chairman of Audit Committee
8. Prof. Dr. Thosaporn Sirisumphand	Independent Director/ Chairman of Corporate Governance Committee/ Chairman of Enterprise Risk Management Committee
9. Mr. Prasert Bunsumpun	Director/ Member of Enterprise Risk Management Committee
10. Mr. Waroonthep Watcharaporn	Independent Director/ Member of Audit Committee
11. Mr. Insorn Buakeow	Independent Director /Member of Audit Committee
12. Mr. Pailin Chuchottaworn	Director and Corporate Secretary/ Member of Nominating Committee/ CEO & President

Three Directors were occupied with official matter:

Mr. Somchai Sujjapongse and Mr. Montri Sotankul were on official business trip overseas, and Mr. Arkhom Termpittayapaisith was attending an urgent meeting with the acting Prime Minister.

EXECUTIVES

1. Mr. Surong Bulakul	CFO
2. Mr. Nuttachat Charuchinda	COO, Upstream Petroleum & Gas Business Group
3. Mr. Sarun Rungkasiri	COO, Downstream Petroleum Business Group

Also in attendance were several senior executive vice presidents, executive vice presidents of business units, and executive officers from PTT Group to address queries.

Independent Directors were proxies for minor shareholders as well.

EXTERNAL AUDITORS

1. Ms. Sunan Wongmek	Office of the Auditor - General
2. Ms. Mayuree Chanthamat	Office of the Auditor - General
3. Ms. Jintana Chayakul	Office of the Auditor - General
4. Ms. Kannika Sangteerawatporn	Office of the Auditor - General

LEGAL ADVISORS (to proctor balloting in case of disputes during the meeting)

1. Ms. Peangpanor Boonklum	Weerawong, Chinnavat & Peangpanor Co., Ltd.
2. Ms. Sawita Peetawan	Weerawong, Chinnavat & Peangpanor Co., Ltd.
3. Mr. Arkraphol Phichedvanichok	Allen & Overy (Thailand) Co., Ltd.
4. Ms. Manunya Thitinuntawan	Allen & Overy (Thailand) Co., Ltd.

NUMBER OF SHAREHOLDERS (at the meeting's conclusion at 15.00 hours)

A total of 7,409 shareholders registered, of whom 3,079 were shareholders and 4,330 were proxy holders, commanding a total of 2,395,490,574 shares and accounting for 83.86% 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 any 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 was involved in any agenda item, must inform the meeting to excuse themselves and abstain from voting on each connected agenda.

1.5 Disclosure of Shareholders' Meeting Outcomes

For the 2014 AGM, PTT duly submitted the summary of resolutions of the AGM to SET and the SET Board within the afternoon of the date of the meeting (April 10, 2014). 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 to SET and the SEC within 14 days after the meeting. Meeting information, videotapes, photos, and audiotapes are accessible through PTT's website.

2. EQUITABLE TREATMENT OF SHAREHOLDERS

PTT treats all shareholders fairly (despite the different shareholding proportions and voting power due to their shares). The fundamental rights of the shareholders 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, disabled, and pregnant women with officers to attend to their needs. Information on

the shareholders meeting was announced ahead of the meeting, both in Thai and English. Directors with vested interests in any agenda must excuse themselves from the meeting on that agenda. 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 and all shareholders and stakeholders. In practice, shareholders with a combined holding of at least 100,000 shares could propose agenda items or nominate qualified directors before the AGM during the last quarter of the previous year.

For the 2014 AGM, PTT posted such criteria on its website and posted an announcement on the website of SET from October 1 - December 31, 2013, so that the 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, of which 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 2014 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 as well as able to facilitate the elderly and those on wheelchairs. Back-up meeting rooms were in place with a signal relay system between meeting rooms. Security precautions and emergency contingency

plans were in hand. Examination of registration credentials 5 days ahead of the meeting was possible. Officers provided photocopying and document verification services. 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 process. Lunch break was arranged for the stakeholders.

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 other relevant documents in English. Its website is also bilingual. Furthermore provided, it officers with skill in English on hand at meetings to facilitate foreign shareholders. If shareholders cannot communicate in Thai but want to pose queries or discuss in the meetings, PTT arranges for suitable communication and provide 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 cannot attend the 2014 AGM in person, they can appoint proxies or delegate their votes to any PTT's independent director in attendance. To this end, PTT has specified these independent directors' names in proxy forms defined by the Ministry of Commerce for voting on behalf of shareholders without conditions. PTT treats proxies as if they were shareholders. Thirty days ahead of each meeting, PTT discloses the proxy form, which is attached along with details and procedures on its website. Shareholders may make further inquiries about this by phone or other channels such as PTT's website and 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:** 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 optimum returns.
- To customers:** Ensuring customers' satisfaction and loyalty by delivering world-class quality products and services at fair prices.
- To business partners:** Conducting fair practice with all partners while promoting trust, relationship, and cooperation to extend business capability and increase efficiency in long-term business partnerships.
- To employees:** Promoting capability building professionally 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 a state enterprise serving as the national energy company, PTT secures natural resources to address the needs of the country while accommodating public policy on research, development, production, and distribution of alternative energy and clean energy to lower import dependence. Also, PTT generates income for the public sector (its major shareholder) for national development and is the leader in alternative energy.

PTT's businesses consist of procurement, transportation, distribution, gas processing, and investment in NGV stations, in addition to businesses that exploit and add value to natural gas through PTT Group companies. To achieve this, it secures gas supply from indigenous sources, imports from neighboring countries, and imports LNG to satisfy the increasing demand posed by the power, industrial, and transport sectors. The efficiency of gas separation plants (GSPs) has been improved to raise the total capacity for gas processing into assorted products for value addition and downstream applications.

PTT distributes its petroleum products (fuels, LPG, lubricating oil, and other products) through three main channels. First, retail marketing, conducted through PTT service stations, now developed into sophisticated and integrated stations. Second, commercial marketing, conducted through government agencies, state enterprises, industries, airliners, cargo ships, fishing boats, gas bottling plants, LPG outlets, and exports. And third, distribution of products through fuel traders under the Fuel Trade Act. PTT also constantly promotes biofuels—namely gasohol to replace gasoline, and biodiesel to replace diesel.

In addition, PTT invests in the exploration and production business, the oil refinery business, and the petrochemical business through its affiliates to enhance energy security and to maximize the benefit of natural resources, a vital element of national economic development. Details appear under “Nature of Business and Business Performance”.

3.1.2 Society and Communities

PTT is committed to the contribution to society, communities, and environment. Through the adoption of sufficiency economy philosophy, the company aims to create sustainable development. In 2014, PTT actively engaged in various projects that benefit local communities and society as a whole. The three strategies undertaken are (1) natural resource and environmental conservation, (2) educational development, and (3) quality of life improvement.

Details in the subject are described toward a Sustainable Future for Thais and 2014 Corporate Sustainability Report.

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 corporate social responsibility (CSR) to ensure investors that PTT provides sound investment returns and is sustainable, apart from being a part of Thai society in years to come.

Investors' Activities

Since 2006, PTT has continually arranged trips for minor investors to visit our operation, update information, and meet the management as well as participating in PTT's CSR activities in Rayong.

For 2013, the trip was planned for January 14 - 16, 2014, 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 2013 on September 23, 2013. With an overwhelming response from more than 2,000 investors, lots were drawn on December 17, 2013, with PTT management and the Corporate Governance Committee as witnesses, to decide the actual visitors' names. The results were announced on its website. In addition, PTT officers phoned the winners to confirm their interest. However, due to political demonstration at the time, which might affect the visit and the safety of the shareholders, it was then postponed and rescheduled to October 14 - 16, 2014 for a visit to Rayong GSP in Map Ta Phut Industrial Estate (a tour around the compound by bus with officers from the Rayong GSP providing information and answering questions from the visitors) and a CSR study trip to the HRH Princess Maha Chakri Sirindhorn Herb Garden in Rayong for 480 shareholders in three groups.

Those interested in visiting 2014 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

After the overwhelming response and success of our "Variety Concert" relationship activities with debenture holders from 2010-2013, PTT held the fifth concert in 2014, called "The Moment of Happiness", for about 28,000 debenture holders and their companions. The concert presented famous singers, as well as many other special guests. CSR and other enjoyable booth activities were also provided at the concert. Other activities held to engage and emphasize trust of debenture holders who invested in PTT debentures included "Happiness" magazine, and activities on health and family relations. In addition, PTT had arranged tours, both local and international, for our debenture holders to enhance good relations among the investors.

Activities for Institutional Investors

In 2014, besides investors' meetings to inform institutional investors and securities analysts on its quarterly performance, 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 takes customers' satisfaction seriously, since they buy our products and services. It offers fair prices, quality, and accountability to customers and consumers, and is committed to consistently developing its products and provides safe, integrated, prompt, and quality services in response to their needs.

PTT has implemented quality, security, safety, occupational health, and environmental management systems (QSHE) in its operations to focus on quality management through efficient work processes to deliver products and services that satisfy customers. At the heart of its operations is the continual implementation of assorted systems, including ISO 9001, ISO 14001, TIS, OHSAS 18001.

PTT manages customers and marketing in compliance with its vision and mission to cater to consumers' diverse needs and expectations. It thus divides its market into two, domestic and overseas markets, with two major groups of customers: Business to Business (B2B) and Business to Customer (B2C), who consume its gas, oil, and petrochemical products. Customer lifecycles of each group are also divided into (1) current customers who consume or decrease the consumption of PTT's products, and (2) potential customers, which include new customers, those of PTT's rivals, and ex-customers.

PTT employs different processes in taking in views, comments, and complaints from its different groups of customers, markets, and lifecycles to learn about their needs, expectations, and necessity levels. For the B2B group, PTT emphasis is on site visits to gather information on products, services, and customer support. The information will help design customer relationship plans. Site visits are also used for the B2B group with decreasing consumption to find out the reasons of their product or service dissatisfaction, and come up with a plan to restore them. For potential customers, PTT holds meetings with its marketing partners and financial institutions that rank credit ratings, searches website and reports from various publications to select potential customers, and expands the business and supports future customers. For the B2C group, social media (PTT owned/public owned) and points of purchase were the main sources of information. PTT's 1365 call center can be accessed 24 hours a day. Surveys on particular information were used to attract new customers and markets, including definition of qualifications for the development of new lubricating oil for eco-cars. The data are also used in the customer relationship management (CRM) plan for holding sales promotions with other products/services, developing programs for area managers to enable business consultancy to sales agents. Under the business partner program, area sales managers upgrade and provide business promotions to business partners after meetings to exchange views and establish mutual business opportunities. Another example is the PTT Tune Up program, a complimentary engine check-up.

PTT applied the QSHE Management System to maintain its operation standards. Users' Guide and Operating Manual and service standards for every process are in place to ensure that all personnels and processes throughout the chain could keep up with the same high standards in response to customers' needs.

PTT has instituted a complaint management process should the customers become dissatisfied with its products or services. It provides diverse channels of taking in views, comments, and complaints from customers and consumers, which differ among groups, markets, and lifecycles as mentioned above. All complaints are recorded in the CRC system and handled within the day. The customers will be informed once the matter is resolved, and satisfaction on the handling process and results are surveyed to confirm their confidence and trust in PTT.

PTT has set up processes to assess customers' satisfaction, dissatisfaction, and loyalty. Data on customers' needs help improve products/services, work processes, strategic plans, marketing plans, and CRM plans to enable PTT to respond to customers' needs beyond their expectation.

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, as 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, openness to scrutiny and maximum benefit.

PTT requires price bidders to strictly conform to the rules about 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' operation sites to assess their capabilities, particularly those on the QSHE side. Moreover, business partners' employees must undergo the do's and don'ts in PTT's operating areas in addition to conforming to the requirements for entering sites to work, as described for each site.

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. In 2014, the PTT AVL consisted of 245 companies from 16 business groups.

To ensure the efficient preparation of PTT AVL, PTT considers criteria, conditions, qualifications of the business partners who apply for PTT AVL in each business group. The initial qualifications of the business partners must meet the following requirements:

1. The business partners must not abandon work of PTT, the government sector, state enterprises, and government agencies.

2. If the 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 work of PTT, the government sector, state enterprises, and the government agencies, in which case PTT will not accept the business partners in PTT AVL until PTT receives a letter proving the cancellation of the revocation.

3. The business partners must understand and recognize PTT Suppliers' Sustainable Code of Conduct (SSCoC).

Apart from the initial criteria, PTT also assesses business partners' operation and sustainable implementation.

After the business partners deliver products/services in each allotment, PTT will assess them and notify them of the good points/improvements to be made in operation so that they may acknowledge and improve themselves for future supplier development.

PTT is committed to operating businesses that lead to sustainable growth and adheres to CG for social, community, and environmental development. To efficiently achieve its goals, PTT stresses the importance of supply chain management and development through monitoring our business partners. In 2012, "PTT Supplier Sustainable Code of Conduct" was defined with the contents and scope of the code in line with related rules, regulations, and laws. The Code consists of four major practices:

- Business Ethics
- Human Rights
- Occupational Health and Safety
- Environmental Management

The Code came into effect on April 1, 2012, and will be enforced on PTT's contracted suppliers with contract value over THB 2 million and/or on work with operations with potential impacts on safety and the environment.

To ensure its sustainable procurement, PTT uses Environment, Social, and Governance (ESG) as part of suppliers' management in selection process and detailed specifications according to the risk of the suppliers' particular business group. This year, PTT held a training course for its procurement staff on the subject, as well as a brainstorming workshop on policy formulation of sustainable procurement and ESG implementation in the processes of procurement and suppliers' management.

Moreover, PTT supports Thai suppliers and considers them part of the company's procurement policy. 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 the procurement of products from the areas where PTT sites are located, as well as promoting jobs and generating income for people in the communities.

Efficient and competent operation of suppliers is important to PTT, which targets sustainable growth for itself as well as its suppliers. Approaches for the management and development of suppliers were set up to:

Exchange information and knowledge between PTT and suppliers and develop suppliers' potential to support PTT's performance and success in its operations, business continuity, and social responsibility. This year PTT held six "Suppliers Relationship Management (SRM)" seminars.

The 1st Suppliers Relationship Management Seminar was held on May 29, 2014, to communicate with major suppliers of Khanom GSP. The suppliers learned the following from the seminar:

- Procurement policy
- Operation directions which related to procurement of Khanom GSP.

Besides, a workshop was held with joint activities and exchange of views between procurement staff and suppliers to create sustainable partnership.

The 2nd Suppliers Relationship Management Seminar was held on July 2, 2014, to communicate with major suppliers of gas transmission pipeline. The suppliers learned the following from the seminar:

- Procurement policy
- Procurement for PTT Group's eco-industrial development.

Besides, a workshop was held with joint activities and exchange of views between procurement staff and suppliers to create sustainable partnership.

The 3rd Suppliers Relationship Management Seminar was held on July 24, 2014, to communicate with suppliers of natural gas for vehicles (NGV). The suppliers learned the following from the seminar:

- NGV business trend
- Procurement policy.

Besides, a workshop was held with joint activities and exchange of views between procurement staff and suppliers to create sustainable partnership.

The 4th Suppliers Relationship Management Seminar was held on August 26, 2014, to communicate with suppliers in the lubricant business. The suppliers learned the following from the seminar:

- Procurement policy
- Lubricant market policy
- Lubricant procurement policy.

The 5th Suppliers Relationship Management Seminar was held on September 30, 2014, to communicate with suppliers of PTT Group's joint procurement. The suppliers learned about PTT's operating direction in the following fields:

- Procurement policy
- Supply Chain Sustainability

The 6th Suppliers Relationship Management Seminar was held on December 3, 2014, to communicate with suppliers of the Eastern Petroleum Terminal Department. The suppliers learned the following:

- Procurement policy
- Green Procurement

The details of the communicated procurement policy included the anti-corruption policy, the approved vendor list, supply chain sustainable management, and adherence to Article 103/7 of the Anti-Corruption Act.

- Moreover, PTT's operating directions, vision, and missions were communicated. Workshops were held between the procurement staff and suppliers to exchange views for operation improvement, foster good relationship, and create sustainable partnership.

3.1.6 Employees

(The information on employees is reported under Management Structure, Item "Employees").

3.2 Respect for International Human Rights Principles

PTT requires that all its directors, the management, and employees observe laws, customs, and culture 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.

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 March 1, 2012, PTT indicates its intention to observe principles on human rights, labor rights, environmental conservation, and anti-corruption as its guidelines for doing business, which will resolve fundamental problems faced by the business sector and communities, as a responsible corporate citizen should do. PTT Group, including PTT Global Chemical Plc., PTT Exploration and Production Plc., IRPC Plc., Bangchak Petroleum Plc., and Thai Oil Plc., joined the UNGC. Relevant performance was detailed in the Corporate Sustainability Report 2014.

3.3 Significant Disputes with Stakeholders

This appears under “Legal Disputes” in Form 56-1

4. DISCLOSURE OF INFORMATION AND TRANSPARENCY

Disclosure of information is a key index of transparency, an important factor to create confidence among investors and stakeholders. PTT values correct, accurate disclosure of information and creates numerous channels of disclosure of information so that all stakeholders can gain easy access to information. PTT promotes awareness among directors, the management, and employees of the importance of good corporate governance and transparency to their work, and creates appropriate mechanisms to receive complaints and fair treatment both for those who file complaints and those who have been complained against as follows:

4.1 Financial and Non-financial Reports

PTT prepared the Corporate Sustainability Report 2014 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 Supplement (OGSS), (G4), of the Global Reporting Initiative (GRI) approach, to ensure that the information disclosure was suitable to and more specific for the business. PTT has commissioned an external party for the third consecutive year for the certification of the report's accuracy, transparency, and accountability for years and years to come. It was also validated by GRI (Core level). This report together with the annual report was delivered to the shareholders and is accessible to those interested via 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, aimed at 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, mission, quarterly performance, CG, management toward 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 56-2)/ 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 performances
- Highlights of social responsibility activities

Through the years, PTT has valued the disclosure of information that is accurate, complete, transparent, and comprehensive, as well as direct and indirect presentation of performance. The company has kept the investors, shareholders, and relevant parties informed of its information. A summary of our activities appears 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.

In 2013 - 2014, these key activities took place:

Activities	2013 (times)	2014 (times)
International roadshows	15	12
Domestic roadshows	7	9
Analyst Meeting	4	4
Credit Rating Review	4	4
Company visit/ Conference call	177	201
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	4
Trips for minor (retail) investors to visit and meet management team members	One visit (three groups) (during October 14 - 16, 2014, due to political)	One visit (three groups) (planned for 2015 demonstration)
Relations activities with debenture holders	20	14

- Indirect: Information about PTT, its performance, financial statements, and reports filed with SET are found at 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 contact Investor Relations at Tel. 0-2537-3518-9 or send inquiries to ir@pttplc.com, or through PTT website at 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, the activities appeared below:

Activities	2013 (times)	2014 (times)
E-mails	206	108
News/ Photo releases	206	237
Press conferences	48	38
Media visits to operations (domestic and international)	8	10
Welcoming and information provision to visiting agencies for assorted purposes	34 groups (due to political unrest) for 1,465 persons	30 groups (due to political unrest) for 1,425 persons

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 the Company through the intranet webboard or outside the Company through its website, by phone, letter, or e-mail. Please contact Investor Relations, Office of the President and Corporate Secretary, Corporate Communication Department, or the Ordering & Customer Relations Center through these channels:

- Telephone: PTT Contact Center 1365, 0-2537-2000
- Website: <http://www.pttplc.com>
- E-mail:
 - Ordering & Customer Relations Center: 1365@pttplc.com
 - Corporate Communication Department: corporate@pttplc.com
 - Office of the President and Corporate Secretary: corporatesecretary@pttplc.com
 - Investor Relations Department: ir@pttplc.com
 - CG Hot Line: 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 the 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 2014, the queries, comments, and recommendations received totaled 88,592, mostly on NGV energy credit cards, PTT Blue Card, service stations/ shops, and PTT's projects.

PTT offers opportunities for the public to file complaints on 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, and 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 the protection of those who file the complaints will be observed. No any material whistleblowing cases incurred during the year 2014.

SPECIFIC COMMITTEES, ASSESSMENT OF THE DIRECTORS, DIRECTOR'S 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 CG and the State Enterprise Policy Office's (SEPO) guidelines on corporate governance of State-owned enterprises (2009). PTT today therefore has five specific 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 specific committees consists of qualified, non-executive 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 policy, implementation, and monitoring of the operation on the 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 anti-corruption implementation.

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 its findings to the Board. The Board is accountable for PTT Group's consolidated financial statements as well as other financial information ('Report on the Board's Responsibility for Financial Reports') 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 otherwise, is completely and consistently disclosed.

The Board approved the appointment of the Audit Committee on October 1, 2001, which consisted of its directors with the qualifications specified by securities and exchange laws and SET. The committee must consist of at least three directors. As of February 5, 2015, 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 the Company's financial statements.

1. Mr. Kittipong Kittayarak was appointed Member of the Audit Committee with effect from July 5, 2014, and appointed Chairman of the Audit Committee with effect from September 4, 2014.
2. Mrs. Nuntawan Sakuntanaga was appointed Member of the Audit Committee with effect from July 5, 2014.
3. Mr. Vichai Assarasakorn was appointed Member of the Audit Committee with effect from September 4, 2014.

The Executive Vice President, Office of Corporate Audit, served as secretary.

Duties and Responsibilities

- Prepare charter on internal audit of 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, securities and exchange 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 on 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, the internal audit performance is prepared in the annual report format. The reports must be submitted to the governing 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.
- 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 the meetings of shareholders to answer on matters related to the Committee or appointment of external auditor.
- Ensure that the management have 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 violation against laws, regulations, cabinet's 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 Regulations on the Audit Committee and Internal Audit Unit 2014.

In 2014, the committee held 15 meetings (12 regular and 3 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.

1.2 The Nominating Committee

The Board approved the appointment of the Nominating Committee on October 1, 2001, made up of three of its directors. As of February 5, 2015, it consisted of:

Name	Position	Remarks
1. Mr. Watcharakiti Watcharothai	Chairman	Independent director
2. AM Boonsuib Prasit	Member	Independent director
3. Mr. Pailin Chuchottaworn	Member	Director & secretary

Notes: 1. Mr. Watcharakiti Watcharothai was appointed Chairman of the Nominating Committee with effect from September 4, 2014.
2. AM Boonsuib Prasit was appointed Member of the Nominating Committee with effect from September 4, 2014.

Duties and Responsibilities

- Nominate qualified candidates for directors or the President.
- Define the recruitment procedures and criteria for directors or the President to ensure transparency.

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, in line with PTT's business operation, and defines the procedures for nominating qualified candidates.

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.

In 2014, the committee held six meetings. The consideration of the directors took into account their qualifications. According to the Corporate Governance, Ethical Standard, and Code of Business Ethics Handbook, the qualifications of the directors require their expertise in various fields necessary to the management of PTT, with at least three directors with knowledge of the petroleum energy business, at least one expert in law, and at least one expert in accounting and finance (Board Composition).

1.3 The Remuneration Committee

The Board approved the appointment of the Remuneration Committee on October 1, 2001, by appointing three directors from the Board. As of February 5, 2015, it consisted of:

Name	Position	Remarks
1. Mr. Rungson Sriworasat	Chairman	Director
2. Mr. Wacharakiti Watcharothai	Member	Independent director
3. Mr. Chanvit Amatamatucharti	Member	Independent director

Notes:

1. Mr. Rungson Sriworasat was appointed Chairman of the Remuneration Committee with effect from September 4, 2014.
2. Mr. Wacharakiti Watcharothai was appointed Member of the Remuneration Committee with effect from July 5, 2014.
3. Mr. Chanvit Amatamatucharti was appointed Member of the Remuneration Committee with effect from September 4, 2014.

Duties and Responsibilities

- Define compensation guidelines for directors and the President.
- Define procedures and criteria for fair and sensible compensation paid to directors and the President for approval at the Board's or shareholders' meetings.

In 2014, the committee held one meeting.

1.4 The Corporate Governance Committee

The Board approved the appointment of the Corporate Governance Committee on June 24, 2004, consisting of three directors from the Board. As of February 5, 2015, it consisted of:

	Name	Position	Remarks
1.	Gen. Chatchalerm Chalermsookh	Chairman	Independent director
2.	Mr. Don Wasantapruek	Member	Independent director
3.	Mr. Watcharakiti Watcharothai	Member	Independent director

Notes: 1. Gen. Chatchalerm Chalermsookh was appointed Chairman of the Corporate Governance Committee with effect from September 4, 2014.
2. Mr. Don Wasantapruek was appointed Member of the Corporate Governance Committee with effect from September 4, 2014.

The Vice President, Office of the President and Corporate Secretary, served as secretary.

Duties and responsibilities

- Propose CG guidelines to the Board.
 - Advise the Board on CG matters.
 - Ensure that the duties and responsibilities of directors and the management conform to CG principles.
 - Revise guidelines for PTT's CG against those of international organizations and present its recommendations to the Board.
 - Delegate corporate governance policies to the Corporate Governance Task Force.
 - Delegate policy and guidelines to implement Sustainability Management (SM) and Corporate Social Responsibility (CSR)
 - Monitor the implementation of SM and report its findings to the Board.
 - Define guidelines for PTT's oversight of anti-corruption.
- In 2014, the committee held five meetings.

1.5 The Enterprise Risk Management Committee

The Board approved the appointment of the Enterprise Risk Management Committee on October 25, 2013, and November 22, 2013, and January 31, 2014, by appointing at least three directors from the Board, one of which must be an independent director. As of February 5, 2015, it consisted of:

Name	Position	Remarks
1. Mr. Chanvit Amatamatucharti*	Chairman	Independent director
2. Mr. Prasert Bunsumpun	Member	Director
3. (Nomination is in process)	Member	-

Notes: * Mr. Kurujit Nakornthap was appointed Chairman of the Enterprise Risk Management Committee with effect from September 4, 2014 and resigned from PTT directorship with effect from January 13, 2015.

1. Mr. Chanvit Amatamatucharti was appointed Member of the Enterprise Risk Management Committee with effect from September 4, 2014, and was appointed Chairman of the Enterprise Risk Management Committee with effect from January 30, 2015.

Senior Executive Vice President, Corporate Strategy as Chief Risk Officer (CRO) served as secretary.

Duties and responsibilities

- Define and review the Company's risk management policy and framework.
- Regulate and support risk management process to be in line with strategy 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 the Risk Management Report 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 continual efficiency.
- Support the Chief Risk Officer (CRO) to achieve the Company's risk management's goals.
- Report risk management results to the Board. In case where there are factors or events that might have significant on the Company, the Board must be notified immediately.
- The Enterprise Risk Management Committee should meet at least once a quarter.
- Perform other duties as assigned by the Board.

Note that the reviewing and updating of PTT's risk management is still the responsibility of the Audit Committee and the Office of Corporate Audit. In 2014, the Committee held five meetings.

2. SELF-ASSESSMENT OF THE BOARD

In 2014, PTT engaged a third party (PricewaterhouseCoopers) to informally review the four self-assessment forms, 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) according to SET's corporate governance principles for listed companies (2012 edition). The third party presented its guidelines and recommendations for the assessment of the Board. It found that the four self-assessment forms were still appropriate to the assessment of the Board in 2014, but some improvements were needed for completeness.

By the resolution of Board meeting No. 10/2014 of October 24, 2014, the Board approved the four self-assessment forms used in 2013 for this year namely; Assessment of the Board, Assessment of Individual Directors (self-assessment), Individual Assessment of Other Directors (cross-assessments), and Assessment of the Specific Committees (the entire committees). The Board agreed that the forms were appropriate for the assessment of the Board in 2014 with improvements in some items for completeness, such as Board Policy, Board Practices, Board Training and Development, and Ethics (anti-corruption assessment). The four assessments forms stipulated the percentages corresponding to the levels of performance achieved in each of 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 Meeting, and Board Training and Development (added in 2014).

The results indicated excellent/ most suitable overall performance, with an average score of 88.97%.

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 95.71%.

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 97.62%.

4. Self-assessment of the Specific Committees (the entire committees) consisted of four identical categories as assessment of the Board for direct comparison.

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 99.31%.

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 95.14%.

4.4 The Enterprise Risk Management Committee indicated excellent performance with an average score of 98.61%.

5. Assessment of the Audit Committee's Performance

Under PTT Regulations on the Audit Committee and Internal Audit Unit 2014 on performance assessment, 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. For the year 2014, the Audit Committee's meeting No. 10/2014 of October 10, 2014, 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 special meeting No. 2/2014 of November 28, 2014, 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 the members/ commitment to work and meetings.

The assessment criteria were 4 = Excellent, 3 = Very good, 2 = Good, 1 = Need improvement.

The result of the Audit Committee's self-assessment indicated "very good to excellent" overall performance, with an average score of 3.69.

- Cross-assessments consisted of six identical categories as listed above for direct comparison.

The result of the Audit Committee's self-assessment indicated "very good to excellent" overall performance, with an average score of 3.91.

- Assessment of the entire committee consisted of structure and composition/ 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 result of the assessment of the entire Audit Committee was at the "regularly implemented" level, with an average score of 3.97.

3. 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. The 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 corporate governance 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. Report
9. Financial Report
10. Sustainability Report
11. Governance book
12. Publication “PTT: The S-Curve Story”
13. Debenture Magazine
14. PTT Spirit publication
15. Article: “Truth about Privatization”.

In his briefing to new directors, the President & CEO presents 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

The Board and the management value regular participation in development training relevant to their performance, as seen in each of their profiles. Most directors have undergone training with Thai Institute of Directors (IOD). PTT supports and encourages their training with IOD as well as other institutions in all relevant courses throughout the year. In addition, it stages study trips to other agencies and organizations to promote helpful initiatives for application to PTT's business. In 2014, the following directors underwent training and seminars.

Name	Course/ Seminar
Mr. Piyasvasti Amranand	- Seminar on “Board Effectiveness.” - Visit and study tour of the operation of a gas platform of PTT Exploration and Production Plc. (PTTEP) - Study tours on renewable energy in Portugal and France - New Directors' Orientation
Mr. Kittipong Kittayarak	- Director Accreditation Program (DAP 112/2014) - Fifth National Conference on “Tackling Corruption through Public-Private Collaboration” - New Directors' Orientation
Mr. Watcharakiti Watcharothai	- Fifth National Conference on “Tackling Corruption through Public-Private Collaboration” - Seminar on “Board Effectiveness” - Lecture on “Global and Key Thai Energy Issues”, organized by PTTEP
Mr. Rungson Sriworasat	- Seminar on “Board Effectiveness” - New Directors' Orientation
Gen. Chatchalerm Chalermsook	- Seminar on “Board Effectiveness” - New Directors' Orientation
Mr. Kurujit Nakornthap	- Seminar on “Board Effectiveness” - Lecture on “Global and Key Thai Energy Issues”, organized by PTTEP - New Directors' Orientation

Name	Course/ Seminar
Mrs. Nuntawan Sakuntanaga	- Seminar on “Board Effectiveness” - Certificate in Top Executives in the Energy Education Program (Class of 5th) (2014) - Thailand Energy Award (TEA) - New Directors’ Orientation
Mr. Vichai Assarasakorn	- Fifth National Conference on “Tackling Corruption through Public-Private Collaboration” - Seminar on “Board Effectiveness” - Lecture on “Global and Key Thai Energy Issues”, organized by PTTEP - New Directors’ Orientation
AM Boonnsuib Prasit	- Fifth National Conference on “Tackling Corruption through Public-Private Collaboration” - Seminar on “Board Effectiveness” - Lecture on “Global and Key Thai Energy Issues”, organized by PTTEP - New Directors’ Orientation
Mr. Chanvit Amatamatucharti	- Seminar on “Board Effectiveness”. - New Directors’ Orientation
Mr. Don Wasantapruerk	- Fifth National Conference on “Tackling Corruption through Public-Private Collaboration” - Seminar on “Board Effectiveness” - Lecture on “Global and Key Thai Energy Issues”, organized by PTTEP - New Directors’ Orientation
Mr. Prasert Bunsumpun	- Seminar on “Board Effectiveness”
Mr. Areepong Bhoocha-oom	- Seminar on “Board Effectiveness” - Lecture on “Global and Key Thai Energy Issues”, organized by PTTEP
Mr. Pailin Chuchottaworn	- Seminar on “Board Effectiveness” - Lecture on “Global and Key Thai Energy Issues”, organized by PTTEP

Moreover, in 2014, the management provided key information, such as the business operation of business units and PTT Group companies, oil purchase and gas sales, situation of oil prices in the global markets, and others, through Board Briefing all year round.

- Site visit/ Study visit

PTT's policy is to organize periodic visits and study trips to work sites, both domestic and overseas, for the directors to foster their understanding of the business and apply their expertise and experience to their consideration of matters related to energy.

In 2014, PTT organized the following overseas trips:

1. Study visits on energy in Turkey and Greece
 - Study visit to RES Anatolia company in Turkey. The company deals with renewable energy, mainly in wind power and solar power plants. Turkey consumes energy from gas (70%), water and coal (20 - 25%), and the rest from renewable energy. As Turkey has no natural gas, it has to import via transmission pipelines from Russia and Iran. Therefore, the government promotes the use of renewable energy through price subsidies and sets the target for the next 10 - 15 years to lower gas dependence by 30% and increase the wind energy business by 30%. The company has set a target of generating 20,000 MW of electricity by 2023.
 - A study visit to Wastewater Treatment Plant (WWTP) of Santorini Island in Greece. It is a process of insular wastewater treatment. The local management, awareness of the local residents, and their cooperation with the community leaders for sustainable environmental protection have been illustrated. It is a natural process using bacteria, lime, and chlorine in the treatment. The separated waste is buried in a prepared landfill on the island, far from the community. However, the land cannot be used for agriculture due to license requirements in Greece. The water that has gone through the treatment is clean and discharged into the sea.

The study visits greatly benefited the directors in exchanging views with experts in leading energy companies overseas, fostering understanding of energy, and the government policy on energy from other countries in order to formulate strategies, especially the trend of the renewable energy business.

2. Visit/ study at the Arthit Project, a gas platform operated by PTTEP in the Gulf of Thailand, offshore Songkhla. This visit was led by the Chairman (Mr. Piyasvasti Amranand) and accompanied by a group of directors in order to study the operation of the platform.

3. Study visits on alternative energy in Portugal and France

- A study visit to WavEC Energy Center in Lisbon, Portugal. It is a non-profit association focusing on project research on offshore/ marine renewable energy. It provides services in research, counseling, and technical analysis for the development of the marine renewable energy industry. The company's main revenue comes from R&D. The company has been involved in projects in wind energy and water energy in many countries, both in and outside Europe, including Spain and South Korea. The company commented that Thailand is an interesting area for the study of Ocean Thermal Energy Conversion (OTEC), which can use energy for air condition.
- A study visit to Museu da Electricidade at Lisbon, Lisbon, Portugal. It is the country's first coal power station, built between 1908 - 1972 to generate electricity to Lisbon residents and the vicinity. At present, it is a museum. The lecture was given by an engineer student on the history of the power plant, standard, safety of the former coal power plant, process of power generation from coal, and others as well as models of alternative energy in various forms.

- Meeting with Vencorex, a PTTGC affiliate
 - o Vencorex is the producer and technology owner of the production of Isocyanate, which plays an important role in Europe, especially chemicals such as toluene diisocyanate (TDI), hexamethylene diisocyanate (HDI), and HDI derivatives. These are main raw materials for the production of polyurethane (PU) with qualifications appropriate for the production of foam and coatings in the automotive and construction industries. The company has the following goals:
 1. Build a foundation to enter the polyurethane (PU) business
 2. Promote Vencorex in France to become the center of R&D in technology of isocyanate products
 3. Expand the production base of TDI, HDI, and HDI derivatives to Asia to meet the increased markets in the future.
- Lecture on PTTEP's African Project
 - o PTTEP's Algeria Hassi Bir Rekaiz (HBR) Project (Hassi Bir Rekaiz plot) is situated on land in the east of Algeria, in an area of 5,378 square km. The joint investors include PTTEP (24.5%, operator), SONATRACH (the Algerian National Oil and Gas Company) (51%), and CNOOC Limited (China's largest producer of offshore crude oil and natural gas) (24.5%).
The operating employees here work under very high risk in the search for energy sources, due to the domestic situation.
- A study visit to Solar Farm in Les Mees, France, jointly developed by Siemens and Eco Delta Development. The company uses 70 hectares of land and about 112,000 solar panels, generating about 30 MW of electricity to meet the demand of 12,000 households. It is a useful renewable energy since it can reduce carbon dioxide emission.

The policy is to promote directors' education about various countries' energy usage and directions so that the Board may compare practices with Thailand's energy policy formulation, while enabling them to monitor data and progress in the energy business and directly share views with experts in world-class energy companies. This broadens their views on PTT Group's overseas investment expansion, which is in line with future Group business directions. The data, knowledge, and first-hand experience derived will certainly contribute to knowledge and understanding of the global energy business and help in the deliberation of suitable businesses for PTT and Thailand.

NOMINATION AND APPOINTMENT OF DIRECTORS AND PRESIDENT & CHIEF EXECUTIVE OFFICER

1. INDEPENDENT DIRECTORS

1.1 Qualifications of Independent Directors

At its meeting No. 1/2013 of January 17, 2013, the Board endorsed a proposal of the Corporate Governance Committee to redefine PTT independent directors in a way that is more stringent than the criteria of SEC and SET and to define their roles and responsibility in a manual, signed by the Chairman on January 21, 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 advisors-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 consanguinity 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 rendering
 - 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 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 Responsibilities 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 responsibilities 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 corporate governance; 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, 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 leadership and ensures that directors do not fall under the influence of the management by chairing Board meetings and shareholders' meetings judiciously and efficiently, while encouraging participants to exercise their voting rights and strictly comply with good CG principles.

1.3 Independence of the Chairman

At its extraordinary meeting No. 1/2014 of July 4, 2014, the Board appointed Mr. Piyasvasti Amranand as the Chairman, in compliance with the corporate governance 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 item and the submission of the name 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, 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's consideration. The appointment must be completed within one year from the day the incumbent vacated the position. The hiring 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 hiring contract, it does not have to go through the nominating process, but it cannot hire that person for more than two consecutive terms.

The information on succession planning for the executives is reported under Management Structure, entitled "Employees".

SUPERVISION ON THE OPERATION OF THE SUBSIDIARY COMPANIES AND THE ASSOCIATED COMPANIES

SUPERVISION MECHANISMS

PTT has defined a corporate governance 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 dimensions 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 operation among PTT Group companies toward the same direction, conforming with 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 operation provides 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 policies

The management is divided into two levels as follows:

- Corporate Level consists of:
 - Corporate Center focuses on supervision and shared service 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 the achievements, integrates PTT Group's corporate governance policy with its own operation for maximum benefit.

The management at the Corporate Level and the Operating Level (BU/ Flagship) will be linked through the following corporate governance 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 of 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:

- The regulations of the Securities and Exchange Commission
- 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

In 2014, PTT had 43 affiliated companies, seven of which are SET-listed in which PTT has invested and held shares. About 29% of its current net income is derived from these companies. 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 for such appointments are:

1) To ensure that the management of a given company aligns with the policy 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 alliances for 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 state enterprises, 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 February 5, 2015, PTT had six 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 January 24, 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.

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 dimensions, as well as adequate and suitable for its businesses. Adding efficiency and effectiveness to business, resource utilization, and stewardship of properties, this system consists of an accurate and reliable accounting system and financial reporting. In addition, it calls for strict conformance to laws and regulations related to PTT's businesses.

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.

PTT has conducted an internal control assessment by 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 Group 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 every 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 apply the good CG policy and code of conduct to bring 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) 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, authorities, duties, and responsibilities.

- It has integrated CG in 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. Abide by the code of conduct on treatment of creditors
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 property 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 operation. 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 a 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. In 2014, 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 of 2014, PTT requires 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 Chairman of the Board and the Chairman of the Audit Committee to check and manage the conflicts of interest. This year 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 the 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 of 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 forbidding directors, the management, or internal units with inside information to disclose such information to external parties or unrelated parties, and to buy or sell PTT shares within 45 days 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 abuse of such inside information. In 2014, all directors and management have strictly observed this policy. The notifications of for bidding sale, purchase, disposal, or receipt of PTT's shares were sent to the directors and the management four times this year: (1) between January 1 - February 28, 2014 (2) between April 1 - May 15, 2014 (3) between July 1 - August 14, 2014 and (4) between October 1 - November 14, 2014.

Report on Directors' Securities Portfolio 2013 - 2014

No.	Name	Shares		Shares	Remark
		Dec 31, 2013	Dec 31, 2014	Change during the year	
1.	Mr. Piyasvasti Amranand	N/A	-	-	Appointed on July 1, 2014 (No PTT share held)
2.	Mr. Kittipong Kittayarak	N/A	-	-	Appointed on July 1, 2014 (No PTT share held)
3.	Mr. Watcharakiti Watcharothai	-	-	-	(No PTT share held)
4.	Mr. Rungson Sriworasat	N/A	-	-	Appointed on July 26, 2014 (No PTT share held)
5.	Gen. Chatchalerm Chalermsook	N/A	-	-	Appointed on September 4, 2014 (No PTT share held)
6.	Mr. Kurujit Nakornthap*	N/A	-	-	Appointed on July 1, 2014 (No PTT share held)
7.	Mrs. Nuntawan Sakuntanaga	N/A	-	-	Appointed on July 1, 2014 (No PTT share held)
8.	Mr. Vichai Assarasakorn	N/A	-	-	Appointed on September 4, 2014 (No PTT share held)
9.	AM Boonsuib Prasit	N/A	-	-	Appointed on September 4, 2014 (No PTT share held)
10.	Mr. Chanvit Amatamatucharti	N/A	-	-	Appointed on September 4, 2014 (No PTT share held)
11.	Mr. Don Wasantapruek	N/A	-	-	Appointed on July 26, 2014 (No PTT share held)
12.	Mr. Prasert Bunsumpun	210,800	130,800	(80,000)	(80,000 shares was traded in 2014)
13.	Mr. Areepong Bhoocha-oom	N/A	-	-	Appointed on July 7, 2014 (No PTT share held)
14.	Mr. Pailin Chuchottaworn	-	-	-	Shown in the Management's Ownership of Shares Table

Securities Portfolio of Directors Who Completed Their Terms and Who Resigned During the Year 2014

No.	Name	Shares		Shares	Remark
		Dec 31, 2013	Dec 31, 2014	Change during the year	
1.	Mr. Chitrapongse Kwangsuksathit	218,090	N/A	N/A	Term completed on April 10, 2014
	Spouse	40,600			
2.	Mr. Parnpree Bahiddha- Nukara	-	N/A	N/A	Resigned on June 15, 2014 (No PTT share held)
3.	Mr. Waroonthep Watcharaporn	-	N/A	N/A	Resigned on June 16, 2014 (No PTT share held)
4.	Mr. Athapol Yaisawang	-	N/A	N/A	Resigned on June 17, 2014 (No PTT share held))
5.	Mr. Suthep Liumsirijarern	-	N/A	N/A	Resigned on June 28, 2014 (No PTT share held)
6.	Mr. Sihasak Phuanketkeow	-	N/A	N/A	Resigned on June 30, 2014 (No PTT share held)
7.	Mr. Insorn Buakeow	-	N/A	N/A	Resigned on June 30, 2014 (No PTT share held)
8.	Adjunct Prof. Dr. Thosaporn Sirisumphand	-	N/A	N/A	Resigned on June 30, 2014 (No PTT share held)
9.	Mr. Boonsom Lerthirunwong	-	N/A	N/A	Resigned on June 30, 2014 (No PTT share held)
10.	Mr. Somchai Sujjapongse	-	N/A	N/A	Resigned on July 21, 2014 (No PTT share held)
11.	ACM Prajin Juntong	-	N/A	N/A	Resigned on August 23, 2014 (No PTT share held)
12.	Gen. Paiboon Koomchaya	-	N/A	N/A	Resigned on August 25, 2014 (No PTT share held)
13.	Mr. Pornchai Rujiprapa	-	N/A	N/A	Resigned on August 28, 2014 (No PTT share held)
14.	Mr. Arkhom Termittayapaisith	-	N/A	N/A	Resigned on August 28, 2014 (No PTT share held)
15.	Mr. Montri Sotangkul	-	N/A	N/A	Vacated office on December 26, 2014 (No PTT share held)

Management's Ownership of Shares (As of December 31, 2013 and December 31, 2014)

No.	Name	Shares			Warrant#1		Warrant#2		Remark
		Dec 31, 2013	Dec 31, 2014	Change during the year	Allocated in 2005	Remaining	Allocated in 2006	Remaining	
1.	Mr. Pailin Chuchottaworn	60,000	60,000	-	52,600	-	27,600	-	(No trading transactions of PTT shares during 2014)
	Spouse	2,000	2,000	-	-	-	-	-	(No trading transactions of PTT shares during 2014)
2.	Mr. Wirat Uanarumit	25,500	25,500	-	-	-	-	-	(No trading transactions of PTT shares during 2014)
3.	Mr. Surong Bulakul	118,183	118,183	-	63,300	-	33,000	-	(No trading transactions of PTT shares during 2014)
4.	Mr. Nuttachat Charuchinda	10,563	63	5,000 (15,500)	60,800	-	31,800	-	Transactions of PTT shares in 2014: - Buy in 5,000 shares - Sell out 15,500 shares
5.	Mr. Sarun Rungkasiri	0	0	-	56,900	-	30,000	-	(No trading transactions of PTT shares during 2014)
	Spouse	0	0	-	N/A	N/A	N/A	N/A	(No trading transactions of PTT shares during 2014)
6.	Mr. Pitipan Teparitarnmargorn	8,334	4,334	(4,000)	38,500	-	20,400	-	Transactions of PTT shares in 2014: Sell out 4,000 shares
7.	Mr. Charcrie Buranakanonda	44,108	44,108	-	N/A	N/A	N/A	N/A	(No trading transactions of PTT shares during 2014)
	Spouse	11,300	11,300	-	-	-	-	-	(No trading transactions of PTT shares during 2014)
8.	Mr. Chavalit Punthong	0	0	-	N/A	N/A	N/A	N/A	(No trading transactions of PTT shares during 2014)
9.	Mr. Sarakorn Kulatham	46,400	45,400	13,000 (14,000)	54,200	-	28,300	-	Transactions of PTT shares in 2014: - Buy in 13,000 shares - Sell out 14,000 shares
	Spouse	13,500	11,000	3,000 (5,500)	-	-	-	-	Transactions of PTT shares in 2014: - Buy in 3,000 shares - Sell out 5,500 shares

Management's Ownership of Shares (As of December 31, 2013 and December 31, 2014)

No.	Name	Shares			Warrant#1		Warrant#2		Remark
		Dec 31, 2013	Dec 31, 2014	Change during the year	Allocated in 2005	Remaining	Allocated in 2006	Remaining	
10.	Mr. Chansin Treenuchgron	N/A	0	-	N/A	N/A	N/A	N/A	Appointed on October 1, 2014 (No trading transactions of PTT shares during 2014)
11.	Mrs. Boobpha Amornkiatkajorn	N/A	101,900	-	N/A	N/A	N/A	N/A	Appointed on October 1, 2014 (No trading transactions of PTT shares during 2014)
12.	Mr. Auttapol Rerkpiboon	N/A	22,500	4,000 (7,000)	N/A	N/A	N/A	N/A	Appointed on October 1, 2014 Transactions of PTT shares in 2014: - Buy in 4,000 shares - Sell out 7,000 shares
	Spouse	N/A	2,300	-	-	-	-	-	(No trading transactions of PTT shares during 2014)
13.	Mr. Tevin Vongvanich	56,000	56,000	-	40,300	-	21,000	-	Seconded to PTTEP since May 1, 2012. (No trading transactions of PTT shares during 2014)
14.	Mr. Sukrit Surabotsopon	2,000	2,000	-	0	0	0	0	Seconded to IRPC since October 1, 2013 (No trading transactions of PTT shares during 2014)
15.	Mr. Pamin Phantawesak	0	0	-	N/A	N/A	N/A	N/A	Seconded to PTT Phynol since October 1, 2012. (No trading transactions of PTT shares during 2014)
	Spouse	300	300	-	N/A	N/A	N/A	N/A	(No trading transactions of PTT shares during 2014)
16.	Ms. Pannalin Mahawongtikul	N/A	28,812	1,000	N/A	N/A	N/A	N/A	Appointed on August 1, 2014 Transactions of PTT shares in 2014: - Buy in 1,000 shares

Note: As of December 31, 2014, No. 1 - 5 are PTT Management under SEC's announcement.

Securities Portfolio of Executives Transferred/ Retired During the Year (As of December 31, 2013 and December 31, 2014)

No.	Name	Shares			Warrant#1		Warrant#2		Remark
		Dec 31, 2013	Dec 31, 2014	Change during the year	Allocated in 2005	Remaining	Allocated in 2006	Remaining	
1.	Mr. Atikom Terbsiri	0	0	-	-	-	-	-	Seconded to Thaioil since October 1, 2014 (No trading transactions of PTT shares during 2014)
2.	Mr. Supattanapong Punmeechaow	0	0	-	-	-	-	-	Seconded to PTTGC since October 1, 2014 (No trading transactions of PTT shares during 2014)
3.	Mrs. Nitima Thepvanangkul	N/A	41,000	-	N/A	N/A	N/A	N/A	Resumed work at PTT on May 1, 2014 (No trading transactions of PTT shares during 2014)
4.	Mrs. Prisana Praharnkhasuk	47,363	N/A	-	35,100	-	18,400	-	Seconded to Thaioil since May 1, 2014 (No trading transactions of PTT shares during 2014)
5.	Mr. Veerasak Kositpaisal	31,400	N/A	N/A	-	-	26,400	-	Retired on September 30, 2014 (No trading transactions of PTT shares during 2014)
6.	Mr. Bowon Vongsinudom	12,100	N/A	N/A	-	-	12,100	-	Retired on September 30, 2014 (No trading transactions of PTT shares during 2014)

(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, 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 Board every 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 every Board meeting, the Chairman reminds the directors to conform to 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. In 2014, a total of 15 notices were made to the Chairman out of 15 Board meetings.

(9) Review of Connected Transactions

The Audit Committee presents 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 in every quarter of the year.

(10) Corporate Governance Promotional Activities

The Corporate Governance Committee is assigned to promote and screen 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 implemented assorted matters under the policy and conducted campaigns to cultivate awareness in the directors, management, employees, and related parties 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.

- In 2014, the Corporate Governance Committee held five meetings, with meeting frequency set for at least quarterly, to monitor corporate governance, 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 stakeholders that are 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%.

- In late 2014, the CG taskforce conducted a survey through internal communication channels to assess PTT employees' mastery 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 corporate governance principles are communicated through the orientation, with tests to assess their knowledge in CG E-Learning system. In 2014, there were four batches, each 60-80 persons. All new employees receive a CG handbook each. 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.

- Besides promoting CG knowledge within the organization, PTT shared this knowledge with external parties by agreeing to requests for visits 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 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 (3rd Revision) to investors, international interested parties, and stakeholders for their reference. This will also be posted on PTT's website.

- A "CG Camp" was arranged where employees jointly studied CG principles and correct and proper implementation through various activities. The employees were encouraged to give their views on CG, and the learning was assessed through CG application under assigned scenarios.

- A "CG Run" was set up as a game on PTT Intranet to foster CG knowledge through puzzle-solving and adventures of characters in various dimensions 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, BCP, 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 seven PTT Group companies, featuring employees from all. Guests also paid a visit, including representatives of SET, Thai Listed Companies Association, and PTT Group executives. 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. In 2014, IRPC was the host for the event under the "PTT Group CG Day 2014: The Power is in Your Hands" theme with emphasis on positive power, potential, and innovative cooperation of PTT Group to help society in its anti-corruption efforts.

(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 practice 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 June 27, 2014, endorsed PTT's and PTT Group's anti-corruption policies for implementation across the organization. It requires PTT's Anti-Corruption Policy as a part of PTT's Corporate Governance, Ethics Standards, and Code of 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, material 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 like 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 corporate governance and anti-corruption through orientation sessions, CG Camp, 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 October 3, 2014.

- 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 the 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, monitors, and assesses 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.

- 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 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 conduct for executives and employees. It reviews and reports to the Audit Committee and top executives immediately when encountering items or actions that could devastate 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. Besides, there 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 echoing irregularities for the benefit of PTT's transparency, corporate governance, 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 an 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 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 checks and balances. 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 and hiring, 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 management, PTT has instituted a human resource management 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 management may be both 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 and for every item. The stakeholders will not take part in the approval of such an 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, 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 PTT. To this end, centralized units are SSHE and Quality Management. Details in the subject are described in "SSHE: Shielding against damage and losses for sustainability" and 2014 Corporate Sustainability Report.

4. INFORMATION & COMMUNICATION

In regards to the vision of the Board, the PTT group 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 role consistently well and has become PTT Group's flagship in IT operations.

The Board has also supported PTT's information system development to establish innovation and enhance its ICT competitiveness

for efficiency on a par with leading companies worldwide. Cases in point are the development of the Fil'n Go system and the Fully Self-Serve/Next Generation Service Station system. With SAP's program succeeded and adopted as PTT's core system, PTT has expanded its application to Group companies under the SAP Roll-out Plan, enabling them to compile business data as fast as PTT. Therefore, ERP Harmonization/ One SAP can efficiently reduce data redundancy in application and connection, whether domestic or international.

PTT also developed the "Global Infrastructure as a Service", enabling itself to rapidly develop executive summaries. It also came up with an innovation supporting a more efficient cash receipt-disbursement process. Which is to develop the LPG Compensate System, a tool to aid LPG traders in trader registration under the government policy. The tool features performance measurement, performance comparison with goals, and the addition of an information system to accommodate policies and restructure the organization in line with prevailing business circumstances. For instance, the improvement of a system to accommodate the Infrastructure Business Group for the COOI, the development of a PTT Daily Performance system, and the PTT Health Dashboard to track corporate situations under the Thailand Quality Award (TQA) standard.

The Board recognizes and values security in its IT system and the storage of electronics data, evident in the approval for the construction of a new computer center under the TIER IV data center design standard. An ICT emergency drill is held to accommodate continued business.

This year, despite prolonged protesters' rallies at the "Head Office, prompting PTT to activate back-up offices and secure back-up ICT equipment for application to keep its business uninterrupted. Allowing PTT computing system to successfully operate smoothly as well as reviewing critical computer systems in addition to successfully undergoing assessment for ISO/IEC 27001 (Information Security Management System – ISMS).

Concurrently, PTT underwent BCM (Business Continuity Management) assessment designed to upgrade its standard to ISO 22301. 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, not to mention development of internal control reports and IT Governance rollout to all PTT Group companies.

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 blended 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 the analyses of those data in reports of self-assessment covering the entire PTT for the committee to screen, comment, 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 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 is usually undertaken by the Office of the Auditor-General (the 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.

The regular review 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.

This year the Corporate Risk Management Department under the Corporate Strategy Unit, 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 Integrated Framework, and anti-corruption measures in response to CAC’s questions. The purpose is 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.

AUDITOR’S FEE

(Information on the auditor’s fees appears in the annual financial report 2014.)

IMPLEMENTATION OF CORPORATE GOVERNANCE IN OTHER AREAS

According to a survey on PTT’s corporate governance conducted by the Thai Institute of Directors (IOD), the score given on the overall picture of PTT on the CG principles for listed companies in 2014 was “excellent”. Compared with peer companies dealing in natural resources, those in the SET 50 group, and those with market capitalization exceeding THB 10,000 million, PTT’s average score topped the three groups of companies. The survey result was based on the information that PTT disclosed to the public. This year, PTT has good practical guidelines apart from the survey criteria which can serve as good practices for other listed companies such as:

- The Board meeting passed the resolution to appoint Mr. Piyasvasti Amranand, independent director, as Chairman. Therefore, 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.

- Because under the Budget Procedures Act B.E. 2502 (1959), PTT is regarded as a state enterprise, 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 by stressing concrete, sustainable implementation. A developed SPIRIT Norm Checklist aids various units in deploying agenda-based meetings to enhance a work ambience that not only supports or reminds employees to exhibit work behavior in line with the SPIRIT values, but encourages all executives to show determination in their SPIRIT coaching and their SPIRIT role model. This includes the communication of good corporate governance, also 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 supervision 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 into systematic implementation, ready for upcoming assessment.

This year although PTT observed CG, it may not cover 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 agree with the requirement for petroleum businesses that needs experts from a variety of professions. Today the Board has appointed five specific 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.

- Policy requirement for a quorum during Board voting that at least two-thirds of the Board be present

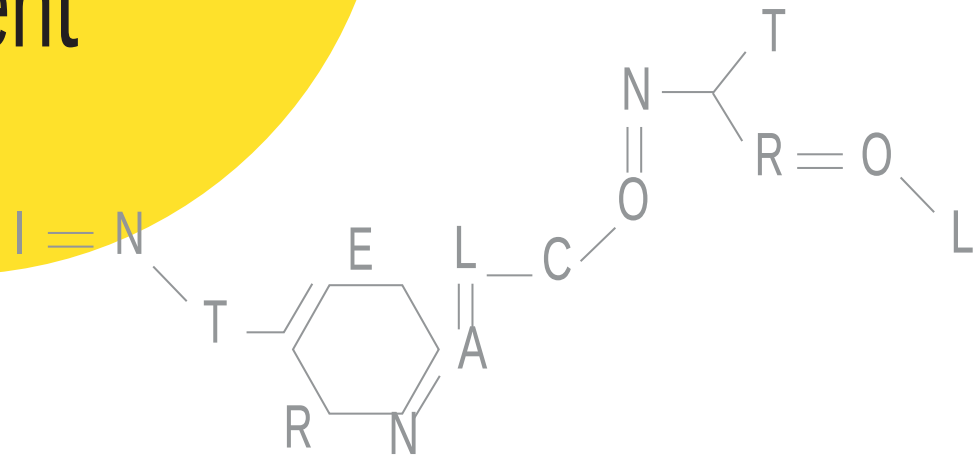
PTT Regulations and the law require that during a PTT Board meeting, the quorum is half of the Board. This year most directors of the Board attended all meetings. Besides, before voting in any meeting, the Chairman allowed all directors to ask questions and express free views, with the exception of the directors with vested interests on certain agenda items, who had no voting right on such items.

- 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 meeting attendance of the Specific Committees is shown under Board Meeting.

Internal Control and Risk Management



The Risk Management and Internal Control Committee has assigned the Corporate Risk Management Department to assess internal controls by preparing the individual self-assessment forms for executives at the vice president level upward who work under PTT's corporate structure and those that are seconded to PTT Group companies, covering and responsibilities as referred in the internal control guidelines of The Committee of Sponsoring Organizations of the Treadway Commission (COSO), which devises the major 5 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. The assessment is also to be conducted with 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 asking questions of the management on the implementation of guidelines/ recommendations to improve internal controls. In summary, in assessing PTT's internal control concerning 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 its meeting No. 21/2008 of September 22, 2008, the Management Committee appointed Ms. Nitaya Direksathapon as Executive Vice President, Office of Corporate Audit, on October 1, 2008, citing her in-depth knowledge 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 responsibilities of the units to ensure its compliance with corporate regulations as follows:

- Office of President and Corporate Secretary ensures that the PTT Group companies, the Board, the management committee, executives and 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 outside 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 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 Age 57
Executive Vice President, Office of Corporate Audit

Number of shares held: None

Education

- Bachelor of Accounting (Second-Class Honors), Chulalongkorn University
- Master of Business Administration (Finance), National Institute Development Administration (NIDA)

Training

- Sasin Graduate Institute of Business Administration, Senior Executive Program
- Harvard Business School, Finance for Senior Executives
- NIDA - Wharton Executive Leadership Program
- IOD, Director Accreditation Program (DAP) 91/2011
- Office of the Administrative Court, Senior Judicial Administration Executives, Class 3

Work experiences

- | | |
|----------------|---|
| 1993 - 2000 | : Vice President, Accounting Department, PTT |
| 2001 - 2006 | : Vice President, Financial Risk Management 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
Independent Director/ Chairman
- 2. Mr. Kittipong Kittayarak
Independent Director/ Chairman of Audit Committee
- 3. Mr. Watcharakiti Watcharothai
Independent Director/
Chairman of the Nominating Committee/
Member of the Remuneration Committee/
Member of the Corporate Governance Committee

- 4. Mr. Rungson Sriworasat
Director/ Chairman of the Remuneration Committee
- 5. GEN. Chatchalerm Chalernsukh
Independent Director/
Chairman of the Corporate Governance Committee
- 6. Mr. Chanvit Amatamatucharti
Independent Director/
Member of the Nominating Committee/
Member of the Enterprise Risk Management Committee
- 7. Mrs. Nuntawan Sakuntanaga
Independent Director/ Member of the Audit Committee



PTT Board of Directors

8. Mr. Vichai Assarasakorn

Independent Director/
Member of the Audit Committee
9. AM Boonsuib Prasit

Independent Director/
Member of the Nominating Committee
10. Mr. Don Wasantapruerk

Independent Director/
Member of the Corporate Governance Committee

11. Mr. Prasert Bunsumpun

Director/ Member of the Enterprise
Risk Management Committee
12. Mr. Areepong Bhoocha-oom

Director
13. Mr. Pailin Chuchottaworn

Director/ Secretary to the Board/
Member of the Nomination Committee/
President & Chief Executive Officer



PTT Board of Directors

Mr. Piyasvasti Amranand
Independent Director/ Chairman

Mr. Kittipong Kittayarak
Independent Director/ Chairman of Audit Committee

Mr. Watcharakiti Watcharothai
Independent Director/
Chairman of the Nominating Committee/
Member of the Remuneration Committee/
Member of the Corporate Governance Committee

Mr. Rungson Sriworasat
Director/ Chairman of the Remuneration Committee

GEN. Chatchalerm Chalernsukh
Independent Director/
Chairman of the Corporate Governance Committee

Mr. Chanvit Amatamatucharti
Independent Director/
Member of the Nominating Committee/
Chairman of the Enterprise Risk Management Committee

Mrs. Nuntawan Sakuntanaga
Independent Director/ Member of the Audit Committee

Mr. Vichai Assarasakorn
Independent Director/ Member of the Audit Committee

AM Boonsuib Prasit
Independent Director/
Member of the Nominating Committee

Mr. Don Wasantapruek
Independent Director/
Member of the Corporate Governance Committee

Mr. Prasert Bunsumpun
Director/ Member of the Enterprise
Risk Management Committee

Mr. Areepong Bhoocha-oom
Director

Mr. Pailin Chuchottaworn
Director/ Secretary to the Board/
Member of the Nomination Committee
President & Chief Executive Officer

1 Mr. Piyasvasti Amranand Age 61
Independent Director/ Chairman

(%) Share Possession: None

Appointed:

- July 1, 2014 (Chairman since July 4, 2014)

Educations

- Bachelor's Degree (First Class Honors) (Mathematics), University of Oxford, U.K.
- Master's Degree (Economics), London School of Economics and Political Science, University of London, U.K.
- Ph.D. (Economics), London School of Economics and Political Science, University of London, U.K.

Certifications

- Director Accreditation Program (DAP 35/2005), Thai Institute of Directors Association (IOD)

Work Experiences

- | | |
|-------------|---|
| 2006 - 2008 | : Minister, Ministry of Energy |
| 2008 - 2009 | : Chief Advisor to Chief Executive Officer, Kasikornbank Public Company Limited |
| 2009 - 2012 | : President, Thai Airways International Public Company Limited |
| Present | : Independent Director/ Chairman, PTT Public Company Limited
Independent Director/
Member of the Audit Committee, Kasikornbank Public Company Limited
Independent Director/
Chairman of the Audit Committee, Pruksa Real Estate Public Company Limited
Chairman, Energy for Environment Foundation |

Positions in Listed Company - The Stock Exchange of Thailand*

- Independent Director/ Chairman, PTT Public Company Limited
- Independent Director/ Member of the Audit Committee, Kasikornbank Public Company Limited
- Independent Director/ Chairman of the Audit Committee, Pruksa 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

2 Mr. Kittipong Kittayarak Age 56
Independent Director/
Chairman of Audit Committee

(%) Share Possession: None

Appointed:

- July 1, 2014

Educations

- Bachelor of Laws (Honor), Chulalongkorn University
- Master of Laws (LL.M.), Cornell University, U.S.A. (OCSC Scholarship)
- Master of Laws (LL.M.), Harvard University, U.S.A. (Fulbright Scholarship)
- Doctor of the Science of Laws (J.S.D.), Stanford University, U.S.A. (Fulbright Scholarship)

Certifications

- Director Accreditation Program (DAP 112/2014), Advance Audit Committee Program (AACP 17/2014) 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 5th), King Prajadhipok's Institute
- Thailand's 5th National Conference on Collective Action Against Corruption ("Tackling Corruption through Public - Private Collaboration) (October 16, 2014)

Work Experiences

- | | |
|----------------|---|
| 2003 - 2008 | : Deputy Permanent Secretary, Ministry of Justice |
| 2008 - 2014 | : Permanent Secretary, Ministry of Justice |
| 2014 - Present | : Advisor to the prime minister |

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, Krung Thai Bank Public Company Limited

Relevant Important Positions in Non listed Company/
Other Organizations

- None

Relation among Family with other Directors and Executives

- None

3 Mr. Watcharakiti Watcharothai Age 54
Independent Director/ Chairman of
the Nominating Committee/
Member of the Remuneration
Committee/ Member of the
Corporate Governance Committee

(%) Share Possession: None

Appointed:

- April 10, 2009; April 10, 2012 (re-elected)

Educations

- Bachelor of Arts (Political Science), Kasetsart University, Thailand
- M.P.A. (Master of Public Administration), Roosevelt University, U.S.A.

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 of 4th) (2006), National Defence College
- Top Executives Program (Class of 9th), Capital Market Academy (CMA)
- Corporate Governance for Directors and Senior Executives of State Enterprises and Public Organizations (Class of 5th), Public Director Institute (PDI), King Prajadhipok's Institute
- Senior Executives on Justice Administration Batch (Class of 15th), National Justice Academy
- Top Executive Program in Commerce and Trade (TEPCoT) (Class of 5th), Commerce Academy
- Certificate in Top Executives in the Energy Education Program (Class of 1st), Thailand Energy Academy (TEA)
- Certificate in Top Executives in the PoomPalungPandin Program (Class of 1st), Chulalongkorn University
- Certificate in Top Executive in Industrial Development and Investment (Class of 1st), 2013 Institute of Business and Industrial Development
- Certificate in Top Executives in Urban Management (Mahanakorn 3rd) Institute of Metropolitan Development
- Thailand's 5th National Conference on Collective Action Against Corruption ("Tackling Corruption through Public - Private Collaboration) (October 16, 2014)
- Honorary Degree of Doctor of Philosophy, Department of Administration, Ramkhamhaeng University, Thailand

Work Experiences

- 2001 - 2007 : Assistant Lord Chamberlain
2007 - Present : Grand Chamberlain

Positions in Listed Company - The Stock Exchange of Thailand

- Independent Director/ Chairman of the Nominating Committee/ Member of the Remuneration Committee/ Member of the Corporate Governance Committee, PTT Public Company Limited
- Director, 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

- Member of the Board of Director, Rachavinit Muthayom School
- Member of the Board of Director, Suan Sunanda Rajabhat University
- Member of the Board of Director, Suan Dusit Rajabhat University

Relation among Family with other Directors and Executives

- None

4 Mr. Rungson Sriworasat Age 59
Director/ Chairman of the Remuneration Committee

(%) Share Possession: None

Appointed:

- July 26, 2014

Educations

- Bachelor in Accounting, Ramkamhaeng University, Thailand
- Bachelor in Law, Sukhothai Thammathirat Open University, Thailand
- Master in Business Administration, Prince of Songkla University, Thailand

Certifications

- Director Certification Program (DCP 81/2006), Finance for Non-Finance Directors (FND 39/2008), Audit Committee Program (ACP 26/2009), Financial Institutions Governance Program (FGP 1/2010), Successful Formulation & Execution The Strategy (SFE 2/2008), DCP Re-Refresher Course (DCP Re 1/2008), The Role of Chairman (RCP 28/2012), Thai Institute of Directors Association (IOD)
- Diploma, The National Defence Course Class 2006, National Defence College
- Politics and Government in Democracy for Executives (Class of 13th), King Prajadhipok's Institute
- Top Executive Program (Class of 10th), Capital Market Academy (CMA)
- Senior Executives on Justice Administration Batch (Class of 2nd), National Justice Academy

Work Experiences

- 2009 - 2010 : Inspector General of Ministry of Finance
2010 - 2012 : Director General of Comptroller General's Department
2012 - 2013 : Deputy Permanent Secretary of Ministry of Finance
2013 - Present : Permanent Secretary of Ministry of Finance

Positions in Listed Company - The Stock Exchange of Thailand

- Director, Chairman of the Remuneration Committee, PTT Public Company Limited
- Chairman, TMB Bank Public Company Limited
- Director, THAI Airways International Public Company Limited

Relevant Important Positions in Non listed Company/ Other Organizations

- Chairman, The Government Pension Fund
- Chairman, The Student Loan Fund
- Chairman, Office of Insurance Commission (OIC)

Relation among Family with other Directors and Executives

- None

5 GEN. Chatchalerm Chalermsookh Age 59
Independent Director/
Chairman of the Corporate Governance Committee

(%) Share Possession: None

Appointed:

- September 4, 2014

Educations

- Bachelor of Science Program,
Chulachomklao Royal Military Academy
- Master of Arts (Military),
Command and General Staff College

Certifications

- None

Work Experiences

- | | |
|----------------|---|
| 2012 | : Assistant Chief of Staff for Intelligence,
Royal Thai Army |
| 2013 | : Deputy Chief of Staff, Royal Thai Army |
| 2014 - Present | : Chief of Staff, Royal Thai Army |

Positions in Listed Company - The Stock Exchange of Thailand

- Independent Director, Chairman of the Corporate
Governance Committee, PTT Public Company Limited

Relevant Important Positions in Non listed Company/
Other Organizations

- None

Relation among Family with other Directors and Executives

- None

6 Mr. Chanvit Amatamatucharti Age 58
Independent Director/ Member of
the Nominating Committee/
Member of the Enterprise
Risk Management Committee

(%) Share Possession: None

Appointed:

- September 4, 2014

Educations

- Master of Arts (Economics), Chiang Mai University
- Master of Economics Program (Development Economics),
National Institute of Development Administration

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 50th),
National Defence College
- Advanced Certificate Course in Public Economics
Management for Executives (Class of 5th)
King Prajadhipok's Institute
- "Middle Management", Office of The Civil Service
Commission (OCSC)
- Top Executive Program in Commerce and Trade (TEPCoT)
(Class of 4th), Commerce Academy
- The 4 Imperatives of Great Leaders Program,
Office of The Civil Service Commission (OCSC)
- "Cross-Border Infrastructure in a Market Economy",
Cambodia

Work Experiences

- | | |
|----------------|--|
| 2007 - 2010 | : Senior Advisor, Office of National
Economic and Social Development
Board (NESDB) |
| 2010 - Present | : Deputy Secretary General, NESDB |

Positions in Listed Company - The Stock Exchange of Thailand

- Independent Director/ Member of the Nominating
Committee/ Member 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

7 Mrs. Nuntawan Sakuntanaga Age 56
Independent Director/
Member of the Audit Committee

(%) Share Possession: None

Appointed:

- July 1, 2014

Educations

- B.Ac., in Finance and Banking, Chulalongkorn University
- M.B.A., in Marketing and International Business, University of Wisconsin at Madison (Wisconsin, U.S.A.)

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)
- Civil Service Executive Development Program 1 (Class of 38th) (2003)
- Diploma, The National Defence Course Class 49 (2006 - 2007), National Defence College
- Leaders in Development Program-Managing Political & Economic Reform, Kennedy School of Government, Harvard University, Boston, U.S.A., 2008
- Top Executive Program in Commerce and Trade (TEPCoT), Commerce Academy (Class of 2nd)
- Top Executive Program (Class of 14th) (2012), Capital Market Academy (CMA)
- Corporate Governance Program for Directors and Executives of State Enterprises and Public Organization (Class of 12th), Public Director Institute (PDI) (2013)
- Certificate in Top Executives in the Energy Education Program (Class of 5th) (2014), Thailand Energy Academy (TEA)

Work Experiences

May 2009 : Director General Department of Trade Negotiations, Ministry of Commerce

September 2010 : Director General Department of International Trade 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 - Present : Director General Department of International Trade Promotion, Ministry of Commerce

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

- None

Relation among Family with other Directors and Executives

- None

8 Mr. Vichai Assarasakorn Age 54
Independent Director/
Member of the Audit Committee

(%) Share Possession: None

Appointed:

- September 4, 2014

Educations

- Bachelor of Engineering, New South Wales University, Australia

Certifications

- Top Executive Program (Class of 12th), Capital Market Academy (CMA)
- Diploma, The Joint State - Private Sector Course (Class of 22nd), National Defence College
- Thailand's 5th National Conference on Collective Action Against Corruption ("Tackling Corruption through Public - Private Collaboration) (October 16, 2014)

Work Experiences

1995 - Present : Director, Shiang Heng 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

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

- None

Relation among Family with other Directors and Executives

- None

9 AM Boonsuib Prasit Age 61
Independent Director/
Member of the Nominating Committee

(%) Share Possession: None

Appointed:

- September 4, 2014

Educations

- Armed Forces Academies Preparatory School (Class of 13th)
- Royal Thai Air Force Academy (Class of 20th)
- Squadron Officers (Class of 56th)
- Air Command and Staff College (Class of 33rd)
- Air War College (Class of 36th)

Certifications

- Thailand's 5th National Conference on Collective Action Against Corruption Tackling Corruption through Public - Private Collaboration (16 October 2014)

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

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

10 Mr. Don Wasantapruerk Age 56
Independent Director/
Member of the Corporate Governance Committee

(%) Share Possession: None

Appointed:

- July 26, 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

- Thailand's 5th National Conference on Collective Action Against Corruption Tackling Corruption through Public - Private Collaboration (October 16, 2014)

Work Experiences

2009 - Present : Self-employed

Positions in Listed Company - The Stock Exchange of Thailand

- Independent Director/ Member of the Corporate Governance Committee, PTT Public Company Limited

Relevant Important Positions in Non listed Company/ Other Organizations

- None

Relation among Family with other Directors and Executives

- None

11 Mr. Prasert Bunsumpun Age 62
Director/
Member of the Enterprise
Risk Management Committee

(%) Share Possession: 0.004579

Appointed:

- April 11, 2013

Educations

- Bachelor in Engineering (Civil Engineering), Chulalongkorn University
- M.B.A., Utah State University, U.S.A.

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 (AMP 155), Harvard Business School, U.S.A.
- Diploma, The Joint State - Private Sector Course (Class of 10th), National Defence College
- Politics and Government in Democracy for Executives (Class of 6th), King Prajadhipok's Institute
- Top Executive Program (Class of 3rd), Capital Market Academy (CMA)
- Certificate in Top Executives in the Energy Education Program (Class of 3rd), Thailand Energy Academy (TEA)
- Honorary Doctoral in Engineering, Chulalongkorn University
- Honorary Doctoral in Management, National Institute of Development Administration (NIDA)
- Honorary Doctoral in Management Science, Petchaburi Rajabhat University
- Honorary Doctoral in Management, Mahasarakarm University
- Honorary Doctoral in Social Innovation Management, Suan Sunandha Rajabhat University

Work Experiences

2003 - 2011 : President & CEO,
PTT Public Company Limited

Present : Chairman of Thailand Business Council
for Sustainable Development (TBCSD)
: Member of the National Legislative
Assembly (NLA)

Positions in Listed Company - The Stock Exchange of Thailand

- Director/ Member of the Enterprise Risk Management Committee, PTT Public Company Limited
- Chairman, PTT Global Chemical Public Company Limited
- Director/ Chairman of the Board of Executive Directors, Krung Thai Bank Public Company Limited
- Independent Director, Intouch Holdings Public Company Limited
- Chairman/ Chairman of the Executive Board of Director, Thorensen Thai Agencies Public Company Limited

**Relevant Important Positions in Non listed Company/
Other Organizations**

- Chairman/ Chairman of the Executive Board of Director, Mermaid Maritime Public Company Limited
- Member of the National Legislative Assembly (NLA)

Relation among Family with other Directors and Executives

- None

12 Mr. Areepong Bhoocha-oom Age 57
Director

(%) Share Possession: None

Appointed:

- July 7, 2014

Educations

- International Management Boston, University, U.S.A.
- M.B.A. (Finance), Marshall University, U.S.A.
- Ph.D (Finance), University of Mississippi, U.S.A.

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, U.S.A.
- Awareness, Vision, Imagination, Responsibility, Action (AVIRA), INSEAD The Business School, France
- Top Executive Program (Class of 4th), Capital Market Academy (CMA)
- Senior Executives on Justice Administration Batch, National Justice Academy (Class of 14th)
- Diploma, The National Defence Course (Class of 46th), National Defence College

Work Experiences

2009 - 2010 : Director General, Excise Department,
Ministry of Finance
2010 - : Permanent Secretary,
September 30, 2013 Ministry of Finance
October 1, 2013 - : Secretaries-General,
June 26, 2014 Office of the Public Sector
Development Commission (OPDC)
June 27, 2014 - : Permanent Secretary, Minister of Energy
Present

Positions in Listed Company - The Stock Exchange of Thailand

- Director, PTT Public Company Limited
- Independent Director and Vice Chairman acting Chairman,
Thai Airways International Public Company Limited
- Independent Director and Chairman,
Krung Thai Bank Public Company Limited

Relevant Important Positions in Non listed Company/ Other Organizations

- None

Relation among Family with other Directors and Executives

- None

13 Mr. Pailin Chuchottaworn Age 58
Director/ Secretary to the Board/
Member of the Nomination Committee/
President & Chief Executive Officer

(%) Share Possession: 0.002171
(Own 0.002101; Spouse 0.000070)

Appointed:

- September 10, 2011, April 10, 2012 (re-elected)

Educations

- B.Eng (Chemical Engineering) (Hons.),
Chulalongkorn University, Thailand
- Master of Engineering in Chemical Engineering,
Tokyo Institute of Technology, Japan
- Doctor of Engineering in Chemical Engineering,
Tokyo Institute of Technology, Japan

Certifications

- Director Accreditation Program (DAP 24/2004), Director
Certification Program (DCP 51/2004), Finance for
Non-Finance Directors (FND 14/2004), Anti-Corruption
Training Program for Corporate Directors and Executives
(ACEP 4/2012), Thai Institute of Directors Association (IOD)

- PTT-GE Executive Leadership Program 2008,
GE Crotonville, U.S.A.
- NIDA-Wharton Executive Leadership Program 2007,
Wharton University of Pennsylvania, U.S.A.
- Industrial Liaison Program (ILP) 2005,
Massachusetts Institute of Technology, U.S.A.
- Diploma, The Joint State-Private Sector Course National
Defence College (Class of 22nd), National Defence College
- Certificate in Top Executives in the Energy Education
Program (Class of 1st), Thailand Energy Academy (TEA)
- Corporate Governance Program for Directors
and Executives of State Enterprises and Public
Organizations (Class of 7th), King Prajadhipok's Institute
- Top Executive Program (Class of 8th),
Capital Market Academy (CMA)
- Top Executive Program in Commerce and Trade (TEPCoT)
(Class of 1st), Commerce Academy
- Honorary Doctoral in Social Innovation Management,
Suan Sunandha Rajabhat University
- Honorary Doctorate Degree in Sustain Energy
and Environment Technology and Management,
Rajangangala University of Technology Rattanakosin,
Thailand

Work Experiences

Jan 2009 - : Senior Executive Vice President, PTT,
June 2011 working as President,
IRPC Public Company Limited
June - : Chief Operating Officer,
September 2011 Upstream Petroleum
and Gas Business Group, PTT
September 2011 - : President & Chief Executive Officer, PTT
Present

Positions in Listed Company - The Stock Exchange of Thailand

- Director/ Secretary to the Board/ Member of the Nomination
Committee, PTT Public Company Limited
- Director/ Vice Chairman,
PTT Exploration and Production Public Company Limited
- Director and Chairman, IRPC Public Company Limited

Relevant Important Positions in Non listed Company/ Other Organizations

- Council of Trustees, Petroleum Institute of Thailand (PTIT)

Relation among Family with other Directors and Executives

- None

PTT Executives

1. Mr. Pailin Chuchottaworn
2. Mr. Nuttachat Charuchinda
3. Mr. Sarun Rungkasiri
4. Mr. Surong Bulakul

President & Chief Executive Officer
Chief Operations Officer,
Upstream Petroleum and Gas Business Group
Chief Operations Officer,
Downstream Petroleum Business Group
Chief Operating Officer Infrastructure

5. Mr. Wirat Uanarumit
6. Mr. Pitipan Teparatimargorn
7. Mr. Chansin Treenuchagron
8. Mr. Charcie Buranakanonda

Chief Financial Officer
Senior Executive Vice President,
Human Resources & Organization Excellence
Senior Executive Vice President, Corporate Strategy
Senior Executive Vice President, Gas Business Unit



PTT Executives

- 9. Mr. Chavalit Punthong
Senior Executive Vice President,
Oil Business Unit
- 10. Mr. Sarakorn Kulatham
Senior Executive Vice President,
Petrochemicals & Refining Business Unit
- 11. Mrs. Boobpha Amornkiatkajorn
Senior Executive Vice President,
International Trading Business Unit
- 12. Mr. Auttapol Rerkpiboon
Senior Executive Vice President,
Sustainability Management
and Project Engineering

- 13. Mr. Tevin Vongvanich
President and Chief Executive Officer,
PTT Exploration and Production Public Company Limited
- 14. Mr. Supattanapong Punmeechaow
President and Chief Executive Officer,
PTT Global Chemical Public Company Limited
- 15. Mr. Atikom Terbsiri
President and Chief Executive Officer,
Thai Oil Public Company Limited
- 16. Mr. Sukrit Surabotsopon
President, IRPC Public Company Limited
- 17. Mr. Pamin Phantawesak
President, PTT Phenol Company Limited



PTT Executives

Mr. Pailin Chuchottaworn
President & Chief Executive Officer

Mr. Nuttachat Charuchinda
Chief Operations Officer,
Upstream Petroleum and Gas Business Group

Mr. Sarun Rungkasiri
Chief Operations Officer, Downstream Petroleum Business Group

Mr. Surong Bulakul
Chief Operating Officer Infrastructure

Mr. Wirat Uanarumit
Chief Financial Officer

Mr. Pitipan Teparitmagorn
Senior Executive Vice President,
Human Resources & Organization Excellence

Mr. Chansin Treenuchagorn
Senior Executive Vice President, Corporate Strategy

Mr. Charcrie Buranakanonda
Senior Executive Vice President, Gas Business Unit

Mr. Chavalit Punthong
Senior Executive Vice President, Oil Business Unit

Mr. Sarakorn Kulatham
Senior Executive Vice President,
Petrochemicals & Refining Business Unit

Mrs. Boobpha Amornkiatkajorn
Senior Executive Vice President, International Trading Business Unit

Mr. Auttapol Rerkpiboon
Senior Executive Vice President,
Sustainability Management and Project Engineering

Mr. Tevin Vongvanich
President and Chief Executive Officer,
PTT Exploration and Production Public Company Limited

Mr. Supattanapong Punmeechaow
President and Chief Executive Officer,
PTT Global Chemical Public Company Limited

Mr. Atikom Terbsiri
President and Chief Executive Officer,
Thai Oil Public Company Limited

Mr. Sukrit Surabotsopon
President, IRPC Public Company Limited

Mr. Pamin Phantawesak
President, PTT Phenol Company Limited

1 Mr. Pailin Chuchottaworn Age 58
President & Chief Executive Officer

(%) Share Possession: 0.002171
(Self 0.002101; Spouse 0.000070)

Educations

- B.Eng. (Chemical Engineering) (Hons.), Chulalongkorn University, Thailand
- Master of Engineering in Chemical Engineering, Tokyo Institute of Technology, Japan
- Doctor of Engineering in Chemical Engineering, Tokyo Institute of Technology, Japan

Certifications

- Director Accreditation Program (DAP 24/2004), Director Certification Program (DCP 51/2004), Finance for Non-Finance Directors (FND 14/2004), Anti-Corruption Training Program for Corporate Directors and Executives (ACEP 4/2012), Thai Institute of Directors Association (IOD)
- PTT-GE Executive Leadership Program 2008, GE Crotonville, U.S.A.
- NIDA-Wharton Executive Leadership Program 2007, The Wharton School of the University of Pennsylvania, U.S.A.
- Industrial Liaison Program (ILP) 2005, Massachusetts Institute of Technology, U.S.A.
- Diploma, The Joint State-Private Sector Course National Defence College (Class of 22nd), National Defence College
- Certificate in Top Executives in the Energy Education Program (Class of 1st), Thailand Energy Academy (TEA)
- Corporate Governance Program for Directors and Senior Executives of State Enterprises and Public Organizations (Class of 7th), King Prajadhipok's Institute
- Top Executive Program (Class of 8th), Capital Market Academy (CMA)
- Top Executive Program in Commerce and Trade (TEPCoT) (Class of 1st), Commerce Academy
- Honorary Doctoral in Social Innovation Management, Suan Sunandha Rajabhat University
- Honorary Doctorate Degree in Sustain Energy and Environment Technology and Management, Rajanangala University of Technology Rattanakosin, Thailand

Work Experiences

- Jan 2009 - : Senior Executive Vice President,
June 2011 PTT, working as President,
IRPC Public Company Limited
- June 2011 - : Chief Operating Officer,
September 2011 Upstream Petroleum
and Gas Business Group, PTT
- September 2011 - : President & Chief Executive Officer, PTT
Present

Positions in Listed Company - The Stock Exchange of Thailand

- Director, Secretary to the Board,
Member of the Nomination Committee,
PTT Public Company Limited
- Director and Vice Chairman,
PTT Exploration and Production Public Company Limited
- Director and Chairman, IRPC Public Company Limited

Relevant Important Positions in Non listed Company/ Other Organizations

- Council of Trustees, Petroleum Institute of Thailand (PTIT)

Relation among Family with other Directors and Executives

- None

2

Mr. Nuttachat Charuchinda Age 59
Chief Operations Officer,
Upstream Petroleum and Gas Business Group

(%) Share Possession: 0.000002

Educations

- B.Eng. (Civil Engineering), Chiang Mai University, Thailand
- M.B.A., Thammasat University, Thailand

Certifications

- Directors Certification Program (DCP 129/2010),
Thai Institute of Directors Association (IOD)
- Program for Global Leadership (PGL),
Harvard Business School, U.S.A.
- Oxford Energy Seminar, U.K.
- Break Through Program for Senior Executives (BPSE),
IMD Institute, Switzerland
- Diploma, The Joint State-Private Sector Course
(Class of 20th), National Defence College

- Top Executive Program (Class of 15th),
Capital Market Academy (CMA)
- Certificate in Top Executives in the Energy Education
Program (Class of 3rd), Thailand Energy Academy (TEA)

Work Experiences

- 2009 : Executive Vice President,
International Trading Business Unit, PTT
- 2010 - 2011 : Senior Executive Vice President,
Corporate Strategy, PTT
- 2011 - 2013 : Chief Operations Officer, Downstream
Petroleum Business Group, PTT
- 2013 - Present : Chief Operations Officer,
Upstream Petroleum
and Gas Business Group, PTT

Positions in Listed Company - The Stock Exchange of Thailand

- Director/ Chairman of the Risk Management Committee,
Thai Oil Public Company Limited
- Director/ Chairman of the Risk Management Committee,
PTT Exploration and Production Public Company Limited

Relevant Important Positions in Non listed Company/ Other Organizations

- Chairman, PTT Energy Resources Company Limited

Relation among Family with other Directors and Executives

- None

3

Mr. Sarun Rungkasiri Age 57
Chief Operations Officer,
Downstream Petroleum Business Group

(%) Share Possession: None

Educations

- B.Eng. (Industrial Engineering), Chulalongkorn University,
Thailand
- M.S. Management, Polytechnic Institute of New York, U.S.A.

Certifications

- Company Secretary Program (CSP 8/2004),
Directors 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, U.K.
- NIDA-Wharton Executive Leadership Program 2009,
The Wharton School of the University of Pennsylvania, U.S.A.

- Diploma, The Joint State - Private Sector Course (Class of 23rd), National Defence College
- Top Executive in Industrial Development and Investment (Class of 1st) (2013)
- Certificate in Top Executives in the Energy Education Program (Class of 5th) (2014), Thailand Energy Academy (TEA)

Work Experiences

2008 - 2009	: Executive Vice President, Corporate Communication & Social Responsibility
2009 - 2010	: Executive Vice President, Commercial & International Marketing
2010 - 2011	: Executive Vice President, Retail Marketing
2011 - 2013	: Senior Executive Vice President, Oil Business Unit
2013 - Present	: Chief Operations Officer, Downstream Petroleum Business Group

Positions in Listed Company - The Stock Exchange of Thailand

- Director/ Member of the Nomination and Remuneration Committee/ Member of the Corporate Governance Committee, PTT Global Chemical Company Limited
- Director/ Chairman of the Risk Management Committee, IRPC Public Company Limited

Relevant Important Positions in Non listed Company/ Other Organizations

- Chairman, PTT Polymer Marketing Company Limited

Relation among Family with other Directors and Executives

- None

4

Mr. Surong Bulakul Age 59
Chief Operating Officer, Infrastructure

(%) Share Possession: 0.004138

Educations

- Bachelor of Science in Industrial Engineering and Operations Research, Syracuse University, New York, U.S.A.

- Master of Engineering in Operations Research, Cornell University, New York, U.S.A.
- Master of Business Administration, Cornell University, New York, U.S.A.

Certifications

- Directors Certification Program (DCP 121/2009), R-SS 1/2011, Thai Institute of Directors Association (IOD)
- PMD, Harvard University, Boston, U.S.A.
- Politics and Government in Democracy for Executives (Class of 8th), King Prajadhipok's Institute
- Diploma, The Joint State-Private Sector Course College (Class 4919), National Defence College
- Top Executives Program (Class of 10th), Capital Market Academy (CMA)
- Senior Executives on Justice Administration Batch (Class of 15th), National Justice Academy
- Thai Intelligent Investors Program (Class of 1st), Thai Investors Academy
- Certificate in Top Executives in the Energy Education Program (Class of 2nd), Thailand Energy Academy (TEA)

Work Experiences

2008 - 2009	: Senior Executive Vice President, International Trading Unit, PTT
2009 - 2012	: Senior Executive Vice President, PTT, working as Chief Executive Officer, Thai Oil Public Company Limited
2012 - April 30, 2014	: Chief Financial Officer, PTT
May 1, 2014 - Present	: Chief Operating Officer Infrastructure, PTT

Positions in Listed Company - The Stock Exchange of Thailand

- Director/ Member of Nomination and Remuneration Committee, IRPC Public Company Limited

Relevant Important Positions in Non listed Company/ Other Organizations

- Chairman, Global Power Synergy Public Company Limited
- Chairman, Sakari Resources Ltd.
- Chairman, Tiger Energy Trading Pte.Ltd.
- Director, 24M Technologies, Inc.

Relation among Family with other Directors and Executives

- None

5 Mr. Wirat Uanarumit Age 52
Chief Financial Officer

(%) Share Possession: 0.000893

Educations

- Bachelor of Science in Electrical Engineering, Chulalongkorn University, Thailand
- Master of Business Administration, with emphasis in Financial Management, Pennsylvania State University, Pennsylvania, U.S.A.

Certifications

- Director Certification Program (DCP 8/2001), Audit Committee Program (ACP 38/2012), Thai Institute of Directors Association (IOD)
- Member, Beta Gamma Sigma (US National Scholastic Honour Society in Business)
- Advance Management Programme, INSEAD Business School, Fontainebleau, France
- Advanced Management Program, Harvard Business School, U.S.A.
- Top Executive Program (Class of 4th), Capital Market Academy (CMA)
- Senior Executives on Justice Administration Batch (Class of 16th), National Justice Academy
- Advanced Security Management Program (ASMP), (Class of 2nd), National Defence College
- Executive Development Program (Class of 1st), Thai Listed Companies Association (TLCA)
- Diploma, The Joint State - Private Sector Course (Class of 26th), National Defence College

Work Experiences

2005 - January 2011 : Executive Vice Present - Finance, Thai Oil Public Company Limited
February 2011 - : Senior Executive Vice President -
October 2011 : Corporate Accounting and Finance, IRPC Company Limited
October 2011- : Executive Vice President,
April 30, 2014 : Corporate Finance, PTT
May 1, 2014 - : Chief Financial Officer, PTT
Present

Positions in Listed Company - The Stock Exchange of Thailand

- Director, The Bangchak Petroleum Public Company Limited

Relevant Important Positions in Non listed Company/ Other Organizations

- Director, PTT International Trading Pte. Ltd.
- Director, Star Petroleum Refining Public Company Limited

Relation among Family with other Directors and Executives

- None

6 Mr. Pitipan Tepartimargorn Age 58
Senior Executive Vice President,
Human Resources & Organization Excellence

(%) Share Possession: 0.000152

Educations

- B.Eng., King Mongkut's Institute of Technology Ladkrabang, Thailand
- Master of Political Science (Public Administration), Thammasat University, Thailand

Certifications

- Directors Certification Program (DCP 138/2010), Anti-Corruption for Executive Program (ACEP 4/2012), Thai Institute of Directors Association (IOD)
- Strategic Human Resources Management Program, Harvard University, U.S.A.
- NIDA-Wharton Executive Leadership Program 2009, The Wharton School of the University of Pennsylvania, U.S.A.
- Senior Executive Program (SEP), Sasin Graduate Institution of Business Administration of Chulalongkorn University, Thailand

Work Experiences

2004 - 2010 : Executive Vice President, Corporate Human Resources, PTT
2010 - Present : Senior Executive Vice President, Human Resources & Organization Excellence, PTT

Positions in Listed Company - The Stock Exchange of Thailand

- None

Relevant Important Positions in Non listed Company/ Other Organizations

- Chairman, PTT Polymer Logistics Company Limited
- Chairman, PTT ICT Solutions Company Limited
- Director, Sakari Resources. Ltd.

Relation among Family with other Directors and Executives

- None

7 Mr. Chansin Treenuchagron Age 54
Senior Executive Vice President,
Corporate Strategy

(%) Share Possession: None

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 (FSD 12/2011), Director Accreditation Program (DAP 93/2011), Chartered Director Class (CDC 6/2012), Thai Institute of Directors Association (IOD)
- Executive Development Relation (Class of 1st), Directorate of Civil Affairs
- Air War College (Class of 35th, 2006)
- Senior Executive Program (SEP-20), Class 20, Sasin Graduate Institute of Business Administration of Chulalongkorn University
- PTT Executive Leadership, General Electric, GE, New York, U.S.A.
- Advance Senior Executive Program (ASEP-5), Class 5, KELLOGG & SASIN, Chicago, U.S.A.
- Advanced Certificate Course in Public Economics Management for Executives (Class of 10th), King Prajadhipok's Institute
- Leadership Excellence through Awareness and Practice (LEAP), INSEAD
- Leadership Development Program III (LDP III), PLLI, PTT Public Company Limited
- Diploma, The National Defence Course (Class of 57th) (2014), National Defence College

Work Experiences

- 2008 - 2009 : Vice President,
PTT Green Energy Pte. Ltd.
- 2009 - : Executive Vice President,
September 30, 2014 PTT, working on a secondment at
IRPC Public Company Limited as
Senior Executive Vice President
Corporate Commercial and Marketing
(March 1, 2013 - September 30, 2014),
Senior Executive Vice President Port
& Asset Management Business Unit
(October 19, 2011 - February 28, 2013),
Acting Senior Executive Vice President
Corporate Strategy and Planning
(October 19, 2011 - September 30, 2012),
Acting Senior Executive Vice President
Corporate Commercial and Marketing
(October 17, 2012 - February 28, 2013),
Managing Director Thai ABS
(November 1, 2010 - November 30, 2012),
Managing Director IRPC Oil
(November 1, 2010 - July 13, 2012)
and Executive Vice President
Corporate Strategy
(June 1, 2009 - October 18, 2011)
- October 1, 2014 - : Acting Senior Executive Vice President,
Present Corporate Strategy,
PTT Public Company Limited

Positions in Listed Company - The Stock Exchange of Thailand

- Director, Thai Oil Public Company Limited

Relevant Important Positions in Non listed Company/ Other Organizations

- Chairman, PTT Green Energy Pte. Ltd.
- Director, PTT Polymer Logistics Company Limited

Relation among Family with other Directors and Executives

- None

8 Mr. Charcrie Buranakanonda Age 59
Senior Executive Vice President,
Gas Business Unit

(%) Share Possession: 0.001940
(Self 0.001544; Spouse 0.000396)

Educations

- B.Eng. (Mechanical Engineering), Kasetsart University, Thailand

Certifications

- Director Certification Program (DCP 138/2010), Thai Institute of Directors (IOD)
- Advanced Certificate Course in Public Administration and Law for Executives 2010, King Prajadhipok's Institute
- PTT-GE Executive Leadership Program 2012, GE Crotonville, U.S.A.
- Corporate Governance for Directors and Senior Executives of State Enterprises and Public Organizations 2013, Public Director Institute (PDI), King Prajadhipok's Institute

Work Experiences

- | | |
|----------------|--|
| 2009 - 2011 | : Executive Vice President,
Natural Gas Transmission,
Gas Business Unit, PTT |
| 2011 - 2012 | : Executive Vice President,
Natural Gas Processing,
Gas Business Unit, PTT |
| 2012 - Present | : Senior Executive Vice President,
Gas Business Unit, PTT |

Positions in Listed Company - The Stock Exchange of Thailand

- None

Relevant Important Positions in Non listed Company/ Other Organizations

- Director, PTT Energy Resources Company Limited
- Director, Ratchaburi Power Co., Ltd.
- Director, East Mediterranean Gas (S.A.E.), Arab Republic of Egypt

Relation among Family with other Directors and Executives

- None

9 Mr. Chavalit Punthong Age 58
Senior Executive Vice President,
Oil Business Unit

(%) Share Possession: None

Educations

- Bachelor of Engineering (Mechanical), Kasetsart University, Thailand
- M.B.A., Central Missouri State University, U.S.A.

Certifications

- Directors Certification Program (DCP 177/2013), Thai Institute of Director (IOD)
- Senior Executive Program (SEP), Sasin Graduate Institute of Business Administration of Chulalongkorn University
- PTT-GE Executive Leadership Program, GE Crotonville, U.S.A.
- NIDA-Wharton Executive Leadership Program 2009, The Wharton School of the University of Pennsylvania, U.S.A.

Work Experiences

- | | |
|----------------|--|
| 2008 - 2009 | : Executive Vice President,
Petroleum Supply and Logistics, PTT |
| 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 - Present | : Senior Executive Vice President,
Oil Business Unit, PTT |

Positions in Listed Company - The Stock Exchange of Thailand

- None

Relevant Important Positions in Non listed Company/ Other Organizations

- Chairman, Thai Petroleum Pipeline Company Limited
- Chairman, PTT Retail Management Company Limited
- Chairman, PTT Retail Business Company Limited

Relation among Family with other Directors and Executives

- None

10 Mr. Sarakorn Kulatham Age 60
Senior Executive Vice President,
Petrochemicals & Refining Business Unit

(%) Share Possession: 0.001974
(Self 0.001589; Spouse 0.000385)

Educations

- B.Eng., Chulalongkorn University, Thailand
- M.S. (Science) Civil Engineering, University of Missouri, U.S.A.

Certifications

- Leadership Program, IMD Institute
- NIDA-Wharton Executive Leadership Program 2009, The Wharton School of the University of Pennsylvania, U.S.A.

Work Experiences

2005 - 2008 : Executive Vice President, PTT,
Working as Supply and Planning
Management, Alliance Refining
Company Limited

2008 - 2009 : Executive Vice President, PTT,
Working as Deputy CEO-Supply
Planning, Star Petroleum Refining
Company Limited

2009 - 2010 : Executive Vice President,
International Trading Business Unit,
PTT

2010 -
September 30, 2014 : Senior Executive Vice President,
International Trading Business Unit,
PTT

October 1, 2014 - : Senior Executive Vice President,
Present Petrochemicals & Refining Business Unit,
PTT

Positions in Listed Company - The Stock Exchange of Thailand

- Director, Bangchak Petroleum Public Company Limited

Relevant Important Positions in Non listed Company/ Other Organizations

- Chairman, PTT International Trading Pte. Ltd.
- Director, PTT Asahi Chemical Company Limited

Relation among Family with other Directors and Executives

- None

11 Mrs. Boobpha Amornkiatkajorn Age 56
Senior Executive Vice President,
International Trading Business Unit

(%) Share Possession: 0.003568

Educations

- Bachelor of Science (Economics) (Hons.), Kasetsart University
- Master of Economics Program (Finance) (Hons.), National Institute of Development Administration (NIDA)

Certifications

- Director Certification Program (DCP/2011), Thai Institute of Directors (IOD)
- Breakthrough Program for Senior Executive - IMD Institute/ Switzerland
- Leadership Development Program - Center for Creative Leadership, Singapore

Work Experiences

2002 - 2009 : Vice President, Crude Oil Trading, PTT

2010 - 2014 : Executive Vice President, Downstream
Business Group Alignment, PTT

2014 - : Executive Vice President,
September 30, 2014 Trading Operations, PTT

October 1, 2014 - : Acting Senior Executive Vice President,
Present International Trading Business Unit,
PTT

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.

Relation among Family with other Directors and Executives

- None

- 12** Mr. Auttapol Rerkpiboon Age 49
Senior Executive Vice President,
Sustainability Management and Project Engineering

(%) Share Possession: 0.000798
(Self 0.000718; Spouse 0.000080)

Educations

- Bachelor of Engineering (Civil Engineering), Chulalongkorn University, Thailand
- Master of Economics Program, National Institute of Development Administration, Thailand

Certifications

- Director Certification Program (DCP 2013), Thai Institute of Directors (IOD)
- NIDA-Wharton Executive Leadership Program 2009, The Wharton School of the University of Pennsylvania, U.S.A.
- Executive Development Program (EDP 1), Thai Listed Companies Association (TLCA)
- Diploma of Petroleum Management, College of Petroleum Studies, Oxford, England

Work Experiences

- 2006 - 2010 : Vice President Office of President and Corporate Secretary, PTT
- 2010 - 2011 : Executive Vice President, Corporate Communications & Social Responsibility, PTT
- 2011 - 2014 : Executive Vice President, Commercial & International Marketing, PTT
- 2014 - September 30, 2014 : Executive Vice President, Retail Marketing, PTT
- October 1, 2014 - Present : Acting Senior Executive Vice President, Sustainability Management and Project Engineering, PTT

Positions in Listed Company - The Stock Exchange of Thailand

- None

Relevant Important Positions in Non listed Company/ Other Organizations

- Director, Energy Complex Company Limited
- Director, Sustainable Energy Foundation

Relation among Family with other Directors and Executives

- None

- 13** Mr. Tevin Vongvanich Age 56
President and Chief Executive Officer,
PTT Exploration and Production Public Company Limited

(%) Share Possession: 0.001961

Educations

- B.Eng. (Chemical Engineering) (Hons.), Chulalongkorn University, Thailand
- M.S. (Chemical Engineering), Rice University, U.S.A.
- M.S. (Petroleum Engineering), University of Houston, U.S.A.

Certifications

- Directors Certification Program (DCP 21/2002), Financial Statements for Directors (FSD 6/2009), Role of the compensation Committee (RCC 13/2011), Thai Institute of Directors Association (IOD)
- Program for Global Leadership (PGL) (Class of 3rd), Harvard Business School, U.S.A.
- Politics and Government in Democracy for Executives (Class of 10th), King Prajadhipok's Institute Thailand
- Senior Executive Program (SEP), Sasn Graduate Institute of Business Administration, Chulalongkorn University, Thailand
- Top Executives Program, Capital Market Academy (Class of 6th), Thailand
- The Joint State Private Sector Course, National Defense College, (Class of 22nd), Thailand
- The Programme for Senior Executives on Justice Administration, (Class of 16th), Thailand
- The Executive Program in Energy Literacy for A Sustainable Future, Thailand Energy Academy (TEA 3) 2013

Work Experiences

- 2008 - 2009 : Senior Executive Vice President, Corporate Strategy & Development, PTT
- 2009 - 2010 : Chief Financial Officer and Senior Executive Vice President, Corporate Strategy, PTT
- 2010 - 2012 : Chief Financial Officer, PTT
- 2012 - Present : Senior Executive Vice President, PTT Working as on a Secondment at President and Chief Executive Officer, PTT Exploration and Production Public Company Limited

Positions in Listed Company - The Stock Exchange of Thailand

- Director, PTT Exploration and Production Public Company Limited
- Independent Director/ Chairman, MCOT Public Company Limited

Relevant Important Positions in Non listed Company/ Other Organizations

- None

Relation among Family with other Directors and Executives

- None

14 Mr. Supattanapong Punmeechaow Age 55
President and Chief Executive Officer,
PTT Global Chemical Public Company Limited

(%) Share Possession: None

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
- The National Defence Course (Class 50) and The Joint State-Private Sector Course (Class 20), National Defence College
- Oxford Energy Seminar 2013, U.K.
- Certificate in Top Executives in the Energy Education Program, Thailand Energy Academy (Class 4)
- Corporate Governance for Directors and Senior Executives of State Enterprises and Public Organizations (Class of 12th) (2014), Public Director Institute (PDI), King Prajadhipok's Institute

Work Experiences

2009 - 2011 : Executive Vice President
Business Development,
PTT International Company Limited
and Executive Vice President
Corporate Strategy, PTT

2011 - : Senior Executive Vice President,
September 30, 2014 Corporate Strategy, PTT
October 1, 2014 - : Senior Executive Vice President, PTT,
Present working as President and Chief
Executive Officer, PTT Global
Chemical Public Company Limited

Positions in Listed Company - The Stock Exchange of Thailand

- Director and Secretary to the Board of Directors/ Member of Risk management Committee, PTT Global Chemical Public Company Limited
- Director/ Chairman, Vinythai Public Company Limited

Relevant Important Positions in Non listed Company/ Other Organizations

- Director, Global Power Synergy Public Company Limited
- Director, PTT Chemical International Private Limited (CH INTER) Limited
- Director, Sport Services Alliance Co., Ltd.
- Director, PTT Director, PTT Chemical International (Asia Pacific ROH) Limited

Relation among Family with other Directors and Executives

- None

15 Mr. Atikom Terbsiri Age 52
President and Chief Executive Officer,
Thai Oil Public Company Limited

(%) Share Possession: None

Educations

- B.B.A., Bachelor of Business Administration, Assumption University, Thailand
- M.B.A., (Finance & International Business), High Distinction, Armstrong University, Berkeley, California, U.S.A.

Certifications

- Director Certification Program (DCP 125/2009), 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 17th), Thailand
- Executive Education Program, Harvard Business School, Harvard University, U.S.A.

Work Experiences

- 2009 - 2011 : Senior Executive Vice President,
Corporate Strategy & Planning,
Acting Senior Executive Vice President,
Port & Asset Management Business Unit,
IRPC Public Company Limited
- 2011 - 2013 : President, IRPC Public Company Limited
- 2013 - : Senior Executive Vice President,
September 30, 2014 Petrochemicals & Refining Business Unit,
PTT
- October 1, 2014 - : Senior Executive Vice President,
Present PTT, working as President
and Chief Executive Officer,
Thai Oil Public Company Limited

Positions in Listed Company - The Stock Exchange of Thailand

- Director and Secretary to the Board of Directors,
Thai Oil Public Company Limited

Relevant Important Positions in Non listed Company/ Other Organizations

- Director, Global Power Synergy Public Company Limited
- Chairman, Thai Lube Base Public Company Limited
- Chairman, Thai Paraxylene Co., Ltd.
- Chairman, LABIX Co., Ltd.
- Chairman, TOP SPP Co., Ltd.
- Chairman, Thailoil Power Co., Ltd.
- Chairman, Thailoil Solvent Co., Ltd.
- Chairman, TOP Solvent Co., Ltd.
- Chairman, Thailoil Energy Service Co., Ltd.
- Chairman, Thailoil Ethanol Co., Ltd.
- Chairman, Thailoil Marine Co., Ltd.

Relation among Family with other Directors and Executives

- None

16 Mr. Sukrit Surabotsopon Age 56
President,
IRPC Public Company Limited

(%) Share Possession: 0.000070

Educations

- B.Eng. (Chemical Engineering), Chulalongkorn University,
Thailand

Certifications

- Directors 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 16th), Thailand
- The Joint State-Private Sector Course (Class 26/2013),
National Defense College

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
of as President,
IRPC Public Company Limited

Positions in Listed Company - The Stock Exchange of Thailand

- Director/ Secretary of the Board of Directors, IRPC Public Company Limited

Relevant Important Positions in Non listed Company/ Other Organizations

- Director, UBE Chemicals (Asia) Public Company Limited
- Director, PTT Polymer Marketing Company Limited
- Director, IRPC Oil Company Limited
- Director, THAI ABS Company Limited
- Director, IRPC Polyoil Company Limited
- Director, IRPC A&L Company Limited

Relation among Family with other Directors and Executives

- None

17 Mr. Pramin Phantawesak Age 60
President,
PTT Phenol Company Limited

(%) Share Possession: 0.000011
(Self -None- ; Spouse 0.000011)

Educations

- Bachelor of Engineering in Industrial Engineering, Chulalongkorn University, Thailand
- Master of Engineering in Industrial Engineering, Lamar University, U.S.A.

Certifications

- Directors Certification Program (DCP 63/2005), Role of the compensation Committee (RCC 12/2011), Thai Institute of Directors Association (IOD)
- Diploma, The National Defence Course for the Joint State-Private Sector, The National Defence College Class 2006 - 2007
- Advanced Management Programme (AMP), INSEAD Business School, France 2008
- PTT Group EVP Leadership Development 2009, PTT Public Company Limited, Thailand
- Certificate in Company Management Course 2011, PTT Public Company Limited, Thailand
- Certificate in Executive Development Program (EDP), Fiscal Policy Research Institute Foundation, 2011
- TLCA Executive Development Program (EDP 9), Thai Listed Companies Association, 2012

Work Experiences

2005 - October 2013 : Executive Vice President - Petrochemicals & Refining Business Unit, PTT, working as secondment as follows;

- 2005 - 2006
Managing Director, Independent Power (Thailand) Company Limited
- 2006 - 2009
Managing Director, Thai Paraxylene Company Limited
- 2009 - February 2012
President, PTT Polymer Marketing Company Limited
- March - September 2012
President, PTT Polymer Logistics Company Limited
- October 2012 - Present
President, PTT Phenol Company Limited

November 2013 - Present : Senior Executive Vice President, PTT, working on a secondment at PTT Global Chemical Public Company Limited working as the President, PTT Phenol Company Limited

Positions in Listed Company - The Stock Exchange of Thailand

- None

Relevant Important Positions in Non listed Company/ Other Organizations

- Director, PTT Phenol Company Limited
- Director, PTT Polymer Marketing Company Limited
- Director, Polymer Marketing DMCC

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 2014

Company As of December 31, 2014				PTT Executive As of January 31, 2015				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
								Mr. Piyasvasti Amranand	Mr. Kittipong Kittayarak	Mr. Watcharakiti Watcharothai	Mr. Rungson Siworasat	GEN. Chachaleem Chalemsukh	Mr. Chanvit Ananattachari	Mrs. Nuntawan Sakuntanaga	Mr. Vichai Assarasakom	AMI Boonsub Prasit	Mr. Don Wasantapruet	Mr. Prasert Bunsumpun	Mr. Areepong Bhoocha-oom	Mr. Palin Chuchottaworn	Mr. Nuttachat Charuchinda	Mr. Sarun Rungkasiri	Mr. Surong Bulakul	Mr. Virat Uanarunit	Mr. Pipan Tepatimargorn	Mr. Chansin Treenuchagron	Mr. Charcie Buranaranda	Mr. Chavalit Punthong	Mr. Sarakorn Kulatham	Mrs. Boonpha Anomkajorn	Mr. Autapol Rerkpiboon	Mr. Tevin Vongvanich	Mr. Supattanapong Punmeechaow	Mr. Sukrit Surabosopon	Mr. Pramlin Phantawesak	Ms. Pannalin Mahawongkikul	Ms. Nimra Thepvanangkul	
PTT Plc.				PTT	x	/	/	/	/	/	/	/	/	/	/	/	/	/	/	*0/	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	//	
Subsidiaries	E&P	1	PTT Exploration and Production Plc.	PTTEP																—/	/																	
	GAS	2	PTT Natural Gas Distribution Co., Ltd.	PTTNGD																																		
		3	PTT LNG Co., Ltd.	PTTLNG																																		
	International business	4	PTT Green Energy Pte. Ltd.	PTTGE																							x									/		
		5	PTT Energy Resources Co., Ltd.	PTTER												x						/																
	OIL	6	PTT (Cambodia) Limited	PTTCL																																		
		7	PTT Retail Business Co., Ltd.	PTTRB																								x										
		8	Thai Lube Blending Co.,Ltd.	TLBC																																		
		9	Subic Bay Energy Co., Ltd.	SBECL																																		
		10	PTT Tank Terminal Co., Ltd.	PTT TANK																																		
	Petrochemical & Refining	11	PTT Oil Myanmar Co., Ltd.	PTTOM																																		
		12	PTT Polymer Logistics Co., Ltd.	PTTPL																																		
		13	PTT Polymer Marketing Co., Ltd.	PTTPM																																		
	Trading	14	PTT PMMA Co. Ltd.	PTTPMMA																																		
	Others	15	PTT International Trading Pte. Ltd.	PTTT																																		
16		Energy Complex Co., Ltd.	EnCo																																			
17		PTT Regional Treasury Center Pte. Ltd.	PTTRTC																																			
18		Business Services Alliance Co., Ltd.	BSA																																			
GAS	19	Global Power Synergy Co., Ltd.	GPSC																													/	/					
	20	Thaioil Power Co., Ltd.	TP																																			
	21	Trans Thai-Malaysia (Thailand) Co., Ltd.	TTM-T																														x					
	22	Trans Thai-Malaysia (Malaysia) Sdn. Bhd.	TTM-M																																			
	23	District Cooling System and Power Plant Co., Ltd.	DCAP																																			
OIL	24	Thai Petroleum Pipeline Co., Ltd.	THAPPLINE																																			
	25	PetroAsia (Thailand) Co., Ltd.	PA-Thailand																																			
	26	Bangkok Aviation Fuel Service Plc.	BAFS																																			
	27	Intoplane Services Co., Ltd.	IPS																																			
	28	Fuel Pipeline Transportation Co., Ltd.	FPT																																			
	29	Keloi-PTT LPG Sdn. Bhd.	KPL																																			
	30	Petro Asia (Maoming) Co., Ltd	PA-Maoming																																			
Petrochemical & Refining	31	Petro Asia (Sanshui) Co., Ltd.	PA-Sanshui																																			
	32	PTT Global Chemical Plc.	PTTGC										x				/								/							*0/						
	33	Star Petroleum Refining Plc.	SPRC															/			/																	
	34	Thai Oil Plc.	TOP														/				/													*0/				
	35	Bangchak Petroleum Plc.	BCP																/					/														
	36	IRPC Plc.	IRPC			/													x		/	/												0/				
	37	HMC Polymers Co., Ltd.	HMC																																			
	38	PTT Asahi Chemical Co., Ltd.	PTTAC																																			
	39	PTT MCC Biochem Co., Ltd.	PTTMCC																																			
Infrastruture	40	PTT Energy Solutions Co., Ltd.	PTTES																																			
	41	PTT Maintenance and Engineering Co., Ltd.	PTTME																																			
Others	42	Dhipaya Insurance Plc.	TIP																																			
	43	PTT ICT Solutions Co., Ltd.	PTTICT																																			

Notes: Symbol x = Chairman -- = Vice Chairmen * = President O = CEO / = Director // = Executive

as of January 31, 2015, the first four executives, excluding the President & CEO, under SEC's Announcement are Mr. Nattachai Charuchinda, Mr. Sarun Rungkasiri, Mr. Surong Bulakul, and Mr. Wirat Uanarunit

Awards of Thai Pride

In 2014, PTT won 64 awards and prestigious rankings from 32 entities:

- National level: A total of 31 awards from 20 entities
- International level: A total of 33 awards from 12 entities

To be a global major
company in FORTUNE 100
by 2020
BIG



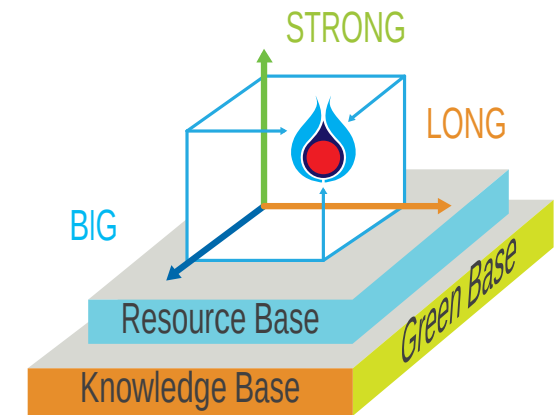
To be a company
with sustainable growth
according to DJSI by 2013
LONG

BIG
A world class company
to be listed in FORTUNE 100 by 2020

LONG
A company with sustainable growth
to be listed in DJSI in 2013

STRONG
Operational excellence to achieve
top quartile Performance by 2020

BIG - LONG - STRONG



1

Ranked 180th
Forbes Global 2000 Ranking 2014

Date: June 2014

Presented by
Forbes Magazine



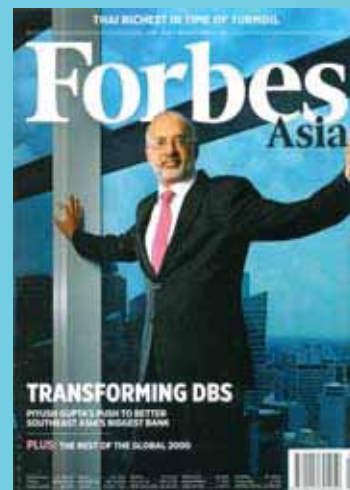
Notes (Reference/ Criteria)

- Based on business performance in 2013, sales revenue, profit, asset, and market value, etc.
- Proof that PTT was internationally recognized, illustrating international investors' confidence.

The World's Biggest Public Companies

Rank	Company	Country	Sales	Profits	Assets	Market Value
180	PTT PCL	Thailand	\$92.5 B	\$5.1 B	\$54.8 B	\$26.7 B

- Ranked 180th among 2,000 major public companies, the only Thai company in the top 500, with its affiliates PTTGC (687th) and TOP (1,587th).
- Past Ranking
144th/ 2013
167th/ 2012
171st/ 2011
196th/ 2010
244th/ 2009
205th/ 2008
354th/ 2007
372nd/ 2006
425th/ 2005
461st/ 2004



2

Ranked 84th among the world's 500
major companies

Date: July 2014

Presented by
Fortune Global 500 Magazine



Notes (Reference/ Criteria)

- Based on revenue and profit of 2013
- Still the sole Thai company among the top 500
- Past Ranking
81st/ 2013
95th/ 2012
128th/ 2011
155th/ 2010
118th/ 2009
135th/ 2008
207th/ 2007
265th/ 2006
373rd/ 2005
456th/ 2004

1

"Suriyasathorn"
Best Calendar Award 2014
(Social and Environmental
Promotion)

Date: March 2014

Presented by
Thailand Public Relations
Association



Notes (Reference/ Criteria)

- Recognizing excellence in desk calendar under the "Step up Tomorrow" concept.



2

**“Honorable Engineer” Plaque
(Organization Management)**

Date: March 2014

Presented by
HRH Princess Maha Chakri
Sirindhorn Award, organized by
The Engineering Institute of
Thailand under HM the King's
Patronage (EIT)

**Notes (Reference/ Criteria)**

- EIT won royal permission to hold this unique celebration on the auspicious occasion of HM the King's 7th Cycle Birthday Anniversary in 2012. The award was bestowed by HRH Princess Maha Chakri Sirindhorn.

3

**Thailand Top Company Awards 2014
(Leading Producer)**

Date: January 2014

Presented by
University of the Thai Chamber of
Commerce and Business Plus Magazine

**Notes (Reference/ Criteria)**

- Recognizing outstanding performance in business lines, in compliance with laws in an environmentally friendly manner with morality, integrity, culture, and political neutrality.

4

**The 4th Asian Excellence
Recognition Awards 2014****Individual Awards:**

- Asia's Best CEO (Investor Relations)
(for 4 consecutive years)
- Mr. Pailin Chuchottaworn
- Asia's Best CFO:
(for 2 consecutive years)
- Mr. Surong Bulakul
- Best Investor Relations Professional:
- Mr. Pijin Apiwanthanaporn

Corporate Awards:

- Best Investor Relations
(4 consecutive years)
- Best Environmental Responsibility
(4 consecutive years)
- Best CSR (2 consecutive years)
- Best Corporate Communications
Team

Date: April 4, 2014

Presented by
Corporate Governance Asia Magazine

**Notes (Reference/ Criteria)**

- Recognizing PTT's professional corporate management and business conduct with CG, transparency toward sustainable growth and strength to enhance national energy security and contribution to sustainable economy.

**The 2nd Asian Company Secretary
and Compliance Officer of
the Year Award 2014:**

Mrs. Wanthanee Charuek,
Corporate Secretary

Date: December 10, 2014

Presented by
Corporate Governance Asia

**Notes (Reference/ Criteria)**

- PTT has won the award for two years in a row.
- Recognizing company secretaries who fulfill their responsibilities and support the company's sustainable growth.



5

**Best Investor Relations Issuer
The Best Bond Awards 2013**

Date: April 2014

Presented by
The Thai Bond Market
Association - ThaiBMA

**Notes (Reference/ Criteria)**

- Recognizing bond issuers with outstanding information disclosure and efficient, continual investor relations activities. Essential information on PTT and its financial status are available through various channels for investors to study and gain a clear understanding of PTT, its businesses and the bonds issued, before and after their investment. PTT's world-class professionalism demonstrated by Investor Relations is a key driver of its success, efficiently enhancing the national economy.

**The 10th Corporate Governance Asia
Recognition Awards 2014,
The Best of Asia**

- Asia's Icon on Corporate Governance
(for 9 consecutive years)
- Asian Corporate Director of the Year
Award 2014 (3 consecutive years):
- Mr. Pailin Chuchottaworn,
President & CEO

Date: October 24, 2014

Presented by
Corporate Governance Asia Magazine

**Notes (Reference/ Criteria)**

- Recognizing listed companies in each Asian country with outstanding overall CG performance.
- Recognizing Thai listed companies' leaders and directors with outstanding caliber and performance in corporate management for sustainable growth with good governance and social responsibility, fair treatment of stakeholders, and improving national CG standard.



6

Named the best Thai company in:

1. Best CEO Award:
- Mr. Pailin Chuchottaworn,
President & CEO
2. Best CFO Award:
- Mr. Surong Bulakul
3. Best Managed Company Award
4. Best Corporate Governance Award
5. Best Corporate Social
Responsibility Award
6. Best Commitment to Strong
Dividend Policy
7. Ranked 5th in Best Investor
Relations Award

Date: May 2014

Presented by
FinanceAsia Magazine

FinanceAsia



Notes (Reference/ Criteria)

- Based on FinanceAsia Magazine's opinions polls among leading fund managers, financial experts, and analysts.
- Recognizing that PTT is filled not only with capable leaders, together with outstanding, transparent management of regional and international standards, but also with outstanding responsibility to society and stakeholders.



Region's Best
Borrowers – Thailand

Date: November 2014

Presented by
FinanceAsia Magazine

FinanceAsia



Notes (Reference/ Criteria)

- Based on Fixed Income Poll 2014 conducted by FinanceAsia Magazine.
- Recognizing outstanding Thai companies that successfully raised capital through innovative transactions and financial products offered that best suited investors, based on a survey among investors in the Southeast Asia region.
- The two consecutive annual awards confirmed PTT as a leading multinational Thai energy entity with outstanding financial management, international-standard professionalism, and leadership in financial markets at national and regional levels.



7

National Safety Awards 2014

PTT (Head Office, Oil Unit,
Gas Business Unit, and its affiliates) won:

1. Outstanding Safety Officer Awards
2. Outstanding Committee on Safety,
Occupational Health, and Work
Environment Awards
3. Outstanding Workplace for Safety,
Occupational Health, and Work
Environment Awards

Date: June 2014

Presented by
Department of Labour Protection and Welfare



Notes (Reference/ Criteria)

- Surat Thani Petroleum Terminal won the National Outstanding Workplace Award for 18 consecutive years, the longest winning record. PTT units also won the highest number of awards.



8

Excellence Awards 2013

Date: June 2014

Presented by
Thailand Management Association



Notes (Reference/ Criteria)

- PTT applied international contact center technology to its Contact Center (1365) for speedy service and facilitation to meet customers' full satisfaction in a systematic and efficient manner in line with the policy of PTT's Oil Business Unit for extensive customer satisfaction.



9

Newsweek Green Rankings 2014

Ranked 136th, against 384th in 2011

Date: June 13, 2014

Presented by
Newsweek Green Rankings 2014
(A project organized by Newsweek
Magazine and Corporate Knight
Capital Magazine to rank public
companies on environmental metrics)



Corporate Knights CAPITAL



Notes (Reference/ Criteria)

- The only Thai company among the top 500 World's Greenest Companies 2014
- Criteria:
 - Revenue/ total energy consumption
 - Revenue/ greenhouse gas (GHG) emissions
 - Revenue/ water consumption
 - Revenue/ total waste generated, recycled, reused
 - Acceptance for energy conservation and environmental practices
 - Sustainability Pay link of senior executives' pays to achieved conservation targets
 - Board of Directors' mandate related to the company's sustainability, including environmental matters
 - Evidence that the latest reported environmental metrics had been audited by a third party.
- The Advisory Council is made up of experts from various agencies, including a Harvard University professor, Chairman of the Accounting for Sustainability Project, and the CEO of the Association for Sustainable and Responsible Investment.

Rank	Company Name	Country of Headquarters	GICS Sector	GICS Industry Group	Energy Productivity	Carbon Productivity	Water Productivity	Waste Productivity	Reputation	Pay Link	Sustainability Audit	Thruout Committee	News Green Score
136	PTT	Thailand	Energy	Energy	28.4%	40.5%	34.4%	-	77.4%	Yes	Yes	Yes	20.0%

10

Top 50 Publicly Listed Companies

Date: June 2014

Presented by
FinanceAsia Magazine

Presented by
ASEAN CG SCORECARD 2013/14

ASEAN CORPORATE
GOVERNANCE
SCORECARD

Notes (Reference/ Criteria)

- PTT and affiliates (PTTEP, PTTC, TOP, IRPC, and BCP) were all ranked among the Top 50 with scores of over 90.

ASEAN Corporate Governance Scorecard:
Country Reports and Assessments 2013 - 2014

Companies with scores of 90 points and above		
No.	Ticker	Publicly Listed Company
1	AOT	Airports of Thailand
2	BCP	Bangchak Petroleum
3	BKI	Bangkok Insurance
4	CPN	Central Pattana
5	IRPC	IRPC
6	KBANK	Kasikornbank
7	MCOT	MCOT
8	PSL	Precious Shipping
9	PTT	PTT
10	PTTEP	PTT Exploration and Production
11	PTTGC	PTT Global Chemical
12	SAMART	Samart Corporation
13	SC	SC Asset Corporation
14	SCB	The Siam Commercial Bank
15	SPALI	Supalai
16	TISCO	Tisco Financial Group
17	TOP	Thai Oil

11

Outstanding Mechanical Technology Awards 2014

1st Prize, Machinery for Energy and Environment: PTT's R&D in transparent solar panels, submitted by Mr. Nattapong Boriraksantikul, researcher of PTT Research and Technology Institute

Date: July 18, 2014

Presented by
National Innovation Agency (NIA)



Notes (Reference/ Criteria)

- Recognizing colorful PV solar panels, in which prism solar cells were developed for colorful building appearance, interior and exterior, and still with power-generating properties

12

R&D 100 Award 2014

PTT Diesel CNG, a new technology discovered by PTT Research and Technology Institute, in cooperation with Sammitr Green Power Co., Ltd.

Date: July 2014

Presented by
Industrial Research Magazine



Notes (Reference/ Criteria)

- PTT Diesel CNG is a dual fuel (natural gas and diesel) designed for small diesel cars and trucks, replacing about 70% diesel for highway travel. For natural gas-powered vans, fuel-saving would be 50%, with greater mileage for each natural gas refueling. This innovation improves energy efficiency with an international safety standard and environment-friendliness.
- Industrial Research, a US R&D magazine, formed a panel of independent R&D experts to select and recognize the top 100 US technologies. Two years later, technologies from outside the USA were first included in the ranking. The award is globally recognized.

13

Most Popular Stock Award 2013 and Most Preferred Stocks Award 2013 (Resources Group)

Date: August 28, 2014

Presented by
Buraphathat (1999) Co., Ltd., on behalf of Kao Hoon newspaper, University of the Thai Chamber of Commerce, and SET



Notes (Reference/ Criteria)

- Encouraging the management and major shareholders of public companies to always value popularity among investors.



14

Membership of Dow Jones Sustainability Indices (DJSI)

DJSI 2014: PTT earned membership of DJSI (Oil & Gas Producer, OIX) of DJSI World for 3 consecutive years.

Date: September 2014

Presented by
Dow Jones Sustainability Indices (DJSI)



Notes (Reference/ Criteria)

- A total of 110 worldwide companies in the OIX category of DJSI World had had their performances assessed, covering economic, financial, and environmental aspects. Only 14 met the membership criteria this year.

15

Certificate for activities on carbon-offsetting in the organization

Date: September 24, 2014

Presented by
Thailand Greenhouse Gas Management Organization (Public Organization) (TGO)



Notes (Reference/ Criteria)

- Recognizing organizations, agencies, or individuals with outstanding roles in staging GHG emission reduction activities within the organizations. PTT's carbon-offsetting activity was held at the PTT Group QSHE Annual Meeting 2013 and attended by 300 staff members, with 8.38 tCO₂e GHG emissions saved.

16

CAC Membership Certificate

Date: October 16, 2014

Presented by
Thailand Private Sector Collective Action Coalition against Corruption Council (CAC)



Notes (Reference/ Criteria)

- Recognizing the suitability of PTT's policy and procedures to fight corruption risks and gain stakeholders' confidence in its business conduct. All PTT management and staff are encouraged to strictly adhere to anti-corruption actions for the highest efficiency of operational and auditing processes.

17

The Most Powerful Brands
of Thailand Award 2014

Date: November 6, 2014

Presented by
Faculty of Commerce
and Accountancy,
Chulalongkorn University

Notes (Reference/ Criteria)

- Recognizing the most powerful brand of each product category, based on a quantitative and qualitative survey of 12,000 product samples by the faculty's Marketing Department, the widest range of products survey ever made.

The award confirmed PTT's brand value accepted by the majority of Thais, its success, and market leadership.

18

Sustainability Report
Award 2014

Date: November 12, 2014

Presented by
The Office of the Securities
and Exchange Commission
(SEC), Thai Listed Companies
Association, and Thaipat Institute

Notes (Reference/ Criteria)

- Encouraging and promoting companies to develop a sustainability report that discloses information on environmental, social, and CG (ESG) performance, valuing integration of the company's strategy with sustainability for the benefit of the business and society, stakeholders, and long-term sustainable growth.
- Criteria: completeness, credibility, and communication.



20

CSR Recognition Award 2014

Date: November 2014

Presented by
The Stock Exchange of Thailand

Notes (Reference/ Criteria)

- Recognizing listed companies that had met the criteria for interview for the Best Corporate Social Responsibility Awards (CSR Awards) as role models for other listed companies in socially responsible business operations.



19

Best State Enterprise Awards 2014

- Best Corporate Management Award
- Best Innovation Award (5 consecutive years)
- Best CEO:
- Mr. Pailin Chuchottaworn,
President & CEO

Date: November 24, 2014

Presented by
Ministry of Finance

Notes (Reference/ Criteria)

- Recognizing the continued outstanding management performance of PTT's Board, executives, and staff.
- The Best Corporate Management Award confirmed trust in the Thai state enterprise mandated with national energy security, defining vision and strategies to be a multinational

Thai energy company, leveraging energy as an economic driving force to become a major company ranked among the top 100 global major companies and the first Thai company to belong to DJSI (Oil & Gas Producer, OIX). The award spoke volumes for PTT's caliber as a company of Thais and a sustainable power.

- The Best Innovation Award recognized PTT's 100% biodegradable and environment-friendly Green Amazon Bio Cup and PTT's promotion of technology and innovation.
- The Best CEO Award recognized the corporate leader that had efficiently transformed a long-term vision into milestone achievements.

SET in the City 2104
Outstanding Booth
(Investor/ shareholder activities)

Date: December 2014

Presented by
The Stock Exchange of Thailand

Notes (Reference/ Criteria)

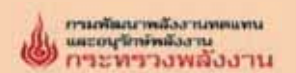
- Recognizing PTT as a multinational energy company with outstanding investor relations performance with continual activities for investors and shareholders, and reflecting PTT's world-class management caliber.



21

Thailand Energy Award 2014
Energy Personnel
(Energy Management Team)

Date: November 21, 2014

Presented by
Department of Alternative Energy
Development and Efficiency (DEDE),
Ministry of Energy

Notes (Reference/ Criteria)

- Launched by DEDE in 2000 to encourage business and industrial sectors, which are very energy-intensive and involve many people (entrepreneurs, executives, engineers, and staff), to recognize the value of energy conservation and development management, especially in renewable/alternative energy. Also recognizing outstanding plants and factories, buildings, personnel, and advocates of renewable/ alternative energy conservation and development as role models for others, and encouraging participation of related personnel.

22

SET Awards of Honor:
Excellence in Corporate Social Responsibility
(for 4 consecutive years) and Top Corporate
Governance Report Award 2014

Date: November 27, 2014

Presented by
SET, Thai Institute of Directors (IOD),
and Money & Banking Magazine



การเงินธนาคาร

Notes (Reference/ Criteria)

- Recognizing PTT's earnest ongoing dedication to CSR activities, CG for all stakeholders' interests, and clear, transparent information disclosure widely accepted by investors and shareholders.



23

Best Industrial Award:
Energy Management
Rayong Gas Separation Plant

Date: November 2014

Presented by
Ministry of Industry



Notes (Reference/ Criteria)

- Recognizing industrial operators that had diligently contributed to national industrial development.

24

Best Paper Award:
Research on economic and social returns
from investment in biogas systems from
pig farms, a case study, Tambon Tha Manao,
Amphoe Chaibadan, Lop Buri province.

Date: November 2014

Presented by
Thailand Renewable Energy Association
for Community (T-REC)



Notes (Reference/ Criteria)

- Recognizing PTT's leadership in consistently developing renewable/ alternative energy



25

EIA Monitoring Awards 2014

Excellence Award:

1. Oil And Gas Jetty Project,
Songkhla Petroleum Terminal
(the 6th award)

Outstanding Awards:

2. Oil And Gas Jetty Project,
Surat Thani Petroleum Terminal
(the 3rd award)
3. Oil Jetty Project, Phuket Oil Terminal
(the 3rd award)

Date: December 2014

Presented by
The Office of Natural Resources
and Environmental Policy
and Planning, Ministry of Natural
Resources and Environment



Notes (Reference/ Criteria)

- The EIA Monitoring Award, the most prestigious environmental award, recognized outstanding environmental performance among the public and communities.



26

**Thailand Automotive Quality
Award 2014**

Automotive Products
(Fuels and Service Stations)

Date: December 2014

Presented by
Inter-Media Consultant Co., Ltd.,
Custom Asia Co., Ltd.,
and Manager Newspaper



Notes (Reference/ Criteria)

- For 2014, products winning first prizes for five consecutive years earned a special TAQA Excellence Award.
- Proof of Thais' trust in PTT.
- Recognizing the operator with highest popularity, based on a random satisfaction survey among 5,800 motorists in 77 provinces of products and services of various car companies.

27

Oil & Gas Award 2014:
Best fully integrated Company Asia

Date: December 2014

Presented by
World Finance Magazine



Notes (Reference/ Criteria)

- Recognizing innovative visions, development, and international investment leading to creation of outstanding integrated business chains.
- Downstream Business: Outstanding growth in retail and distribution businesses and outstanding refining plans in Asia.
- Upstream Business: Outstanding performance and experience in petroleum E&P.
- CSR: Outstanding CSR activities.
- Transparency: Clear, concrete CG.

To be ranked in the Top-Quartile Performance by 2020 STRONG

1

Best Investor Relations in ASEAN

Date: January 2014

Presented by
The Alpha Southeast
Asia Magazine



Notes (Reference/ Criteria)

- Recognizing leading multinational energy companies with world-class investor relations management.

4th Annual Southeast

Asia Institutional Investor Corporate Awards

- Most Organized Investor Relations
- Most Consistent Dividend Policy
- Best Annual Report in Thailand

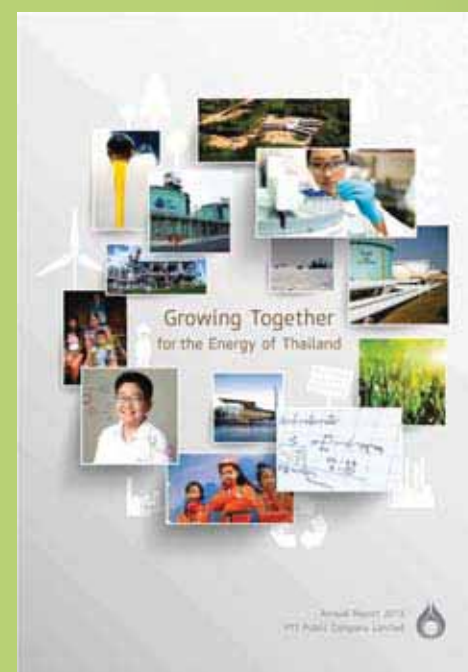
Date: June 2014

Presented by
The Alpha Southeast Asia Magazine



Notes (Reference/ Criteria)

- Based on the 4th annual opinion survey and votes from over 477 investors, pension funds, and hedge funds to select Southeast Asia's top company.
- Confirming PTT as a major energy company with outstanding investor relations through various communication channels, especially the annual report. PTT's outstanding performance and consistent dividend policy also won investors' confidence.



2

The Asset Triple A Transaction Banking Treasury, Trade and Risk Management Awards 2014:

- Individual Award:
CFO of the Year, Thailand:
- Mr. Surong Bulakul
- Corporate Award:
The Best in Regional
Liquidity Management
Solution:
- PTT (the sole Thai
awardee this year)

Date: April 2014

Presented by
The Asset Magazine



Notes (Reference/ Criteria)

- Recognizing CFOs with exceptional professionalism and contribution to ongoing, sustainable business growth.
- The Corporate Award recognized the efficiency of centralized financial management for PTT Group, which added value to the group.



3

Platts Top 250 Global Energy Company for 2014: Ranked 24th in the Overall Global Performance

Date: October 2014

Presented by
Platts



Notes (Reference/ Criteria)

- Based on asset value, revenue, profits, and return on invested capital of energy companies worldwide.
- Platts is the world's leading network provider of energy intelligence.



The Asset Corporate Awards 2014: The Platinum Award Winner (6 consecutive years)

Date: December 11, 2014

Presented by
The Asset Magazine



Notes (Reference/ Criteria)

- Based on an opinion survey of investors and experts in Asia-based stock markets in financial status, management, CG, social responsibility, environmental responsibility, and information disclosure through Investor Relations.

Conversion Factors

ENERGY CONTENT OF FUEL (NET CALORIFIC VALUE)

Type (Unit)	kcal/UNIT	toe/10 ⁶ UNIT	MJ/UNIT	10 ³ Btu/ UNIT
COMMERCIAL ENERGY				
1. CRUDE OIL (litre)	8,680	860.00	36.33	34.44
2. CONDENSATE (litre)	7,900	782.72	33.07	31.35
3. NATURAL GAS				
3.1 WET (scf.)	248	24.57	1.04	0.98
3.2 DRY (scf.)	244	24.18	1.02	0.97
4. PETROLEUM PRODUCTS				
4.1 LPG (litre)	6,360	630.14	26.62	25.24
4.2 GASOLINE (litre)	7,520	745.07	31.48	29.84
4.3 JET FUEL (litre)	8,250	817.40	34.53	32.74
4.4 KEROSENE (litre)	8,250	817.40	34.53	32.74
4.5 DIESEL (litre)	8,700	861.98	36.42	34.52
4.6 FUEL OIL (litre)	9,500	941.24	39.77	37.70
4.7 BITUMEN (litre)	9,840	974.93	41.19	39.05
4.8 PETROLEUM COKE (litre)	8,400	832.26	35.16	33.33
5. ELECTRICITY (kWh)	860	85.21	3.60	3.41
6. HYDROELECTRIC (kWh)	2,236	221.54	9.36	8.87
7. GEOTHERMAL (kWh)	9,500	941.24	39.77	37.70
8. COAL IMPORT (kg.)	6,300	624.19	26.37	25.00
9. COKE (kg.)	6,600	653.92	27.63	26.19
10. ANTHRACITE (kg.)	7,500	743.09	31.40	29.76
11. ETHANE (kg.)	11,203	1,110.05	46.89	44.45
12. PROPANE (kg.)	11,256	1,115.34	47.11	44.67
13. LIGNITE				
13.1 LI (kg.)	4,400	435.94	18.42	17.46
13.2 KRABI (kg.)	2,600	257.60	10.88	10.32
13.3 MAE MOH (kg.)	2,500	247.70	10.47	9.92
13.4 CHAE KHON (kg.)	3,610	357.67	15.11	14.32

Type (Unit)	kcal/UNIT	toe/10 ⁶ UNIT	MJ/UNIT	10 ³ Btu/ UNIT
NEW & RENEWABLE ENERGY				
1. FUEL WOOD (kg.)	3,820	378.48	15.99	15.16
2. CHARCOAL (kg.)	6,900	683.64	28.88	27.38
3. PADDY HUSK (kg.)	3,440	340.83	14.40	13.65
4. BAGASSE (kg.)	1,800	178.34	7.53	7.14
5. GARBAGE (kg.)	1,160	114.93	4.86	4.60
6. SAW DUST (kg.)	2,600	257.60	10.88	10.32
7. AGRICULTURAL WASTE (kg.)	3,030	300.21	12.68	12.02
8. BIOGAS (m ³)	5,000	495.39	20.93	19.84

GENERAL

1 kcal	4,186 3.968	joules Btu
1 toe	10.093 42.244 40.047 x 10 ⁶	Gcal GJ Btu
1 barrel	158.99	litres
1 cu.m. of solid wood	600	kg.
1 kg. of charcoal	250	kg.
5 kg. of fuel wood	1	kg. of charcoal product
1 litre of LPG	0.54	kg.

Source: Thailand's Energy Annual report, Department of Alternative Energy Development and Efficiency.



สถาบันวิทยสิริเมธี อำเภोजันทร จังหวัดระยอง
Vidyasirimedhi Institute, Wang Chan, Rayong