

Form 56-1

As of 31 December 2013

PTT Exploration and Production Public Company Limited

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1. Policy and Business Operations Overview

1.1 Vision, Mission, Objective and Strategy

PTTEP is one of the leading E&P companies in Thailand, exploring for sustainable sources of petroleum for the country and other countries in which the Company has invested. This role is increasingly demanding as the energy risk that the country is facing seemingly can only be offset by some increases in reserves and production capacity. This is, of course, not to mention generating return that would satisfy the shareholders and stakeholders all in the midst of ever-increasing competition within the industry and external complexities as a result of a rapidly changing environment, fewer available hydrocarbons, and geographical complexity. More advanced technology and higher capabilities are required, and so is a need to maintain environmental and social equilibrium. So far, the Company's mission and vision have been up to the test.

Mission: PTTEP operates globally to provide reliable energy supply and sustainable values to all stakeholders

Vision: Leading Asian E&P Company, driven by technology and green practices

Goal and Objective: PTTEP has consistently tracked economic trends domestically and internationally. The country's energy situation is therefore well understood, and only the most effective corresponding actions are taken. From 2013 to 2017, the Company's objective is to create a point of balance between production (Big), reserves (Long), and return on investment (Strong) according to the following goals:-

- **Production (Big):**

PTTEP's operating plan is to maintain and increase the production of its current domestic and overseas projects, respectively. The Company also has a clear and focused strategic plan to support its future growth. The Company has therefore considered decreasing the productivity capacity from an initial target of 900,000 BOED to 600,000 BOED by 2020, an operational level viewed currently as most suitable for the sustainability and stability of its growth.

- **Reserves (Long):**

PTTEP plans to maintain the proved reserves to production ratio (R/P Ratio or 1P/Production) at no less than 10 years, and proven and probable reserves + best estimate contingent resources to production (2P+2C/Production) at no less than 40 years.

- **Return on Investment (Strong):**

PTTEP plans to have a Return on Capital Employed (ROCE) higher than the industry average along with maintaining the Company's credit rating at an appropriate level.

Strategy: To attain the above, PTTEP has formulated its strategic directions as follows:-

1. **Current Assets Management:** Current assets are grouped into the following phases and managed with the aim of increasing production capacity and reserves.

1.1 **Producing Assets:** PTTEP focuses on maintaining the production level of its current domestic and overseas assets, both those operated by the Company and by joint ventures, by enhancing its operational efficiency through technological advancement. In addition, the Company aims to accelerate exploration and development in the concession areas to increase petroleum reserves and sustain production. This effort is to satisfy domestic petroleum demand and generate the Company's present and future revenues.

1.2 **Development Assets:** PTTEP remains focused on managing these projects to be implemented as planned in order to start producing as scheduled and under the allocated budget. These projects will generate income and add value to the Company in the near future. Moreover, they will replace projects that are declining in production.

1.3 **Exploration Assets:** The exploration assets include projects in the exploration stage. These projects are essential for PTTEP's sustainable growth as they will increase reserves and production rates in the future. The Company emphasizes on the management of the exploration portfolio and exploration acceleration in projects that have high petroleum potential as well as managing risk of low potential projects by divestment or relinquishment of exploration rights.

2. **Investment for Sustainable Growth:** Growth continues to be driven further as PTTEP is able to find the balance between meeting the demands of the stakeholders and meanwhile being highly responsible to the society and environment. Good Corporate Governance also continues to be practiced and followed. Growth investment through new exploration acreage and Merger and Acquisition (M&A) especially of new projects readily to yield to increase the productivity and reserves has consistently been searched out for.

3. **Organizational Capability Development:** To increase its value, reduce finding and development costs and therefore increase return on investment, PTTEP has enhanced its organizational capabilities and developed new capability enablers in the following areas:-

3.1. Funding and Financial Risk Management: Fund mobilization and investment are managed with the aim to maintain PTTEP's credit rating at the same level with those of Thailand through maintaining financial ratios, debt-to-shareholders' equity ratio and debt-to-reserves ratio at appropriate levels. In addition, currency risk, interest rates, and liquidity are always kept on guard. The Company's finance, in other words, is on its way to stand shoulder to shoulder with world-class companies, for example, as the new-found Treasury Center and In-House Financial Academy continue to mature.

3.2. Acceleration of Knowledge Base, Technology and Research Capability: PTTEP's Capability and Technology Development Roadmap is written specifically to support its growth strategy. The Company's R&D Technology Center is thus developed. In addition, the Company has adopted the newly advanced information technology system, that is, Enterprise Resource Planning (ERP) to be able to contend with the rapid changes.

3.3. Systems Development: PTTEP's operational procedure and corporate structure are designed to be more in line with the Company's business and investment plans where a greater emphasis has been increasingly more on investments and operations abroad. For instance, there is an organization of global operating model.

3.4. Human Resources Management and Organizational Capability Development: To be able to compete internationally, PTTEP not only needs to have sufficient qualified personnel, but the Company also must constantly further their capabilities and enhance leadership skills as well as the level of commitment and sense of belonging. Work structures and patterns across the organization have also been designed and standardized to support the Company's future growth and sustainability, domestically and internationally. In addition, the Company's corporate values which have been molded around *EPSPiRiT* is being constantly cultivated. It is a key to development and foundation of growth for the PTT group.

3.5 Sustainability Development Management: PTTEP understands its role in supplying the nation's energy and at the same time being responsible for the society and the quality of life by conserving the environment and maximizing the use of natural resources. The Company has organized various Corporate Social Responsibility (CSR) activities. Moreover, the Company has created the Safety, Security, Health and Environment (SSHE) culture to pave way for a sustainable future, and one of its goals for example is to be a low carbon footprint company. PTTEP aims to reduce and offset at least 20% of its greenhouse gas emissions intensity by 2020 relative to 2012 base year. In addition, the Company manages and mitigates

its environmental impacts on the water, air, and soil to gain acceptance or social license to operate from public and community surrounding all operating areas. At the same time, internationally accepted measurements, such as, the Dow Jones Sustainability Index (DJSI) and the Global Reporting Initiatives (GRI) have been employed and consistently monitored.

Performance

In 2013, PTTEP employed a strategic business planning called END-WAY-MEAN. Respectively, the words are in regard to setting of targets to achieve, projects to focus and develop, and key success factors that would drive the Company to a greater success, and the result of this are as follows:-

- **Exploration and Appraisal:** PTTEP carries on exploration activities domestically and internationally to assess field potential and estimate petroleum reserves. In 2013, the Company conducted exploration and appraisal in several projects.

- **Myanmar M3 Project:** According to the plan, the Project has completed appraisal well drilling program in which yielded natural gas and condensate in August 2013. Currently, the Project is under study while being prepared for drilling of eight appraisal wells. The drilling program is expected to start in the third quarter of 2014. The Project also has a plan to drill additional appraisal wells at Aung Sinkha afterward for further development of natural gas production in the area.

The Republic of the Union of Myanmar also approved 20% co-investment in the Myanmar M3 Project by Mitsui Oil Exploration Co., Ltd. (MOECO) in September. PTTEP has yet remained the major shareholder at 80% and operator of the Project.

- **Myanmar M11 Project:** The Project is conducting report for MNZ-1 exploration well and assessing potential of the field for further operational planning.

- **Myanmar PSC-G and EP2 Project:** The Project is located in land, north of Yangon. Currently, 2D seismic and a geological study of the surface structure are underway whereas drilling of four exploration wells are being planned and prepared for to take action in the second quarter of 2014.

- **Algeria Hassi Bir Rekaiz Project:** The Project has completed its first exploration phase which consists of drilling nine exploration wells (seven wells in 2012 and two wells in 2013), of which eight yielding successful discovery of petroleum. Currently, the second exploration phase in under operation, scheduled from May 2013 to May 2015.

- **Kenya L5, L7, L11A, L11B and L12 Project:** The Kenya Project has completed drilling of Kiboko-1 exploration well in L11B field, yielding however none in commerciality but geographical findings are beneficial for future use.

- **Mozambique Rovuma Offshore Area 1 Project:** The offshore Project is being developed and planned in coordination with onshore liquefaction facilities at Cape Afungi, in Cabo Delgado province of northern Mozambique to produce Liquefied Natural Gas (LNG). Additional exploration and appraisal wells have also been continuously drilled, and natural gas has been found in one of the exploration wells and three of the appraisal wells, namely, Espadarte-1, Atum-3, Golfinho-5, and Golfinho-6 respectively.

- **Development:**

PTTEP has given close attention to project management and made certain that the following projects are operational and financial on plans. The focus is to produce revenue and add values to the Company in the near term to compensate for the expected decline in the production of the others in the future.

- **Zawtika Project:** The Project is in the process of constructing Phase 1A. Three wellhead platforms and main pipelines installations have been completed. The central offshore platform was transported and installed in October. Currently, onshore gas export pipeline and facilities, production wells and central processing platform are being constructed while the Project is expected to start-up within the first quarter of 2104.

- **Algeria 433A & 416B Project:** Six out of twelve developing wells have been completed. The Project continues to progress with the remaining developing wells and the construction of processing and pipeline facilities (EPC1) as well as the construction of the living quarters and utility facilities (EPC2). The Project is expected to begin production by the end of 2014.

Furthermore, there are projects in the production phrase which their additional development phases are undergoing as follows:-

- **PTTEP Australasia Project:** The Cash-Maple Project is conducting a geological and engineering study to assess petroleum potential and commerciality for further development. Additional exploration wells will be drilled in 2014.

- **Production:**

PTTEP is continuously striving to maintain current production levels and increase levels from new projects and also utilize various production technologies to improve production efficiency. This includes projects operated by the Company as well as those operated as joint ventures.

- **Bongkot Project:** In 2013, the Greater Bongkot North field had an average natural gas production rate of 600 MMSCFD and a condensate production rate of 21,600 BPD, whereas the Greater Bongkot South field was able to produce at a rate of 320 MMCFD and 10,995 BPD, respectively.

Overall, at the Project, which consists of both the Greater Bongkot North and the Greater Bongkot South fields, natural gas production capacity increased to more than 925 MMSCFD which signifies about 20% of Thailand natural gas demand.

- **S1 Project:** The Project reached the highest production level of crude oil at 37,890 BPD in February 2013 as a result of new production wells, incorporated with a continuous implementation of Artificial Lift and Water Flooding.

- **Vietnam 16-1 Project:** Appraisal wells in H5 area, which is located south of TeGlacTrang field, went well and successfully, and the Company is preparing to turn this area into production. In 2013, the average production of crude oil and natural gas from the project stood at 43,700 BPD and 30 MMSCFD, respectively.

- **PTTEP Australasia Project:** The Montara field started the production in June and currently is able to produce approximately 10,000 BPD of crude oil. Distribution of crude oil from the field also started in August with a volume of 500,000 BPD approximately and is scheduled to increase continuously in the future.

Regarding the compensation claim, from the start of the Montara incident to the fourth quarter of 2013, PTTEP received a total compensation claim of USD 234 million. The Company expects to receive the remaining claims in 2014.

As for the claim that was submitted by the Government of Indonesia for compensation due to oil leaks from the incident, the Company is continuously assessing the case with the government through scientific evidences to determine the impact (if any).

- **Canada Oil Sands KKD Project:** Average bitumen production for the Leismer field was 14,827 BPD in 2013.

Improving the Operational Efficiency and Cost Optimization: PTTEP, together with its parent company, PTT Public Company Limited (PTT), and seven other companies in the PTT Group, participated in OpEx Workshop to determine and set out strategic directions to further increase productivity and to better manage operating costs. Focus was also on continuity of development and cohesion of plans which aims to propel and drive the group into becoming a leading enterprise in the industry according to the group's Operational Excellence program.

In 2013, the Company's S1 Project was chosen by the Juran Institute to be in one of its operation benchmarking studies. Under Processing Facilities category, the Project came in first in six areas, namely, maintenance, equipment readiness and system reliability, operating lost time, environmental incident, safety, total site downtime, and training programs.

Operating cost management remained focused on supply chain management to preserve and increase efficiency as well as transparency. Supply Chain Plus, an initiative in management of procurement costs, targeted USD 12 million to be saved. In addition, to comply with the National Anti-Corruption Commission's new regulations in regard to procurements, the Company has accordingly changed its market pricing procedure since 11 August 2013.

Safety, Security, Health, and Environment (SSHE): PTTEP aimed to become a Loss Time Injury Free organization in 2013 through compulsory management of safety, security, health, and environment. During the year, Lost Time Injury Frequency (LTIF) and Total Recordable Injury Rate (TRIR) were 0.18 and 1.12 respectively. LTIF was lowered by 5% compared to 2012, placing the Company in the top quartile among the International Association of Oil and Gas Producers (OGP).

Besides the SSHE Handbook, Target Zero or Trigger Talk was also introduced. Trigger Talk is a video that depicts not only the Company's management and leadership, but also the Company's concern over its personnel's and families' well-being, while encouraging them as well as contractors to follow the safety rules and policies.

The Company is also aware that communication and safety go hand in hand. SSHE Alerts therefore has been established as another channel to inform the personnel of risk whether it is natural disaster, epidemic, or social and political unrest that might be in their way. This, for example, included a warning made to those traveling to Egypt of the country's political and social situation that took place in 2013.

Sustainable Development Management: PTTEP has a strategy to deliver long-term sustainable development to achieve international levels of economic, social and environmental

sustainability. The Company's 2012 Sustainability Report, which gives information about the Company's economic, environmental, social and governance performance, was given Application Level A+ by the Global Reporting Initiative (GRI), a non-profit organization that promotes economic sustainability. It was the first time that the Company was ranked at the top of this sustainability report standard.

As global warming and climate change continue to be worldwide growing concerns, the Company targeted to reduce and offset greenhouse gas emission by 2% in 2013. It was also the first time that the Company took part in the listing of the Dow Jones Sustainability Index (DJSI), ranked 21 out of 123 companies which is in the top 15% of the Dow Jones Sustainability Index companies for the oil and gas sector. In addition, the Company was one among only seven companies in Southeast Asia that received an award for its continuous development in combating against climate change by the Carbon Disclosure Project (CDP).

PTTEP was also welcomed to be in the executive board of the United Nation Framework Convention on Climate Change (UNFCCC) under Clean Development Mechanism (CDM). The Company has therefore been allowed to trade carbon credits as a result of the S1 Project's ability to make use from the natural gas volumes which otherwise be wasted in the Saotian-A field in Sukhothai province.

Capability Development: PTTEP acknowledges the importance of capability management to prepare for business growth internationally and global challenges. In 2013, the Company continued to focus on the establishment of its Center of Excellence (COE) and developed its clear-cut plan. The COE aims to build and develop in-depth knowledge base in seven areas, all of which together hold a great importance to the Company's direction and growth strategy. They are, namely, Exploration, Production, Frontier, Capital Project Management, Unconventional, Mergers and Acquisitions (M&A), and Health, Safety and Environment. Currently, as the annual targets for these areas are being developed, the initiative of a Technology Center, which centralizes the latest technological developments and also serves as a knowledge warehouse to further develop the capacities of the personnel and the organization, has been brought forward and is expected to go through its design phase study in 2014.

1.2 PTTEP Sustainability Management

(a) Materiality Assessment

Materiality assessment is used to define the report content to identify material issues related to the sustainability of the business based on the company's perspective as well as stakeholder perception. For this 2013 Report, PTTEP organized workshops with the relevant functions to the Company's sustainability management and stakeholder engagement. Both internal and external stakeholder groups including employees, suppliers, contractors, government agencies and communities were included. PTTEP applies Principles for Defining Content of Global Reporting Initiative (GRI) and considers issues relevant to exploration and production industry when defining priority of sustainability issues from the Company's perspectives such as financial impact, people, environmental compliance and social aspects against stakeholder perception. Each function is responsible for giving the score based on their stakeholder engagement. The result was then approved by the SD Working Team, which consists of representatives from relevant functions and chaired by Executive Vice President of Strategy and Business Development and is responsible for reviewing and approving sustainability content published in the Company's Annual Report, Sustainability Report and website.

(b) Contribution in Sustainable Development

At PTTEP, everything we do is inspired by our mission to provide reliable energy supply and sustainable value to all stakeholders. The Company believes in providing cleaner and reliable source of energy for the society. This is reflected in our reserve and production which is dominated by natural gas. The natural gas supplied by PTTEP is used for power generation which generates lower emission than the traditional coal fire power plant and provides greater energy security than crude oil import. In 2013, PTTEP sold natural gas at 427,634.09 MCF accounting for 27 per cent of national natural gas demand. Natural gas sale generated THB 101,040.23 million for PTTEP.

(c) Benefits to Society

PTTEP's environmental and social initiatives are laid out in our Sustainable Development Roadmap. In 2013, key environmental initiatives include flare gas recovery and utilization at the S1 Project, flash gas recovery unit (FGRU) at Greater Bongkot South field, and Green Logistics Management. These 2013 initiatives are estimated to reduce greenhouse gas emissions of approximately 106,600 tonnes of carbon dioxide equivalent while reducing approximately USD20 million in operating costs. In addition, our petroleum exploration and production

operation is conducted in accordance with local regulations including our operating procedure which is in line with various international standards to prevent impacts on communities. PTTEP believes these efforts will provide social license to operate which prevents operation disruption from community protest resulting in the impact on the society and operating cost of PTTEP.

1.3 Development and Significant Changes in 2013

In 2013, the Company and its subsidiaries underwent development and significant changes in various projects such as the operational success in the existing projects, investments in new projects, and change of participating interests in the projects according to the Company's portfolio management strategy. The following are the highlights of the development and changes divided by region.

Thailand

On 25 February 2013, Project S1 achieved a record high crude oil production rate of 37,890 bbls/day, also marking the highest ever recorded production level since the inception of the project. The project has been able continuously maintain its crude oil production rate above 30,000 BPD.

South East Asia

In January 2013, the government of the Republic of the Union of Myanmar approved PTTEP International Limited (PTTEPI) to divest 40.0% and 15.0% participating interest of the Myanmar M11 Project to Total E&P Myanmar (TEPMI) and JX Nippon Oil & Gas Exploration (JX NOEX) respectively. PTTEPI continues to be the operator, and holds 45% participating interest in the Project.

In February 2013, PTTEP SA (a subsidiary of PTTEP) was granted exploration rights to the MD-7 and MD-8 fields by the government of the Union of the Republic of Myanmar. The MD-7 and MD-8 fields are located in the deep-water of the Gulf of Moattama, Myanmar.

In March 2013, PTTEP International Limited (PTTEPI) agreed to divest 20% participating interest of the Myanmar M3 Project to a wholly-owned subsidiary of Mitsui Oil Exploration Co., Ltd (MOECO). PTTEPI continues to be the operator, and holds 80% participating interest in the Project. The government of the Republic of the Union of Myanmar approved this divestment in September 2013.

In August 2013, the Company completed drilling all four appraisal wells in the Myanmar M3 Project with gas and condensate discoveries in all of the wells. The Project is currently carrying out further assessments of commerciality.

In October 2013, the Vietnam 16-1 Project successfully completed drilling an appraisal well in Area H5 of the TeGlacTrang Field (TGT field), and has prepared for the installation of a well head platform to support production from this area.

In addition, in October 2013, the Processing and Living Quarters Platform (ZPQ) of the Myanmar Zawtika Project also sailed away from the construction yard in Singapore to its destination at the Zawtika field in the Gulf of Mottama, the Republic of the Union of Myanmar and completed its installation in October as planned. It is expected to start-up by the first quarter of 2014.

In December 2013, PTTEP and Pertamina, on a 50:50 basis, completed the transaction to acquire 23% participation interest of the Natuna Sea A Project, an oil and gas producing asset in the west of the Natuna Sea, in Indonesia, for the equity interests in certain holding entities at USD 526 million (USD 263 million for PTTEP) and certain inter-company debts at USD 124 million (USD 62 million for PTTEP). As a result, PTTEP effectively holds 11.5% participation interest in the Natuna Sea A Project.

Africa and the Middle East

In April 2013, the Algeria Hassi Bir Rekaiz Project completed the drilling of 9 exploration wells in the first exploration phase. Crude oil and natural gas were discovered in 8 wells. The Project is currently in the second exploration phase.

Australasia

In June 2013, the Montara field, located in offshore Australia, commenced its first oil production and sold the first shipment of approximately 500,000 barrels in August 2013. The Project is currently producing crude oil at an approximate rate of 17,000 bbls/d, with plans to steadily ramp up production in 2014, and expectations to achieve production levels of 25,000-30,000 bbls/d during the first half of 2014.

North America

There was a significant change to the Canada Oil Sands KKD (KKD) Project after 31 December 2013, which was the end of the 2013 financial results period. On 30 January 2014, PTTEPCA entered into a Partnership Unit Redemption Agreement (PURA) with Statoil Canada Limited (SCL) to restructure the ownership of the five areas of the KKD Project, by exchanging

PTTEPCA's 40% of its interest in Leismer and Corner (LC) for an additional 60% in Thornbury, Hangingstone and South Leismer (THSL) plus cash of USD 200 million and plus an additional amount to be calculated from working capital adjustments related to expenditures and revenues of the KKD Project from 1 January 2013 until the closing date (equivalent approximately to USD 235 million as at 31 December 2013). This transaction is subject to the conditions precedent to closing prescribed in the PURA, including approval of the Government of Canada, with an expected closing date by the third quarter of the year. At the close of the transaction as prescribed in the PURA, PTTEPCA will hold 100.0% of and operate the THSL fields while also receiving the aforementioned cash amounts from SCL; and SCL will hold 100.0% of and operate the LC fields.

1.4 Shareholding Structure of PTTEP Group

1.4.1 Business overview

PTTEP's core business is the exploration and production of petroleum in Thailand and foreign countries. As of 31 December 2013, PTTEP, its subsidiaries and associated companies had 42¹ petroleum exploration and production projects in 10 countries. 17 projects were under the exploration phase, 3 projects were under the development phase, and 22 projects were under the commercial production phase.

No.	Project Name	Phase	Location	Participation Interest	Operator
Thailand: 16 projects					
1.	Bongkot Project	Production	Gulf of Thailand	44.4445%	PTTEP
2.	S1 Project	Production	North	100%	PTTEP
3.	PTTEP 1 Project	Production	Central	100%	PTTEP
4.	B6/27 Project	Production	Gulf of Thailand	60%	PTTEP
5.	Arthit Project	Production	Gulf of Thailand	80%	PTTEP
6.	L22/43 Project	Developmen	North	100%	PTTEP
7.	L53/43 & L54/43 Project	Production	Central	100%	PTTEP
8.	L28/48 Project	Exploration	North East	70%	PTTEP
9.	A4/48 & A5/48 Project	Exploration	Andaman Sea	100%	PTTEP
10.	E5 Project	Production	North East	20%	ExxonMobil

¹Excluding Indonesia Sadang, Indonesia Sageri and New Zealand Great South Projects which PTTEP has submitted relinquishment documents to the respective governments of each project and is awaiting official approval.

No.	Project Name	Phase	Location	Participation Interest	Operator
11.	Contract 3 Project	Production	Gulf of Thailand	5%	Chevron
12.	Contract 4 Project	Production	Gulf of Thailand	45%	Chevron
13.	G4/43 Project	Production	Gulf of Thailand	21.375%	Chevron
14.	Sinphuhorm Project	Production	North East	20%	Hess (Thailand)
15.	B8/32 & 9A Project	Production	Gulf of Thailand	25%	Chevron
16.	G4/48 Project	Production	Gulf of Thailand	5%	Chevron
Overlapping Area: 2 projects					
1.	MTJDA-B17 Project	Production	Thailand- Malaysia	50%	CPOC
2.	G9/43 Project	Exploration	Thailand- Cambodia	100%	PTTEP
Overseas: 24projects					
Myanmar					
1.	Myanmar M3Project	Exploration	Gulf of	80%	PTTEP
2.	Myanmar M11 Project	Exploration	Gulf of	45%	PTTEP
3.	Zawtika Project	Development	Gulf of	100%	PTTEP
4.	Yadana Project	Production	Gulf of	25.5%	TOTAL
5.	Yetagun Project	Production	Gulf of	19.31784%	Petronas
6.	Myanmar PSC G & EP 2 Project	Exploration	Onshore	90%	PTTEP
7.	Myanmar MD-7 and MD-8 Project	Exploration	Andaman Sea	100%	PTTEP
Vietnam					
8.	Vietnam 9-2 Project	Production	Offshore	25%	HV JOC
9.	Vietnam 16-1 Project	Production	Offshore	28.5%	HV JOC
10.	Vietnam B & 48/95 Project	Exploration	Offshore	8.5%	Chevron
11.	Vietnam 52/97 Project	Exploration	Offshore	7%	Chevron
Indonesia					
12.	Indonesia Malunda	Exploration	Offshore	100%	PTTEP

No.	Project Name	Phase	Location	Participation Interest	Operator
13.	Indonesia South Mandar Project	Exploration	Offshore	34%	PTTEP
14.	Indonesia Semai II Project	Exploration	Offshore	28.33%	Murphy
15.	Natuna Sea A Project	Production	Offshore	11.5% ²	Premier Oil
Oman					
16.	Oman 44 Project	Production	Onshore	100%	PTTEP
Algeria					
17.	Algeria Hassi Bir Rekaiz Project	Exploration	Onshore	24.5%	PTTEP
18.	Algeria 433A & 416B Project	Development	Onshore	35%	GBRS
Australia					
19.	PTTEP Australasia Project	Production	Offshore	20 - 100% ³	PTTEP
Canada					
20.	Canada Oil Sands KKD Project	Production	Onshore	40% ⁴	Statoil
Mozambique					
21.	Mozambique Rovuma Offshore Area 1 Project	Exploration	Offshore	8.5%	Anadarko
22.	Mozambique Rovuma Onshore Project	Exploration	Onshore	10%	Anadarko
Kenya					
23.	Kenya L10A & L10B Project	Exploration	Offshore	31.25% ⁵ 15% ⁶	BG

²PTTEP NH, a subsidiary of PTTEP and Pertamina, has jointly hold participation interest on basis of 50:50.

³PTTEP Australasia Project holds many petroleum blocks which have various participation interest from 20 – 100%

⁴In January 2014, PTTEP CA entered into the Partnership Units Redemption Agreement (PURA) with Statoil resulting in a change of the participation interest of PTTEP CA in KKD Project. However, the change will only take place when all conditions stated in the PURA are met which has been estimated to be completed in the third quarter of 2014.

⁵Block L10A

⁶Block L10B

No.	Project Name	Phase	Location	Participation Interest	Operator
24.	Kenya L5, L7, L11A, L11B & L12 Project	Exploration	Offshore	10%	Anadarko

Principal Projects in Operation

The following is a summary of key project activities undertaken during 2013. Production and sales figures disclosed under this section are total production and sales figures for the respective projects.

1.4.1.1 Project Activity Highlights in Thailand

PTTEP has 18 projects in Thailand including projects in the overlapping claims area. The projects are mainly in the production phase, and are located in both the Gulf of Thailand and onshore. The following are highlights the key project activities in Thailand during the year 2013.

Bongkot Project

The Bongkot Project is the largest gas field in the Gulf of Thailand, located in the southern part of the Gulf. The Company holds 44.4445% interest and is also the operator of the project. The Project has been in production since 1993. All of the natural gas and condensate produced from the Bongkot field is sold to PTT, under a take-or-pay basis, according to a long-term purchase agreement in which the project agrees to deliver a daily contract quantity (DCQ) of 550 million standard cubic feet per day (MMscf/d).

In 2009, the Company and its joint venture partners officially signed a GSA with PTT for the sales of natural gas produced at the Bongkot South field, an area where additional petroleum resources were discovered and later developed, at a DCQ of 320 MMscf/d of natural gas. The signing of the GSA raised the total DCQ of the Bongkot Project to 870 MMscf/d. Since June 2012, the Bongkot South field was able to deliver natural gas production at the levels indicated above as well as with condensates production at 11,000 barrels per day (bbls/d). The increased production rates result in total production levels from the Bongkot Project representing approximately 20% of Thailand's natural gas supply. This is an achievement for PTTEP as the Company continues to satisfy the constantly increasing domestic energy demand.

In the year 2013, the Project drilled exploration, appraisal, and development wells as well as installed production platforms in order to maintain steady production levels. Sales volume from the Project averaged 889MMscf/d and 32,580bbls/d of natural gas and condensates respectively.

S1 Project

S1 Project is the largest onshore crude oil field in Thailand, with an area covering parts of the Kamphaengphet, Sukhothai and Phitsanulok provinces. The Project marked its 30th anniversary in 2012. PTTEP is the sole owner and operator of the Project. Production from the S1 Project is composed of crude oil, natural gas, and liquefied petroleum gas (LPG). Crude oil produced at S1 is sold to PTT and transported via truck and rail to Thai Oil Public Company Limited and Bangchak refineries as well as PTT Global Chemical Public Company Limited and IRPC Public Company Limited. Produced gas undergoes an LPG production process before being sold to PTT and partially directed to EGAT as fuel for power generation, as well as partially used for production of CNG for natural gas vehicles (NGV). In the fourth quarter of 2012, the project increased its production level from 22,808 bbls/d to reach over 30,000 bbls/d.

On 25 February 2013, the Project achieved a record high crude oil production rate of 37,890bbls/day. The project has continuously drilled additional exploration, appraisal and production wells, and in 2013 recorded average crude oil sales of 32,749 bbls/d, average natural gas sales of 26 MMscf/d and, average LPG sales of 268 metric tons per day. The S1 Project is able to maintain its crude oil production levels above 30,000 bbls/d, as a result of new wells being drilled coupled with Artificial Lift techniques and Waterflooding.

PTTEP1 Project

PTTEP 1 Project is located in the SuphanBuri and NakhonPathom provinces. PTTEPI is currently the sole owner and operator of the Project. Crude oil produced at PTTEP 1 is transported to the Bangchak refinery.

In 2013, the project continued to carry out the drilling of additional production wells in the U-Thong and Sang Kajai fields, as well as conduct studies to improve waterflooding implementation with the objective to compensate for declining production. The Project's average production rate in 2013 was 329 bbls/d.

B6/27 Project

The B 6/27 Project is located in the Gulf of Thailand, approximately 25 km away from Chumphon Province's shore. Currently, the Company holds a 60.0% interest and is the operator of this concession.

From 2005 to 2007, the Nang Nuanfield produced an average of approximately 1,400 bbls/d. After 2007, however, the Project stopped crude oil production due to a decline in the production rate. In 2009, the Project re-started exploration and studies again.

In late 2013, the Project began drilling an exploration well (NKW-N01) to assess for petroleum potential in the NokKaew field, and expects the complete the drilling in the first quarter of 2014.

Arthit Project

The Arthit Project is located in the southern part of the Gulf of Thailand. The Company has 80.0% interest in the Arthit Project and is also the operator. First production commenced in March 2008 with 330 MMscf/d of natural gas and 16,000 bbls/d of condensate. From 2010 to 2011, in accordance with the terms and conditions of the Gas Sale Agreement (GSA), the project reassessed field reserves, and production levels were revised accordingly to suit the revised reserve figures and prolong the production plateau. As such, with PTT's acknowledgment, a new DCQ of 220MMscf/d was agreed upon, and effective as of 30 December 2011.

In 2013, the Arthit Project continuously engaged in exploration and development activities, and drilled 8 appraisal wells and 40 production wells as well as carried out the construction and installation of wellhead platforms and gas pipelines in order to maintain production levels. Average natural gas sales in 2013 from the project were 223 MMscf/d with average condensates sales of 9,226 bbls/d.

Project G8/50

The Project is located north of the Arthit field, and PTTEP has 80% interest and is also the operator. The Department of Mineral Fuels (DMF), in March 2012, after reviewing the exploration results from the exploration wells, approved the area for development together with the development plans. The Project is currently in the second phase of exploration and expects to begin production via Arthit's Central Processing Platform in 2015.

L22/43 Project

The L22/43 Project is located in the Phitsanulok and Pichit provinces. PTTEPI owns and operates 100.0% of the project.

In 2013, the Project drilled exploration wells in the Wang Pai Sung field. In 2014, the Project plans to drill additional exploration wells in the same field, as well as carry out 3D seismic studies, and begin production from the Wang Pai Sung – A field.

L53/43 and L54/43 Project

The L53/43 and L54/43 Project are located in Suphan Buri, Kanchanaburi, Ayutthaya and AngThong provinces, close to the PTTEP1 Project. PTTEPI owns a 100.0% interest in and operates the Project. Production commenced in October 2010 and the oil produced is being sold to Bangchak refinery.

In 2013, 3D seismic surveys were conducted in the northern area of the Project, and exploration and appraisal wells were also drilled in the Hua Mai Sung (HMG) and NongPhak Chi (NPI) fields. Average crude oil sales from the project were 182 bbls/d, in 2013.

L28/48 Project

The L28/48 Project is located in Chaiyaphum, KhonKaen and Udon Thani provinces in north-eastern Thailand. PTTEPI owns 70.0% of the Project is the operator.

In 2013, the Project assessed and reinterpreted 3D seismic survey data as well as drilled an exploration well to ascertain petroleum potential of the Ratana field. Results from the drilling showed limited quantities of natural gas.

A4/48 & A5/48 Project

The A4 and A5/48 blocks are located in the deep waters of the Andaman Sea, West of Thailand. PTTEPI owns and operates 100.0% of the blocks.

In 2013, the Project completed additional geological studies and proceeded with the interpretation of 3D seismic data.

E5 Project

The E5 Project is located onshore at Namphong, KhonKaen Province. The Company currently holds 20.0% in the Project with ExxonMobil as the operator. The Project began production since December 1990, and all of the natural gas produced by the E5 Project is sold to PTT on a take-or-pay basis pursuant to a long-term gas purchase agreement. PTT then transports the gas to an EGAT power plant.

In 2013, average natural gas sales volume for the Project amounted to 13 MMscf/d.

Contract 3 Project

The Contract 3 Project, (inclusive of the G6/50 block which is in the exploration phase), is located in the Gulf of Thailand, off the coast of SuratThani Province. The Company currently holds 5.0% interest in the Project with Chevron as the operator. All of the natural gas and

condensate produced from Contract 3 is sold to PTT on a take-or-pay basis pursuant to long-term gas purchase agreement.

In 2013, the Project continued development drilling in order to maintain production levels. The Project sold natural gas at an average rate of 641MMscf/d, crude oil at an average rate of 25,511 bbls/d and condensates at an average rate of 18,989 bbls/d.

Contract 4 Project

The Contract 4 Project (inclusive of the G7/50 block which is in the exploration phase) is located in the Gulf of Thailand, off the coast of Songkhla Province. The Company currently holds 45.0% interest in the Project with Chevron as the operator. All of the natural gas and condensate produced from Contract 4 is sold to PTT on a take-or-pay basis pursuant to a long-term GSA and condensate agreements.

In 2013, the Project drilled additional exploration and development wells on a continual basis in order to maintain the production plateau. Moreover, a Front End Engineering Design (FEED) was carried out for the development of the Ubon field, a potential future oil field. In 2013, the Contract 4 Project sold natural gas at an average rate of 376 MMscf/d and condensates at 15,848 bbls/d.

G4/43 Project

The G4/43 Project is located in the Gulf of Thailand. The Company currently holds 21.375% interest in the Project with Chevron as the operator. The Project has signed long-term GSAs with PTT, and crude oil sales agreements under spot cargo with other purchasers.

In 2013, average sales volume of crude oil and natural gas amounted to 4,726 bbls/d and 2 MMscf/d, respectively.

Sinphuhorm (EU- 1and E5-North)

The Project is located in UdonThani and KhonKaen provinces in Northeastern Thailand. PTTEP Siam (a wholly own subsidiary of PTTEP) holds a 20.0% interest in the Sinphuhorm. Production from Sinphuhorm commenced in November 2006, and long-term GSAs with PTT have been signed.

In 2013, the project completed an exploration program and the interpretation of 3D seismic data. Sales volume of the project averaged 88MMscf/d of natural gas and 382bbls/d of condensate during the year.

B8/32& 9A Project

The B8/32 & 9A Project is located in the Gulf of Thailand which is off the coast of Chumporn province. The Company holds 25.0% interest in the project with Chevron as the

operator. The Project currently has long-term GSAs with PTT and sale agreements for the sale of crude oil under spot cargo with other purchasers.

In the year 2013, the B8/32 & 9A Project continuously engaged in exploration and development activities. Sales volume averaged 28,128 bbls/d of crude oil and 109MMscf/d of natural gas.

G4/48 Project

The G4/48 Project is located in the Gulf of Thailand, offshore from SuratThani Province, and is in close proximity to the Contract 3 project. PTTEP holds 25.0% interest in the Project with Chevron as the operator. Both the G4/48 and Contract 3 Projects benefit from reduced productions costs as several production processes can be carried out using the same facilities.

In 2013, sales volume from the G4/48 project averaged 8 MMscf/d for natural gas and 1,772 bbls/d for crude oil.

Projects located in overlapping claims areas

G9/43 Project

The G9/43 Project is located in the Gulf of Thailand, and PTTEPI owns and operates 100.0% of the Project. Activities at this Project have been suspended pending the resolution of the boundary dispute between the governments of Thailand and Cambodia.

MTJDA-B17 Project

In 1994, PTTEPI, (wholly-owned subsidiary of the Company), entered into a joint operating agreement (JOA) with Carigali, a wholly-owned subsidiary of PETRONAS, the Malaysian state oil company, and formed Carigali-PTTEPI Operating Company Sdn. Bhd., to explore and develop Blocks B-17 and C-19. PTTEPI owns 50.0% interest in this special purpose company which is the operator of Blocks B-17 and C-19. Carigali, on September 30, 2004, assigned all of its interests under the JOA to PC JDA Ltd. PTTEPI, PC JDA Ltd. and the Malaysia-Thailand Joint Authority (MTJA) signed a production sharing contract for the right to explore and produce petroleum in Block B17-01, with the contractors and MTJA sharing any potential production.

PTTEPI, PC JDA and MTJA (the "Sellers") executed a GSA for the sale of the natural gas from the MTJDA-B17 Project to PTT. The MTJDA-B17 Project began first commercial production in February 2010. The current daily contract quantity for the delivery of natural gas is 335 MMscf/d.

In 2013, the Project drilled additional development wells to maintain production levels. Sales volume from the Project averaged 321MMscf/d for natural gas and 8,203 bbls/d for condensates.

1.4.1.2 International Projects: PTTEP has 24 projects internationally, broken down into the following regions.

1.4.1.2.1 Project Activity Highlights in South East Asia: PTTEP has 15 projects in this region. The following section highlights the key project activities in this region.

Myanmar M3 Project

The Myanmar M3 project is located in the Gulf of Moattama, Myanmar. In September 2013, the government of the Republic of the Union of Myanmar approved Mitsui Oil Exploration Co. Ltd (MOECO) to farm-in to the project with 20% participating interest. PTTEPI continues to be the operator, and holds 80% participating interest in the project. The Myanmar M3 Project is in the exploration period of 7 years, as approved by the government of Myanmar to assess the project's commerciality.

During 2013, the Project completed drilling all 4 appraisal wells planned (Aung Sinkha 3, Aung Sinkha 4, Aung Sinkha 5 & Aung Sinkha 6), with gas and condensate discoveries in all 4 wells. The Project is currently carrying out further assessments of commerciality and plans to drill 8 additional appraisal wells. Drilling is expected to begin in third quarter of year 2014, and results will be used for development and production planning of the Aung Sinkha field.

Myanmar M11 Project

The Myanmar M11 Project is located in the Gulf of Moattama, Myanmar. In January 2013, government of the Republic of the Union of Myanmar approved TOTAL E&P Myanmar (TEPM) and JX Nippon Oil and Gas Exploration (Myanmar) Limited (JX Myanmar) to become partners in the Myanmar M11 project with working interests of 40.0% and 15.0% respectively. The Company remains the operator of the project with 45.0% interest.

In 2013, the Project completed drilling the Manizawta-1 (MNZ-1) exploration well, a deep-water well, in water depths of approximately 1,000 meters. Drilling results indicated no potential for commercial development. The Project is carrying out assessments of additional areas in order to plan further activities.

Zawtika Project

The Zawtika Project is located in the Gulf of Moattama, Myanmar. PTTEPI owns 80.0% interest and is the operator of the Project, with MOGE holding the remaining 20.0%. PTTEPI entered into a 30-year GSA with PTT and MOGE at a daily contract quantity of 300 MMscf/d, of which 240 MMscf/d will be sold to Thailand and 60 MMscf/d will be sold to the Republic of the Union of Myanmar.

In 2013, the Project has completed the installation of 3 wellhead platforms, the laying of intra-field sealines, the construction of the offshore export pipeline and the installation of the central processing platform. The construction of the onshore gas pipeline and facility as well as the drilling of production wells are in progress. Production is expected to go commercial in the first quarter of 2014.

Yadana Project

The Yadana Project is a large gas project located in the Gulf of Moattama, Myanmar. PTTEPI holds 25.5% working interest with Total E&P Myanmar (TEPM) as the operator of the project. Natural gas produced from the Project is sold to PTT on a take-or-pay basis pursuant to a 30-year GSA and a certain portion is sold to the Myanmar Oil & Gas Enterprise (MOGE) for domestic use in Myanmar.

To transport natural gas from Yadana to Thailand, PTTEP Offshore Investment Limited (the Company's wholly owned subsidiary) and its joint venture partners established a gas transportation company, called Moattama Gas transportation Company (MGTC), to construct and operate an onshore pipeline section from the Yadana Project area to the Thai border. Consequently, PTT completed an onshore pipeline section from the Thai border to the EGAT power generation plant in Ratchaburi Province.

In 2013, the Project carried out and studied 3D seismic data covering an area of 2,090 square kilometers in the south-eastern area of the project, including the Yadana, Badamya and other fields, in order to assess the potential of exploration drilling in the aforementioned areas. During the year, total natural gas sales volume averaged 761 MMscf/d, of which 579 MMscf/d was sold to PTT and 182 MMscf/d was sold to MOGE.

Yetagun Project

The Yetagun Project is a natural gas and condensates producing project located in the Gulf of Moattama, south-east of the Yadana project. PTTEPI holds 19.3% interest in the project with PC Myanmar (Hong Kong) Limited as the current operator. All natural gas from the Yetagun Project is sold to PTT on a take-or-pay basis pursuant to a 30-year agreement.

To transport natural gas from Yetagun to Thailand, PTTEPO and the joint venture partners established a gas transportation company called Taninthayi Pipeline Company (TPC) to construct and operate an offshore pipeline and an onshore pipeline (parallel to the Yadana pipeline) from the Project to the Thai border.

In 2013, to maintain production levels in accordance with the GSA, the Project began the development of Yetagun North field. Sales volume from Yetagun averaged 399 MMscf/d of natural gas and 9,700 bbls/d of condensates during the year.

Myanmar PSC-G and EP2 Project

The Myanmar PSC-G and EP2 Projects are located onshore, north of Yangon. The Company has a 90.0% working interest in and is the operator of the Project.

In 2013, the Project completed 2D seismic acquisition of 1,966 kilometers for the PSC-G field and 518 kilometers for the EP-2 field. The Project is currently studying the fields' geological structures to plan for 4 exploration wells in 2014 – 2015.

Myanmar MD-7 and MD-8 Project

PTTEP SA (a subsidiary of PTTEP) was granted exploration rights to the MD-7 and MD-8 fields by the government of the Union of the Republic of Myanmar in February 2013. The MD-7 and MD-8 fields are located in the Gulf of Moattama, Myanmar, and are adjacent to other exploration fields in the Andaman Sea in Thailand where the Company has existing exploration fields. The adjacency of the fields will enable coordinated planning and operations.

The Project is currently carrying out 2D seismic acquisition for geological studies and exploration planning.

Vietnam 9-2 Project

The Vietnam 9-2 Project is located offshore south-east of Vietnam, and PTTEP has 25.0% interest in the Project. First production commenced in 2008, and the crude oil produced is sold to Binh Son Refinery and Petrochemical Company Ltd., while the produced natural gas is sold to Vietnam Oil and Gas Group, a state own enterprise, for domestic consumption.

In 2013, sales volume of crude oil averaged 6,180 bbls/d, while sales volume of natural gas averaged 14MMscf/d.

Vietnam 16-1 Project

The Vietnam 16-1 Project is located offshore, southeast of Vietnam, with PTTEP holding a 28.5% interest in the project. First production commenced in 2011, and the crude oil

production is sold to domestic Vietnamese refineries as well as exported via an auctioning process. The produced natural gas is sold to the Vietnam Oil and Gas Group, a state-owned enterprise, for domestic consumption.

In 2013, the Project successfully drilled an appraisal well in the H5 Area of the TeGlacTrang Field (TGT field) and has prepared for the installation of a well head platform to support production from this area which is expected to commence in 2015. Moreover, the Project also successfully tested the Floating Production Storage and Offloading (FPSO) unit at a production rate of 60,000 bbls/d, resulting in the Project being able to maintain a production rate at approximately 43,000 bbls/d, similar to previous levels, despite having to share the FPSO unit, since May 2013, with other nearby projects in Vietnam as per contractual agreement. The project's crude oil production rate during the year averaged 44,641 bbls/d, with natural gas production averaging 30 MMscf/d.

Vietnam B & 48/95 Project

The Vietnam B & 48/95 Project is located offshore of Vietnam. The Company owns 8.5% interest in the Project with Chevron as the operator. In 2013, the Project continued negotiations regarding natural gas prices with PetroVietnam (PVN), as well as carried out additional subsurface studies. The Project also submitted a renewal request pertaining to the Suspended Development Area to the Vietnamese government.

Vietnam 52/97 Project

The Vietnam 52/97 Project is located offshore of Vietnam. The Company owns 7.0% interest in the Project with Chevron as the operator. In 2013, the Project continued negotiations regarding natural gas prices with PetroVietnam (PVN), as well as carried out additional subsurface studies. The Project also submitted a renewal request pertaining to the Suspended Development Area to the Vietnamese government.

Indonesia Malunda Project

The Indonesia Malunda Project is located offshore in the Makassar Straits, off the western coast of the Sulawesi Islands in Indonesia. The Company acquired the exploration rights to the Project in May 2010, and owns a 100.0% interest in and is the operator of the Project. The Project is currently in the early exploration period. A 3D seismic survey was completed in 2011, and in 2013, the Project is conducting further geological studies to confirm for petroleum potential.

Indonesia South Mandar Project

The Indonesia South Mandar Project is located offshore in the Makassar Straits, in Indonesia. The Company owns a 34.0% interest in and is the operator of the Project. The Project acquired the exploration rights in May 2010. In 2011, Total joined the project, acquiring a 33.0% interest from the Company. The Project is currently in the early exploration period. A 3D seismic survey was completed in 2011. In 2013, further geological studies were carried out to confirm for petroleum potential.

Indonesia Semai II Project

The Indonesia Semai II Project is located offshore, southwest of West Papua Island, in Indonesia. The Company owns a 28.3% interest in the Project with Murphy Oil as the operator.

In 2013, the Project prepared for the drilling of exploration wells in shallow water areas to assess its potential. These exploration wells are expected to be drilled during the first quarter of 2014.

Natuna Sea A Project

The Natuna Sea A Project is a producing oil and gas field located in the west of the Natuna Sea, in Indonesia. In 2013, PTTEP and Pertamina (on a 50:50 basis) completed the acquisition of the entity holding 23% in the Natuna Sea A Project, with the transaction value being comprised of USD 526 million (PTTEP's share is USD 263 million) for Hess Corporation's equity stake and of USD 124 million (PTTEP's share is 62 million) worth of inter-company loans assumed by the purchaser. The transaction results in PTTEP effectively holding 11.5% in the Project.

In 2013, the Project produced crude oil and natural gas at average rates of 2,350 bbls/d and 220 MMscf/d, respectively. PTTEP began to recognize sales revenue from the Project as of the transaction closing date (6 December 2013).

1.4.1.2.2 Project Activity Highlights in Africa and the Middle East: PTTEP has 3 projects in this region with the following as key highlights:

Oman 44 Project

The Oman 44 Project is located onshore, to the west of Muscat, the Sultanate of Oman. The Company owns 100.0% of the Project and is also the operator. Natural gas and condensate production began in the Shams fields in 2007. The Project has a long-term GSA in place with the Ministry of Oil and Gas of Oman.

In 2013, production of natural gas from the Project averaged 39MMscf/d, production of condensates averaged 3,500 bbls/d. The Project also carried out 3D seismic surveys covering an area of 500 square kilometers in the western area of the Project to further explore and assess the petroleum potential.

Algeria Hassi Bir Rekaiz Project

The Algeria Hassi Bir Rekaiz Project is located onshore in eastern Algeria. The Company holds a 24.5% working interest and is the operator of the Project.

The Project has completed the first phase of exploration drilling, and discovered natural gas and crude oil in 8 of the 9 wells drilled. The Project is currently in the second exploration phase (May 2013 – May 2015), and plans to conduct 3D seismic surveys during the first quarter of 2014. The Project is also undergoing preparations to prepare for drilling additional exploration and appraisal wells toward the end of 2014.

Algeria 433A& 416B Project

The Algeria 433A & 416B Project is located in the eastern Algeria. The Company holds a 35.0% interest in the Project.

The Project completed drilling 6 of 12 development wells and is progressing with the construction of the processing and pipeline facilities as per the first phase of Bir Saba oil field development plan. Oil production is scheduled to begin in late 2014 with an expected production capacity of 20,000 bbls/d.

1.4.1.2.3Project Activity Highlights in Australasia: PTTEP has 1 project in this region with the following as key highlights:

PTTEP Australasia Project

In 2009, the Company acquired 100.0% of the ordinary shares of Coogee Resources Limited, which was later renamed to PTTEP Australasia Pty Ltd. (PTTEP AA). PTTEP AA owns exploration and development fields located in the Timor Sea, in Australia.

PTTEP AA currently holds concessions to 16 fields with the 2 principal fields being the currently producing Montara field and the Cash Maple field which is in the exploration phase with feasibility studies currently being carried out. The rest of the concessions are primarily fields in the exploration phase.

Montara Field

The Montara field consists of concessions AC/L7 and AC/L8 which are located in the Timor Sea in Australia. In response to the 2009 Montara Incident where oil leaked from a development well in the Montara field, PTTEP AA has a new project team in place for full involvement in the management and operations of the project as well as to carry out the implementation of the Montara Action Plan that resulted from the Commission of Inquiry. Moreover, the Australian government on 21 June 2013, lifted the Deed of Agreement put in place to monitor and audit PTTEP's commitment to fully implement the Montara Action Plan.

Regarding compensation claims from the insurance companies, as of the date of the incident until year-end 2013, PTTEP has received a total of USD 233.5 million. The remaining compensation claims are in progress and PTTEP expects to receive the remaining claims during 2014. With respect to the claim submitted by the Government of Indonesia seeking compensation for the oil leakage from the Montara incident, PTTEP continues to assess the case with the Indonesian government through the use of scientific evidence to determine the impact (if any).

The Project began producing crude oil from the Montara field in June 2013, and sold the first shipment of approximately 500,000 barrels in August 2013. The Project is currently producing crude oil at an approximate rate of 17,000 bbls/d, with plans to steadily ramp up production in 2014, and expectations to achieve production levels of 25,000-30,000 bbls/d during the first half of 2014.

Cash-Maple field

The Cash Maple field is comprised of the AC/RL7 concession. The field is progressing with geological and geophysics engineering studies as well as with the analysis of commercial feasibility and development options. Subsequent to the 2 successful appraisal wells drilled in 2011, the Company plans to drill the MapleEast-1 exploration well in 2014. Data from this well will help further appraise of the field's gas potential as well as help with the development of natural gas in remote areas of the Timor Sea. FLNG is a development option for this Project.

Other concessions

Other concessions include AC/L 1, AC/L 2, AC/L 3, AC/P 4, AC/P 33, AC/P 34 and AC/RL 10. PTTEP has interests ranging between 50.0% - 100.0% in these concessions which are all undergoing geological and geophysics studies to determine the potential for petroleum.

Engineering studies for a development solution are being carried out for the AC/RL 6 concession which contains the Audacious field, and AC/RL4 and AC/RL5, which contains the Tenacious field.

PTTEP has a 20.0% interest in the WA-396-P and WA-397-P fields which are located in the Browse Basin, and operated by Woodside. 3D seismic interpretation is currently being carried out to assess the fields' petroleum potential.

Additionally, in 2014, PTTEP AA plans to drill the Dillon South-1 exploration well in the AC/P 4 field.

1.4.1.2.4 Project Activity Highlights in North America: PTTEP has 1 project in this region with the following as key highlights:

Canada Oil Sands KKD Project

The Canada Oil Sands KKD Project is located in Alberta, Canada. In 2011, PTTEP CA, a subsidiary of the Company, acquired a 40.0% interest in the Canada Oil Sands KKD Project from Statoil Canada Limited (SCL), the operator of the project holding the remaining 60% interest. The Project covers an area of approximately 1,100 square kilometers and is comprised of 5 areas, namely, Leismer, Corner, Thornbury, Hangingstone and South Leismer.

In 2013, the Project completed the Winter Evaluation Program for year 2012-2013, which consisted of appraisal drilling and 3-D and 4-D seismic studies in the Leismer, Corner and Thornbury areas. Program results are used to evaluation of bitumen quantities and production planning. The Project is currently producing bitumen at an average rate of 14,800 bbls/d.

However, in January 2014, PTTEPCA entered into a Partnership Unit Redemption Agreement (PURA) with Statoil Canada Limited (SCL) to restructure to restructure the ownership of the five areas of the KKD Project, by exchanging PTTEPCA's 40% of its interest in Leismer and

Corner (LC) for an additional 60% in Thornbury, Hangingstone and South Leismer (THSL) plus cash of USD 200 million and plus an additional amount to be calculated from working capital adjustments related to expenditures and revenues of the KKD Project from 1 Jan 2013 until the closing date (equivalent approximately to USD 235 million as at 31 Dec 2013). This transaction is subject to the conditions precedent to closing prescribed in the PURA, including approval of the Government of Canada, with an expected closing date by the third quarter of the year. At the close of the transaction as prescribed in the PURA, PTTEPCA will hold 100.0% of and operate the THSL fields while also receiving the aforementioned cash amounts from SCL; and SCL will hold 100.0% of and operate the LC fields.

1.4.1.2.5 Project Activity Highlights in Africa: PTTEP has 4 projects in this region with the following as key highlights:

Mozambique Rovuma Offshore Area 1 Project

The Mozambique Rovuma Offshore Area 1 Project is located offshore of Mozambique. The Company owns an 8.5% working interest in the Mozambican Rovuma Offshore Area 1 concession through Cove (a wholly owned subsidiary), with Anadarko as the operator. Total discovered recoverable resources in of the project are currently estimated at 32 to 65 TCF of natural gas. In 2013, the Project received a reserve certification from a leading independent petroleum consulting firm which confirmed sufficient proved reserve quantities to support 10 million tons per annum (MTPA) of liquefied natural gas (LNG) from two LNG production trains of 5 MTPA each.

During 2013, the Project completed drilling a total of 10 exploration and appraisal wells, with natural gas discoveries in 6 of the wells, namely: Orca-1, Espadarte-1, Atum-3, Golfinho-5, Golfinho-6 and Manta-1. The four other wells, namely: Barracuda-1, Tubarao-2, Black Pearl-1, and Linguado-1, showed no potential for commerciality. However, their results will serve as geological information for future assessment of petroleum potential. Moreover, in 2014, the Project has plans to drill 8 additional exploration and appraisal wells for continual exploration and assessment, as well as continue to carry out the LNG Engineering and Construction Development as planned.

The partnership is currently negotiating with the LNG purchasers. First production and gas sales are expected in late 2018 or 2019.

Mozambique Rovuma Onshore Project

The Mozambique Rovuma Onshore Project is located onshore in Mozambique. The Company owns, through its wholly-owned subsidiary, Cove, a 10.0% working interest in the onshore concession area of the Rovuma Block, with Anadarko as the operator.

In year 2013, the Project completed an exploration work program comprising of a 1,000 kilometer 2D seismic survey.

Kenya L10A and L10B Project

The Kenya L10A and L10B Project is located offshore of Kenya. The Company, through its wholly-owned subsidiary Cove, owns a 31.25% (Previously 25.0%) working interest in Block L10A and a 15.0% working interest in Block L10B.

In 2013, a 3D seismic survey was completed covering an area of 2,170square kilometers. Moreover, on 2 December 2013, the Mozambican government approved the transfer of Premier Oil's 20% participation interest in the L10A field to the other partners resulting in an increase in Cove's interest from 25% to 31.25%.

Kenya L5, L7, L11A, L11B and L12 Project

The Kenya L5, L7, L11A, L11B and L12 Project is located offshore of Kenya. The Company, through its wholly-owned subsidiary Cove, holds a 10.0% working interest in the blocks, with Anadarko the operator.

In 2013, the 2 exploration wells, Kiboko-1 in the L11B field and Kubwa-1 in the L7 field, were drilled with results indicating no potential for commercial development. However, the Project is able to apply the findings in further geological studies, and plans to drill an additional exploration well in 2014.

Projects Relinquished in 2013

Australia WA-423-P Project

The Australia WA-423-P Project is located offshore from the west coast of Australia. The Company held a 30.0% interest in the Project, before relinquishing its joint venture interests in the concession block after having completed its exploration obligations and not discovering petroleum potential. On 1 August 2013, the relinquishment was officially approved by the Australian government

Cambodia B Project

The Cambodia B Project is located offshore of Cambodia. PTTEPI operated and held a 33.333334% working interest in the Project. The Company drilled all three commitment wells during 2008 – 2012 discovering limited petroleum potential, and therefore, in 2012 relinquished its joint venture in the Cambodia B Project, which was officially approved by the government of Cambodia on 20 November 2013.

Indonesia Sadang Project

The Indonesia Sadang Project is located offshore in the Makassar Straits, in Indonesia. The Company owns a 30.0% interest in the project with Talisman as the operator. The exploration activities carried out discovered limited petroleum potential. The Company has submitted documents regarding the relinquishment of its investment rights to the government of Indonesia. The relinquishment is pending official approval from the Indonesian government.

Indonesia South Sageri Project

The Indonesia South Sageri Project is located offshore in the Makassar Straits, in Indonesia. The Company owns a 20.0% interest in the Project with Talisman as the operator. The exploration activities carried out discovered limited petroleum potential. The Company has submitted documents regarding the relinquishment of its investment rights to the government of Indonesia. The relinquishment is pending official approval from the Indonesian government.

New Zealand Great South Project

The New Zealand Great South Project is located in the Great South Basin, in New Zealand. The Company owns an 18.0% interest in the Project, and has carried out its obligations per its agreement with government of New Zealand. The exploration activities carried out for this project discovered limited petroleum potential. The Company has submitted documents regarding the relinquishment of its investment rights to the government of New Zealand, and is awaiting official approval from the government.

Furthermore, the Company has also relinquished its rights to the AC/P 40 and AC/P 17 fields of the PTTEP Australasia Project, and received official approval from the Australian government on 13 March 2013 and 18 December 2013, respectively. The Company also submitted documents for the relinquishment of its investment rights in the L21/8 and A6/48 fields in Thailand, and is currently awaiting official approval from the relevant government authorities.

1.4.2 Organizational Structure of PTTEP Group

PTTEP established subsidiaries and/or associated companies mainly to conduct its core business. Its continuous expansion in domestic territory and overseas necessitates the establishment of subsidiaries and/or associated companies in the region where the Company invests for flexible and efficient business operations as well as competitive advantages comparable with other international oil companies. To achieve this, PTTEP considered factors such as rules & regulations, financial structure, tax regimes, and risk management.

PTTEP's policy is to manage its subsidiaries as "One Company" with a clear direction that its subsidiaries follow PTTEP's business direction and strategy and being mainly managed as one team by PTTEP executives and employees. In addition, its management and internal control systems are also to be adopted and implemented in all PTTEP subsidiaries in the same way that they are standardized at PTTEP. To manage associated companies, PTTEP nominates a representative to serve as a shareholder and/or a member of each board of directors to participate in defining the overall business strategy and policy for these companies. To manage subsidiaries and associated companies, PTTEP adheres to its Good Corporate Governance principles and Business Ethics of the PTTEP Group as its fundamental principles to ensure effectiveness, transparency, fairness, and achievement of the Company's business goals.

1.5 Relationship with Major Shareholder

PTTEP's major shareholder is PTT, a state-owned company that engages in fully integrated petroleum and petrochemical businesses by strategically investing directly and through its group of companies both in the upstream and downstream businesses.

Currently, PTT holds 65.29% of PTTEP's registered and paid-up capitals, effectively making the PTT Group the only full-scale natural gas business operator in Thailand. As the major buyer of PTTEP's petroleum products, PTT, in turn, refines and processes these products, and supplies them as energy and raw materials to be used in the power, petrochemical and transportation sectors as well as other industries and households.

In 2013, PTTEP had supplied crude oil, natural gas, LPG, and condensate to PTT under fair prices and/or at the industry's benchmarked prices (Arm's length basis). In addition, there are short-term borrowings and lending to increase mutual financial management efficiency between PTT and PTTEP, with all of the inter-company transactions being in compliance with related laws and regulations to ensure the integrity and transparency.

As of 31 December 2013, PTTEP had interests in a total of 77 investments, which included 58 subsidiaries and 19 associated companies/joint ventures.



2. Nature of Business Operation

Revenue Structure

Commencing January 1, 2011, the Company's management has determined US Dollar as the functional currency and presents its financial statements in U.S. Dollar in accordance with Thai Accounting Standard No. 21 "The Effects of Changes in Foreign Exchange Rates".

PTTEP and its subsidiary's revenues are mainly from sales of petroleum products of which its price is marked to the world fuel price in US Dollars. Thus, PTTEP and its subsidiaries' revenue structure of 2011 – 2013 are presented here in US Dollars in order to reflect the company's revenue structure.

The petroleum exploration and production projects in the production phase of PTTEP and its subsidiaries comprised 22 projects: the Bongkot, Contract 4, S1, Yadana, Yetagun, Contract 3, B8/32 & 9A, PTTEP1, E5, B6/27, Sinphuhorm, G4/43, Oman 44, Arthit, Vietnam 9-2, PTTEP Australasia, G4/48, MTJDA-B17, Canada Oil Sands KKD, Vietnam 16-1, L53/43 & L54/43 and Natuna Sea A projects. In addition, PTTEP and its subsidiaries recorded revenues proportionately from gas pipeline transportation of Moattama Gas Transportation Company (MGTC) and Taninthayi Pipeline Company (TPC).

Revenue structure of PTTEP and its subsidiaries during 2011-2013

Product	Operated by	Shareholding by	% of interest		2011		2012		2013	
			2012	2013	Revenue (Million USD)	%	Revenue (Million USD)	%	Revenue (Million USD)	%
Petroleum Exploration and Production Segment										
Crude	PTTEP	-	-	-	257.49	4.53	312.87	4.46	342.39	4.60
	PTTEPI	PTTEP	100.00	100.00	70.17	1.23	81.01	1.15	62.25	0.84
	PTTEPS	PTTEP	51.00	51.00	627.98	11.05	789.23	11.24	875.35	11.76
		PTTEPO	49.00	49.00	-	-	-	-	-	-
	PTTEPO ¹	PTTEP	75.00	75.00	314.11	5.52	327.17	4.66	281.24	3.78
		PTTEPI	25.00	25.00	-	-	-	-	-	-
	PTTEPHV	PTTEPO	100.00	100.00	60.36	1.06	65.67	0.94	57.17	0.77
	PTTEPT ²	PTTEPI	100.00	-	-	-	-	-	-	-
	PTTEP AP group	PTTEPH	100.00	100.00	-	-	-	-	110.22	1.48
	PTTEP HL	PTTEPO	100.00	100.00	149.95	2.64	509.33	7.25	498.25	6.69
Natuna 2	PTTEP NH	-	50.00	-	-	-	-	0.27	-	
Natural Gas	PTTEP	-	-	-	1,619.77	28.49	2,045.27	29.13	2,288.95	30.75
	PTTEPI	PTTEP	100.00	100.00	659.95	11.61	837.59	11.93	859.40	11.54
	PTTEPS	PTTEP	51.00	51.00	51.40	0.90	48.88	0.70	53.05	0.71
		PTTEPO	49.00	49.00	-	-	-	-	-	-
	PTTEPO ¹	PTTEP	75.00	75.00	80.22	1.41	87.82	1.25	60.33	0.81
		PTTEPI	25.00	25.00	-	-	-	-	-	-
	PTTEPHV	PTTEPO	100.00	100.00	1.59	0.03	1.68	0.02	1.52	0.02
	PTTEPT OM	PTTEPO	100.00	100.00	16.30	0.29	-	-	13.13	0.18
	PTTEPT ²	PTTEPI	100.00	-	-	-	-	-	-	-

Natural Gas (continued)	PTTEP HL	PTTEPO	100.00	100.00	-	-	-	-	5.16	0.07
	Natuna 2	PTTEP NH	-	50.00	-	-	-	-	7.46	0.10
LPG	PTTEP	-	-	-	6.58	0.11	7.10	0.10	7.44	0.10
	PTTEPS	PTTEP	51.00	51.00	19.75	0.35	21.30	0.30	22.31	0.30
		PTTEPO	49.00	49.00	-	-	-	-	-	-
Condensate	PTTEP	-	-	-	1,145.45	20.15	1,073.42	15.29	1,113.06	14.95
	PTTEPI	PTTEP	100.00	100.00	134.34	2.36	125.01	1.78	136.97	1.84
	PTTEPS	PTTEP	51.00	51.00	2.24	0.04	2.50	0.04	2.17	0.03
		PTTEPO	49.00	49.00	-	-	-	-	-	-
	PTTEPT OM	PTTEPO	100.00	100.00	72.18	1.27	98.19	1.40	98.01	1.32
Diluted Bitumen	PTTEP CA	PTTEP NC	100.00	100.00	149.89	2.64	255.52	3.64	275.80	3.70
Total					5,439.72	95.68	6,689.56	95.28	7,171.90	96.34
<u>Overseas Pipeline Segment</u>										
Gas pipeline transportation	MGTC	PTTEPO	25.50	25.50	80.00	1.41	95.33	1.36	91.72	1.23
	TPC	PTTEPO	19.3178	19.3178	44.07	0.78	55.35	0.79	58.95	0.79
Total					124.07	2.19	150.68	2.15	150.67	2.02
<u>Other Segment</u>										
Other Revenues	PTTEP	-	-	-	18.59	0.33	31.64	0.45	35.02	0.47
	PTTEPI	PTTEP	100.00	100.00	30.14	0.53	14.37	0.20	32.96	0.44
	PTTEPO ¹	PTTEP	75.00	75.00	5.55	0.10	5.49	0.08	3.83	0.05
		PTTEPI	25.00	25.00	-	-	-	-	-	-
	PTTEPHV	PTTEPO	100.00	100.00	0.10	-	0.09	-	0.04	-
	PTTEP HL	PTTEPO	100.00	100.00	0.04	-	0.06	-	0.07	-
Other Revenues (continued)	PTTEPT OM	PTTEPO	100.00	100.00	-	-	0.94	0.01	-	-
	MGTC	PTTEPO	25.50	25.50	0.58	0.01	0.59	0.01	0.64	0.01
	TPC	PTTEPO	19.3178	19.3178	0.23	-	0.23	-	0.26	-

	ATL ⁴	PTTEPO	80.00	80.00	-	-	0.03	-	-	-
	PTTEP Services	PTTEP	25.00	25.00	0.86	0.01	1.14	0.02	1.51	0.02
		PTTEPI	75.00	75.00	-	-	-	-	-	-
	PTTEPT ²	PTTEPI	100.00	-	0.08	-	0.07	-	-	-
	PTTEPS	PTTEP	51.00	51.00	5.21	0.09	1.91	0.03	4.57	0.06
		PTTEPO	49.00	49.00	-	-	-	-	-	-
	PTTEP AP group	PTTEPH	100.00	100.00	41.42	0.73	93.95	1.34	32.57	0.44
	PTTEP NZ	PTTEPH	100.00	100.00	7.51	0.13	0.02	-	-	-
	PTTEP AI ³	PTTEPH	100.00	100.00	-	-	0.34	0.01	-	-
	PTTEP SM	PTTEP ID	100.00	100.00	-	-	-	-	-	-
	PTTEP SMD	PTTEP ID	100.00	100.00	3.13	0.05	2.11	0.03	-	-
	PTTEP SS	PTTEP ID	100.00	100.00	1.16	0.02	-	-	-	-
	PTTEP SD	PTTEP ID	100.00	100.00	0.90	0.02	-	-	-	-
	PTTEP NC	PTTEP IH	0.00005	0.00005	1.74	0.03	-	-	-	-
		PTTEP NL	99.99995	99.99995	-	-	-	-	-	-
	PTTEP CA ⁵	PTTEP NC	100.00	100.00	3.77	0.07	25.33	0.36	6.26	0.08
	PTTEP CIF	PTTEP NC	100.00	100.00	0.29	0.01	0.02	-	0.02	-
	Cove	PTTEP AI	100.00	100.00	-	-	0.10	-	0.13	-
	CEEAL	Cove	100.00	100.00	-	-	2.00	0.03	-	-
	CEMROFL	Cove	100.00	100.00	-	-	-	-	0.38	0.01
	Eranwan 2 FSO	JV Marine	13.11	13.11	-	-	-	-	4.07	0.06
	Bahamas									
Total					121.30	2.13	180.43	2.57	122.33	1.64
Total					5,685.09	100.00	7,020.67	100.00	7,444.90	100.00

¹PTTEPO has shareholding in Orange Energy Limited and B 8/32 Partners Limited, which holds the project's concession.

²As at December 24, 2010, PTTEP (Thailand) Limited has registered for the dissolution with the Ministry of Commerce and complete liquidation on December 6, 2013.

³The name of PTTEP Egypt Company Limited (PTTEP EG) was changed to PTTEP Africa Investment Limited (PTTEP AI).

⁴On January 5, 2012, PTTEP Offshore Investment Limited (PTTEPO) with Myanmar Oil and Gas Enterprise (MOGE) has entered into Shareholders Agreement with Andaman Transportation Limited (ATL) to invest in Zauwika gas transportation project. The MOGE's investment is under 'the Agreement Establishing the Rights and Obligations of the Andaman Transportation Limited', which stated that, if MOGE exercised its rights to invest 20% of participating interest under the Production Sharing Contract, MOGE will have rights to invest in the common stock of ATL at the same proportion. As a result of entering into this agreement, the proportion of shareholders' interest of PTTEPO in ATL has been changed to 80% and MOGE has held another 20% shareholders interest effective on the date that both parties signed the agreement. The proportion change in the investment resulted in the change of ATL from a subsidiary to a jointly controlled entity. MOGE had paid for the actual participation interest totaling to US Dollar 6.22 million and paid for an increase in capital of its shareholders interest of US Dollar 12,500.

⁵On November 8, 2012, PTTEP CA has sold 8% of its interest in LAL to FCCL PARTNERSHIP which resulted in a decrease in its interest in LAL from 40% to 32%.

For 2013, total revenues for PTTEP and its subsidiaries amounted to USD 7,445 million (equivalent to 228,741 million baht), an increase of USD 424 million or 6% against last year which was USD 7,021 million (equivalent to 218,137 million baht). The increase was mainly due to higher sales of petroleum of USD 483 million, resulting from (1) the higher average sales volume for 2013, which increased to 292,629 barrels of oil equivalent per day (BOED) (the average sales volume for 2013, if excluded gas sales volume of Vietnam 16-1 project which the Gas Sales Agreement was completely signed in November 2013, would be 290,173 BOED) against 2012, which was 275,923 BOED. The increased sales volume largely came from crude oil sales from the PTTEP Australasia project because Montara began offloading crude oil for sales in August 2013 and also from S1 project because of higher production volume produced from new wells and Artificial lift technique. Moreover, sales of natural gas increased from Greater Bongkot South that started its production as required by the Gas Sales Agreement in June 2012, from Vietnam 16-1 project because the Gas Sales Agreement was completely signed in November 2013, therefore, December 2013 is the first period that the project is able to recognize revenue from sales volume occurred during the period August 2011 to May 2013 and also from Natuna Sea A project because of the acquisition of Natuna 2 B.V. which held interest in the Natuna Sea A Project in December 2013; (2) the higher average petroleum sales price for 2013, which rose to USD 65.58 per barrel of oil equivalent (BOE) (the average sales price for 2013, if excluded gas sales of Vietnam 16-1 project, would be USD 66.09 per BOE) against 2012, which was USD 64.86 per BOE. The increase was mainly due to an increase of average gas sales prices for 2013 comparing to those of 2012 based on price formula in the Gas Sales Agreements.

PTTEP and subsidiaries' revenue from pipeline transportation from proportionate revenue in Moattama Gas Transportation Company (MGTC) and Taninthayi Pipeline Company LLC (TPC) remained stable comparing to those of 2012.

This year, PTTEP and subsidiaries' other revenues decreased principally because of the recognition of other income from the insurance claim from the Montara incident amounting USD 92 million in 2012; whereas, this insurance claim was recognized, amounting USD 21 million in 2013.

2.1 Products Features

2.1.1 Petroleum

Petroleum means crude oil, natural gas, condensate, related products and other hydrocarbon products which are free in nature.

Crude oil means crude mineral oil and bitumen of all kinds which is liquid in nature and is obtained from an oil well and may be obtained through gas separation equipment but has not yet been refined or purified. Bitumen is another form of crude oil, which is sticky, black, opaque, and highly viscous (low API).

Natural gas means hydrocarbon which is gas or vapor at the atmospheric temperature and pressure, and which normally has methane as its major constituent.

Condensate means hydrocarbon which condenses in natural gas, and which, when separated from natural gas, is transparent and has low specific gravity (high API).

LPG means petroleum product which is obtained from crude oil refinery or natural gas separation processes and which primarily consists of butane and propane.

Crude oil, condensate, LPG and bitumen are measured in barrel while the natural gas is measured in cubic foot at standard conditions (1 atmosphere (atm) and 60 Degree Fahrenheit). All petroleum products could be converted into Barrel of Oil Equivalent (BOE) based on their heat contents. One cubic foot of natural gas has the heating value of approximately 1,000 British thermal units (BTU) while 1 barrel of crude oil has the heating value of approximately 6,000,000 BTU.

2.1.2 Gas Transportation Pipeline

PTTEPO, a wholly owned subsidiary of PTTEP, has other major investments in other companies, such as interests in 80% of the investment in Andaman Transportation Limited (ATL), 25.5% in Moattama Gas Transportation Company (MGTC), and 19.31784% in Taninthayi Pipeline Company (TPC) to conduct the business of pipeline laying for the Zawtika (under construction), Yadana and Yetagun projects from the Republic of the Union of Myanmar to Thai borders.

2.1.3 Jetty and Warehouse

PTTEP's jetty was established with the aim to provide jetty service support to the Company's own and affiliated offshore operating assets, as well as other offshore oil and gas operating companies in the Gulf of Thailand, such as Chevron, Hyundai, Mubadala (Pearl Oil) and Thai Nippon Steel, and etc.

The jetty is one of Thailand's leading shore base facilities for petroleum exploration and production activities, with a total length of 380 meters capable for six standard supply vessels berthing. Storage facilities and handling equipment, silo and bulk loading system, have been built or procured in compliance with relevant international standards. The Company emphasizes on controlling system and continuous improvement of business process, particularly in the area of Safety, Security, Health and Environment (SSHE), with ISO14001, OHSAS18001 and ISPS (International Ship and Port Facilities Security Code - by Marine Safety and Environment Bureau, Royal Thai Marine Department.) certification.

Warehouse and Yard areas are located in Ranong and Songkhla with a total area about 25 and 58 Rai of land, respectively. Both locations provide Free Zone and Non-Free Zone areas for safely storing all exploration and production equipment, such as tubing, casing and drilling equipment. Apart from a modern warehouse operation, safety is the important issue to be monitored. Therefore, CCTV has been installed at strategic locations throughout the base and is being strictly monitored by officers 24 hours a day.

2.1.4 PTT ICT Solution Company Limited (PTT ICT)

PTT ICT Solutions Co., Ltd, an affiliate with 20% shares owned by PTTEP, has signed an agreement with PTTEP to provide all PTTEP information technology and communication services in accordance with the resolution from the Company's Board of Director's Meeting no. 10/2549/254 dated on 29 September 2006. The agreement includes infrastructure design and implementation services, consultancy services, procurement services, and outsourcing services to support PTTEP information technology and communication needs. The 4.5-year renewal contract period has been in effect since 1 July 2011 and is based on the PTT Group ICT Policy Strategy of driving and increasing synergy in the group.

2.1.5 Energy Complex Limited (Energy Complex)

PTT and PTTEP has jointly established energy complex to construct and manage the Energy Complex Investment Project, the energy business center of the country, in which the Ministry of Energy, subsidiaries or associate companies of PTT group and the energy private companies are situated.

2.1.6 PTTEP Services Limited (PTTEP Services)

The concept that became PTTEP Services originated from the Company's Board of Director Meeting no. 12/2003/216. The stated objective that PTTEP Services was created to achieve is to supply manpower for both local and overseas subsidiary companies belonging to PTTEP and cater for the fact that PTTEP requires a large number of staff who are sufficiently capable and of a high caliber with the primary objective of supporting PTTEP's extensive and rapid growth.

In order to fulfill these requirements, PTTEP Services has recruited and hired staff for PTTEP since 1 July 2004 and has developed, improved, and implemented compensation and benefits policies and practices to ensure that standardized welfare benefits, including requisite trainings are provided.

2.2 Permission to Operate, Concession or Business Promote

The Company does petroleum exploration and production in Thailand and abroad. Investments in foreign countries shall comply with conditions and concession laws of those countries, such as Production Sharing Agreement/Contract or Services Agreement. Inside Thailand, PTTEP shall comply with the Petroleum Act B.E. 2514 and its amendment which sets out details and procedures for applying for and awarding petroleum concessions, the period of production and also provides various forms of benefits to the government as the owner of its petroleum resources. These forms of benefits include royalty, petroleum income tax and other benefits. The important points in the petroleum business operation according to the Agreement and relevant laws are as follows:

(a) Issue of Concession Areas

The Department of Mineral Fuels under the Ministry of Energy, as the responsible agency, delineates exploration blocks, and then invites oil companies to submit applications for concessions. The Petroleum Committee considers applications for concessions which are initially screened by the sub-committee. The Energy Minister with the approval by the Cabinet has the power to award and sign concessions. The government considers the qualifications of each applicant and will take into account the proposed work program, adequacy of the investment funds to be brought in and used in the exploration, the transfer of technology, employment of Thai nationals, and also the utmost benefits offered to the country.

(b) Role of the Operator

A petroleum concession may be awarded to one concessionaire or to a joint venture of two or more co-concessionaires. Since the petroleum exploration and production business is associated with relatively high risks, it is common for companies to join together in joint ventures in order to diversify these risks. In a joint venture, one company will be designated as an “operator” to conduct the exploration and production operations on behalf of other co-venturers under the supervision of the management committee composed of representatives from each company. Other companies which participate in the joint venture are called “non-operators”. An operator sets the cash call on all co-venturers to finance a project. Non-operators, through their representation in the management committee, participate in technical and financial decisions. Generally, an oil company will become an operator of any project, depending on the conditions of Joint Operating Agreement, investment conditions, readiness and business strategies of each project.

(c) Nature of Operations and Investment Decisions

Before any oil company decides to invest in the petroleum exploration in Thailand and abroad, it has to carefully consider its chances of an exploration success as well as other investment risk factors. A study of information available is made to determine whether an area has high petroleum potential and is commercial for production. The success ratio of drilling of exploration wells in neighboring areas as well as the risk factors of the investment countries are also taken into account. In the event that a company found the project to be commercial for production, it will apply for a petroleum concession or will “farm-in” to an existing petroleum concession.

After an oil company is awarded a concession area for an exploration of petroleum, an exploration program will be conducted which normally takes 2 – 3 years. If the petroleum reserves are discovered, the amount of investment funds required for the development stage and the value of sale of the petroleum in the quantity of reserves expected to be recovered will be evaluated. If such study indicates that the reserves are worthwhile for investments, that petroleum field will be considered to have sufficient commercial viability to justify further development investment. An operator shall apply for an approval of petroleum production and shall start its production at the same time. Meanwhile, the operation is still able to explore the rest of the existing areas if it is within the timeframe of exploration mentioned in the concession.

At this stage, an operator must have a certain degree of confidence about the investment as the development stage requires large amount of financial commitment. An operator will normally identify buyers of petroleum in advance, and a long-term sales agreement for petroleum to be produced will be signed. At present, PTT Plc. (PTT) is the biggest petroleum buyer in Thailand. The principal elements of the sales agreement for petroleum are the method of determination of the sales price and quantity of petroleum to be delivered. In this regard, when the commencement period in the contracted is reached, the buyer must be responsible for the petroleum produced immediately after the production passed the delivery point. The sale of natural gas from any domestic areas is presently made at the well-head while the sale of natural gas from any foreign areas is made at the Thai borders, in which case gas pipe-lines installed by PTT must be sufficient for the production amount specified in the gas sale agreement. The sale of the crude oil is made at the buyer's refinery while the sale of the condensate is made at the Floating Storage Unit (FSU) near the well-head.

(d) Description of Law Relating to the Business

At present, the operation of petroleum business in Thailand is governed by two major enactments, namely, the Petroleum Act B.E. 2514 and its amendment, and the Petroleum Income Tax Act B.E. 2514 and its amendment. Several major features of these laws are:

- (1) an applicant for a concession must be a limited company or a juristic person which has the same status as a limited company established under the law of Thailand or foreign law;
- (2) The concessionaire, the co-concessionaire(s) and the co-venturer(s) must pay royalty which is normally paid by cash. However, the Minister may authorize a payment in kind of petroleum by a notice of at least not less than six months. The royalty may be used as credit against income tax according to the applicable law at the moment (Thailand I) or be deducted as expenses according to the applicable law at the moment(Thailand III);
- (3) the rate of petroleum income tax may be prescribed must not be less than 50% and not exceed 60% of the net interest from the petroleum business;
- (4) interest paid cannot be deducted as expenses for income tax purposes; and
- (5) A concessionaire has the right to obtain concessions for exploration blocks without limitation of number of exploration blocks.

Thailand I for the petroleum concessions issued by the Ministry of Industry¹ from B.E. 2514 to B.E. 2532 and the onshore petroleum concession issued before B.E. 2525

Thailand II² for all onshore petroleum concessions issued by the Ministry of Industry¹ from B.E. 2525 to B.E. 2532

Thailand III for the petroleum concessions issued by the Ministry of Industry¹ from B.E. 2533

Thailand IV for the petroleum concessions issued by the Ministry of Energy³ from B.E. 2550

¹ Currently, the Ministry of Energy

² Based on section 36 of Petroleum Act (No. 4) B.E. 2532, all petroleum concessionaires under Thailand II have already applied to be subject to the criteria under Thailand III

³ Petroleum Act B.E. 2514 amended by (No. 6) B.E. 2550 came into force since 18 October 2007

Terms of Thailand I, II, III and IV

Term	Thailand I	Thailand II	Thailand III	Thailand IV
Royalty Rates	12.5% of income from sale or disposal of petroleum which may be treated as tax credit	12.5% of income from sale or disposal of petroleum which may be treated as tax credit	progressive rate at sliding scale 5-15%, deemed to be expenses which could be deducted in tax calculation	progressive rate at sliding scale 5-15%, deemed to be expenses which could be deducted in tax calculation
Petroleum Income Tax	50% of net profit from petroleum business operation	50% of net profit from petroleum business operation	50% of net profit from petroleum business operation	50% of net profit from petroleum business operation
Special Benefits	-	annual benefits, and annual production bonus	special remunerator benefit which may be taken as deduction	special remunerator benefit which may be taken as deduction
Exploration Period	8 years with 4 year extension	8 years with 4 year extension	6 years with 3 year extension	6 years with 3 year extension
Production Period	not exceeding 30 years from expiry date of exploration, with extension not exceeding 10 years	not exceeding 30 years from expiry date of exploration, with extension not exceeding 10 years	not exceeding 20 years from expiry date of exploration, with extension not exceeding 10 years	not exceeding 20 years from expiry date of exploration, with extension not exceeding 10 years
Concession areas	not exceeding 10,000 sq. km per exploration block, up to 5 exploration blocks	not exceeding 10,000 sq. km per exploration block, up to 5 exploration blocks	not exceeding 4,000 sq. km per exploration block, up to 5 exploration blocks	not exceeding 4,000 sq. km per exploration block without limitation of number of exploration blocks

2.3 Marketing and Competition

PTTEP has invested in 42 E&P projects: 16 domestic, 24 overseas and 2 cross-borders. The Company's petroleum products include natural gas, crude oil, condensate, and LPG, mainly marketed domestically to meet Thailand's energy demand. Moreover, the Company's overseas expansions of E&P and sales business provide additional means of energy security and income generation for Thailand.

In 2013, total sales by PTTEP and its subsidiaries averaged 292,629 BOED, a 6.05% increase from the previous year. The increase in total sales derived from several projects, starting from the Montara field which started up in September, with an average production of 5,838 BPD. In addition, the increase came from the acquisition of Hess Corporation in December 2013, in which it has interests in the Natuna CA Project, which had an average production rate of 1,376 BPD. Lastly, higher sales were resulted from the crude oil production from the Vietnam 16-1 Project, which rose from 12,649 to 14,595BPD.

For 2013, total sales ratio of natural gas to liquid (crude oil and condensate) was 65.5:34.5 by volume, or 46.3:53.7 by revenue, the details of which are shown below.

Products	2011	2012	2013	2011	2012	2013
	Volume	Volume	Volume	Amount (USD million)	Amount (USD million)	Amount (USD million)
Crude Oil (MMBBL)	14.16	19.18	21.51	1,480.07	2,085.28	2,227.14
Natural Gas (MMSCF)	417,090.97	412,042.44	427,634.09	2,429.23	3,021.24	3,289.00
LPG (Metric Tons)	86,292.37	92,732.81	97,677.42	26.33	28.40	29.75
Condensate (MMBBL)	12.2	12.32	13.13	1,354.20	1,299.12	1,350.21
Diluted Bitumen (MMBBL)	2.07	3.77	3.74	149.89	255.51	275.80

2.3.1 Marketing Characteristics

PTTEP, by and large, sells its products from domestic and regional projects to the Thai market through PTT, the major buyer and processor of all products, which are then supplied to the power, petrochemical, and transportation sectors as well as other industries and households.

The marketing of petroleum products varies depending on their characteristics and field location, which dictate market and sales price structures, as described below.

(1) Natural Gas

Due to the capital-intensive investment in developing oil and gas fields, gas sales agreements (GSAs) must be put in place between buyer and seller before any major investment is made. GSAs are typically long-term contracts, ranging from 15 to 30 years. Prices, volumes, and points of sale are stipulated for each contract. The designated transfer points for all offshore-domestically sold gas are at the Central Processing Platform (CPP), thus the buyer is required to invest in the gas pipeline transport system. However, the delivery point of the gas sold from Myanmar to Thailand is at the border. The seller is responsible for investment in the transmission pipelines from the Central Processing Platform to the Myanmar-Thailand border.

Gas prices are usually linked to fuel oil and key economic indices to reflect the investment costs, and be competitive with other fuels for the entire GSA period.

Sales volumes are based on the assessed reserves at the time of contract negotiation. GSAs stipulate buyer and seller obligations for the committed volume. The buyer must pay for the committed volume of gas as stipulated in the GSA, whether or not over the year the full amount is taken (Take-or-Pay). Consequently, the buyer is entitled to take delivery of the amount of gas already paid for, free of charge in subsequent years (make-up gas).

Conversely, should the seller fail to deliver the contractually nominated amount by the buyer, the buyer is entitled to buy an amount of gas equivalent to the undelivered volumes at an agreed discount price, as stipulated in the agreement (Shortfall).

(2) Condensate and Crude Oil:

Condensate and crude oil prices are determined by their properties and benchmarking with other marker crudes predominantly sold in the region (Regional Benchmark Price), in line with industry's common practice. Contracts are either short-term or long-term, while some are sold in spot markets.

(3) LPG:

LPG produced from the S1 Project is sold to PTT Plc. under a long-term contract at a price referenced to the ex-refinery prices announced by the Joint Committee on Energy Policy Administration.

Sales of petroleum products from international fields vary from country to country as follows:

(3.1) Yadana and Yetagun Projects in the Republic of the Union of Myanmar: Approximately 77% of the produced natural gas from Yadana Project is primarily sold to Thailand through PTT Plc. as the buyer, and the remaining 23% is sold to Myanmar for use in domestic power generation. All the gas output from the Yetagun project is sold to PTT Plc., while nearly all of the condensate from Yetagun Project is sold and consumed in Myanmar, with the excess volume sold in regional spot markets.

(3.2) MTJDA-B17 Project of the Malaysia-Thailand Joint Development Area: Presently, all produced natural gas is sold to PTT Plc. for consumption in Thailand. Starting in 2015, however, a portion of the gas will be rerouted to Malaysia for domestic consumption according to the Gas Balancing Agreement between PTT and Petroliaam Nasional Berhad (Petronas).

Condensate will be marketed and sold by a co-marketing agent of PTT Plc. and Petco Trading Corporation SDN. BHD Limited, by auction in spot markets.

(3.3) Oman 44 Project in the Sultanate of Oman: Gas is sold to the Sultanate of Oman, whereas condensate is sold to PTT Plc. for consumption in Thailand.

(3.4) Vietnam 9-2 and Vietnam 16-1 Projects in the Socialist Republic of Vietnam: All the oil produced from the Vietnam 9-2 Project is sold to Binh Son Refining and Petrochemical Company LTD (BSR), a refinery in the Socialist Republic of Vietnam. Produced crude from the Vietnam 16-1 Project is sold in spot markets by auction, whereas produced natural gas is sold to the Vietnam Oil and Gas Group, a state enterprise, for consumption in Vietnam.

(3.5) Canada Oil Sands KKD Project in Canada: All produced diluted bitumen (Dilbit) is initially sold to Statoil Canada Limited for distribution in North America. PTTEP is entitled to sell its share of crude oil at a later date under the conditions of the joint venture agreement.

2.3.2 Competition

There is not a high degree of competition in the E&P industry in Thailand, since it requires high investment and advanced technology. However, due to a higher demand relative to supply, and the predominantly long-term gas sales agreements (GSAs) with take-or-pay clauses to guarantee the market, investment in Thailand's E&P business can be attractive.

Thailand's primary commercial energy demand in the first ten months of 2013 grew to 2 MMBOED or 1.46% from the previous year, due to a lower-than-expected growth of the country's economy. During the year, the National Economic and Social Development Board (NESDB) had revised the growth forecast down to 3.0% from 3.8-4.3% expected earlier, because of a slowdown in the export sector, as well as a slowdown in the automobile industry which seemed unlikely to reach the year's targeted of 2.5 million units, and the ongoing political tension which had led to a slowdown in foreign investment and tourism.

In 2013, natural gas demand increased 3.7% (or approximately 914,700 BOED), given the increases in demand from the power generation, transportation, industry and petrochemical sectors. Natural gas demand exceeded domestic supply which led to an increase in LNG imports.

Oil consumption increased by 2.8% (or 795,298 BOED) from the previous year, while consumption of coal and water energy/electricity decreased by 7.5% and 17.6%, respectively.

In 2014, The Thai economy is expected to grow by 4.0-5.0%, being driven by the global economic recovery, planned government expenditure-particularly on infrastructure investments, the long-term water management project, low oil price and inflation rate, mobilizing the economic recovery, The export sector is expected to grow by 7.0%, while the consumer spending and investments are expected to grow by 2.7% and 7.1%, respectively. The year's inflation rate is forecasted to be between 2.1-3.1%, and the current account deficit to stand at 0.6% of the country's gross domestic product (GDP). In spite of this, there remain some issues, in particular:

- (1) There is a risk that the country's export sector might under-perform.
- (2) The country's consumer spending is facing some resistances, particularly in comparison to its growth of the previous year.
- (3) Trend of slow expansion in private sector investments, which is also likely to be affected by JPY depreciation.
- (4) The People's Republic of China's tourism law may have some adverse impacts on the Thai tourism industry.

Crude oil prices are likely to increase due to the global economic recovery that buoys the rising global demand for crude oil. In 2014, the price increase is unlikely to be surging because the global economy is expect to grow at a gradual pace. There are also some other downward-pressing factors:

(1) The global demand and supply of crude oil is still in balance. The Organization of the Petroleum Exporting Countries (OPEC) has expected the demand and supply in 2014 to be 90.8 MMBPD and 90.2-92.2 MMBPD respectively.

(2) Increase of crude oil production in the United States, the world's largest consumer of oil, may lessen the US demand internationally.

(3) The economy of the People's Republic of China, the world's second largest consumer of crude oil, is expected to grow at about the same rate as the previous year, while that of the Japanese, the third largest, is likely to slowdown.

(4) Cutting of the United States' Quantitative Easing (QE) results in USD appreciation which in turn lessens the motivation for investors to speculate in the oil and commodity markets.

The Thai government has been preparing the country for the ASEAN Economic Community (AEC) with amendment of rules for trade and investment. This will help the country to reap full benefits from the liberal trade, capital movement and free flow of labor under the AEC, which will take shape in 2015. As the ASEAN countries remain its major markets, the PTT Group of Companies also has formulated its plan for the upcoming AEC with its experience and success in distribution of crude oil and petroleum products at competitive prices. This combines with a linkage of the petroleum and petrochemical sections where their operations are fully integrated. The Company is confident that such factors remain its strength for more trade opportunities and higher competitiveness among other ASEAN rivals.

PTTEP, one of PTT Plc's subsidiaries, has expanded its ASEAN investment while adhering to its commitment as the national energy company in exploring for energy sources and strengthening Thailand's energy stability for the long term.

2.4 Production

2.4.1 Exploration and Production Stages and Technology

Petroleum exploration and production may generally be divided into four major stages as follows:

- (1) Exploration stage
 - Primary geological and geophysical surveys
 - Seismic acquisition, processing and interpretation
 - Exploration wells drilling

(2) Appraisal/Delineation stage

- Detailed study of petroleum geology and additional seismic survey
- Reservoir formation evaluation and conceptual development design

(3) Development stage

- Oil and natural gas productions are controlled by the wellhead pressure and flow through processing facilities, including the production measuring equipment.
- Petroleum production rates, proportion of produced water, pressure decline rate and future reservoir performance are closely monitored.

PTTEP is ready in terms of manpower, technology and equipments to run the business efficiently according to the Company's target.

2.4.2 Petroleum Reserves

Petroleum reserves can be divided into two categories according to the level of confidence, which are Proved Reserves and Unproved Reserves. Unproved Reserves can be further divided into 2 categories which are Probable Reserves and Possible Reserves.

(1) Proved Reserves

Proved Reserves are those quantities of petroleum which, by analysis of geological and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under current economic conditions, operating methods, and government regulations. Proved Reserves means the petroleum in reservoirs that can be commercially produced, relying on supporting data of production rate testing. In some cases, Proved Reserves obtain from well testing and/or analyzing of source rocks in that area or the neighboring area already produced or having tendency to be able to produce. Moreover, Proved Reserves will be able to produce by using the existing equipment or the equipment installed in the future.

(2) Unproved Reserves

- Probable Reserves are those quantities of petroleum obtained from an analysis of geological and engineering data as same as Proved Reserves but having less possibility to produce due to the technology, rules, or economic conditions.

- Possible reserves are those quantities of petroleum obtained from an analysis of geological and engineering data as same as Probable Reserves but having less possibility to produce due to the technology, rules, or economic conditions.

The Proved Reserves are reviewed annually by Company's earth scientists and reservoir engineers to ensure rigorous professional standards. The Proved Reserves are reported on a gross basis, which includes the Company's net working interest and related host country's interest. As of 31 December 2013, the total Proved Reserves of all PTTEP and subsidiary' projects are 250 Million Stock Tank Barrels (MMSTB) for crude oil and condensate⁷, and 3,877 Billion Standard Cubic Feet (BSCF) for gas. The total Proved Reserves (Consolidated Companies) in term of oil equivalent is 846 Million Barrels (MMBOE). Details are shown in the following table.

⁷ Included the Proved Reserves of LPG and Bitumen

	Crude & Condensate Proved Reserves (1) (2)			Natural Gas Proved Reserves (1)			Crude, Condensate, Natural Gas Proved Reserves (1) (2)		
	(Million Barrels)			(Billion Cubic Feet)			(Million Barrels of Oil Equivalent)		
	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total
Proved Reserves As of Dec 31, 2012	125	138	263	2,330	1,852	4,182	501	400	901
Revision of Previous Estimates	7	8	15	13	14	27	14	10	24
Improved Recovery	4	-	4	25	-	25	8	-	8
Extensions and Discoveries	5	2	7	84	5	89	19	3	22
Purchases/Sales of petroleum in place	-	0	0	-	61	61	-	11	11
Production	(29)	(10)	(39)	(387)	(120)	(507)	(92)	(28)	(120)
Proved Reserves As of Dec 31, 2013	112	138	250	2,065	1,812	3,877	450	396	846

(1) The proved reserves are reported on a gross basis which includes the Company's net working interest and the related host country's interest.

(2) Included the proved reserves and production of LPG and Bitumen

2.4.3 PTTEP Petroleum Production

In 2013, the total production of PTTEP and its subsidiaries is 120 MMBOE or equivalent to the production rate of approximately 329,413 Barrels of Oil Equivalent per Day (BOED), approximately 16,120 BOED or 5.15% increase from last year. The production increase was attributed to the start of production of PTTEP AA, the acquisition of Hess Corporation's interests in Natuna Sea A Project in December, which is currently producing, and the increase in production of Vietnam 16-1 Project.

2.4.4 Environmental Impacts Mitigation and Management

An effective and standardized environmental management system has been developed and implemented in our operations to minimize the following potential environmental impacts.

- (1) Impacts on land use and marine organisms during seismic surveys from sound vibrations.
- (2) Water and soil contamination from discharges of drilling fluids, produced water, releases of sludge, contaminated solid wastes, accidental spills of hydrocarbons (oil and condensate) during drilling and production activities in to the environment, and accidental chemical spills.
- (3) Air pollution from hydrocarbon releases and atmospheric emissions from gas flaring, venting and fuel combustion during drilling and production activities.

Currently, the mitigation and monitoring of the above environmental impacts are controlled and regulated by local government agencies. In Thailand there are two main agencies: the Department of Mineral Fuels, Ministry of Energy which plays a major role in regulating environmental impacts from exploration and production companies; and the Office of Natural Resources and Environmental Policy and Planning (ONEP), Ministry of Natural Resources and Environment which issues directives and approvals for organizations to conduct environmental impact assessments and prior to the commencement of exploration and production projects.

In effort to reduce environmental impacts and endorse environmental sustainability, PTTEP introduced and implemented, with continuous improvement and monitoring, the following initiatives below:

(1) Implementation of sustainable development philosophy and framework to the way we do business and in our daily operations in order to satisfy our current corporate vision and mission and create sustainable value for all stakeholders. Our sustainable development framework focuses on the three dimensions of business, social and environmental sustainability. In line with PTTEP's Sustainability Policy and Framework, PTTEP Sustainable Development (SD) Guideline as well as PTTEP SD Roadmap were also developed and implemented to secure PTTEP's path towards sustainability.

(2) Implementation of the ISO14001: 2004 Environmental Management System (EMS) Standard by PTTEP's domestic operational projects: In accordance with the ISO14001 requirements, an environmental management system should be in compliance with company policy and standards, national legislations, and other national and international standards/requirements to prevent environmental pollution and degradation, promote energy conservation, and ensure the improvement of company performance. As a result, PTTEP is the first petroleum exploration and production company in Thailand and in the Southeast Asian region to achieve the ISO14001 Certification from AJA Registrars Ltd.

(3) Study of environmental impact assessment prior to commencing new exploration and production projects, which is legally required to ensure that the environmental mitigation and monitoring programs are in place in order to minimize environmental impacts arising from operations for both domestic and international projects. A compliance audit for EIA monitoring and mitigation is also conducted for each project during each phase to ensure that the environmental programs issued in the environmental impact assessment are implemented and up to standards.

(4) Establishment of short term and long term greenhouse gas emissions reduction and offsetting targets: PTTEP's 2013 annual reduction and offsetting target for greenhouse gas is at 3% and PTTEP's long term greenhouse gas emissions reductions and offsetting target is to reduce and offset at least 20% greenhouse gas from 2012 base year by 2020. In addition to the above targets, PTTEP managed to reduce and offset more than 3% of GHG emissions in 2013.

(5) Implementation of the ISO14064-1:2006 Guidance at the Organization Level for Quantification and Reporting of Greenhouse Gas Emissions and GHG Protocol. The system is now being implemented in PTTEP to quantify, account, report, and monitor GHG emissions.

(6) Development of “Green Practices” Roadmap to achieve environmental sustainability with a long-term implementation plan toward 2020 to ensure that business operations are environmental friendly and environmental impacts from operations is mitigated. Our Green Practice Roadmap includes plans for reduction in ecological footprint; reduction in carbon footprint such as reducing greenhouse gas emissions from our operations and other initiatives through Clean Development Mechanism (CDM); reduction in water footprint; increase biodiversity through environmental and CSR initiatives; eco-efficiency projects; energy and resource efficiency initiatives such as the recovery of flare gas for electricity generation; mitigate environmental impacts in operational areas; waste management and minimization; green supply chain initiatives for our supply chain to become more eco-friendly; and green practices for decommissioning at the project’s end of life. The details for Green Practices Roadmap, projects and initiatives are further elaborated in the annual sustainability report.

(7) Re-injection of produced water (water that exists in subsurface formations and is brought to the surface during oil and gas production, which is considered wastewater) into subsurface reservoirs to ensure no overboard discharging which might affect the environment.

(8) Control and monitoring of synthetic oil on cutting of drilling wastes to be less than 15% of the total weight discharged which is in accordance with the standards indicated in the Environmental Impact Assessment Report.

(9) Monitoring of discharged wastewater quality from production process, seawater quality, sediment quality, benthos, and ground fish with habitats around the vicinity of the operation platform to ensure the limited exposure to environmental hazard. In addition, Environmental Monitoring Reports of the above must be submitted to local regulators such as the Department of Mineral Fuels, Ministry of Energy and the Office of Natural Resources and Environmental Policy and Planning (ONEP), Ministry of Natural Resources and Environment.

(10) Oil Spill Response Plan: oil spill equipment and response plans are provided to ensure environmentally sound operations from any oil spill incident Tier 1 (<20 tonnes). PTTEP also registered as a member in the Oil Industrial Environmental Safety Group (IESG) for Tier 2 oil spill response incident (20-1000 tonnes). As for Tier 3 oil spill response

(more than 1000 tonnes), PTTEP is a registered member of the OSRL (Oil Spill Response Limited) and cooperates with PTT Group in the mitigation of environmental impacts.

(11) Provision of appropriate technologies for waste management system (disposal, storage, treatment, and transport) for hazardous and non-hazardous wastes (e.g. mercury contaminated waste, oil contaminated wastes, chemical wastes, and other wastes from production process) for environmental impact abatement. PTTEP also complies with the Basel Convention for the transportation and disposal of mercury contaminated wastes, and mercury wastes as well as local legislations & requirements concerning waste management.

(12) PTTEP strives to ensure that our operations do not cause harm to people, communities and environment. In all of our operations, we strictly comply with all relevant SSHE legislation requirements. PTTEP also have in place SSHE Management System (SSHE MS) which stipulates that, for all activities, SSHE risks shall be identified, assessed and managed to As Low As Reasonably Practicable (ALARP). PTTEP SSHE MS was developed based on legal requirements and international best practices from International Association of Oil and Gas Producer (OGP). SSHE trainings and SSHE publications are also conducted to consistently promote SSHE awareness within PTTEP.

PTTEP SSHE MS consists of seven key elements:

- 1) Leadership and commitment
- 2) Policy and strategic objectives
- 3) Organization, resources and documentation
- 4) Evaluation and risk management
- 5) Implementation and operational control
- 6) Monitoring and measurement
- 7) Audit and review

(13) The continuation of the “Step Change in SSHE Program” with the continuous promotion of the “Life Saving Program” which was launched in 2012 to improve our SSHE performance towards SSHE Excellence. As part of the Step Change in SSHE, PTTEP Life Saving Program was launched in 2012 to reinforce compliance culture. The program comprises

18 safety icons, based on OGP study of E&P incidents that lead to fatalities and serious injuries. The Life Saving Program focus on raising awareness of activities which are most likely to result in fatalities. They also highlight simple actions individuals can take to protect themselves and others.

(14) Provision of appropriate support and coordination with other exploration and production companies, government agencies, the Petroleum Institute of Thailand and other related agencies/associations, in order to encourage knowledge sharing and experiences with the abatement of environmental impacts and problems, and to allow for further continuous improvement for environmental issues in the oil and gas sector.

(15) In 2013, PTTEP's Sustainability Report received a GRI rating A+ level and currently in the top 15% of the Dow Jones Sustainability Index companies for the oil and gas sector.

Implementation results over the past three years

During the past 3 years (2011-2013), PTTEP has strictly complied with both Thai and International legislations and other regulations and requirements concerning the area of safety, security, health and environment in our operations which includes the following:

(1) Regularly conduct Environmental Impact Assessment Studies prior to the commencement of all exploration and production development projects in accordance with local regulations as required. In addition, EIA Audit Reports and Environmental Monitoring Reports are conducted and submitted to local authorities and regulators periodically as required.

(2) Strictly comply with waste management regulations required by the Department of Mineral Fuels and other regulatory bodies.

(3) Submission of Safety, Security, Health and Environment performance reports to local regulator (Department of Mineral Fuels) on a monthly and annual basis.

(4) From 2011 to 2013 PTTEP also received the OHSAS 18001:2007 Occupational Health and Safety Standard which specifies requirements for an occupational health and safety management system, to enable an organization to control its occupational health and safety risks and improve its performance. PTTEP received this certification for four of PTTEP's operating sites which are S1, PTTEP1, Petroleum Support Base (Songkhla), and Greater Bangkok North.

(5) In addition, PTTEP has been continuously improving its environmental practices in maintaining, developing and reducing environmental impacts by achieving the ISO 14001: 2004 certification for Environmental Management System Standard from AJA Registrars LTD. Under UKAS (United Kingdom Accreditation Service) accreditation for PTTEP's operational units with details as of below:

(1) Bongkot Project – with the scope of “exploration and production of natural gas and condensate”.

(2) Arthit Project – with the scope of “exploration and production of natural gas and condensate”.

(3) S1 Project – with the scope of “exploration and production of petroleum”

(4) PTTEP1Project (previously known as PTTEP1)– with the scope of “exploration and production”

(5) PTTEP's Petroleum Support Base, Songkhla – with the scope of “Provision of logistic services to offshore oil and gas operations”.

(6) PTTEP Core Research Center – with the scope of “building management and maintenance service, core research center and logistic support for storage of core and slab samples and archive of company document”.

Consequently, PTTEP is constantly improving and developing its Environmental Management System Standard to comply with international standards ISO 14001 revised edition (ISO14001:2004) for all of PTTEP's operational assets in Thailand. In 2011, PTTEP implemented the ISO 14001 one common system for all certified sites to improve the efficiency of the environmental management system. In addition, PTTEP plans to apply the environmental management system that complies with the ISO14001 standard for its operating units in international assets in the near future.

With regards to spill incidents in years 2011, 2012, and 2013, spills were accounted for 0.5, 0.43, 2.92 tonnes per million tonnes of production respectively, From these figures, it indicates that the level of spillage in the year 2013 is within estimated target which is approximately 7.94 tonnes per million tonnes of production and is also lower than the average

spill rate of the International Association of Oil and Gas Producers (OGP) of year 2012 with the average spill rate of 7.94 tonnes per million tonnes of production.

PTTEP is committed to its SSHE policy where it focuses on minimizing negative impacts on personnel, and properties (both of the company and contractors) with numerous indicators such as Lost Time Injury Frequency (LTIF) rate and Total Recordable Injury Rate (TRIR). In 2013, LTIF and TRIR are determined at 0.18 and 1.12 respectively with a declining trend which is lower than the average LTIF rate and TRIR of the International Association of Oil and Gas Producers (OGP) of year 2012 which is at 0.36 and 1.76 respectively.

In response to PTTEP's rapid growth, the reinforcement of SSHE Management System was conducted throughout PTTEP business life cycle in both domestic and international units, to encourage same standard practice throughout the company.

Disputes or lawsuits regarding the environment and solutions (if any).

There is no legal dispute about the environment.

3. Risk Factors

The risks associated with PTTEP's business derive from two sources, namely, internal and external factors.

3.1 Internal Risk Factors

3.1.1 New Investment Risks

PTTEP's investment strategy seeks to expand the Company's interests both domestically and internationally, with a focus on projects that have potential and align with its strategic plan, by expanding our investment in primary areas, through explorations and mergers and acquisitions (M&A). Priority is also given to development-phase or early stage of production phase to immediately increase the Company's reserves.

All new investments contain inherent risks. The Company therefore has instituted risk mitigation guidelines for the assessment of each investment. The guidelines provide consideration in various aspects from petroleum potential, size and project characteristics, acquisition procedures, additional reserve volume, operator's capability and performance, attractiveness of fiscal regime, geographical conditions, international relations, to economic and financial stability. Consequently, all risks are taken into account, from which prevention measures and options are formulated, and integrated into the return-on-investment analysis.

Investment in each new project must also be intensively screened by the Early Opportunity Review Committee whose function is to assess and to ensure that the project adheres to corporate investment direction and policy and that it is economically and technologically feasible whether conventional or unconventional resources are involved. New investments, including farm-in and farm-out joint ventures, must secure endorsement from the Early Opportunity Review Committee and Management Committee, and afterwards the Risk Management Committee, prior to final approval from the Board.

3.1.2 Exploration Risks

Exploring for new petroleum sources is vital to the high-risk, high-return exploration and production (E&P) business. Technical studies in terms of geophysics, geology and engineering are essential as they can provide data and a better understanding in those petroleum sources, and thereby reduce uncertainties and exploration risks to acceptable levels.

The major exploration risks which PTTEP must take into consideration before investing in any petroleum exploration are:

- (1) Risk assessment or probability of success
- (2) Size of petroleum field and potential resources of the target area
- (3) Potential drilling costs overrun related to geological uncertainties

Exploration Portfolio Review is conducted to minimize these three risks to better utilize limited exploration budget to be at an acceptable risk level and to increase the capability and knowledge base of the Company's exploration personnel with an emphasize on knowledge management, as well as to broaden its database of best practices and lessons learned for future reference and applications.

In addition, the Company has developed a risk prevention system particularly for technical evaluation. The Quality Assurance Review Team (QART) is assigned to screen and to assess new investments and exploration projects by focusing on technical issues and geological uncertainties to align with the Company's standard and operational processes.

3.1.3 Project Development Risks

Recognizing the potential of project development delays and cost overruns, PTTEP has constructed the following risk mitigation measures to enable successful and timely project completion.

(1) Project management: To safeguard against project delays and cost overruns, the Company focuses on related policy formulation, project management organization, project planning and engineering system designs, contract management, and monitoring.

(2) Personnel and process: To ensure safety, quality, budgetary, and timely project completion, the Company focuses on its project team's skill. This in part helps the Company to prepare for an increased competition in the job market for those with extensive and valuable experience. Information- and experience- sharing of previous projects are encouraged, while the Company's Project Realization Process (PREP) continues to find new approaches to adjust the operations so the plan is achieved.

(3) Commercial contract: To reach maximum efficiency with minimum of the risks associated to non-contractual compliance and dispute while working with contractors, the Company focuses on contract drafting, obligation and administration. However, the risks can often be controlled by negotiation with good competency, knowledge, and concerted effort from various departments such as construction, engineering, procurement, finance, accounting, and legal. Prudent contract management also lessens the risks and damages potentially resulting from delays which could adversely affect the given project and the Company's performance at large.

3.1.4 Production Risks

Production disruption resulting from production design flaws and operation errors, such as maintenance of aging equipment, represents some of the production risks.

To prevent the risks, platform design, production control system, preventive maintenance program are improved to ensure the Asset Reliability & Integrity Management System (ARIMs), which is a part of the Operational Excellence Project. ARIMs has been designed specifically to minimize production losses due to worn-out equipment and to improve equipment efficiency through preventive maintenance and inspection, to attain the zero unplanned shutdown goal. Work procedures, operation manuals, and extensive training programs have meanwhile been developed and employed to instill greater understanding and efficiency of the operation personnel.

The Company has also set up the Operational Risk Committee to analyze and assess production risks in respect to technical issues, contracts, and operation support among projects to increase its overall efficiency.

3.1.5 Commercial Risks

PTTEP sells the majority its main product, natural gas, to the Thai market. Therefore, the Company's revenue could drop if the domestic demand decreased from projected, as a result, PTTEP has expanded its investment internationally, in particular those with crude oil potential, to increase its portion of oil reserves. The Company has expanded and invested more internationally particularly in petroleum exploration and production projects such as the Montara Project, the Canada Oil Sands KKD Project, and the projects in Mozambique which have a large

reserve of natural gas and are capable of producing LNG. Such investments help diversify the risks of depending entirely on Thailand's natural gas demand. In addition, the Company continues to seek opportunities to develop stranded gas fields through Floating Liquefied Natural Gas Production (FLNG), a process of liquefying gas for subsequent barge transport to the market, making stranded gas field projects commercially feasible. As a clean and abundant resource existing globally, natural gas could enhance Thailand's national energy security and fit in well with the plans of PTT Plc. (PTT) to import LNG in the future.

PTTEP has entered into long-term gas sales agreements (GSAs) with PTT, which is the Company's major buyer. The GSAs, with terms between 25-30 years, help to lessen the risks, should PTT refuse to take delivery as the agreements stipulate buyer and seller obligations for the committed annual minimum volume. Under the term of GSAs, the buyer must pay for the committed volume of gas, whether or not the full amount is taken (Take-or-Pay).

In response to the dynamics of energy demand, PTTEP closely monitors petroleum demand in coordination with PTT and related government agencies to collectively outline an optimal supply plan. PTTEP reviews and adjusts its production as well as project development plans to match energy requirements. This also included the development of a holistic development master plan to optimize reserves and resources of existing assets to match the country's energy demand.

3.1.6 Organization Capability Risks

Because human resources and business processes dictate an organization's success, PTTEP has taken the following actions to enhance its business process and organizational capability:

(1) Knowledge management, including new technologies, and capability of the Company's research and development program, is developed to be appropriated with the Company's growth strategy. The implementation of the Center of Excellence (COE) corresponds with this objective and focusing on seven major areas:

- Exploration
- Production
- Deepwater

- Unconventional
- Capital Project Management
- Merger and Acquisition (M&A)
- Health, Security, and Environment

(2) System, procedures, and organization structure are developed to be in line with PTTEP's growth strategy and business plan with a focus on international investment. New international business models have been developed particularly those which are related to investment abroad and M&A (Pre-Deal and Post-Deal Integration) in order to form a clearer picture for the overall operation as well as to refine the Company's M&A process. In addition, PTTEP has redesigned the administration process to create a more effective, more efficient and redundancy-free working environment between corporate functions and international assets.

(3) Human Resources Development plans for recruiting, selecting, developing and assessing the capability and competency of the Company's personnel. The Competency Management System is currently employed to perform development plans for vocational personnel. The Technical Career Ladder (TCL) meanwhile provides career growth opportunities to technical personnel, who are now able to attain job values comparable to management while staying on the technical track. The Accelerated Development Program (ADP) focuses on speeding up staff competency development to be ready to perform given assignments on their own including Talent Management program, which promotes those who have high potential to hold executive positions or equivalent in order to replace retiring executives or add to new executive positions to accommodate the Company's growth.

The Company also cooperates with technical partners to share their expertise.

3.1.7 Safety, Security, Health, and Environmental Risks

As PTTEP operates in the E&P business, the Company inherently encounters safety, security, health, and environmental (SSHE) risks caused by internal and external factors which may have various degrees of severity.

The Company established a clear SSHE policy and constantly improves its SSHE performance to reinforce security and efficiency to its business. SSHE Management System

(SSHE MS) has been developed to set the Company's standards to ensure the maximum safety of the personal as well as the technical and production levels. The system is periodically upgraded to improve the performance excellence and to maintain the Company's public trust for safety and its determination for future sustainability, in addition to building a SSHE culture where all members of PTTEP can contribute.

Risks which are beyond the Company's control, such as natural disaster, epidemic, social and political unrest, are also in the focus. Consequently, the Company has established a system to evaluate and warn its personnel of possible dangers that could affect them as well as operation.

Sustainability development however is not only confined within the Company, but it also includes responsibility to society and for the quality of life by conserving the environment and sustainable use of natural resources. 2013 was the first year that the Company outlined its sustainability planning, equipped with industry-standard indicators, and the Company is scheduled to be listed in the Dow Jones Sustainability Index (DJSI) in 2014. In addition, the Company was among only seven companies in Southeast Asia which received an award for its continuous development in combating climate change through the Carbon Disclosure Project (CDP). The Company was also registered in the executive board of the United Nations Framework Convention on Climate Change (UNFCCC) and therefore has currently been authorized to trade carbon credits as a result of the S1 Project's ability to make use of the associated gas which otherwise would be wasted in the Saotian-A field in Sukhothai province.

3.1.8 Financial Risks

PTTEP's key financial risks consist of risks potentially from its contractual parties and liquidity risk. Regarding the former, the Company will particularly conduct business with good-credit-rating, and the majority of sales currently are made to PTT, PTTEP's parent company. Despite, this is a mandatory practice for PTTEP and its subsidiaries to periodically review and assess the risk of those companies whom PTTEP has had contractual financial transactions with, including bank deposits and financial derivatives.

Liquidity risk arises from a lack of viable sources of funding for PTTEP's business activities. PTTEP Group's liquidity is managed via the forecasting and continual updating of cash and currency requirements and financial projection, including the launch of short-term loan

projects to provide access to short-term borrowing. This is carried out by issuing short-term debt instruments and entering into credit lines with obligations with commercial banks.

3.1.9 Shareholding Risks

PTT currently holds 65.286% of PTTEP's registered and paid-up capital. It has the controlling votes in the Company shareholders' meetings. For instance, appointing and removing of PTTEP's directors, in addition some agendas and decisions must be in line with the decision of PTT's Board and its business policy.

PTTEP has constructed various measures which are designed to protect the rights of the Company's minor shareholders. These measures also include, as necessitated by the laws, disclosure of business transactions between the Company and its parent company, and, when the transactions are of significance, requirement of approval from the Company's Board or shareholders (as the case may be). Minor shareholders have opportunities to make inquiries and agenda proposals, and to nominate qualified candidates for elections during the shareholders' meetings where minutes are officially recorded. Meanwhile, communication between the Company and its shareholders is also encouraged through Company's investor relations department who is in charge of publishing PTTEP Newsletter and regularly organizing Company visits and activities which are intended to provide the shareholders and investors with up-to-date and necessary information for their investment in the Company.

PTTEP and PTT are listed companies and are governed by a stringent set of rules and regulations as set forth by the Stock Exchange of Thailand. For this and the aforementioned measures to minimize the shareholding risks, PTT's holding of majority of the shares does not result in any material impacts on the Company's minor shareholders.

3.2 External Risk Factors

3.2.1 Political Risk in Investment Countries

Due to PTTEP's foreign investment policy to secure resources to meet the expanding domestic energy market and to ensure the sustainable growth of the Company in the long term, the Company continues its growth strategy by expanding its business in countries that are susceptible to geopolitical risks.

International expansion can be categorized into four main regions: Southeast Asia, Australasia, North America, Africa and the Middle East. Therefore, as part of this policy, PTTEP

has appointed a geopolitical risk team to monitor all these factors and periodically analyze as well as report on the development of these forms of risk. Thereafter, the team will formulate possible scenarios for the consideration of management and relevant units for their decision-making on new investments and assessment of security risks in existing investment countries where PTTEP staff are based in.

In 2013, PTTEP analyzed and evaluated a number of geopolitical risk factors including political stability, macro economics, legal and regulatory and security risks across a range of investment countries.

Comprehensive assessment of all risks will ensure prompt responses especially when significant incidents happen. In such cases, the Company has a process of evaluating risks and scenario formulation which assists management and relevant departments in evaluating risks relating to investments as well as the safety and security of the Company's staff stationed overseas.

In addition, analysis is also conducted to formulate geopolitical risk rating scores which will be used as a part of the assessment process before making investments in new projects.

In addition, PTTEP liaises closely with the Ministry of Foreign Affairs and Thai embassies in all these countries to ensure that PTTEP's business operations are well-supported by them and aligns with their respective national energy policy.

3.2.2 Litigation Risks

These risks result from violation or non-compliance to relevant laws, requirements, or standards, leading to monetary penalties, operational difficulties, such as potential revocation and suspension of licenses, and possible damage to PTTEP's reputation. To minimize these risk, the Company has set up the Compliance Department which is responsible for assuring that all of the business units strictly comply with their relevant laws and regulations; thereby building confidence among the Company's Board, management, and employees that the Company fully comply with laws and regulations relating to its business operations. Details of roles and responsibilities of the Compliance Department are in part 11.2

3.2.3 Price Risks

In 2013, the price of oil was considerably volatile, with Brent crude fluctuating in the range of USD 97-119 per barrel. PTTEP's product prices varied based on the world oil market,

which were subjected several uncontrollable factors, including the market demand and supply, political and economic stability of various countries, OPEC's production policy, oil reserves of each country, and seasonal climate change. As a result of these factors, the Company's revenue and its investment planning were affected.

Changes in world oil prices have an immediate and a direct impact on prices of the Company's crude oil and condensate. Nevertheless, prices of natural gas, the Company's main products, will change at a slower rate as the natural gas price formula has a built-in natural hedge mechanism against oil's price. Prices of natural gas are therefore relatively more stable than those of crude oil and condensate as their prices are adjusted every six or twelve months.

In an effort to minimize these potential risks, the risk management plans are formulated based on the Company annual evaluations and analysis on the impacts of price changes, under different price levels, on its revenue and profits. These plans must be endorsed by the Risk Management Committee and approved by the Board.

3.2.4 Exchange Rate Risks

Effective from 1 January, 2011, PTTEP has made the U.S. Dollar (USD) its functional currency to be in line with IFRS Regulations and the main currency that is commonly used for trading petroleum products, such as crude oil and natural gas, which are the Company's main products. However, the Company still bears an exchange rate risk since most of the Company's revenue is in Thai Baht (THB) which is the currency used by its key customers who are Thai-listed companies. Meanwhile, its main cash outflows, such as payments for key investments, are mostly in USD. Due to the discrepancies between payables and receivables period, volatility of the USD-THB from this time-related aspect imposes the risks to the Company. Financial instruments which are available in the currency market, such as forward and option contracts, as a result, have consistently been used by the Company to minimize these risks.

With the USD being its functional currency, the Company is also exposed to the currency volatility in value conversion of its assets and liabilities at the end of every accounting period. To minimize value losses, the Company has continuously put in a great effort to maintain a proper balance between its baht-dominated assets and liabilities, while engaging in cross currency swaps on its baht-nominated loans to ease the tensions created by the USD-THB on interest and principle payments.

Meanwhile, the Company is also subjected to risks resulting from changes in the USD-Canadian dollar (CAD) as PTTEP CA, its subsidiary operating in the Canada Oil Sands KKD Project, uses the CAD as its functional currency when most of its debts are in the USD. Consequently, the structure leads to unrealized gain or loss from conversion of the subsidiary's liabilities as the USD-CAD changes, and also in this case the Company has managed the risks by adjusting the subsidiary's debt to equity ratio and securing new loan in CAD with cross currency swaps taking into account costs, market situations, and acceptable risks.

3.2.5 Interest Rate Risks

PTTEP and its subsidiaries are subjected to interest rate risks as they can affect value of the Company's future cash flows and fair value of financial instruments. To minimize these risks, the Company's policy is to keep its fixed-rate and floating-rate liabilities in balance and to maintain them at suitable levels for the business. One of the financial derivative instruments the Company uses to manage interest rate risks is the interest rate swap, which is used to manage a specified notional amount from a fixed rate to a floating rate (or vice versa). Moreover, the Company will also take into account costs, market conditions, and acceptable risk level when managing interest rate risks.

3.2.6 Funding Risks

E&P is a highly capital-intensive business with a large financial commitment and upfront investments. PTTEP's ability to mobilize funds, which is a key to its sustainable growth, depends on several factors, such as its financial performance and position as well as future cash flows. Domestic and global variables, such as economies, political situations, and vitality of financial markets, also have a major role in the Company's funding. To mitigate these risks, it is therefore essential for the Company to manage its financial ratios, such as debt-to-equity and debt-to-reserves, to be at an acceptable level as to maintain the Company's credit rating.

4. PTTEP and its Subsidiaries' Assets

4.1 Property, Plant and Equipment

4.1.1 Oil and Gas Properties⁸

PTTEP and its subsidiaries' properties mainly are jointly controlled oil and gas properties in each project. Oil and Gas properties, which located at each project, comprise land, buildings and construction, machine and equipments including transportation pipeline, capitalized exploratory and production drilling costs, property acquisition costs of concession right which shall incur when PTTEP and its subsidiaries acquire the concession right and decommissioning costs which have been determined based on reviews and estimates by the Group's own engineers and managerial judgment.

As at December 31, 2013, PTTEP and its subsidiaries' oil and gas properties are represented as share of the joint ventures' individual assets for each project as follows:-

<u>PTTEP's joint ventures</u>	<u>Company's interest (%)</u>
1. Contract 3	5
2. E5	20
3. Sinphuhorm (E 5-North)	20
4. Algeria Hassi Bir Rekaiz	24.5
5. S1	25
6. Bongkot(Block B15, B16, B17)	44.4445
7. Contract 4	45
8. Arthit (Block B14A, B15A, B16A)	80
<u>PTTEPI's joint ventures</u>	<u>Company's interest (%)</u>
9. G4/48	5
10. Contract 3(Block G6/50)	5
11. Yetagun	19.31784
12. G4/43	21.375
13. Yadana	25.50
14. Cambodia B ⁹	-
15. Bongkot (Block G12/48)	44.4445
16. Contract 4 (Block G7/50)	45
17. MTJDA - B17 (Block B-17)	50
18. L21 and L28/48	70

⁸ See more detail in Attachment 3  Supplementary Information of Oil and Gas Producing Activities

⁹ On November 20, 2013, the Cambodian National Petroleum Authority issued an approval letter to withdraw its investment in the Cambodia B project, in which PTTEP International Limited is an operator.

19.	Arthit (Block G8/50)	80
20.	PTTEP1	100
21.	G9/43	100
22.	L22/43	100
23.	Myanmar M3 ¹⁰	80
24.	Myanmar M11 ¹¹	45
25.	Zawtika	80
26.	L53/43 & L54/43	100
27.	A4/48& A5/48	
	- A4/48& A5/48	100
	- A6/48 ¹²	-
<u>PTTEPO's joint venture</u>		<u>Company's interest (%)</u>
28.	B8/32 & 9A ¹³	25.0010
<u>PTTEP SV's joint venture</u>		<u>Company's interest (%)</u>
29.	Vietnam 52/97	7
<u>PTTEP KV's joint venture</u>		<u>Company's interest (%)</u>
30.	Vietnam B & 48/95	8.50
<u>PTTEP HL's joint venture</u>		<u>Company's interest (%)</u>
31.	Vietnam 16-1	28.50
<u>PTTEP HV's joint venture</u>		<u>Company's interest (%)</u>
32.	Vietnam 9-2	25
<u>PTTEP OM's joint venture</u>		<u>Company's interest (%)</u>
33.	Oman 44	100
<u>PTTEP AG's joint venture</u>		<u>Company's interest (%)</u>
34.	Algeria 433a & 416b	35
<u>PTTEPS's joint venture</u>		<u>Company's interest (%)</u>
35.	Sinphuhorm (EU-1)	20
36.	B6/27	60
37.	S1	75

¹⁰ - On March 13, 2013, PTTEP International Limited (PTTEPI), a 100% holder of participating interests and operator of exploration block Myanmar M3, has entered into the Farm-Out Agreement with a wholly-owned subsidiary of Mitsui Oil Exploration Co., Ltd. (MOECO) for the Myanmar M3 project by transferring its 20% participating interest in Myanmar M3 to a wholly-owned subsidiary of MOECO. However, PTTEPI will continue to be an operator with 80% participating interest in this project. The termination was officially approved by the government of the Republic of the Union of Myanmar on September 3, 2013.

- Change name from Burma M3 to Myanmar M3

¹¹ Change name from Burma M11 to Myanmar M11

¹² On December 7, 2012, PTTEP International Limited (PTTEPI) which holds the exploration block A4/48, A5/48 and A6/48 has sent the notification letter to the Department of Mineral Fuels for an extension of exploration period that became expired on February 12, 2013 for another 3 years period to February 12, 2016. On May 22, 2013, the Department of Mineral Fuels has officially approved the extension for the exploration period for exploration block A4/48 and A5/48. However, the exploration block A6/48 had not been approved.

¹³ PTTEPO has shareholding in Orange Energy Limited and B 8/32 Partners Limited, which holds the project's concession.

<u>PTTEP AO's joint venture</u>	<u>Company's interest (%)</u>
38. Australia WA 423 P ¹⁴	-
<u>PTTEP SM's joint venture</u>	<u>Company's interest (%)</u>
39. Indonesia Semai II	28.33
<u>PTTEP SAER's joint venture</u>	<u>Company's interest (%)</u>
40. Sidi Abd El Rahman Offshore ¹⁵	-
<u>PTTEP SA's joint venture</u>	<u>Company's interest (%)</u>
41. Myanmar PSC G & EP 2 Project ¹⁶	90
42. Myanmar MD-7 & MD-8 Project ¹⁷	100
<u>PTTEP NZ's joint venture</u>	<u>Company's interest (%)</u>
43. New Zealand Great South ¹⁸	18
<u>PTTEP SMD's joint venture</u>	<u>Company's interest (%)</u>
44. Indonesia South Mandar	34
<u>PTTEP ML's joint venture</u>	<u>Company's interest (%)</u>
45. Indonesia Malunda	100
<u>PTTEP SD's joint venture</u>	<u>Company's interest (%)</u>
46. Indonesia Sadang ¹⁹	30
<u>PTTEP SS's joint venture</u>	<u>Company's interest (%)</u>
47. Indonesia South Sageri ²⁰	20
<u>PTTEP CA's joint venture</u>	<u>Company's interest (%)</u>
48. Canada Oil Sands KKD	40

¹⁴On May 1, 2013, Murphy Australia Oil Pty Ltd, an operator of the WA-423-P concession block in which PTTEP Australia Offshore Pty Limited, a subsidiary of the Company, is a joint venture at the participating interest of 30%, has submitted a request to relinquish the petroleum permit. The termination was officially approved by the government of Australia on August 1, 2013.

¹⁵In March 2011, PTTEP Sidi Abd El Rahman Company Limited has withdrawn its entire 30% participation interest from the Sidi Abd El Rahman Offshore Project in the Arab Republic of Egypt after fulfillment of the exploration work commitment. The Company has registered for the dissolution by striking off the Companies name from its registration with the registrar office of Cayman Island. The dissolution was effective as of September 30, 2013.

¹⁶Change name from Burma PSCG and EP2 to Myanmar PSCG and EP 2

¹⁷On February 14, 2013, PTTEP South Asia Limited (PTTEP SA) has been approved to operate the MD-7 and MD-8 onshore exploration blocks from the Republic of the Union Myanmar.

¹⁸On October 31, 2013, PTTEP New Zealand Limited (PTTEP NZ) has sent the notification letter to its joint partners to withdraw its 18% participation interest under the New Zealand Great South Project. The withdrawal is under the process of approval of the Government of New Zealand.

¹⁹On June 3, 2013, PTTEP Sadang Limited (PTTEP SD) and its joint ventures has submitted a request to terminate and return the exploration block of Indonesia Sadang's project after fulfilled the minimum operating requirements of exploration phase 1. The termination will be effective after the official approval from the government of Indonesia.

²⁰On September 13, 2013, PTTEP South Sageri Limited (PTTEP SS) has withdrawn its 20% participation interest in the Indonesia South Sageri Project. The withdrawal is under the process of approval of the Government of Indonesia.

<u>PTTEP AP's joint venture</u>	<u>Company's interest (%)</u>
49. PTTEP Australasia	
● AC/L7, AC/L8, AC/RL7, AC/P33, AC/P34 and	100
● AC/L1, AC/L2 and AC/L3	89.6875
● AC/RL10 ²¹	90
● AC/RL4 (Tenacious)	100
● AC/RL6 (Audacious), AC/P4, AC/RL4 (exclude Tenacious), AC/RL5 and AC/RL6 (exclude	50
● WA-396-P and WA-397-P	20
● AC/P17 ²²	-
● AC/P40 ²³	-

<u>PTTEP AI's joint venture</u>	<u>Company's interest (%)</u>
50. Cove Energy Group	
● Mozambique Rovuma Offshore Area 1 Project	8.5
● Mozambique Rovuma Onshore Project	10
● Kenya L10A& L10B Project	
- L10A ²⁴	31.25
- L10B	15
● Kenya L5, L7, L11A, L11B & L12 Project	10

<u>Natuna 2's joint venture</u>	<u>Company's interest (%)</u>
51. Natuna Sea A ²⁵	11.5

²¹ On March 22, 2013, PTTEP Australia Timor Sea Pty Ltd was granted petroleum retention lease over 2 areas within the AC/P 24 concession block and changed its name to AC/RL 10. The concession for exploration of the remaining 2 areas within AC/P 24 concession block was expired on February 7, 2013.

²² On June 18, 2013, PTTEP Australia Timor Sea Pty Ltd has submitted a request to relinquish a participating interest of 100% in petroleum permit of the AC/P17 concession block. The termination was officially approved by the government of Australia on December 18, 2013.

²³ On October 10, 2012, PTTEP Australasia (Ashmore Cartier) Pty Ltd has notified the government of Australia to terminate the 100% participation interest in the AC/P40 concession block. The termination was officially approved by the government of Australia on March 27, 2013.

²⁴ On December 2, 2013, the government of Kenya has approved the transfer of the 20% participating interests in L10A block from Premier Oil Limited to other joint ventures. As a result, Cove Energy Kenya Limited (CEKL) holds participating interest in the block increased from 25% to 31.25%.

²⁵ On November 30, 2013, PTTEP Netherlands Holding Cooperatie U.A., (PTTEP NH) a subsidiary of the Group, and Pertamina Hulu Energi Oil and Gas, a subsidiary of Pertamina, has entered into the 50:50 Share Purchase Agreements (SPAs) to purchase Natuna 2 B.V., the subsidiary of Hess Corporation, which holds 23% interest in the Natuna Sea A project, in an offshore Indonesia.

On December 6, 2013, PTTEP NH and Pertamina Hulu Energi Oil and Gas have completed the acquisition of Natuna 2 B.V. As a result, the Group has obtained 11.5% participating interest in the Natuna Sea A project. PTTEP NH has recognized the investment in this joint venture in its company's financial statements at cost, while on the consolidated financial statements the Company recognized using the proportionate accounting.

As at December 31, 2013, details of properties' net book value are as follows:-

Unit: Million USD

Property, Plant and Equipment - Net	Proved Properties and Related Producing Properties	Pipelines	Others	Consolidated Total
Land	7.97	-	2.73	10.70
Building and Construction	7.51	-	36.08	43.59
Acquisition Cost	759.14	-	-	759.14
Exploration / Delineation Well	966.88	-	-	966.88
Development Well	2,138.80	-	-	2,138.80
Production Facilities	7,337.45	609.14	21.99	7,968.58
Other Development Cost	287.39	-	-	287.39
Decommissioning Cost	620.58	-	-	620.58
Support Facilities and Other Assets	49.31	-	36.08	85.39
Allowance for Impairment	(209.19)	-	-	(209.19)
Total	11,965.84	609.14	96.88	12,671.86

Intangible Assets - Net	Exploration and Evaluation Assets	Goodwill	Others	Consolidated* Total
Acquisition Cost	754.62	-	-	754.62
Exploration/ Delineation Well and Others	2,421.31	999.60	106.93	3,527.84
Allowance for Impairment	(3.76)	(7.31)	-	(11.07)
Total	3,172.17	992.29	106.93	4,271.39

* Inter-company transaction have already been eliminated

Investments

As at December 31, 2013, PTTEP has 58^{**} subsidiaries and 16^{***} associated companies.

PTTEP and its subsidiaries' investment lists are presented as follows:

Company	Type of Business	Paid-in Capital (Million USD)	% of interest	Cost Method (Million USD)	Equity Method (Million USD)	Major shareholder
<u>Subsidiaries company</u>						
PTTEPI	Petroleum E&P	516.38	100	516.38	2,154.44	PTTEP 100%
PTTEPO	Petroleum E&P	0.007	75	0.005	1,285.22	PTTEP 75%
			25	0.002	428.21	PTTEPI 25 %
PTTEP SV	Petroleum E&P	0.05	100	0.05	(13.73)	PTTEPO 100%
PTTEP KV	Petroleum E&P	0.05	100	0.05	(21.20)	PTTEPO 100%
PTTEP HL	Petroleum E&P	0.05	100	0.05	148.21	PTTEPO 100%
PTTEP HV	Petroleum E&P	0.05	100	0.05	(4.97)	PTTEPO 100%
PTTEP OM	Petroleum E&P	0.05	100	0.05	(67.29)	PTTEPO 100%
PTTEP AG	Petroleum E&P	0.05	100	0.05	(141.55)	PTTEPO 100%
PTTEP Services	Services	0.03	25	0.01	2.25	PTTEP 25%
			75	0.04	9.79	PTTEPI 75%
PTTEPS	Petroleum E&P	4.00	51	99.79	139.85	PTTEP 51%
			49	95.18	108.65	PTTEPO49%
PTTEP IR	Petroleum E&P	0.05	100	0.05	(85.91)	PTTEP OM100%
PTTEPH	Petroleum E&P	0.05	100	0.05	(1,136.28)	PTTEPO 100%
PTTEP ID	Petroleum E&P	0.05	100	0.05	(106.19)	PTTEPH 100%
PTTEPA ²⁶	Petroleum E&P	0.007	100	0.007	(0.003)	PTTEPS 100%
PTTEP AI	Petroleum E&P	0.05	100	0.05	(177.45)	PTTEPH 100%
PTTEPR	Petroleum E&P	0.05	100	0.05	(16.22)	PTTEP AI 100%
PTTEP AU ^{****}	Petroleum E&P	0.45	100	0.05	(72.08)	PTTEPH 100%

^{**} Including Orange Energy Limited which accounted for using proportionate consolidation for jointly controlled entity

^{***} Associated companies including EnCo, PTT ICT and PTTEP AP's associated companies (Mungallu Truscott Airbase Pty Ltd and Troughton Island Pty Ltd) and jointly controlled entities including CPOC, MGTC, TPC, B8/32 Partners, PTT FLNG, Erawan2 FSO Bahamas, KKD Oil Sands Partnership, LAL, GBRS, ATL, NST Supply Base and Natuna 2.

²⁶ On October 18, 2013 PTTEP Andaman Limited has registered for the dissolution with the Ministry of Commerce and in the process of liquidation.

^{****} Details of PTTEP AU's subsidiaries and PTTEP AP's subsidiaries are as follows:-

Company	Registered country	% of interest
PTTEP Australia Offshore Pty Limited (PTTEP AO)	Australia	100%

Company	Registered country	% of interest
PTTEP Australia Browse Basin Pty Limited (PTTEP AB)	Australia	100%
PTTEP Australia International Finance Pty Limited (PTTEP AIF)	Australia	100%
PTTEP Australasia Pty Limited (PTTEP AA)	Australia	100%
PTTEP Australia Timor Sea Pty Limited (PTTEP AT)	Australia	100%

Company	Type of Business	Paid-in Capital (Million USD)	% of interest	Cost Method (Million USD)	Equity Method (Million USD)	Major shareholder
PTTEP SA	Petroleum E&P	0.05	100	0.05	(29.76)	PTTEPH 100%
PTTEP NZ	Petroleum E&P	0.05	100	0.05	(21.00)	PTTEPH 100%
PTTEP SM	Petroleum E&P	0.05	100	0.05	(80.14)	PTTEPID 100%
PTTEP AP****	Petroleum E&P	0.04	100	0.04	(313.98)	PTTEPH 100%
PTTEP IH	Petroleum E&P	0.05	100	0.05	(473.88)	PTTEPH 100%
Subsidiaries company (continued)						
PTTEP SVPC	Gas pipeline transportation	0.05	100	0.05	(0.34)	PTTEPH 100%
PTTEP FH	Petroleum E&P	0.001	100	0.001	(17.68)	PTTEP IH 100%
JV Shore Base	Petroleum E&P	0.05	100	0.05	(3.74)	PTTEP IH 100%
PTTEP NL	Petroleum E&P	0.05	100	0.05	(483.49)	PTTEP IH 100%
JV Marine	Petroleum E&P	0.05	100	0.05	2.57	PTTEP IH 100%
PTTEP SMD	Petroleum E&P	0.05	100	0.05	(4.85)	PTTEPID 100%
PTTEP SS	Petroleum E&P	0.05	100	0.05	(8.01)	PTTEPID 100%
PTTEP SD	Petroleum E&P	0.05	100	0.05	(4.75)	PTTEPID 100%
PTTEP ML	Petroleum E&P	0.05	100	0.05	(18.22)	PTTEPID 100%
PTTEP NC ²⁷	Petroleum E&P	1,485.05	0.00005	0.0005	(1.43)	PTTEP IH 0.00005%
			99.99995	1,485.05	1,110.54	PTTEP NL 99.99995%
PTTEP CA ²⁰	Petroleum E&P	1,485.05	100	1,485.05	1,383.11	PTTEP NC 100%
PTTEP CIF	Petroleum E&P	0.05	100	0.05	4.06	PTTEP NC 100%
PTTEP MEA ²⁸	Petroleum E&P	0.05	100	0.05	0.04	PTTEP100%

PTTEP Australasia (Finance) Pty Ltd (PTTEP AAF)	Australia	100%
PTTEP Australasia (Petroleum) Pty Ltd (PTTEP AAP)	Australia	100%
Tullian Pty Ltd (PTTEP AAT)	Australia	100%
PTTEP Australasia (Operations) Pty Ltd (PTTEP AAO)	Australia	100%
PTTEP Australasia (Ashmore Cartier) Pty Ltd (PTTEP AAA)	Australia	100%
PTTEP Australasia (Staff) Pty Ltd (PTTEP AAS)	Australia	100%

²⁷ On February 4, 2013, PTTEP Netherlands Coöperatie U.A. (PTTEP NC), a subsidiary of the Group, has increased its share capital from US Dollar 1,000,050,000 to US Dollar 1,395,050,000 by issuing of 395,000,000 newly issued ordinary shares, at the par value of US Dollar 1, resulting in a total registered ordinary share of 1,395,050,000 shares.

PTTEP NC used the proceed from the capital increased to increase share capital of PTTEP Canada Limited (PTTEP CA), a subsidiary of PTTEP NC, from Canadian Dollar 1,017,891,500 million to Canadian Dollar 1,411,983,000 million by issuing of 394,091,500 shares, at the par value of Canadian Dollar 1, resulting in a total registered ordinary shares of Canadian Dollar 1,411,983,000 million. Subsequently on December 27, 2013, PTTEP NC has increased its registered share capital from US Dollar 1,395,050,000 to US Dollar 1,485,050,000 by issuing new ordinary shares of 90,000,000 shares with the par value of US Dollar 1 totaling to 1,485,050,000 ordinary shares. PTTEP NC used this proceed to increased its share in PTTEP CA, a subsidiary of PTTEP NC by increased PTTEP CA's registered share capital from Canadian Dollar 1,411,983,000 to Canadian Dollar 1,508,256,000 by issuing new ordinary shares of 96,273,000 shares with a par value of Canadian Dollar 1 totaling to Canadian Dollar 1,508,256,000.

²⁸ As at December 31, 2013, PTTEP MEA has share receivables.

Company	Type of Business	Paid-in Capital (Million USD)	% of interest	Cost Method (Million USD)	Equity Method (Million USD)	Major shareholder
Cove ^{*****}	Petroleum E&P	21.13	100	21.13	(24.90)	PTTEP AI 100%
PTTEP HK ²⁹	Petroleum E&P	0.001	25	0.0003	0.0003	PTTEP 25%
			75	0.001	0.001	PTTEPI 75%
PTTEP NH ³⁰	Petroleum E&P	23.08	25	5.77	5.57	PTTEPI 25%
			75	17.31	16.72	PTTEP HK 75%
PTTEP BI ²³	Petroleum E&P	23.08	100	23.08	23.08	PTTEP NH 100%
PTTEP BL ³¹	Petroleum E&P	23.03	99.999998	23.03	22.75	PTTEP BI 99.999998%
			0.000002	0.000004	0.000004	PTTEP NH 0.000002%
Associated company						
EnCo	Commerce	49.58	50	24.79	27.12	PTTEP 50%
						PTT 50%
PTT ICT	Services	3.94	20	0.79	4.15	PTTEP 20%
						PTT 20%
						PTTGC 40%
						TOP 20%
PTTEP AP's Associates ³²	Services	0.97	50	1.50	5.57	PTTEP AAO 50%

***** Details of Cove Energy's subsidiaries are as follows:-

Company	Registered country	% of interest
Cove Energy Mozambique Rovuma Onshore Limited (CEMROL)	Cyprus	100%
Cove Energy East Africa Limited (CEEAL)	Cyprus	100%
Cove Energy Mozambique Rovuma Offshore Limited (CEMROFL)	Cyprus	100%
Cove Mozambique Terra Limitada (CMTL)	Mozambique	100%
Cove Mozambique Energia Limitada (CMEL)	Mozambique	100%
Cove Energy Kenya Limited (CEKL)	Kenya	100%

²⁹On September 6, 2013, the Company and PTTEP International Limited (PTTEPI), a subsidiary of the Company, have established PTTEP HK Holding Limited with a registered capital of HKD 10,000. The registered capital comprises of 10,000 ordinary shares with a par value of HKD 1 per share. The company and PTTEPI have shareholding interest of 25% and 75%, respectively.

³⁰On October 4, 2013, the Group set up a subsidiary and a legal entity as follows.

- PTTEP Netherlands Holding Cooperative U.A. with a share capital of USD 50,000. PTTEPI and PTTEP HK Holding Limited, subsidiaries of the Company have a shareholding interest of 25% and 75%, respectively.

- PTTEP Brazil Investment B.V. with a registered capital of USD 50,000. The registered capital comprises of 50,000 ordinary shares with a par value of USD 1 per share and PTTEP Netherlands Holding Cooperative U.A. holds all of its shares.

³¹On November 7, 2013, the Company has established PTTEP Brazil Investment in Oil and Gas Exploration and Production Ltda. with a registered capital of Brazilian Real of 53,500,000 by issuing ordinary shares of 53,500,000 shares with a par value of Brazilian Real 1. PTTEP Brazil Investment B.V. and PTTEP Netherlands Holding Coöperatie U.A., subsidiaries of the Company, are the shareholder with shareholding interests of 99.999998% and 0.000002%, respectively.

³²PTTEP AP's associates are Shore Air Pty Ltd and Troughton Island Pty Ltd. On August 7, 2013, Shore Air Pty Limited has changed its name to Mungalalu Truscott Airbase Pty Ltd. and registered with the Australian Securities and Investments Commission.

Company	Type of Business	Paid-in Capital (Million USD)	% of interest	Cost Method (Million USD)	Equity Method (Million USD)	Major shareholder
UAQ ³³	Petroleum E&P	0.001	30	0.0004	0.0004	PTTEP 30% UAQ 70%
Jointly controlled entities						
CPOC	Petroleum E&P	0.10	50	0.05	0.05	PTTEPI 50% PCJDA 50%
MGTC	Natural gas pipelines - Overseas	0.03	25.5	0.008	72.85	PTTEPO 25.5% UNOCAL 28.2625% Total E&P Myanmar31.2375% MOGE 15%
TPC	Natural gas pipelines - Overseas	0.10	19.3178	8.01	48.74	PTTEPO 19.31784% PETRONAS 40.91018% NIPPON 19.31784% MOGE 20.45414%
Orange	Petroleum E&P	4.00	53.9496	329.77	177.39	PTTEPO 53.9496% MOECO136.0504% KrisEnergy10%
B8/32 Partners	Petroleum E&P	4.40	25.0009	109.95	45.35	PTTEPO 25.0009% MOECO 16.7064% KrisEnergy 4.6346% Chevron 53.6581%
PTT FLNG	Produce and sale of Petroleum product	0.001	50	0.0006	(18.22)	PTTEP FH 50% PTTI (Singapore) 50%
Erawan2 FSO Bahamas	FSO rental service	0.0001	13.11	20.98	25.21	JV Marine 13.11% Chevron 65.91% MOECO 20.98%
KKD Oil Sands Partnership	Petroleum E&P	3,966.47	40	2,900.97	2,835.38	PTTEP CA 40% Statoil Canada 60%
LAL	Services	21.17	32	5.58	6.31	PTTEP CA 32% Statoil Canada 48% FCCL Partnership 20%

³³On January 7, 2013, PTTEP FLNG Holding Company Limited (PTTEP FH), a subsidiary of the Company, together with Canemir Petroleum (UAQ) Corp. has established UAQ Petroleum Limited, a Hong Kong registered company with a register capital of HKD 10,000, consisting of 10,000 ordinary shares with a par value of HKD 1. PTTEP FH holds 30% of share capital and Canemir Petroleum (UAQ) Corp. holds 70% of share capital. UAQ Petroleum Limited has become an associate of the Company.

Company	Type of Business	Paid-in Capital (Million USD)	% of interest	Cost Method (Million USD)	Equity Method (Million USD)	Major shareholder
GBRS	Petroleum E&P	-	35	-	-	PTTEP AG 35%
ATL	Natural gas pipelines	0.06	80	0.05	(33.20)	PVEP 40% Sonatrach 25% PTTEPO 80% MOGE 20%
Jointly controlled entities						
NST Supply Base	Petroleum supply base, port and warehouse	32.20	15.67	5.05	0.88	JV Shore Base 15.67% Chevron Thailand E&P 62.86% MOECO 20.58% Palang Sophon 0.33% Kris Energy International (Thailand) Holding 0.56%
Natuna2 ³⁴	Petroleum E&P	0.10	50	266.01	267.87	PTTEP NH 50% PT Pertamina (Persoro) 50%

Relationship: The Company directly or indirectly holds the shares in subsidiaries, associates and jointly controlled entities.

Subsidiaries' management teams are from the Company.

4.2 Net Book Value

As at December 31, 2013, PTTEP's net book value amounted to USD 11,729million (equivalent to Baht 384,855 million) or USD 2.95 per share (equivalent to Baht 96.94 per share).

³⁴ On November 30, 2013, PTTEP Netherlands Holding Cooperatie U.A., (PTTEP NH) a subsidiary of the Group, and Pertamina Hulu Energi Oil and Gas, a subsidiary of Pertamina, has entered into the 50:50 Share Purchase Agreements (SPAs) to purchase Natuna 2 B.V., the subsidiary of Hess Corporation, which holds 23% interest in the Natuna Sea A project, in an offshore Indonesia.

On December 6, 2013, PTTEP NH and Pertamina Hulu Energi Oil and Gas have completed the acquisition of Natuna 2 B.V. As a result, the Group has obtained 11.5% participating interest in the Natuna Sea A project. PTTEP NH has recognized the investment in this joint venture in its company's financial statements at cost, while on the consolidated financial statements the Company recognized using the proportionate accounting.

5. Legal Dispute

-None-

6. General and Other Significant Information

6.1 Information of PTTEP

Company Name	PTT Exploration and Production Public Company Limited
Headquarter Address	555/1 Energy Complex Building A, 6 th and 19 th – 36 th floor, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900, Thailand
Type of Business	Exploration and production of petroleum and investments in related businesses
Registration Number	0107535000206
Telephone	+66-2537-4000
Facsimile	+66-2537-4444
Website	www.pttep.com
E-mail	Independent Directors: independentdirector@pttep.com Investor Relations: IR@pttep.com Corporate Secretary: corporatesecretary@pttep.com
Registered Capital	3,969,985,400 ordinary shares with Baht 1 per share (Baht 3,969,985,400)
Paid-Up Capital	3,969,985,400 ordinary shares with Baht 1 per share (Baht 3,969,985,400) as of 31 December 2013

6.2 Subsidiaries' Information

As of 31 December 2013, there were 59 subsidiaries. All of them had the same office address, telephone and facsimile as those of PTTEP (see item 1.1). Details of the directors of each subsidiary are in Attachment 2.

No.	Company Name	Abbreviation	Number of Shares Sold	Share Price	Share Type	Shareholders
Petroleum Exploration and Production Business						
1.	PTTEP International Limited	PTTEPI	2,000,000,000	THB10	ordinary share	PTTEP 100%
2.	PTTEP Siam Limited	PTTEPS	1,000,000	THB100	ordinary share	PTTEP 51% PTTEPO 49%
3.	PTTEP MEA Limited	PTTEP MEA	50,000	USD 1	ordinary share	PTTEP 100%
4.	PTTEP Offshore Investment Company Limited	PTTEPO	6,667	USD 1	ordinary share	PTTEP 75% PTTEPI 25%
5.	PTTEP Southwest Vietnam Company Limited	PTTEP SV	50,000	USD 1	ordinary share	PTTEPO 100%
6.	PTTEP Kim Long Vietnam Company Limited	PTTEP KV	50,000	USD 1	ordinary share	PTTEPO 100%
7.	PTTEP Hoang-Long Company Limited	PTTEP HL	50,000	USD 1	ordinary share	PTTEPO 100%
8.	PTTEP Hoan-Vu Company Limited	PTTEP HV	50,000	USD 1	ordinary share	PTTEPO 100%
9.	PTTEP Oman Company Limited	PTTEP OM	50,000	USD 1	ordinary share	PTTEPO 100%
10.	PTTEP Algeria Company Limited	PTTEP AG	50,000	USD 1	ordinary share	PTTEPO 100%
11.	PTTEP Iran Company Limited	PTTEP IR	50,000	USD 1	ordinary share	PTTEP OM 100%
12.	PTTEP Holding Company Limited	PTTEPH	50,000	USD 1	ordinary share	PTTEPO 100%

No.	Company Name	Abbreviation	Number of Shares Sold	Share Price	Share Type	Shareholders
13.	PTTEP Indonesia Company Limited	PTTEP ID	50,000	USD 1	ordinary share	PTTEPH 100%
14.	PTTEP Semai II Limited	PTTEP SM	50,000	USD 1	ordinary share	PTTEP ID 100%
15.	PTTEP Africa Investment Limited ³⁵	PTTEP AI	50,000	USD 1	ordinary share	PTTEPH 100%
16.	PTTEP Rommana Company Limited	PTTEPR	50,000	USD 1	ordinary share	PTTEP AI 100%
17.	PTTEP South Asia Limited	PTTEP SA	50,000	USD 1	ordinary share	PTTEPH 100%
18.	PTTEP New Zealand Limited	PTTEP NZ	50,000	USD 1	ordinary share	PTTEPH 100%
19.	PTTEP International Holding Company Limited	PTTEP IH	50,000	USD 1	ordinary share	PTTEPH 100%
20.	Orange Energy Limited	Orange	1,000,000	THB 100	ordinary share	PTTEPO 53.9496% MOECO International B.V. 36.0504% Kris Energy (Gulf of Thailand) 10%
21.	PTTEP Australia Pty Ltd	PTTEP AU	50,000	AUD 1	ordinary share	PTTEPH 100%
22.	PTTEP Australia Offshore Pty Ltd	PTTEP AO	50,000	AUD 1	ordinary share	PTTEP AU 100%
23.	PTTEP Australia Perth Pty Ltd	PTTEP AP	50,000	AUD 1	ordinary share	PTTEPH 100%
24.	PTTEP Australia Browse Basin Pty Ltd	PTTEP AB	50,000	AUD 1	ordinary share	PTTEP AP 100%
25.	PTTEP Australasia Pty Ltd	PTTEP AA	409,895,440	various price ³⁶ (average AUD 0.4895)	ordinary share	PTTEP AB 100%
			40,000,000	AUD 0.4957	preference share	
			1,575,000	AUD 0.4895	Class B share ³⁷	

³⁵ Formerly, PTTEP Egypt Company Limited

³⁶ Total amount equals AUD 200,631,256.48 (plus AUD 19,826,452.31 for the preference shares and AUD 770,914.25 for the Class B shares = total AUD 221,288,623.04).

³⁷ A type of share issued to employees under an Employee Share Option Plan, which was subsequently acquired by PTTEP AB.

No.	Company Name	Abbreviation	Number of Shares Sold	Share Price	Share Type	Shareholders
26.	PTTEP Australasia (Finance) Pty Ltd	PTTEP AAF	1	AUD 1	ordinary share	PTTEP AA 100%
27.	PTTEP Australasia (Petroleum) Pty Ltd	PTTEP AAP	10	AUD 1	ordinary share	PTTEP AA 100%
28.	Tullian Pty Ltd	PTTEP AAT	1	AUD 1	ordinary share	PTTEP AAP 100%
29.	PTTEP Australasia (Operations) Pty Ltd	PTTEP AAO	106,686,517	AUD 0.20	ordinary share	PTTEP AAP 100%
30.	PTTEP Australasia (Ashmore Cartier) Pty Ltd	PTTEP AAA	1,700,000	AUD 2	ordinary share	PTTEP AAO 100%
31.	PTTEP Australasia (Staff) Pty Ltd	PTTEP AAS	10	AUD 1	ordinary share	PTTEP AAO 100%
32.	PTTEP Australia Timor Sea Pty Ltd	PTTEP AT	50	No par value ³⁸ (average AUD 827,048.78)	common share	PTTEP AB 100%
33.	PTTEP FLNG Holding Company Limited	PTTEP FH	10,000	HKD 1	ordinary share	PTTEP IH 100%
34.	JV Shore Base Limited ³⁹	JV Shore Base	50,000	USD 1	ordinary share	PTTEP IH 100%
35.	PTTEP Netherland Holding Limited	PTTEP NL	50,000	USD 1	ordinary share	PTTEP IH 100%
36.	JV Marine Limited	JV Marine	50,000	USD 1	ordinary share	PTTEP IH 100%
37.	PTTEP South Mandar Limited	PTTEP SMD	50,000	USD 1	ordinary share	PTTEP ID 100%
38.	PTTEP South Sageri Limited	PTTEP SS	50,000	USD 1	ordinary share	PTTEP ID 100%
39.	PTTEP Sadang Limited	PTTEP SD	50,000	USD 1	ordinary share	PTTEP ID 100%
40.	PTTEP Malunda Limited	PTTEP ML	50,000	USD 1	ordinary share	PTTEP ID 100%

³⁸ PTTEP AB acquired PTTEP AT's 50 shares, for a total amount of AUD 41,352,439.

³⁹ Formerly, PTTEP Brazil Holding Limited

No.	Company Name	Abbreviation	Number of Shares Sold	Share Price	Share Type	Shareholders
41.	PTTEP Netherlands Coöperatie U.A.	PTTEP NC	- ⁴⁰	-	-	PTTEP IH 0.00005% PTTEP NL 99.99995%
42.	PTTEP Canada Limited	PTTEP CA	1,508,256,000	CAD 1	ordinary share	PTTEP NC 100%
43.	Cove Energy Limited ⁴¹	Cove	508,912,947	GBP 1	ordinary share	PTTEP AI 100%
44.	Cove Energy East Africa Limited	CEEAL	1,000	EURO1	ordinary share	Cove 100%
45.	Cove Energy Mozambique Rovuma Onshore Limited	CEMROL	1,000	EURO1	ordinary share	CEEAL 100%
46.	Cove Energy Mozambique Rovuma Offshore Limited	CEMROFL	1,000	EURO1	ordinary share	CEEAL 100%
47.	Cove Energy Kenya Limited	CEKL	1,000	KSHS 100	ordinary share	CEEAL 99.9% Cove 0.1%
48.	Cove Mozambique Terra Limitada	CMTL	50,000	MCN 1	ordinary share	CEMROL 100%
49.	Cove Mozambique Energia Limitada	CMEL	50,000	MCN 1	ordinary share	CEMROFL 100%
50.	PTTEP HK Holding Limited	PTTEP HK	10,000	HKD 1	ordinary share	PTTEP 25% PTTEPI 75%
51.	PTTEP Netherlands Holding Coöperatie U.A.	PTTEP NH	- ⁴²	-	-	PTTEPI 25% PTTEP HK 75%
52.	PTTEP Brazil Investment B.V.	PTTEP BI	50,000	USD 1	ordinary share	PTTEP NH 100%

⁴⁰ PTTEP NC has total amount of Member Contribution of USD1,485,050,000.00 from 2010 to 2013

⁴¹ PTTEP AI holds 100% of shares in Cove since 5 October 2012.

⁴² PTTEP NH has total amount of Member Contribution of USD 23,082,546.93

No.	Company Name	Abbreviation	Number of Shares Sold	Share Price	Share Type	Shareholders
53.	PTTEP Brazil Investments in Oil and Gas Exploration and Production Limitada	PTTEP BL	53,500,000	BRL 1	ordinary share	PTTEP NH 0.0000019% PTTEP BI 99.9999981%
Service Business						
54.	PTTEP Services Limited (Personnel Services Support)	PTTEP Services	100,000	THB10	ordinary share	PTTEP 25% PTTEPI 75%
55.	Andaman Transportation Limited (Investment in Gas Pipeline for Myanmar Project)	ATL	62,500	USD 1	ordinary share	PTTEPO 80% MOGE 20% ⁴³
56.	PTTEP Southwest Vietnam Pipeline Company Limited (Investment in Gas Pipeline for Vietnam Project)	PTTEP SVPC	50,000	USD 1	ordinary share	PTTEPH 100%
57.	PTTEP Australia International Finance Pty Ltd (Raise Fund for PTTEP Business)	PTTEP AIF	50,000	AUD 1	ordinary share	PTTEP AP 100%
58.	PTTEP Canada International Finance Limited (Raise Fund for PTTEP Business)	PTTEP CIF	50,000	CAD 1	ordinary share	PTTEP NC 100%

⁴³ Myanmar Oil and Gas Enterprise holds shares in ATL since 5 January 2012.

6.3 Associated Company's Information (including, the business entities those the company having investment for 10% and above)

As of 31 December 2013, PTTEP had 19 associated companies. Details of the directors of each associated company are in Attachment 2.

No.	Company Name	Type of Business	Abbreviation	Number of Shares Sold	Share Price	Share Type	Shareholders
1.	Energy Complex Limited	Property Leasing	Energy Complex	180,000,000	THB 10	ordinary share	PTTEP 50% PTT 50%
	Head Office: 555/1 Energy Complex Building A, Vibhavadi-Rangsit Road, Chatuchak, Chatuchak, Bangkok 10900						
	Telephone: +66-2140-1000						
	Facsimile: +66-2 140-1122						
2.	PTT ICT Solutions Company Limited	Information Technology and Communication Services	PTT ICT	15,000,000	THB 10	ordinary share	PTTEP 20% PTT 20% PTTGC 40% Thaioil 20%
	Head Office: 555/1 Energy Complex Building A, floor 4-5, Vibhavadi-Rangsit Road, Chatuchak, Chatuchak, Bangkok 10900						
	Telephone: +66-2537- 3456						
	Facsimile: +66-2537-2935						
3.	Carigali – PTTEPI Operating Company Sendirian Berhad	Petroleum Exploration and Production	CPOC	350,000	MYR 1	ordinary share	PTTEPI 50% PCJDA Limited50%
	Head Office: Tower 1, Petronas Twin Towers, Kuala Lumpur City Center, 50088, Kuala Lumpur, Malaysia						
	Telephone: +603-2782-2555						
	Facsimile: +603-2713-9877						

No.	Company Name	Type of Business	Abbreviation	Number of Shares Sold	Share Price	Share Type	Shareholders
4.	Moattama Gas Transportation Company	Gas Pipeline in Union of Myanmar	MGTC	1,000,000	USD 0.03	ordinary share	PTTEPO 25.5% Unocal Myanmar Offshore 28.2625% Total E&P Myanmar 31.2375% MOGE 15%
	Head Office: No.5 Sacred Tooth Relic Lake Avenue, Punn Pin Gone Quarter No. 5, Mayangon Township, Yangon, Union of Myanmar						
	Telephone: +951-650-977, 660-466						
	Facsimile: +951-650-478, 650-479						
5.	Taninthayi Pipeline Company LLC	Gas Pipeline in Union of Myanmar	TPC	100,000	USD 1	ordinary share	PTTEPO 19.31784% Petronas Carigali Myanmar (Hong Kong) Ltd 40.91018% MOGE 20.45414% Nippon Oil Exploration (Myanmar) Ltd 19.31784%
	Head Office: 16 Shwe Taung Kyar Bahan, Yangon, Union of Myanmar						
	Telephone: +951-526-411-4						
	Facsimile: +951-525-698						
6.	B 8/32 Partners Limited	Petroleum Exploration and Production	B 8/32 Partners	110,000	THB 100	ordinary share	PTTEPO 25.0009% MOECOI 16.7064% KrisEnergy 4.6346% Chevron 53.6581%
	Head Office: 19 Siam Commercial Bank Park Plaza, East 3rd Building, 5th floor, Ratchadapisek Road, Chatuchak, Bangkok, 10900						
	Telephone: +66-2545-5555						
	Facsimile: +66-2545-5554						

No.	Company Name	Type of Business	Abbreviation	Number of Shares Sold	Share Price	Share Type	Shareholders
7.	Hoang Long Joint Operating Company	Petroleum Exploration and Production	HL JOC	- ⁴⁴	-	-	PTTEP HL 28.5% PVEP 41% SOCO 28.50% OPECO 2.0%
	Head Office: Suite 2001, Me Linh Point Tower, 2 Ngo DucKe Street, District 1, Ho Chi Mihn City, S.R. Vietnam						
	Telephone: +848-3829-9359						
	Facsimile: +848-3822-6106						
8.	Hoan-Vu Joint Operating Company	Petroleum Exploration and Production	HV JOC	- ¹⁰	-	-	PTTEP HV 25% PVEP 50% SOCO 25%
	Head Office: Suite 2006, Me Linh Point Tower, 2 Ngo DucKe Street, District 1, Ho Chi Mihn City, S.R. Vietnam						
	Telephone: +848-3823-9525						
	Facsimile: +848-3823-9526						
9.	Mungalalu Truscott Airbase Pty Ltd. ⁴⁵	Operation of Air Base	-	600	AUD 1	ordinary share	PTTEP AAO 50% Arthur Hamilton 41.667% Alex Wood 8.333%
	Head Office: Level 1, 40 Cavenagh Street, Darwin, Northern Territory, 0800, Australia						
	Telephone: +61-8-8922-0930						
	Facsimile: +61-8-8922-0910						

⁴⁴No share issued. Percentage of shareholding is subject to participation interest of the concession.

⁴⁵Formerly, Shore Air Pty Ltd.

No.	Company Name	Type of Business	Abbreviation	Number of Shares Sold	Share Price	Share Type	Shareholders
10.	Troughton Island Pty Ltd	Operation of Air Base (Secondary)	-	100	AUD 1	ordinary share	PTTEP AAO 50% Arthur Hamilton 44% Alex Wood 6%
	Head Office: Level 1, 40 Cavenagh Street, Darwin, Northern Territory, 0800, Australia						
	Telephone: +61-8-8922-0930						
	Facsimile: +61-8-8922-0910						
11.	Groupeement Bir Seba	Petroleum Exploration and Production	GBRS	- ⁴⁶	-	-	PTTEP AG 35% PVEP 40% Sonatrach 25%
	Head Office: Lot No.1, Lotissement Belle Vue-Hydra, Algiers, Algeria						
	Telephone: +213-2194-5325 / 26 / 27						
	Facsimile: +213-2194-5320 / 22						
12.	PTT FLNG Limited	Manufacture/Production/Trading of Oil/Gas/Other Energy Supply	PTT FLNG	1,000	HKD 10	ordinary share	PTTEP FH 50% PTT International (Singapore) Company Pte. Ltd. 50%
	Head Office: 1401 Hutchison House, 10 Harcourt Road, Hong Kong						
	Telephone: +852-2846 1888						
	Facsimile: +852-2845 0476						
13.	Erawan 2 FSO Bahamas Ltd.	Lease of FSO (vessel)	Erawan 2	100	USD 1	ordinary	Chevron Global

⁴⁶No share issued. Percentage of shareholding is subject to participation interest of the concession.

No.	Company Name	Type of Business	Abbreviation	Number of Shares Sold	Share Price	Share Type	Shareholders
	Head Office: Ocean Centre, Montagu Foreshore, East Baya Street, Nassau, New Providence, Bahamas P.O. Box SS-19084, Nassau, New Providence, Bahamas Telephone: - Facsimile: -		FSO Bahamas			share	Energy Inc. 65.91% JV Marine Ltd. 13.11% MOECO 20.98%
14.	KKD Oil Sands Partnership ⁴⁷ Head Office: Suite 3600, 308 – 4 th Ave S.W., Calgary, Alberta T2P 0H7, Canada Telephone: +403-234-0123 Facsimile: +403-234-0103	Petroleum Exploration and Production	KKD Oil Sands	1,570,000	No par value	partnership unit	Statoil Canada Ltd. 60% PTTEP CA 40% (unit of partnership)
15.	Leismer Aerodrome Limited Head Office: Suite 3600, 308 – 4 th Ave S.W., Calgary, Alberta T2P 0H7, Canada Telephone: +403-234-0123 Facsimile: +403-234-0103	Operation of Air Base	LAL	200	No par value	ordinary share	Statoil Canada Ltd. 48% PTTEP CA 32% FCCL Partnership 20%
16.	NST Supply Base Co., Ltd.	Petroleum Supply Base, Port	NST Supply	1,000,000 ⁴⁸	THB 1,000	ordinary	Chevron Thailand

⁴⁷ Formerly, Statoil Canada Partnership

⁴⁸ Increase capital to Baht 1,000,000,000 on 3 February 2012.

No.	Company Name	Type of Business	Abbreviation	Number of Shares Sold	Share Price	Share Type	Shareholders
	Head Office: 19 SCB Park Plaza, Tower East 5 th Floor, Ratchadapisek Rd., Chatuchak, Bangkok 10900 Telephone: +66-2545-5555 Facsimile: +66-2545-5454	and Warehouse	Base			share	Exploration and Production Ltd. 62.86% MOECO 20.58% JV Shore Base 15.67% KrisEnergy International (Thailand) Holdings Ltd., 0.56% Palang Sophon Limited 0.33%
17.	Asia Pacific Marine Services (EF) B.V. Head Office: Naritaweg 165 Telestone 8, Amsterdam Telephone: - Facsimile: -	Petroleum Exploration and Production	Asia Pacific Marine Services	18,000	EUR 1	ordinary share	Erawan 2 FSO Bahamas Ltd. 100%
18.	UAQ Petroleum Inc. Head Office: Room 2402, 24/F., CC Wu Building, 302-308 Hennessy Road, Wanchai, Hong Kong Telephone: +852-2525-3318 Facsimile: (852) 25218087	Petroleum Exploration and Production	UAQ	10,000	HKD 1	ordinary share	PTTEP FH 30% CanEmir Petroleum (UAQ) Corp. 70%

No.	Company Name	Type of Business	Abbreviation	Number of Shares Sold	Share Price	Share Type	Shareholders
19.	Natuna 2 B.V.	Petroleum Exploration and Production	Natuna 2	90,000	EUR 1	ordinary share	PTTEP NH 50% PT Pertamina (Persero)50%
	Head Office: Teleport Boulevard 140, 1043 EJ Amsterdam, The Netherlands						
	Telephone: -						
	Facsimile: -						

6.4 References

(1) Share Registrar

Name	Thailand Securities Depository Company Limited
Address	62 The Stock Exchange of Thailand Building, Rachadapisek Road, Klongtoey, Bangkok 10110, Thailand
Telephone	+66-2229-2800
TSD Call center	+66-2229-2888
Facsimile	+66-2359-1259
Email	TSDCallCenter@set.or.th
Website	http://www.tsd.co.th

2.1 (2) Debenture Registrars

- (2.1) Registrar and Paying Agent for Baht 2,500 Million Bonds issued in March 2003, Baht 40,000 Million Bonds issued in May 2009 and Baht 5,000 Million Hybrid Bonds issued in June 2012

Name	TMB Bank Public Company Limited
Address	Floor 5A, 3000 Phahon Yothin Road, Chatuchak, Bangkok 10900, Thailand
Telephone	+66-2299-1536, +66-2299-1321
Facsimile	+66-2242-3270

- (2.2) Bondholders' Representative for Baht 40,000 Million Bonds issued in May 2009 and Baht 5,000 Million Hybrid Bonds issued in June 2012

Name	Siam Commercial Bank Public Company Limited
Address	Floor 3, Building 2, 1060 Phetchaburi Road, Makkasan, Ratchthewee, Bangkok 10400, Thailand
Telephone	+66-2256-2316
Facsimile	+66-2256-2401, +66-2256-2402, +66-2256-2403, +66-2256-2404

- (2.3) Trustee for USD 500 Million Bonds issued in July 2010, USD 700 Million Bonds issued in April 2011 and USD 500 Million Bonds issued in September 2013

Bank BNY Mellon Corporate Trust
Address BNY Mellon Corporate Trust, 1 Temasek Avenue,
#03-01 Millenia Tower, Singapore 039192
Telephone +65-6432-0351, +65-6432-0354, +65-6432-0356
Facsimile +65-6883-0338

- (2.4) Trustee for USD 500 Million Bonds issued in June 2012

Name Citicorp International Limited
Address Floor 39, Citibank Tower, 3 Garden Road, Central, Hong Kong
Telephone +852-2868-7964
Facsimile +852-2323-0279

- (2.5) Registrar and Noteholders' Representative

Name Bangkok Bank Public Company Limited
Address 333 Floor 24, Securities Service Department, Silom Road,
Bangrak, Bangkok 10500, Thailand
Telephone +66-2230-1894
Facsimile +66-2636-5697

(3) Bill of Exchange Registrar

- (3.1) Registrar and paying agent for Bill of Exchange with a total revolving credit of up to Baht 50,000 Million

Name TMB Bank Public Company Limited
Address Floor 5A, 3000 Phahon Yothin Road, Chatuchak,
Bangkok 10900, Thailand
Telephone +66-2299-1536, +66-2299-1321
Facsimile +66-2242-3270

(4) Loan Facility Agents

(4.1) Facility Agent for USD 500 Million Loan Agreement dated in November 2010

Name The Bank of Tokyo-Mitsubishi UFJ, Ltd.
Address 6/F., AIA Central, 1 Connaught Road, Central, Hong Kong
Telephone +852-2823-6698, +852-2823-6691-3
Facsimile +852-2823-6686

(4.2) Facility Agent for CAD 300 Million Loan Agreement dated in April 2012

Name Sumitomo Mitsui Banking Corporation
Address 7-8/F, One International Finance Centre, 1 Harbour View Street,
Central, Hong Kong
Telephone +852-2206-2130, +852-2206-2131
Facsimile +852-2206-2988

(5) Process Agent for Equity

Name CT Corporation System
Address 111, 8th Avenue New York, New York, United States 10011
Telephone +1-213-337-4605
Facsimile +1-213-614-7903

(6) Cross Currency and Interest Rate Swap Counter Party

(6.1) Baht 2,500 Million Bonds issued in March 2003

Name KASIKORNBANK Public Company Limited
Division Capital Markets Business Division
Address 400/22 Phahon Yothin Avenue, Samsen-Nai, Phayathai
Bangkok 10400, Thailand
Telephone +66-2470-2020
Facsimile +66-2470-3065

(7) Cross Currency Swap Counter Party

(7.1) **Baht 5,000 Million Bonds issued in May 2009**

Name Deutsche Bank AG, Bangkok Branch
Division Corporate Treasury Sales
Address 63 Athenee Tower, 27-29 Floor, Wireless Road, Lumpini,
Pathumwan, Bangkok 10330, Thailand
Telephone +66-2646-5139
Facsimile +66-2651-5892

(7.2) **Baht 11,700 Million Bonds issued in May 2009**

Name Siam Commercial Bank Public Company Limited
Division Corporate Banking Division 4, Wholesale Banking Group
Address Floor 8, Zone B, 9 Ratchadapisek Road, Chatuchak
Chatuchak, Bangkok 10900, Thailand
Telephone +66-2544-2483
Facsimile +66-2937-7969

Name KASIKORNBANK Public Company Limited
Division Capital Markets Business Division
Address 400/22 Phahon Yothin Avenue, Samsen-Nai, Phayathai
Bangkok 10400, Thailand
Telephone +66-2470-2020
Facsimile +66-2470-3065

Name Deutsche Bank AG, Bangkok Branch
Division Corporate Treasury Sales
Address 63 Athenee Tower, 27-29 Floor, Wireless Road, Lumpini,
Pathumwan, Bangkok 10330, Thailand
Telephone +66-2646-5139
Facsimile +66-2651-5892

(8) Cross Currency Swap Counter Party (USD/CAD)

Name Krung Thai Bank Public Company Limited
Division Corporate Sales, Treasury
Address Building 1 (Nana-Nue), Floor 5, 35 Sukhumvit Road,
Klongtoey-Nue, Wattana, Bangkok 10110, Thailand
Telephone +66-2208-4815
Facsimile +66-2256-8398

Name Barclays Bank PLC
Division Investment Banking
Address Level 28 One Raffles Quay South Tower Singapore 048583
Telephone +65-6308-2075
Facsimile +65-6308-3319

(9) Interest Rate Swap Counter Party**(9.1) USD 50 Million Loan Agreement dated in April 2012**

Name The Hong Kong and Shanghai Banking Corporation Limited
Division Corporate Marketing and Sales
Address 968 HSBC Building, Rama IV Road, Silom, Bangrak,
Bangkok 10500, Thailand
Telephone +66-2614-4847, +66-2614-4848
Facsimile +66-2632-4831

2.2 (10) Auditor

Name Office of the Auditor General of Thailand
Address Soi Areesampan, Rama VI Road, Phayathai
Bangkok 10400, Thailand
Telephone +66-2271-8112
Facsimile +66-2618-5788

(11) Legal Advisors

Name Herbert Smith Freehills LLP

Address 1 50 Raffles Place #24-01 Singapore Land Tower Singapore 048623

Telephone +65-6868-8000

Facsimile +65-6868-8001

Address 2 23rd Floor Gloucester Tower 15 Queen's Road Central, Hong Kong

Telephone +852-2845-6639

Facsimile +852-2845-9099

Address 3 HiswaraBunjamin&Tandjung (HBT)

 Floor 23, Gedung BRI II, Jl. Jend. Sudirman Kav. 44-46

 Jakarta, 10210, Indonesia

Telephone +62-21-574-4010

Facsimile +62-21-574-4670

Name Trench, Rossie Watanabe Advogados

Location Centro Empresarial Internacional Rio Av. Rio Branco, 1, 19^o andar,

 Setor B 20090-003 Rio de Janeiro, RJ - Brasil

Telephone +55-21-2206-4900

Facsimile +55-21-2206-4949

Name Norton Rose Fulbright (Asia) LLP

Location One Raffles Quay, #34-02 North Tower, Singapore 048583

Telephone +65-6223-7311

Facsimile +65-6224-5758

Name Slaughter and May (Hong Kong and London)
Address 47th Floor, Jardine House, One Connaught Place Central,
Hong Kong
Telephone +852-2901 -7278, +852-9383-5977
Facsimile -

Name Mallesons Stephen Jaques
Address Level 10 Central Park, 152 St Georges Terrace,
Perth WA6000 Australia
Telephone +61-8-9269-7000
Facsimile +61-8-9269-7999

Name MochtarKaruwinKomar
Address Floor 14, Wisma Metropolitan II, Jl. Jend. Sudirman Kav. 31,
Jakarta 12820 Indonesia
Telephone +62-21-571-1130
Facsimile +62-21-571-1162, +62-21-570 1686

Name Dherakupt International Law Office Ltd.
Address 546 Uniwest Complex Building, Floor 15, Ratchadapisek Road,
Chankasem, Chatuchak, Bangkok 10900, Thailand
Telephone +66-2511-1512, +66-2513-1976
Facsimile +66-2938-1247, +66-2938-1957

Name Pracha Tooppoltup Law Office

Address 54 Soi 73 Chokchai 4 Road, Ladprao, Ladprao,
Bangkok 10230, Thailand

Telephone +66-2530-3173

Facsimile -

Name SAL& Caldeira Advogados, Lda.

Address Julius Nyerere Av. 3412, Maputo, Mozambique - Cx – Postal 2830

Telephone +258-21-241400

Facsimile +258-21-494710

Name Siam Premier International Law Office Limited

Address 999/9 Floor 26, The Offices at Central World, Rama 1 Road,
Pathumwan, Pathumwan, Bangkok10330, Thailand

Telephone +66-2646-1888

Facsimile -

(12) Advisors to the Board of Directors

Name Mr. Tongchat Hongladarom

Address 8/48 Prasanmit Condominium, Sukhumvit 23,
Klongtoey-Nua, Wattana, Bangkok 10110, Thailand

Telephone +66-2258-4363

Facsimile -

Name Ms. Sukhon Kanchanalai

Address 188 Soi 16, Tesbanimit Tai Road, Prachanivej, Chatuchak,
Bangkok 10900, Thailand

Telephone +66-2589-5566

Facsimile -

6.5 Other Significant Information

-None -

7. Securities and Shareholders

As of December 31, 2013, PTTEP's capital structure consisted of USD 4,023 million interest-bearing liabilities and USD 11,729 million shareholders' equities. The interest-bearing liabilities to shareholders' equities ratio were 0.34 times. Details of the capital structure are as follows:

7.1 Securities

7.1.1 Capital Stock

As of December 31 2013, the Company's registered and paid-up capital was at THB 3,969,985,400 consisting of 3,969,985,400 ordinary shares at the par value of Baht 1 per share.

7.2.1 Bonds and Short-Term Commercial Papers

The Company has been rated an investment grade by international credit rating services which are Baa1, BBB+, A- and AAA by Moody's Investors Service ("Moody's"), Standard & Poor's Ratings Services ("Standard & Poor's"), Japan Credit Rating Agency ("JCR"), respectively. Moreover, the Company has also been rated by domestic credit rating services at AAA, which is the highest credit rate.

7.2.1.1 Bonds

On 16 September 2013, PTTEP has issued 5 years unsecured and unsubordinated debentures to foreign institutional investors for the total amount of USD 500 million with a coupon rate of 3.707% per annum.

The debentures has been rated BBB+ by Standard and Poor's and Baa1by Moody's. The proceeds from the debentures issuance were used for general corporate purposes including, but not limited to, funding petroleum exploration and production activities.

The Board of Directors and the General Shareholders' Meeting in year 2010 have approved the Company's issuance and offering of debentures, whose approved amount remaining was THB 83,400 million.

During the year 2013, PTTEP Canada International Finance Limited ("PTTEP CIF") repurchased a portion of its 30 years USD 500 million with a coupon rate of 6.35% per annum unsecured and unsubordinated debentures, which were issued in June 2012.

PTTEP CIF had cancelled out the USD 10 million repurchased debentures. As a result, the principle amounts of the debentures were decreased to USD490million.

7.2.1.2 Short-Term Commercial Papers

PTTEP maintains the Short-term Financing Program (“PF”) which involves the issuance of Bills of Exchange (B/Es) via Public Offerings to institutional and high net-worth investors in Thailand. B/Es are issued on a revolving basis with the total revolving credit of up to THB 50,000 million. The B/Es facility was approved by the resolution of the Board of Directors’ Meeting in February 2009 and in November 2010.

As of 31 December 2013, there were no outstanding B/Es. Details of outstanding securities as of 31 December 2013 are as follows:

(1) Details of Baht Bonds (total outstanding THB 19,200 million) as of December 31, 2013 are as follows:

Debt Security	Issue	Maturity	Tenor	Outstanding (Million Baht)	Rate per annum	Credit Rating ¹
Unsecured, unsubordinated Baht Bonds	March 27, 2003	March 27, 2018	15 years	2,500 ²	Fixed 4.625%, coupon payment: semi-annually	AAA
	May 29, 2009	May 29, 2014	5 years	11,700 ³	Fixed 4.00%, coupon payment: quarterly	AAA
	May 29, 2009	May 29, 2019	10 years	5,000 ⁴	Fixed 4.80%, coupon payment: semi-annually	AAA

¹By TRIS Rating Company Limited dated April 29, 2013

²In 2005, the Company entered into a Cross Currency Swap transaction with a bank to swap Baht for USD 60.82 million. Under this agreement, interest was charged at the rate of 3.85% per annum. In 2007, the Company swapped the US Dollar with the same bank for THB 2,500 million (Unwounded Swap transaction). Under this agreement, the interest rate was charged at the rate of 3.30% per annum. In 2011, the Company swapped THB 2,500 million for USD 82.92 million. Under this agreement, interest rate was charged at the rate of 3.30% per annum.

³In 2011, the Company entered into a Cross Currency Swap transaction with a bank to swap Baht for USD 389.50 million. Under this agreement, the average interest rate was charged at the rate of 2.67% per annum.

⁴In 2011, the Company entered into a Cross Currency Swap transaction with a bank to swap Baht for USD 161.81 million. Under this agreement, the average interest rate was charged at the rate of 4.93% per annum.

(2) Details of US Dollar Bonds (total outstanding USD 2,390 million) as of December 31, 2013 are as follows:

Debt Security	Issue	Maturity	Tenor	Outstanding (Million U.S. Dollar)	Rate per annum	Credit Rating
Unsecured, unsubordinated US Dollar Bonds	July 19, 2010	July 19, 2015	5 years	500 ⁵	Fixed 4.152%, coupon payment: semi-annually	Baa1 by Moody's and BBB+ by Standard & Poor's
	August 4, 2010	August 4, 2015	5 years	200 ⁶	Fixed 4.152%, coupon payment: semi-annually	Baa1 by Moody's and BBB+ by Standard & Poor's
	April 5, 2011	April 5, 2021	10 years	700 ⁷	Fixed 5.692%, coupon payment: semi-annually	Baa1 by Moody's and BBB+ by Standard & Poor's
	June 12, 2012	June 12, 2042	30 years	490 ⁸	Fixed 6.35%, coupon payment: semi-annually	Baa1 by Moody's and BBB+ by Standard & Poor's
	September 16, 2013	September 16, 2018	5 years	500 ⁹	Fixed 3.707%, coupon payment: semi-annually	Baa1 by Moody's and BBB+ by Standard & Poor's

⁵PTTEP Australia International Finance Pty Ltd (PTTEP AIF) was the issuer, fully guaranteed by PTTEP, credit rating by Moody's dated April 9, 2013 and Standard & Poor's dated April 19, 2013

⁶PTTEP Australia International Finance Pty Ltd (PTTEP AIF) was the issuer, fully guaranteed by PTTEP, credit rating by Moody's dated April 9, 2013 and Standard & Poor's dated April 19, 2013

⁷PTTEP Canada International Finance Limited (PTTEP CIF) was the issuer, fully guaranteed by PTTEP, credit rating by Moody's dated April 9, 2013 and Standard & Poor's dated April 19, 2013

⁸PTTEP Canada International Finance Limited (PTTEP CIF) was the issuer, fully guaranteed by PTTEP, credit rating by Moody's dated April 9, 2013 and Standard & Poor's dated April 19, 2013

⁹PTTEP was the issuer, credit rating by Moody's and Standard & Poor's dated September 9, 2013

(3) Details of Baht Hybrid Bonds (total outstanding THB 5,000 million) as of December 31, 2013 are as follows:

Debt Security	Issue	Maturity	Tenor	Outstanding (Million Baht)	Rate per annum	Credit Rating ¹⁰
Unsecured, unconvertible, callable, subordinated debentures with single redemption upon liquidation, PTTEP can defer the coupon payment at its sole discretion, Baht Hybrid Bonds ¹¹	June 15, 2011	- payment upon liquidation or - early conditional redemption	Perpetual	5,000	Year 1-10 : 5.85% Year 11- 30: 6.10% Year 31- 60: 6.85% Year 61 onward: 7.85%, coupon payment: quarterly	AA

¹⁰By TRIS Rating Co., Ltd. dated April 29, 2013

¹¹Hybrid Bonds are considered as Shareholders' equity

7.1.3 Number of shares and shareholders voting rights will be affected by NVDR issuance

An NVDR or Non-Voting Depository Receipt is a trading instrument issued by the Thai NVDR Company Limited, a wholly owned subsidiary of the Stock Exchange of Thailand (SET). NVDRs are automatically regarded as listed securities in the SET. The objective of issuing NVDRs is not only to stimulate trading activities in the Thai stock market, but also to help eliminate foreign investment barriers, such as the foreign investment limits and the impediments faced by institutional investors who previously could not trade in the existing Thai Trust Fund. Investors will receive all financial benefits; i.e., dividends, right issues or warrants, just as if they had invested in the Company's common shares. The only difference between investing in an NVDR and the Company's shares is the voting right. Additionally, although the NVDR is designed mainly to ease foreign investment barriers, the SET does not prohibit Thai investors from investing this instrument.

As at 17 February 2014, as publicized on the website of the Stock Exchange of Thailand, the Company's ordinary shares at NVDR were 146,098,106 shares, which represent 3.68 of the total issued and paid-up capital of the Company (3,969,985,400 Shares). The NVDR holders will not participate and vote in shareholder's meeting, except in the case where a listed company wishes to delist its shares from the SET.

7.2 Shareholders

7.2.1 Top 10 Shareholders

As of 17 February 2014, the top 10 shareholders are as follows:

No.	List of Shareholders	Number of Shares	% of Total Number of Shares
1.	PTT PUBLIC COMPANY LIMITED	2,591,860,489	65.286
2.	THAI NVDR CO.,LTD.	146,098,106	3.680
3.	STATE STREET BANK AND TRUST COMPANY	85,841,186	2.162
4.	STATE STREET BANK EUROPE LIMITED	80,681,078	2.032
5.	HSBC (SINGAPORE) NOMINEES PTE LTD	73,583,837	1.854
6.	THE BANK OF NEW YORK (NOMINEES) LIMITED	55,307,505	1.393
7.	CHASE NOMINEES LIMITED 42	54,065,865	1.362
8.	BNP PARIBAS SECURITIES SERVICES LUXEMBOURG	53,081,145	1.337

No.	List of Shareholders	Number of Shares	% of Total Number of Shares
9.	NORTRUST NOMINEES LIMITED-NT0 SEC LENDING THAILAND	41,241,647	1.039
10.	THE BANK OF NEW YORK MELLON	39,132,443	0.986
	Total number of shares held by top 10 shareholders	3,220,893,301	81.131
	Total fully-paid capitals as of 17 February 2014	3,969,985,400	100

7.2.2 NVDR holder who owned more than 0.50% of the paid-up PTTEP shares *

Rank	NVDR holder (as of February 17, 2013)	Number of NVDR issues	% of total outstanding shares in underlying stock
1	STATE STREET BANK AND TRUST COMPANY	41,846,978	1.05
	Total shares	41,846,978	1.05

7.2.3 Major shareholder with controlling influence over PTTEP's policy or operation

PTT, a major shareholder of PTTEP, takes part in determining PTTEP's policy and its operations under the Board's approval. As of January 1, 2014, there were three out of 15 directors who were a director or an executive of PTT.

7.3 Dividend Payment Policy

Normally, it is the policy of the Company's Board of Directors to recommend to the shareholders an annual dividend of not less than 30% of net income. The Board of Directors, from time to time and in case there are adequate profits, may also decide to pay the interim dividends and subsequently inform the shareholders at the next shareholders' meeting.

However, under terms and conditions of the subordinated capital debentures (PTTEP Hybrid Bond No. 1/2555), if the Company defers the interest payment on the debentures, it may

* Source: Securities and Exchange Commission, Thailand

Note: Since January 18, 2010, Thai NVDR Co., Ltd. has changed its rule to disclose the names of NVDR holders having over 0.50% of the paid-up capital of underlying securities.

not declare or make any dividend payment, make any interest payment or distribution of any sort of any instrument or security that ranks pari passu or junior to the subordinated capital debentures.

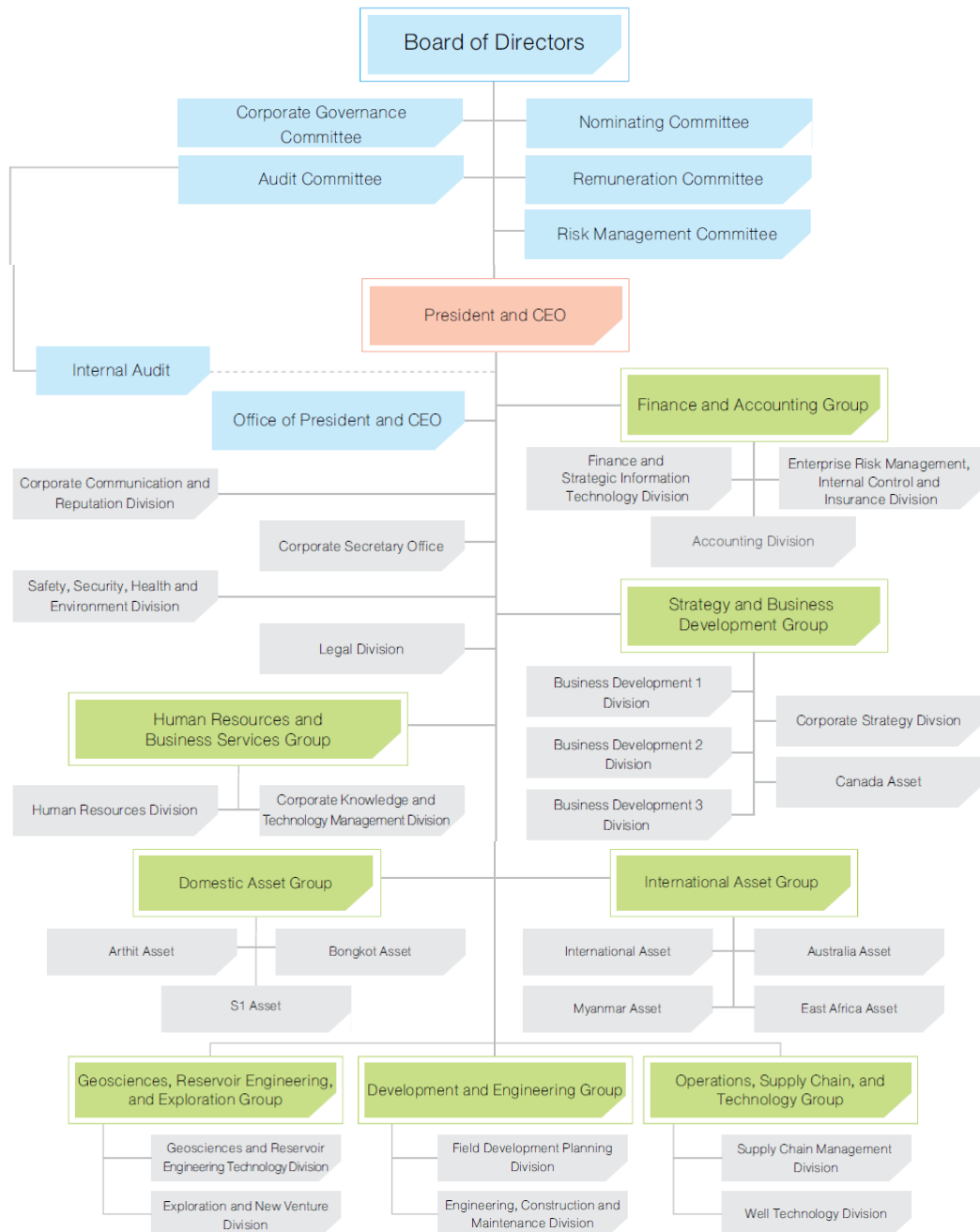
The Company has no dividend policies for its subsidiaries.

Five-year dividend payment history of PTTEP is as follows:

Year	2009	2010	2011	2012	2013
Earnings per Share	6.69	13.21	13.48	17.08	14.07
Dividend per Share	2.68	5.03	5.40	5.80	6.00
Dividend Payout Ratio	40%	40%	40%	38%	40%

8. Management Structure

As of 1 January 2014



8.1 The Board of Directors

8.1.1 The Board's Structure

PTTEP's Board of Directors ("the Board") consists of qualified directors who possess a versatility of expertise with skill mix in the fields of industry knowledge, accounting and finance, business judgment, management skill, international markets, business strategy, crisis management, corporate governance and legal. The directors must not be more than 70 years old and shall possess qualifications according to the public company laws, the securities and exchange laws, the Securities Exchange Commission (SEC) rules, the Capital Market Supervisory Board (CMSB) rules, the Stock Exchange of Thailand (SET) rules, and relevant Cabinet resolutions. The directors shall also be able to dedicate themselves and time to fully perform duties and take responsibility; otherwise, they would be regarded as unqualified if absent from the meeting more than three consecutive times without a reasonable reason.

The Board consists of 15 skilled experts. The number is considered appropriate for the Company's operational size. The Board is divided into non-executive and executive directors and no less than half of the current members shall be independent directors. Of the total Board members, at least three are third parties from the private sector. As of 31 December 2013, there were 15 members as follows:-

- 14 non-executive directors (93.34% of total members)
- One executive director: President and Chief Executive Officer
- Nine independent directors (60.00%, which is more than 50%, of total members)
- Six external directors from the private sector

PTT Plc. (PTT) is the only major shareholder of PTTEP, while the minor shareholders are dispersed. Therefore, the abovementioned Board's component and proportion are considered to be appropriate to keep the balance within the Board as well as to ensure every shareholder's optimal benefits.

Names, biography, qualification, experience and shareholding of non-executive directors, executive directors, independent directors, directors from the private sector, including directors from PTT are disclosed in Attachment 1 as well as the Annual Report and website of the Company.

8.1.2 Duties and Responsibilities of the Board

The Board has defined the following matters, excluded from those stipulated by laws, Company's objectives, Articles of Association and resolutions of the shareholders' and Board's meetings, to be under the Board's authorities with due accountability, care, and loyalty,

(1) To oversee the overall operation to ensure that it is operated in accordance with the Good Corporate Governance and Business Ethics for the PTTEP Group as well as to be a leader and a role model in adopting, introducing, communicating, and educating of these principles for PTTEP Group's employees and other organizations to follow.

(2) To review and approve of the statement of vision, mission, and corporate values of the PTTEP Group to ensure that they are fully and effectively applicable and practical.

(3) To review and approve of the PTTEP Group's strategic plan, business direction, targets, workforce structure, and important operations, including to regularly monitor and re-evaluate to ensure that the overall operation is in line with strategy, operational direction, targets, and policies as set with emphasises on mobility and applicability to enable the management to perform effectively and efficiently.

(4) To establish efficient internal control system completed with precise and proper regulations, protocols, standardized and reliable accounting and financial reporting, appropriate and adequate risk management, efficient rules and regulations compliance and instantaneous monitoring systems.

(5) To review and approve of the Company's lawfully significant matters, affidavits, policies, regulations, and issuance of authority leading to contingent liability of the PTTEP Group.

(6) To consider cases related to conflicts of interest in a prudent and transparent manner and to report to the Company of any vested interests of oneself and of related persons, as well as to prevent misuse of the Company's properties and execution of transactions with the Company's connected persons in an inappropriate way.

(7) To ensure that the Company has clear and proper regulations, a uniform and credible financial reporting, an efficient internal control system, as well as a proper risk management.

(8) To oversee and ensure that the Company undergoes auditing both from the internal and external auditors who shall perform their duty effectively.

(9) To assure stakeholders of correct, complete, appropriate, and timely communication and information disclosure.

(10) To assure the Company's stakeholders of fair and equal treatment.

(11) To review, approve and appoint specialists from different professional fields to provide the Company with in-depth information as well as to act on its behalf on significant matters that can affect financial standing and reputation of the PTTEP Group.

(12) To review and approve the Board Performance Target for and to evaluate performance of the Board, Chairman of the Board, and sub-committees.

(13) To review and approve the Performance Agreement for and to evaluate performance of the President and Chief Executive Officer, and to determine his or her remuneration based on the performance, as well as to oversee that the Company has an effective performance evaluation process of the executives.

(14) To consider and delegate the obligatory authority to the President and Chief Executive Officer to manage and to direct the Company according to its strategic plan, business direction, targets and policies as well as to supervise and effectively make evaluation over performance

PTTEP's Board is permitted to make requests for information and seek advices and services regarding the business operation from the Management, as well as making inquiries with external independent advisors, whenever it sees appropriate and necessary, while the Company is responsible for the expense.

8.1.3 Sub-Committees

8.1.3.1 The Corporate Governance Committee

PTTEP's Corporate Governance Committee has the duties and responsibilities according to its charter as follows:-

(1) To establish the Good Corporate Governance and Business Ethics of the PTTEP Group for the Board's approval for implementations in all levels.

(2) To promote the Good Corporate Governance and Business Ethics of PTTEP Group to the Board, management and employees to ensure all areas of the Company's business operations comply with them.

(3) To review Business Ethics of the Company as well as practices regarding to the Company's Good Corporate Governance to ensure that they in line with relevant laws as well as practices of and recommendations from leading international organizations before proposing to the Board for an approval and corresponding with shareholders.

(4) To govern the Company to carry out an assessment on its compliance to Good Corporate Governance and the Business Ethics of the PTTEP Group.

(5) To disclose information, with prior approval of the Board, regarding the Company's Good Corporate Governance to its stakeholders in the annual report.

(6) To oversee and provide recommendations on the Corporate Social Responsibility (CSR) activities

(7) To review and update the Corporate Governance Committee charter consistently to ensure appropriateness.

(8) To disclose the Company's the Corporate Governance Committee performance in the annual report.

(9) To perform other duties relevant to the Good Corporate Governance of the PTTEP Group as assigned by the Board.

The Corporate Governance Committee consists of at least three independent directors. The three current members of the Committee, effective from April 25, 2011 to April 24, 2014, are as follows:-:

General Pornchai Kranlert	Chairman of the Committee and Independent Director
Mr. Achporn Charuchinda	Member and Independent Director
Mr. Maitree Srinarawat	Member and Independent Director

General Pornchai Kranlert assumed the chairmanship from 25 April 2012 in replacement of Mr. Viraphol Jirapraditkul. Mr. Achporn Charuchinda was appointed on 1 January 2013 in replacement of Mr. Vorapak Tanyawong, while Mr. Maitree Srinarawat was appointed on 25 April 2013 in replacement Mrs. Varanuj Hongsaprabhas. In 2013, the Committee held seven meetings and all incumbent directors as well as the Company's Corporate Secretary, acting as the Committee's Secretary, attended every meeting. The Committee has disclosed its annual performance in the Corporate Governance Committee Report for 2013.

8.1.3.2 The Audit Committee

PTTEP's Audit Committee has the duties and responsibilities according to its charter as follows:-

- (1) To review the Company's financial reports with the external auditor quarterly to ensure accuracy and adequacy.
- (2) To review the Company's performance for compliance with the securities and exchange laws, SET's regulations, and other laws related to the business.
- (3) To review connected transactions or transactions that may lead to conflicts of interest to ensure that these transactions comply with the laws and SET's regulations, and are reasonable as well as in the best interests of the Company.
- (4) To review that the Company has an efficient and appropriate internal control and internal audit system including the audit reports and approaches taken, and to assess audit results in various activities of the Company according to the procedures and acceptable standards in coordination with the external auditor.
- (5) To consider, select, and propose the appointment of the external auditor, to consider the proposal of the audit fees, and to attend the non-executive session meeting with the external auditor at least once a year.
- (6) To determine the independence of the Company's Internal Audit Department.
- (7) To endorse the appointments and transfers, to review merits or punishments, and to conduct performance appraisal of the Head of Internal Audit Department.
- (8) To approve the audit plan of the Internal Audit Department.
- (9) To endorse the budget and workforce requirements of the Internal Audit Department for the Management to propose to the Board.
- (10) To approve the charter of the Internal Audit Department.
- (11) To approve "Conflict of Interest Form" of the Head of Internal Audit Department in a case that he or she must personally conduct the auditing.
- (12) To endorse auditing results in the annual audit plan, additional auditing results as especially requested, and performance of the advisory services provided to other departments.
- (13) To attend the shareholders' meetings to answer questions regarding the Audit Committee or the appointment of the external auditor.
- (14) To consider a revision of the Audit Committee Charter consistently to ensure comprehensiveness.
- (15) To perform other duties as assigned by the Board.

(16) To prepare the Audit Committee Report and disclose it in the Company's annual report.

The Audit Committee consists of at least three directors, all of whom are independent directors, with knowledge, expertise, and experience in auditing financial statements. The current members of the committee, effective from 25 April 2013 to 24 April 2016, are as follows:-

Director Name	Position	Financial Statements Audit Experience
Mr. Ampon Kittiampon	Chairman for two terms ● 1 st term: 25 April 2011- 30 March 2013 ● 2 nd term: 25 April 2013 – Present	<ul style="list-style-type: none"> ● December 2005 - April 2007: Member of the Audit Committee, Rayong Refinery Plc. ● May - December 2007: Chairman of the Audit Committee, Rayong Refinery Plc. ● April 2010 - April 2011: Chairman of the Audit Committee, PTT Plc.
Mrs. Varanuj Hongsaprabhas	Member 25 April 2013 - Present	<ul style="list-style-type: none"> ● 2006 – 2009: Chairman of the Audit Committee, Port Authority of Thailand ● 2006 – 2009, 2012 – 2013: Chairman of the Audit Committee, Office of the Government Pawnshop 2009 – 2011: Member of the Audit Committee, TOT Plc.
Mr. Achporn Charuchinda	Member 31 October 2013 - Present	<ul style="list-style-type: none"> ● 2007 – 2013: Chairman of the Audit Committee, Bank of Thailand's Financial Institutions Development Funds ● October 2013 – Present: Member of the Audit Committee, Metropolitan Waterworks Authority

In 2013, the Audit Committee held 13 meetings and 63 agenda items were considered, while all incumbent directors as well as the Secretary to the Audit Committee attended every meeting. The Committee has disclosed its annual performance in the Audit Committee Report for 2013.

8.1.3.3 The Nominating Committee

PTTEP's Nominating Committee has the duties and responsibilities according to its charter as follows:-

(1) To select and nominate the name of individuals qualified to be directors or President and Chief Executive Officer when there is a vacancy or to replace those whose term have expired for election by the Board of Directors or by the shareholders in consideration with the Board composition, knowledge and capability and their experiences which is useful to PTTEP, the number of company they serve as a director, and their conflict of interest.

(2) To prepare list of possible candidates for new directors or President and Chief Executive Officer in advance and/or when there is a vacancy

(3) To acquire comments or suggestions from the Board and/or President and Chief Executive Officer of PTT (If any) to supplement the selection decision before submitting it for consideration to the Board's or the shareholders' meetings, as the case may be.

(4) To consider annual Board Performance Target and the Performance Agreement of the Board and President and Chief Executive Officer and propose to the Board for approval; and to set the Performance Evaluation Form of the Chairman, Directors, Sub-committees and President and Chief Executive Officer.

(5) To consider and propose qualified directors to be a member and a chairman of the Sub-committee when there is a vacancy or propose the restructuring of Sub-committees as deem appropriate.

(6) To review its own charter consistently to ensure its appropriateness.

(7) To disclose the sub-committees' performance in the Company's annual report.

(8) To perform other duties relevant to the selection of directors or Chief Executive Officer as may be assigned by the Board.

The Nominating Committee consists of at least three directors, most of whom are independent directors, including the Chairman. Currently, of the three current members, two are independent directors. The current members of the Committee, effective from 28 June 2012 to 27 June 2015, are as follows:-

General Warawat Indradat	Chairman and Independent Director
Mr. Pailin Chuchottaworn	Member

General Pornchai Kranlert Member and Independent Director

General Warawat Indradat assumed the chairmanship from 31 October 2013 in replacement of Mr. Chaikasem Nitisiri. In 2013, the Committee held five meetings and most incumbent directors as well as the Company's Corporate Secretary, acting as the Committee's Secretary, attended every meeting. The Committee has disclosed its annual performance in the Nominating Committee Report for 2013.

8.1.3.4 The Remuneration Committee

PTTEP's Remuneration Committee has the duties and responsibilities according to its charter as follows:-

(1) To consider remuneration packages for the Board and sub-committees under fair and reasonable criteria or principles according to the Company's performance, the industry practices, as well as the scope of duties and responsibilities, and to propose them to the shareholders for approval.

(2) To consider the remuneration packages for the President and Chief Executive Officer, and the salary structure of the Company's executives under fair and reasonable criteria or principles, and to propose them to the Board for approval. For remuneration of the President and Chief Executive Officer, the duties and responsibilities, together with the annual performance, are also taken into consideration.

(3) To evaluate its own performance and report to the Board for an annual disclosure to shareholders.

(4) To review its own charter consistently to ensure appropriateness.

(5) To perform other duties as assigned by the Board.

The Remuneration Committee consists of at least three directors, most of whom are independent directors, including the Chairman. Of the three current members, two are independent directors. The current members of the committee, effective from 28 June 2012 to 27 June 2015, are as follows:-

General Pornchai Kranlert Chairman and Independent Director

General Warawat Indradat Member and Independent Director

Mr. Nuttachat Charuchinda Member

General Pornchai Kranlert assumed the chairmanship from 25 April 2013 in replacement of General Lertrat Ratanavanich, while General Warawat Indradat was appointed as member to fill in a vacancy on the same date. In 2013, the Committee held two meetings and all

incumbent directors as well as the Company's Corporate Secretary, acting as the Committee's Secretary, attended every meeting. The Committee has disclosed its annual performance in the Remuneration Committee Report for 2013.

8.1.3.5 The Risk Management Committee

PTTEP's Risk Management Committee has the duties and responsibilities according to its charter as follows:-

- (1) To define the Company's risk management policy and framework, and to advise to the Board and the Management of the Company's enterprise-wide risk management.
- (2) To oversee the implementation of the Company's risk management system, and to provide relevant supports necessitated for the enterprise-wide risk management to succeed, with an emphasis on risk awareness and appropriate use of the resources.
- (3) To review the Company's enterprise-wide risk profile related to its corporate direction and the value chain in the E&P business, including risks related to exploration, development, production and those related to safety, security, health, and the environment, investment and those related to geopolitical concerns in each of the countries invested, finance and commerce, corporate capability, and laws and regulations, in addition to preventive measures and mitigation strategy to manage the risks to acceptable levels. To monitor, evaluate, and improve action plans to mitigate risks continuously and suitably to operating conditions by using the Enterprise Risk Management Dashboard as a tool to monitor the risk owners whose primary responsibilities are to monitor, update related information, as well as to define mitigation strategies.
- (4) To continuously support the Company's risk managers in assessment of risks to be in line with the corporate plans and comparable to leading companies.
- (5) To provide the Board with risk evaluation and management report on a regular basis, but immediately if the risks are of significant matters to the Company.

The Risk Management Committee consists of at least three directors, with at least one being an Independent Director. The current six members of the Committee, two of whom are independent directors, are as follows:-

Mr. Prajya Phinyawat	Chairman and Independent Director
Mr. Viraphol Jirapraditkul	Member
Mrs. Varanuj Hongsaprabhas	Member and Independent Director

Mr. Manas Jamveha	Member
Mr. Chakkrit Parapuntakul	Member
Mr. Tevin Vongvanich	Member

Mr. Viraphol Jirapraditkul's term as a member of the Risk Management Committee ended in 2013; however, as a result of the Annual General Shareholders' Meeting on 27 March 2013, he was re-appointed to the post, effective on April 25, 2013, when Mr. Manas Jamveha, and Mr. Chakkrit Parapuntakul were appointed as the two new members of the Committee.

In 2013, the Risk Management Committee held 15 meetings, with the Ms. Penchun Jarikasem, Executive Vice President of Finance and Accounting Group, acting as the Committee's Secretary. The Committee has disclosed its annual performance in the Risk Management Committee Report for 2013.

8.1.3.6 Independent Directors Committee

PTTEP's Independent Directors Committee has the duties and responsibilities according to its charter as follows:-

- (1) To propose significant issues or matters beneficial to the Company as well as to major and minor shareholders to the Board and/or the President and Chief Executive Officer for their considerations (as the case may be).
- (2) To advise the Board and Independent Directors on their roles and duties for the benefits to the Company and shareholders.
- (3) To examine that the Company's operations comply with the laws relevant to independent directors and review the definition of independent directors to be lawfully appropriate and complete.
- (4) To perform other duties as assigned by the Board, provided that such duties do not affect the Committee's independence.
- (5) To review the Committee's charter regularly to ensure appropriateness and timeliness.

The following were the members of the Committee, as of 31 December 2013.

Mr. Norkun Sitthiphong	Chairman
General Pornchai Kranlert	Vice Chairman
Mr. Prajya Phinyawat	Member

Mr. Ampon Kittiampon	Member
Mrs. Varanuj Hongsaprabhas	Member
Mr. Achporn Charuchinda	Member
General Warawat Indradat	Member
Mr. Maitree Srinarawat	Member
Mr. Athapol Yaisawang	Member

In 2013, the Independent Directors Committee held four meetings, while all incumbent directors as well as the Company's Corporate Secretary, acting as the Committee's secretary, attended every meeting. The Committee has disclosed its annual performance in the Independent Directors Committee Report for 2013.

PTTEP Definition of Independent Directors

The Good Corporate Governance of PTTEP has defined the qualification of independent directors stricter than those defined by the Capital Market Supervisory Board, specifically in the area of shareholding (No. 1). The PTTEP definitions of Independent Director are as follows;

(1) holding shares not exceeding 0.5% of the total number of shares with voting rights of PTTEP, its parent company, subsidiary company, associate company, major shareholder or controlling person, including shares held by related persons of such independent director.

(2) neither being nor used to be an executive director, employee, staff, advisor who receives salary, or controlling person of PTTEP, its parent company, subsidiary company, associate company, same-level subsidiary company, major shareholder or controlling person, unless the foregoing status has ended not less than two years prior to the date of filing an application with the Office. Such prohibited characteristic shall not include the case where the independent director used to be a government official or advisor of a government unit which is a major shareholder or controlling person of PTTEP.

(3) Not being a person related by blood or legal registration as father, mother, spouse, sibling, and child, including spouse of child, executive, major shareholder, controlling person, or person to be nominated as executive or controlling person of PTTEP or its subsidiary company.

(4) neither having nor used to have a business relationship with PTTEP, its parent company, subsidiary company, associate company, major shareholder or controlling person, in the manner which may interfere with his independent judgement, and neither being nor used to be a significant shareholder or controlling person of any person having a business relationship with PTTEP, its parent company, subsidiary company, associate company, major shareholder or controlling person, unless the foregoing relationship has ended not less than two years.

The term 'business relationship' under the first paragraph shall include any normal business transaction, rental or lease of immovable property, transaction relating to assets or services or granting or receipt of financial assistance through receiving or extending loans, guarantee, providing assets as collateral, and any other similar actions, which result in PTTEP or his counterparty being subject to indebtedness payable to the other party in the amount of three percent or more of the net tangible assets of PTTEP or twenty million baht or more, whichever is lower. The amount of such indebtedness shall be calculated according to the method for calculation of value of connected transactions under the Notification of the Capital Market Supervisory Board governing rules on connected transactions mutatis mutandis. The consideration of such indebtedness shall include indebtedness occurred during the period of one year prior to the date on which the business relationship with the person commences.

(5) neither being nor used to be an auditor of PTTEP, its parent company, subsidiary company, associate company, major shareholder or controlling person, and not being a significant shareholder, controlling person, or partner of an audit firm which employs auditors of PTTEP, its parent company, subsidiary company, associate company, major shareholder or controlling person, unless the foregoing relationship has ended not less than two years.

(6) neither being nor used to be a provider of any professional services including those as legal advisor or financial advisor who receives service fees exceeding two million baht per year from PTTEP, its parent company, subsidiary company, associate company, major shareholder or controlling person, and not being a significant shareholder, controlling person or partner of the provider of professional services, unless the foregoing relationship has ended not less than two years.

(7) not undertaking any business in the same nature and in competition to the business of PTTEP or its subsidiary company or not being a significant partner in a partnership or being an executive director, employee, staff, advisor who receives salary or holding shares exceeding one per cent of the total number of shares with voting rights of other company which undertakes business in the same nature and in competition to the business of PTTEP or its subsidiary company;

(8) Not being a director appointed as representative of directors of PTTEP, major shareholder or shareholder who is related to major shareholder.

(9) Not having any other characteristics which cause the inability to express independent opinions with regard to PTTEP's business operations.

After being appointed as independent director with the qualifications under No. 1 to 9, the independent director may be assigned by the board of directors to take part in the business decision of PTTEP, its parent company, subsidiary company, associate company, same-level subsidiary company, major shareholder or controlling person, provided that such decision shall be in the form of collective decision.

Hence, definition of each specific words mentioned herein is subjected to the Notification of the Capital Market Supervisory Board RE: Determination of Definitions relating to Issuance and Offer for Sale of Securities.

Business Relationship or Professional Services of Independent Directors for the Company during the Past Fiscal Year

None

8.1.4 Self Appraisal of the Board

PTTEP has constructed its self-appraisal of the Board according to the PTTEP Group's Good Corporate Governance and Business Ethics. In 2013, the appraisal of the Board will calculate from the score from Board Performance Target and the appraisal of the Board, while the Chairman and sub-committees will be evaluated by the Board using the appraisal forms. The Nominating Committee will determine the appraisal forms and consider the Board Performance Target prior to proposing to the Board for approval.

The Board's self-appraisal comprised (1) individual self-appraisal by himself or herself, (2) individual cross-appraisal by other directors, (3) appraisal of the whole Board, (4) appraisal

of sub-committees, and (5) appraisal of the Chairman. The Company will forward the score results to the Board for acknowledgement before disclosing them in the annual report. Recommendations from the Board's appraisal will then be used for efficiency improvement of the Board, the Sub-committees, the Chairman, and the Company in the future.

Unchanged from 2012, the 2013 appraisal set a weight for each topic with a scoring system of 1 to 5; 1 = urgent improvement, 2 = improvement needed, 3 = fair, 4 = good, 5 = very good. The annual results are as follows:-

(1) The self-appraisal score averaged at 4.86 while it was 4.74 in 2012, and it was close to 5, the highest score.

(2) The cross-appraisal averaged at 4.92 while it was 4.83 in 2012, and it was close to 5, the highest score.

(3) The appraisal of the Board consisted of two parts.

(3.1) Score from the Board Performance Target with 50% weight was 3.47.

(3.2) Score from self-appraisal of the whole Board with 50% weight averaged at 4.89 while it was 4.83 in 2012, and it was close to 5, the highest score.

Therefore, the appraisal of the Board averaged at 4.18 overall while it was 4.45 in 2012.

(4) The appraisal score of the Audit Committee was 4.96 while it was 4.77 in 2012, and it was close to 5, the highest score.

(5) The appraisal score of the Remuneration Committee was 4.91, similar to the score in 2012, with 5 being the highest score possible.

(6) The appraisal score of the Nominating Committee was 4.86 while it was 4.66 in 2012, and it was close to 5, the highest score.

(7) The appraisal score of the Corporate Governance Committee was 4.95 while it was 4.89 in 2012, and it was close to 5, the highest score.

(8) The appraisal score of the Risk Management Committee was 4.93 while it was 4.90 in 2012, and it was close to 5, the highest score.

(9) The appraisal of the Chairman by the Board was 4.98 while it was 4.88 in 2012, and it was close to 5, the highest score.

In 2014, the Company will review the 2013 appraisal results and implement necessary improvements.

8.1.5 Performance Appraisal of the President and Chief Executive Officer

The Board assigns the Remuneration Committee to conduct performance appraisal of the President and Chief Executive Officer (CEO). The appraisal form, which is determined by the Nominating Committee and is based on the Performance Agreement for the President and Chief Executive Officer, in which the result will be measured by the Company's KPI in that year. The appraisal form must also be approved by the Board to ensure check and balances system as well as to allow the Company to monitor the performance of the President and Chief Executive Officer in comparison to his or her preset short- and long-term targets. The appraisal result essentially provides the transparency and justification in consideration of the President and Chief Executive Officer's remuneration, in addition to promoting the Company's Good Corporate Governance and a greater operational efficiency in future.

8.1.6 The Board's Meeting

The Board's monthly meetings and agendas are scheduled and predetermined in advance each year by the Board itself. Meetings related to the Company's strategic planning, in which the Board has greatly committed its time and priority, are commonly held in the off-site meeting. Additional meetings were held when deemed appropriate. In 2013, there were 14 of the Board's meetings. The Board received meeting's invitations, drafts of minutes of the Board meetings, and agendas to review and therefore prepare themselves ahead prior to attending the meetings.

Generally, the Company's Chairman and the President and Chief Executive Officer will consider agendas to be proposed in the Board's meetings; in practice the directors are however able to propose an agenda as well. In 2013, there were 84 agendas proposed for approval. Among the agendas were of strategic direction and policy of the Company's operation, annual budgetary, financial statements, governance of the operation in Australia, reforestation project to reduce global warming, project investment, election of directors to fill in the vacancies, and appointing of Sub-committees' members. Some of the agendas meanwhile were of regulation concerns, such as General Procurement Regulations B.E. 2556, Procurement Regulation for Exploration and Production Business B.E. 2556 and the Reporting and Whistleblowing Regulation B.E. 2556. During the year, there were 144 agendas proposed for acknowledgement, most of which were reports of the performance and development of Company's projects, procedures and equipment for new business expansion, PTTEP share investment environment,

plans to increase knowledge and understanding of the Good Corporate Governance and Business Ethics for PTTEP Group, appointment of executives, and results of the sub-committees' meetings. Each of the Board's meetings usually lasted about three hours. The Corporate Secretary attended every meeting to supervise the meetings, to provide advice to the Board about related rules and regulations for proper practices, to take minutes of the meeting and to gather information or meeting documents.

The Board's resolution is based on majority vote, whereas one director is eligible for one vote. Shall a director have a stake in one of the issues, will not attend the meeting and/or not exercise a vote in the particular issue. In the circumstance where the voting is tied, the Chairman of the meeting is entitled to the one additional and final vote.

The issues which are required to receive an approval of more than three-fourth of the total number of the Company's eligible shareholders attending the meeting are as follows:-

- (1) Selling or transferring, in whole or significant parts, of the Company's business.
- (2) Purchasing or accepting of transfer of business of other companies or private companies by PTTEP.
- (3) Making, amending or terminating of contracts related to hiring of the Company's business, in whole or significant parts, including entrustment of the management to, or consolidation of the business with, other entities with the purpose of profit and loss sharing.
- (4) Amending of the Company's Memorandum of Association or the Articles of Association.
- (5) Increasing and decreasing of the Company's capital, issuing of debentures, merger and acquisition, and business dissolution.
- (6) In case where PTTEP or its subsidiaries agrees to enter connected transactions or sales or acquisition of the Company or its subsidiaries assets, as determined by the Stock Exchange of Thailand's announcement on connected of listed companies as the case may be.

Minutes of the Board meetings cover all significant matters in completion. For the issues seeking approval, the resolutions were unanimous. Name of the persons attending or absented from the meetings, name of meetings' attendants, name and content of those who state their opinions, questions, answers, or clarifications are recorded in details, while the reports of the minutes are systematically filed and kept in safety. All of the Directors of the Board usually attend all of the meetings unless an absent deemed necessary. In which case, the director must provide the Boards' Chairman with an absent letter which is subsequently recorded in the report of individual directors' meeting attendance.

In addition, the Board had one non-executive meeting without presence of the Management prior to the ordinary board meeting scheduled for July 2013. The purpose of the meeting was to discuss and clarify some ongoing issues which were of interest, while the results were summarized and acknowledged to the President and Chief Executive Office for further consideration.

8.1.7 Attendance of Sub-Committees in 2013

Sub-committee Member		Number of Meeting Attended/Total Number of Meetings (times)	Corporate Governance Committee	Audit Committee	Remuneration Committee	Nominating Committee	Risk Management Committee
			Total Meetings: 7 times	Total Meetings: 13 times	Total Meetings: 2 times	Total Meetings: 5 times	Total Meetings: 15 times
1. Mr. Norkun	Sitthiphong	14/14	-	-	-	-	-
2. Mr. Viraphol	Jirapraditkul ¹²	14/14	-	-	-	-	12/13
3. Mr. Prajya	Phinyawat	13/14	-	-	-	-	15/15
4. Mr. Tevin	Vongvanich	14/14	-	-	-	-	15/15
5. Mr. Chakkrit	Parapuntakul ¹³	14/14	-	-	-	-	9/9
6. Mr. Ampon	Kittiampon	14/14	-	13/13	-	-	-
7. Mr. Pailin	Chuchottaworn	13/14	-	-	-	4/5	-
8. Mr. Manas	Jamveha ²	13/14	-	-	-	-	8/8
9. General Pomchai	Kranlert	14/14	7/7	-	2/2	5/5	-
10. Mrs. Varanuj	Hongsaprabhas ²	14/14	1/1	10/10	-	-	15/15

* In the meeting on April 25, 2013, the Board assigned four members of the Risk Management Committee, namely, Mr. Prajya Phinyawat, Mrs. Varanuj Hongsaprabhas, Mr. Chakkrit Parapuntakul, and Mr. Tevin Vongvanich, also to the Australia Sub-Committee. The purpose was to oversee the operation of PTTEP Australasia Limited (PTTEP AA) according to the agreements with the Australian Government as well as to be in line with the company's business policy, strategy, and risk management. In 2013, the Australia Sub-Committee held one separate meeting from the Company's Risk Management Committees.

¹² Resigned from directorship of the Risk Management Committee in the 2013 Annual General Shareholders' Meeting on March 27, 2013 and re-assumed the directorship on April 25, 2013.

¹³ From April 25, 2013

- Mr. Chakkrit Parapuntakul assumed directorship of the Risk Management Committee.
- Mr. Manas Jamveha assumed directorship of the Risk Management Committee.
- Mrs. Varanuj Hongsaprabhas resigned from directorship of the Corporate Governance Committee and assumed directorship of the Audit Committee.

Sub-committee Member		Number of Meeting Attended/Total Number of Meetings (times)	Corporate Governance Committee	Audit Committee	Remuneration Committee	Nominating Committee	Risk Management Committee
			Total Meetings: 7 times	Total Meetings: 13 times	Total Meetings: 2 times	Total Meetings: 5 times	Total Meetings: 15 times
11. Mr. Achporn	Charuchinda ¹⁴	13/14	7/7	2/2	-	-	-
12. General Warawat	Indradat ³	11/11	-	-	2/2	1/1	-
13. Mr. Maitree	Srinawat ¹⁵	9/11	6/6	-	-	-	-
14. Mr. Nuttachat	Charuchinda ¹⁶	2/2	-	-	1/1	-	-
15. Mr. Athapol	Yaisawang	1/1	-	-	-	-	-
Former Members of Sub-Committee 2013							
1. Mr. Pichai	Chunhavajira	2/3	-	-	-	-	-
2. General Lertrat	Ratanavanich ¹⁷	3/3	-	3/3	-	-	-
3. Mr. Chaikasem	Nitisiri ¹⁸	5/5	-	4/4	-	1/1	-
4. Mr. Wichai	Pornkeratiwat ¹⁹	9/10	-	-	1/1	-	-

8.1.8 Number of PTTEP Shares Held by the Directors

Director Name		Number of Shares		Difference in Number of Shares	Number of Warrants
		As of December 31, 2013	As of January 1, 2013		
1. Mr. Norkun	Sitthiphong ^{\$, #, ###}	-	-	-	-
2. Mr. Viraphol	Jirapraditkul	-	-	-	-
3. Mr. Prajya	Phinyawat ^{\$}	15,000	15,000	-	-
4. Mr. Tevin	Vongvanich ^{##}	100,787	90,280	10,507	-
5. Mr. Chakkrit	Parapuntakul	-	-	-	-

¹⁴ From October 31, 2013

- Mr. Achporn Charuchinda assumed directorship of the Audit Committee.
- General Warawat Indradat assumed chairmanship of the Nominating Committee.

¹⁵ Assumed directorship of the Corporate Governance Committee on April 25, 2013

¹⁶ Assumed directorship of the Remuneration Committee on November 1, 2013

¹⁷ Resigned from Chairman of the Remuneration Committee and directorship of the Audit Committee on March 27, 2013

¹⁸ Resigned from Chairman of the Nominating Committee and directorship of the Audit Committee on June 26, 2013

¹⁹ Resigned from directorship of the Remuneration Committee on October 2, 2013

Director Name	Number of Shares		Difference in Number of Shares	Number of Warrants
	As of December 31, 2013	As of January 1, 2013		
6. Mr. Ampon Kittiampon [§]	-	-	-	-
7. Mr. Pailin Chuchottaworn	-	-	-	-
8. Mr. Manas Jamveha	-	-	-	-
9. General Pomchai Kranlert [§]	-	-	-	-
10. Mrs. Varanuj Hongsaprabhas [§]	-	-	-	-
11. Mr. Achporn Charuchinda ^{@, §}	-	-	-	-
12. General Warawat Indradat ^{@@, §}	-	-	-	-
13. Mr. Maitree Srinarawat ^{@@, §}	-	-	-	-
14. Mr. Nuttachat Charuchinda ^{@@@}	-	-	-	-
15. Mr. Athapol Yaisawang ^{@@@, §}	-	-	-	-
Former Members of Sub-Committee 2013				
1. Mr. Pichai Chunhavajira [*]	-	-	-	-
2. General Lertrat Ratanavanich [*]	1,000	-	1,000	-
3. Mr. Chaikasem Nitisiri ^{**}	-	-	-	-
4. Mr. Wichai Pomkeratiwat ^{***}	-	-	-	-

[§] Independent Directors

[@] Assumed directorship on January 1, 2013.

^{@@} Assumed directorship on March 27, 2013.

^{@@@} Assumed directorship on November 1, 2013.

^{@@@@} Assumed directorship on December 17, 2013.

^{*} Ended directorship term in the 2013 Annual General Shareholders' Meeting on March 27, 2013.

^{**} Resigned from directorship on June 26, 2013

^{***} Resigned from directorship on October 2, 2013

[#] Chairman

^{##} President and Chief Executive Officer

^{###} Chairman of Independent Directors

The Audit Committee consisted of 6, 10 and 11.

The Remuneration Committee consisted of 9, 12 and 14.

The Nominating Committee consisted of 7, 9 and 12.

The Corporate Governance Committee consisted of 9, 11 and 13.

The Risk Management Committee consisted of 2, 3, 4, 5, 8 and 10.

8.2 The Management

Currently, PTTEP's management, according to the definition of management defined by the Capital Market Supervisory Board (CMSB), consists of 14 members whose biography, qualification, and past experience are specified in the Attachment 1

Number of PTTEP Shares Held by the Management* and their Spouses

Name		Position	Number of Shares as of 31 December 2013	Number of Shares as of 1 January 2013	Difference in Number of Shares
1. Mr. Tevin	Vongvanich	President and Chief Executive Officer	100,787	90,280	10,507
2. Mr. Somkiet	Janmaha	Executive Vice President, Geosciences, Reservoir Engineering & Exploration Group	402,697	395,100	7,597
3. Mr. Asdakorn	Limpiti	Executive Vice President, Strategy and Business Development Group	47,783	50,000	(2,217)
Spouse			89,000	82,000	7,000
4. Mr. Chatchawal	Eimsiri	Executive Vice President attached to President and Chief Executive Office	7,091	-	7,091
5. Mr. Somporn	Vongvuthipornchai	Executive Vice President, International Asset Group	176,787	169,800	6,987
Spouse			3,500	3,500	-
6. Mr. Pairoj	Rangponsumrit	Executive Vice President, Domestic Asset Group	107,418	N/A	N/A
Spouse			3,500	N/A	N/A

* Including shares received from the Employee Joint Investment Program: EJIP

Name		Position	Number of Shares as of 31 December 2013	Number of Shares as of 1 January 2013	Difference in Number of Shares
7. Mr. Somchai	Manopinives	Executive Vice President, Operations Supply Chain & Technology Group	176,787	85,498	91,289
8. Mr. Phongsthorn	Thavisin	Executive Vice President, Development & Engineering Group	6,844	-	6,844
9. Mr. Thiti	Mekavichai	Executive Vice President, Human Resources & Business Services Group	16,073	8,000	8,073
10. Ms. Penchun	Jarikasem	Executive Vice President, Finance & Accounting Group	13,185	6,000	7,185
11. Mr. Yongyos	Krongphanich ²⁰	Senior Vice President, Finance & Strategic Information Technology Division, Finance and Accounting Group	63,056	69,500	(6,444)
12. Mr. Pornthip	Uyakul ²¹	Senior Vice President, Accounting Division, Finance and Accounting Group	65,119	58,593	6,526
13. Mrs. Chanamas	Sasananand	Vice President, Finance Department	13,312	10,500	2,812

²⁰ Appointed as Senior Vice President, Finance and IT Strategy Division, Finance & Accounting Group on January 1, 2013

²¹ Appointed as Senior Vice President, Accounting Division, Finance & Accounting Group on 1 January 2013

Name		Position	Number of Shares as of 31 December 2013	Number of Shares as of 1 January 2013	Difference in Number of Shares
14. Ms. Jaroonsri	Wankertphon	Vice President, Managerial Accounting Department, Finance and Accounting Group	64,005	79,205	(15,200)

8.3 Corporate Secretary

The Corporate Secretary plays a major role in effectively coordinating internally among the Chairman, and the President and Chief Executive Office, or the Management, and externally among the Company, shareholders, and regulators. On 1 October 2013, Mrs. Pranot Tirasai was appointed by the Board as the Corporate Secretary as well as the Board's secretary, in replacement of Mr. Theerasak Tancharoenlarp. Duties and responsibilities of the Corporate Secretary are specified in the Attachment 1.

8.4 Remuneration of the Directors and the Management

8.4.1 Remuneration of the Board and Directors of Sub-Committees

PTTEP has a sound and transparent policy of remuneration for directors of the Board and sub-committees. The Remuneration Committee, who is responsible for the policy, reviews the remuneration with prudence by taking into consideration remuneration of listed and comparable companies in the industry, the Company's performance, the Directors' duties and responsibilities, the overall economic situation and shareholders' opinions. The 2013 Annual General Shareholders' Meeting (AGM) approved the following remunerations for the Board's Directors and Sub-committees' Directors, as proposed by the Remuneration Committee.

Remuneration rates for the Board of Directors (unchanged from 2012)

- (1) Monthly allowance of 40,000 baht per person per month in full-month payment
- (2) Meeting allowance of 40,000 baht per person per attended meeting
- (3) Bonus for the Board if there is a dividend in that year, totaling 0.1% of the Company's consolidated net profit in that year, but no more than 50 million baht per year, and in proportion to the director's period in the position
- (4) 25% increase in all of the above for the Chairman

Remuneration rates for the Company's sub-committee Directors (unchanged from 2012)

This is in association to the Company's five standing sub-committees, namely, the Corporate Governance Committee, the Audit Committee, the Remuneration Committee, the Nominating Committee, and the Risk Management Committee.

- (1) Meeting allowance of 40,000 baht per person per attended meeting
- (2) 25% increase for the sub-committee's Chairman
- (3) No remuneration in a case of circulation
- (4) Excluding the sub-committees' directors who are in the Management from the top executive level down

Remuneration of the Directors and the sub-committee Members in 2013

Director Names	Remuneration							2013 Bonus Paid in 2014 ^{\$}	Total
	Board		Audit Committee	Corporate Governance Committee	Remuneration Committee	Nominating Committee	Risk Management Committee		
	Meeting Allowance	Monthly Allowance	Meeting Allowance	Meeting Allowance	Meeting Allowance	Meeting Allowance	Meeting Allowance		
1. Mr. Norkun Sitthiphong	700,000	600,000	0	0	0	0	0	4,098,360.66	5,398,360.66
2. Mr. Viraphol Jirapraditkul	560,000	480,000	0	0	0	0	480,000	3,278,688.52	4,798,688.52
3. Mr. Prajya Phinyawat	520,000	480,000	0	0	0	0	750,000	3,278,688.52	5,028,688.52
4. Mr. Tevin Vongvanich	560,000	480,000	0	0	0	0	0	3,278,688.52	4,318,688.52
5. Mr. Chakkrit Parapuntakul	560,000	480,000	0	0	0	0	360,000	3,278,688.52	4,678,688.52
6. Mr. Ampon Kittiampon	560,000	480,000	650,000	0	0	0	0	3,278,688.52	4,968,688.52
7. Mr. Pailin Chuchottaworn	520,000	480,000	0	0	0	160,000	0	3,278,688.52	4,438,688.52
8. Mr. Manas Jamveha	520,000	480,000	0	0	0	0	320,000	3,278,688.52	4,598,688.52
9. General Pornchai Kranlert	560,000	480,000	0	350,000	100,000	200,000	0	3,278,688.52	4,968,688.52
10. Mrs. Varanuj Hongsaprabhas	560,000	480,000	400,000	40,000	0	0	600,000	3,278,688.52	5,358,688.52
11. Mr. Achporm Charuchinda	520,000	480,000	80,000	280,000	0	0	0	3,278,688.52	4,638,688.52

^{\$}Paid after the 2014 annual general shareholders' meeting approves dividend to the shareholders

Director Names	Remuneration							2013 Bonus Paid in 2014 ^{\$}	Total
	Board		Audit Committee	Corporate Governance Committee	Remuneration Committee	Nominating Committee	Risk Management Committee		
	Meeting Allowance	Monthly Allowance	Meeting Allowance	Meeting Allowance	Meeting Allowance	Meeting Allowance	Meeting Allowance		
12.General Warawat Indradat	440,000	360,000	0	0	80,000	50,000	0	2,515,158.32	3,445,158.32
13. Mr. Maitree Srinarawat	360,000	360,000	0	240,000	0	0	0	2,515,158.32	3,475,158.32
14. Mr. Nuttachat Charuchinda	80,000	80,000	0	0	40,000	0	0	547,945.20	747,945.20
15. Mr. Athapol Yaisawang	40,000	40,000	0	0	0	0	0	134,740.62	214,740.62
Former Directors in 2013									
1. Mr. Pichai Chunhavajira	80,000	120,000	0	0	0	0	0	772,512.91	972,512.91
2. General Lertrat Ratanavanich	120,000	120,000	120,000	0	0	0	0	772,512.91	1,132,512.91
3. Mr. Chaikasem Nitisiri	200,000	240,000	160,000	0	0	50,000	0	1,589,939.36	2,239,939.36
4. Mr. Wichai Pornkeratiwat	360,000	400,000	0	0	40,000	0	0	2,470,244.77	3,270,244.77

In 2013, remuneration of PTTEP's independent directors who also served as an independent director in PTT, which is the Company's parent company, can be summarized as follows:-

Director Names	Remuneration		Meeting Allowance for Sub-Committee Director	Total Remunerations
	Bonus	Meeting and Monthly Allowance		
1. General Warawat Indradat	830,136.99	181,000.00	24,000.00	1,035,136.99
2. Mr. Athapol Yaisawang	304,109.59	108,500.00	37,500.00	450,109.59

8.4.2 Remuneration of the Directors of Subsidiaries and Associated Companies

PTTEP's subsidiaries are functional units of the Company's petroleum operations or related businesses, looking out for its optimal benefits. The subsidiaries are considered as the places where the Company's assets are preserved and aligned with the Company's investment strategy, and, for those with full-scale operation, also for their own purposes. In general, these subsidiaries have been structured to have the least number of directors, whereas the rest are fulfilled by those appointed by PTTEP to ensure that the subsidiaries' assets are managed for the Company's best interest.

The Company's executives who are assigned to act as directors of the subsidiaries and associated companies, which are in the E&P business or those directly related, such as PTTEP Services Co., Ltd., on behalf of the Company do not receive additional remuneration. This is because it is considered as a part of their duties and responsibilities for the Company. On the other hand, according to PTTEP's Good Corporate Governance, the executives are entitled to additional remuneration if the duties and responsibilities are of additional assignments in companies, such as PTT ICT Solutions Co., Ltd., and Energy Complex Co., Ltd.

8.4.3 Remuneration of the President and Chief Executive Officer

Remuneration of the President and Chief Executive Officer is defined under the principles which are unbiased, reasonable, justifiable, and transparent. PTTEP's Remuneration Committee is responsible for reviewing remuneration of the President and Chief Executive Officer prior to proposing for the Board's approval. The approval from the Board is based on his

or her performance, duties and responsibilities, the Company's performance, remuneration of listed companies with and similar size in the same industry, and the overall economic situation.

8.4.4 Remuneration of the Executives

PTTEP's Remuneration Committee is responsible for the salary structure of the Company's executives. The key principles are to produce an unbiased and reasonable structure, which reflects not only the Company's own business nature, its performance, and his or her performance, but also some of the variables which can be compared to and justified by those of other leading companies in the industry. The Board must give an approval to the structure before its implementation.

Meanwhile, the President and Chief Executive Officer is responsible for reviewing the appropriateness of the remuneration of each of the executives as well as their annual salary increase, taking into consideration his or her overall performance, group-oriented and target-based performance, and the Company's performance.

To maintain the Company's remuneration competitiveness, PTTEP conducts an annual survey on remuneration of leading companies in the industry. The information gathered through the survey allows the Remuneration Committee to better understand the current market situation to further increase its competitiveness in the job market, and to be able to provide the Company's Board with thorough explanations particularly when the changes in the salary structure and payment method are drastic.

Remuneration of the Executives

	2012		2013	
	Number	Total Amount (Baht)	Number	Total Amount (Baht)
Salary	11 ²²	54,759,421	10 ²³	55,799,256
Bonus		34,365,746 ²⁴		35,372,310 ²⁵
Other compensation ²⁶		6,830,786		8,060,883
Total		95,955,953		99,232,449

²²Executives, 11 in total, consisted of the President and Chief Executive Office, Executive Vice Presidents, and PTT's executives who has been seconded to PTTEP.

²³Executives, 10 in total, consisted of the President and Chief Executive Office, Executive Vice Presidents, and PTT's executives who has been seconded to PTTEP.

²⁴Bonuses for 2012, paid in January and February 2013

²⁵Includes bonuses for 2013, paid January and February 2014

²⁶Provident Fund

8.5 Personnel

As of 31 December 2013, PTTEP and its subsidiaries had a total workforce of 4,316.

Number of Employees

Employee Type	Total (Persons)
Permanent Employees	2,075
Thai Contract Employees	1,514
Non-Thai Contract Employees	184
Local Employees	523
Seconded Employees	20
Total	4,316

Based on the Company's SAP database as of 31 December 2013

- Of the total number of the permanent employees, 2,065 were of PTTEP while 9 were of PTTEP Siam. The number also included 13 employees who were on a long-term leave.
- Of the total number of the employees abroad, 242 were of non-Thai contract employees, and 278 were of non-Thai permanent employees.
- The total number of Thai contract employees did not include outsourced staffs, such as maid and drivers, of 355.

Number of Employees of Each Function Group

Function Group	Permanent Employees	Thai Contract Employees	Non-Thai Contract Employees	Local Employee	Seconded Employee
President and Chief Executive Officer	142	57	1		1
Domestic Asset	544	562	14		6
Development & Engineering	304	218	60	29	3
Finance & Accounting	178	180			
Geosciences, Reservoir Engineering & Exploration	180	45	19		
Human Resources & Business Services	155	116	2		
International Asset	222	56	42	483	7
Operations Supply Chain & Technology	272	268	43		2
Strategy and Business Development	78	12	3	11	1
Total	2,075	1,514	184	523	20

Base on the Company's SAP database as of 31 December 2013

Employee Turnover

	Ins	Outs
Permanent Employees	282	73
Thai Contract Employees	334	242
Non-Thai Contract Employees	61	5
Local Employees	209	186
Seconded Employees	10	5

Base on the Company's SAP database as of 31 December 2013

PTTEP had no significant change in the number of employees and no major disputes about labor in the past three years.

In 2013, compensation (salary, bonus, and contribution to the provident fund) of PTTEP's and its subsidiaries' (PTTEP Services Co., Ltd. and PTTEP Siam) employees, including wages of seconded workers, totaled THB 3,995,990,527(only PTTEP and PTTEP Siam with the bonus paid in January and February 2014).

8.5.1 Human Resource Development Policy

To enhance the capability of the organization and its personnel in preparation for PTTEP's continuous expansion in Thailand and overseas, the Company has improved its human resources development systems and processes by implementing its competency-based training and development approach to accelerate the development. The development was as follows:-

(a) In-House and External Training

In addition to in-house training, staff and managers of all levels were given opportunities to attend training programs and seminars, domestically and internationally, which included technical and professional training, SSHE, IT, English language, organizational skills and knowledge as well as business administration and management trainings.

(b) Long-term Training and Development Programs

To prepare employees for their duties and assignments in assigned project within a given time frame, the Company's personnel development plan provided the staff with 1-3 year staff training and development program. During the period, the staff would be given opportunities to train and work with the Company's joint-venture partners as well as services companies, in Thailand and overseas, such as Total, Chevron, Schlumberger, and British Gas.

(c) Master's Degree Scholarship Programs for Employee

The Company provided scholarships to support its employees to pursue master's degree studies in world-class universities in the following areas:

- (1) Petroleum geosciences
- (2) Petroleum engineering
- (3) Engineering relevant to the business
- (4) Drilling engineering
- (5) Business administration

The Company also provided master's degree scholarships to its employees in Thailand's reputable universities such as:

- (1) SASIN Graduate Institute of Business Administration of Chulalongkorn University
- (2) Petroleum geosciences (international program) at Chulalongkorn University.

9. Corporate Governance

9.1 Good Corporate Governance Policy

PTTEP's Board of Directors ("the Board") is aware of its significance and therefore has determined to operate the business adhering to the Good Corporate Governance and Business Ethics of PTTEP Group. The Board is also confident that the strict adherence will successfully lead the Company to achieve its goals of "Growth, Prosperity, Stability, Sustainability and Dignity" and to provide a strong support to enhance the confidence of its shareholders and stakeholders. In this respect, the Board assigns the Corporate Governance Committee to govern, supervise and provide necessities to ensure that Company's operations are in line with the Good Corporate Governance and Business Ethics of the PTTEP Group, and that the Good Corporate Governance is maintained at the level comparable to that of international standards.

With the above regard, in 2013, the Company earned various acceptances through awards and recognitions for its good corporate governance, domestically and internationally (see Awards and Recognitions in part 9.17), while dutifully continuing its compliance with the SET's Corporate Governance Principles for listed companies of 2012 and with practices comparable to some of the internationally accepted practices.

9.1.1 Shareholders' Rights and Equal Treatments

PTTEP understands the importance of the shareholders' rights and equal treatments and therefore it has included these issues in the Company's Good Corporate Governance Policy. A number of guidelines was assembled to assure shareholders of their basic rights which, among others, allow them to trade and transfer the Company's shares, to declare the share ownership, and to attend the shareholders' meetings personally or through their proxies. In addition, shareholders and their proxies are allowed to vote in significant issues which, as clearly stated, must receive an approval from the shareholders' meeting. For instance, these issues include election of new board members in replacement of those due to retire by rotation, determination of the Board's remuneration, appointment and approval of the external auditor and its remuneration, approval of connected transactions, acquisition or disposition of assets which, according to relevant laws, are sizeable, and other issues that are of significance to the Company. Shareholders are also entitled to profit sharing and to receive adequate and timely information from the Company. PTTEP's effort to ensure and enhance shareholders' rights is listed as follows:-

(1) The 2013 Annual General Meeting of Shareholders (AGM) on 27 March 2013 was a part of the Company's effort to regularly meet shareholders in order to maintain the good relationship with them, and essentially, to uphold the right of shareholders.

(1.1) Shareholders were allowed to propose an agenda as well as to nominate qualified candidates for an election of the Company's directors prior to the Annual General Meeting during the period between 1 October to 31 December 2012. The proposed agenda would be considered and treated with equality by using the Company's regulations if they are primarily for the Company's best interest. Meanwhile, in selecting of the directors, the pre-requisites and criteria for the candidates were released in advance on 12 September 2012 through the SET and the Company's website. The Nominating Committee was involved in short-listing candidates for the Board's endorsement. In summary, none of shareholders proposed an agenda or a candidate for the directors' nomination.

(1.2) On 31 January 2013, the Company announced that the Board had approved the AGM date to be on 27 March 2013. The two-month period in between was deemed adequate for shareholders to prepare themselves for the Meeting. Moreover, on 31 January 2013, the Board has resolved to set the date for the dividend payment to be on 14 February 2013; therefore, the share registration closing date was set to be on 15 February 2013.

(1.3) The AGM invitation letter and supplementary documents, both in Thai and English languages, were issued to the shareholders 16 days prior to the Meeting. The invitation letter contained details of each agenda, which clearly stated the type of agenda, be it for the Board's acknowledgement or approval. The invitation letter was also completed with the Meeting agenda items, supplementary documents, the Board's opinions on each agenda as well as other rules and regulations related to the Meeting. A proxy form, as required by the Ministry of Commerce, along with names and details regarding conflicts of interest of the Company's three independent directors, were also attached to allow shareholders to appropriately grant a proxy to one of the three directors to act on their behalf. A comprehensive list of required documents that shareholders must bring to the Meeting was also provided to preserve their rights to attend, while other important attachments included were instructions of the Meeting and voting procedures as well as a map of the Meeting venue. All of the aforementioned information was both in Thai and English languages and was published on the Company's website (www.pttep.com) 33 days prior to the Meeting. The Company also notified shareholders about the publication of this information of its website.

(1.4) PTTEP provided names of the three independent directors in the proxy form to provide shareholders with options to appoint one of them as their proxy. The Company also informed shareholders on the stake of independent directors in each agenda. In electing new directors in replacement of those due to by rotation, an independent director whose term was completed, but was then re-nominated for another term, would be considered as having a conflict of interest (but not a special one). However, in the agenda to approve the remuneration of the Board, all directors would be considered as having a special conflict interest and therefore were abstained from voting regardless of the amount of their shareholding percentage. PTTEP also provided shareholders with advices to use the proxy form which properly represented their voting right. This was in order to ensure that shareholders could cast votes on their own.

(1.5) Thailand Securities Depository Co., Ltd. (TSD), a professional shareholder's meeting service provider to most of the country's leading listed companies, was selected to conduct the Meeting's procedure. TSD's technologically advanced AGM system covered various aspects of the Meeting, namely, registration, vote tallying and calculation procedures as well as compilation and displaying of the resolutions, while TSD was responsible for ensuring timeliness and accuracy of the information. The registration started two hours prior to the Meeting. The barcode system was used to confirm details of each legitimate shareholder by using the barcode appeared on the proxy forms. This was in order to accelerate the registering process, and it was conducted professionally with the TSD's barcode system which helped to provide accurate and efficient detailed and complete information for all the names needed to be accounted for in the registration and proxy rosters.

(1.6) PTTEP provided all of the Meeting's attendants with a manual underlying the entire procedure of the Meeting to ensure a better understanding among shareholders. This included, for instance, voting procedure for the shareholders as well as for the proxies whose voting rights could not be spited (with exception of C-type proxy), vote-tallying process, and process for making inquiries and voicing of one's opinions during the Meeting.

(1.7) PTTEP's Corporate Secretary, who was assigned by the Board's Chairman, informed before the Meeting of the voting and vote-tallying procedures as specified in the Company's Articles of Association (AoA). Voting ballot was required in voting for each of the agenda scheduled for the Meeting, whether the ballot was presented by the rights of the shareholders or those of the proxies. For every agenda, a barcode system was employed to tally

disagreed and abstained votes, and to deduct them from the total eligible voting rights to ensure accurate and effective vote counting procedure. The voting procedure was in compliance with relevant laws, and the Company's AoA voting results for all agenda were summarized and immediately reported in the Meeting room. Moreover volunteers selected from the attendants and independent inspectors were appointed as witnesses. In addition, to protect the rights of shareholders, each agenda was treated and voted separately, whereas, for an agenda regarding election and appointment of directors, shareholders were allowed to cast their votes to appoint a director on an individual basis.

(1.8) External independent legal advisors (inspectors) were engaged to oversee the Meeting to ensure its transparency and that it was conducted lawfully and according to the Company's AoA. Responsibilities of inspectors were examination of documents provided by shareholders or their proxies and verification of a shareholder's potential conflict of interest to ensure that he/she was abstained from voting on such agenda. Moreover, inspectors were assigned to monitor, collect, and tally the ballots as well as review of the Meeting's resolutions and voting results to ensure accuracy.

(1.9) The Meeting proceeded with all agenda in the order stated in the invitation letter. There was also a policy of not allowing any new agenda to be proposed to the Meeting without prior notification to the shareholders in order to provide them with an opportunity and adequate time to carefully consider before making a decision.

(1.10) The Chairman allocated sufficient time for the Meeting and conducted it with adequacy and transparency, according to the agenda stated in the invitation letter. During the Meeting, shareholders were allowed to share their views and to make in-depth inquiries in subjects relating to the Company's operation and the Meeting's agenda, prior to the voting and the resolutions. In addition, the Company also permitted shareholders to submit questions related to the Meeting to the Board prior to the Meeting.

(1.11) PTTEP encouraged shareholders to use the voting ballot cards in every agenda by issuance of different ballot cards, with one for each agenda. The shareholders, therefore, could cast their votes as they deemed appropriate. For the disagreed and abstained votes, shareholders' ballots would be collected, combined, and counted together with those voted in the proxy form by the shareholders' proxies. The resolution of each agenda was then reported in the Meeting. For further transparency, volunteers were selected from the shareholders and independent inspectors were appointed to witness the vote tallying as well as

to sign off on the collected and counted ballot cards to be used afterward for the Company's internal reviews.

(1.12) PTTEP permitted the shareholders who arrived at the meeting after it was commenced to cast their votes in the agenda that was in the consideration process or had not been considered or voted at the time they arrived.

(1.13) The directors were obligated to attend the Meeting, while members of the sub-committees were also encouraged to participate in making clarifications relating each of the agenda, as well as in responding inquiries from shareholders.

(1.14) Minutes of the Meeting, in Thai and English, were accurately and completely recorded. The Minutes covered explanations regarding the Meeting's voting and vote-tallying procedure, its contents, questions or opinions related to the Company's business operation and the Meeting's agenda, as well as clarifications made by the directors and the executives in each agenda. In addition to the listing of the directors who attended and were absent from the Meeting, the Company also recorded the resolution of each agenda, categorized as agreed, disagreed, and abstained, and, later, disclosed the information to the SET and on the Company's website immediately after the Meeting. Meanwhile, within 14 days after the Meeting, the final Minutes of the Meeting were issued and delivered to the Ministry of Commerce, SET, SEC, and all shareholders. This was to provide evidence of the Meeting, as well as to allow shareholders to make objections (if any) and the Company the time to revise the Minutes within the timeline enforced by relevant laws. The Minutes, video and audio clips of the Meeting, were also published, in Thai and English, on the Company's website.

(2) PTTEP regularly discloses information to shareholders through various channels, such as SET, media or printed media, and its website. The purpose is to ensure understanding of the Company's business operations as to develop a long-term and committed relationship with shareholders. Between May and November 2013, the Company organized six field trips for the shareholders to visit the Sirikit oil field in Kam Paeng Petch province. PTTEP Newsletters meanwhile were also made available for shareholders who were interested.

(3) PTTEP also provides a direct communication channel between its minor shareholders and independent directors. Through an e-mail address, shareholders, for instance, are able to attain more information from, and to make inquiries to, these Directors regarding their activities, the Company's Good Corporate Governance, and audit-related issues. Meanwhile,

shareholders are also allowed to contact the Company's Corporate Secretary or Investor Relations directly for additional information.

(4) PTTEP clearly disclosed its shareholding interests in its subsidiaries and associated companies, as well as controlling votes in the Company from PTT Plc. This is to ensure the shareholders that the Company's operational structure is transparent, verifiable, and does not constitute any forms of cross-shareholding or pyramidal-shareholding structure.

(5) PTTEP operates its business with optimal efficiency, with a focus on sustainability of the organization, appropriate and consistent returns to shareholders, and a long-term relationship with the stakeholders. PTTEP ensures that all of which are managed by the professional and acceptable management and monitoring systems.

(6) Control of use of internal information

PTTEP puts a great emphasis on controlling the use of its internal information by including this issue in the Good Corporate Governance and Business Ethics of the PTTEP Group. The issue, in addition to being in line with securities laws, is reviewed regularly to preserve the integrity and equality among all stakeholders.

(6.1) The directors, management and employees are always informed of the Company's regulations and policies regarding use of the internal information to ensure that they understand and strictly follow to prevent one from misusing of the information for his or her personal interests, or the others. Disciplinary actions are clearly specified, while the supervisors who were appointed as the CG leaders are responsible for advising and encouraging their subordinates to follow suit. In the previous year, there was no report of any misuses of internal information.

(6.2) PTTEP, starting from the release of the 2011 financial statements, requires its personnel to abstain from trading of the Company's securities during some specified periods which will be announced in advance by the Corporate Secretary Office and the Compliance Department. These personnel include the directors and executives with the level of senior vice president position and above, as well as Vice President of Corporate Accounting and Vice President of Finance. The prohibition also applies to their spouses and children, and it also prevents the aforementioned individuals to refrain from selling and/or buying the Company's securities, both directly and indirectly (for example, trading via a nominee or a private fund). The specified periods commonly prior to the Company's disclosure of important information that has a potential impact on the Company's share price. For instance, the periods include the period

between one month prior to the release of financial statements or operating results and one day after this information is being submitted to SET as well as disclosed to the public. Violation of prohibition is considered a disciplinary offense.

(6.3) PTTEP must disclose a complete information regarding securities held by its directors and executives with the level of Executive Vice President and above, as well as Senior Vice President of Accounting Division, Senior Vice President of Finance & Strategic Information Technology Division, Vice President of Corporate Accounting, and Vice President of Finance in the Company's annual report, as required by SEC. While being monitored by the Board for their use of the Company's internal information, these personnel must also submit a report each time where there is a change to their shareholding interest in the Company to the Corporate Secretary Office, which will responsible for submitting this report to the Board for their acknowledgement. Meanwhile, it is also a duty of the Corporate Secretary Office to oversee the Company's Business Ethics in respect to the use of internal information.

(6.4) Employees are consistently being informed of information regarding disciplinary action of these violations by the Compliance Department through their electronics newsletters.

(7) PTTEP requires the directors and executives, including Executive Vice President and above, to report the conflicts of interest with the Company immediately shall any concern arises, either by him or herself, or a related person. The Chairman of the Board must then make the report review within seven working days after receiving the report from the Corporate Secretary Office, as stipulated by the Board, according to the Securities and Exchange Act (Volume 4), B.E. 2551 and regulations of the Capital Market Supervisory Board.

(8) PTTEP assembles a set of guidelines to handle conflicts on interest in Good Corporate Governance and Business Ethics of the PTTEP Group. This is in order to have directors, management, and employees to adhere to. The guidelines require the directors and executives, including Executive Vice President and above, to report to the Company about the conflicts of interest from themselves and their related person. Shall there be a conflict of interest, such person must immediately report to the Company and be excluded from participation or abstained from voting in such issue.

9.1.2 Roles of Stakeholders

The Board approved the PTTEP's mission which gives an emphasis on the significance of the rights of stakeholders. The Company's mission is to explore domestically and internationally to produce petroleum products to provide reliable energy supply to the country, to maintain the Company's proud status as a leading E&P company in Asia, and at the same time to create sustainable value to all of the stakeholders.

The Company's stakeholders, whether they are internal or external, who have always been taken into account when making decision are, including but not limited to, shareholders, customers, employees, governments, associated partners, societies, environments, sellers/buyers, creditors, competitors, customs and cultures, and human rights. The importance of the stakeholders is written and clearly reflected in the Good Corporate Governance and Business Ethics of PTTEP Group (CG&BE) where practical guidelines with respect to business ethics were set in an effort to maintain the balanced duties and responsibilities among the Company and its stakeholders. Further information of CG&BE is disclosed on the Company's website.

9.1.2.1 Anti-Corruption

In 2011, PTTEP became a member of the United Nations (UN) Global Compact which is an initiative to encourage businesses worldwide to adopt sustainable and socially responsible policies. The Global Compact comprises four key areas, namely, human rights, labor, environment, and anti-corruption. The Company also signed an agreement to become a member of Thailand's Private Sector Collective Action Coalition Against Corruption in 2010 while last year the Company had sent its staff from related departments to attend seminars which were organized by various organizations, such as the Thai Institute of Directors and the Stock Exchange of Thailand, to acquire and become more knowledgeable of issues regarding anti-corruption, and to apply these knowledge accordingly. In addition, the Company is in the process of applying for the anti-corruption certification from the Board of the Private Sector Collective Action Coalition against Corruption. The certificate requires the Company to conduct a self-appraisal as well as to establish a policy and a procedure according to the guideline and framework of the International Transparency. The Company expects to submit these requirements and be certified within the first half of 2014.

Meanwhile, followings are the progress relating to the application of the anti-corruption certification that the Company and its subsidiaries had taken:

(1) Good Corporate Governance and Business Ethics of the PTTEP Group have been revised particularly for its anti-corruption policies which generally are related political neutrality, conflict of interest, procurement and contractual agreement, acceptance of gifts and receptions, and money laundering to ensure a better understanding of the issues and handling of the situations among the directors, management, and employees.

(2) The Risk Management Policy of the Company requires the directors, management, and employees to understand the risk principles risk and, with assistance from the Internal Control Department and the Risk Management Department, the Company is able to conduct its relevant risks assessment. Risks involving frauds and corruptions are being further assessed, incorporated, and managed though the Company's current risk-controlling instruments, such as the Conflicts of Interest Declaration Report, regulations on procurement, and delegation and use of authorities.

(3) The Company and its subsidiaries have established guidelines to control, prevent and monitor risks associated to frauds and corruptions, while the Board is responsible for ensuring the implementation of the policy and that the Company is equipped with internal control and risk management systems suitable against potential corruptions. Meanwhile, it is also the Board's responsibility to endorse and turn the anti-corruption mindset into a corporate culture. The Board should also ensure that the Company's management, together with the Audit Committee, can effectively perform their duties regarding the matter as executed by international organizations.

While the new-comers were thoroughly screened before being accepted, the Company's current employees and working units were also involved in the process by being requested to review the adequacy of the systems and measurements that the Company has installed to combat against frauds, corruptions, and wrongful acts. In 2013, the Company revised the Reporting and Whistleblowing Regulation 2013 to enhance the effectiveness of the communication channels available for the employees to lodge their complaints. Thus, the new Regulation will help facilitate the Company's control and prevention measurements against frauds and corruptions.

In 2013, the Company continued to publicly communicate to the directors, management, employees, and stakeholders about anti-corruption through various channels. Anti-corruption, for instance, was emphasized throughout the year in most of the activities that the Company organized to promote a better knowledge and understanding of the Good Corporate Governance and Business Ethics of PTTEP Group.

The Corporate Governance Committee and the Audit Committee meanwhile were responsible for reporting the Board on the progress for further assessment and development of the matter. More information about Business Ethics of the PTTEP Group is disclosed in part 9.1.2.

In the past year, there was no report of any disputes or legal complications in association with corruption. The Corporate Secretary Office is responsible for monitoring and periodically reporting of the progress to the Corporate Governance Committee and the Board.

9.1.2.2 Policy on Treatment to Stakeholders

(1) Shareholders

PTTEP respects the rights of shareholders and treats them with equality while also adheres to carry on business with Good Corporate Governance and Business Ethics of the PTTEP Group for a sustainable growth and the optimal value for the shareholders, as detailed in 9.1.1

(2) Employees

1. PTTEP adheres to comply with the UN Principles without the use of illegal workforce in every area it has investments in. The following guidelines are described in Good Corporate Governance and Business Ethics of PTTEP Group.

1.1 To strictly understand and comply with the relevant law related to the business practice of the Company in every area.

1.2 To understand and respect cultural and local custom and tradition without any treatment against them.

1.3 To without using personal relationship and avoid discrimination in race, gender, age, skin color, religion of any other status not involving with works.

2. PTTEP nominates, selects, and employs its staff regarding their records, experience and ability to work in the right position. Employees are consistently developed, promoted in their career path and are allowed to join external activities under the Company's policy.

3. PTTEP has a salary structure that is fair to both the employees and the Company. However, the policy regarding the compensation is revised and updated regularly to reflect the Company's operational short- and long-term performance as well as to effectively attract new knowledgeable and competent staff to the Company while retaining current employees. The structure also takes into account the pay scales and methods currently employed by other local companies in the industry as well as differences in duty and responsibility requirements, skill and expertise requirements, level of difficulty, and employees' capability in respect to their operational performance over the tasks.

4. PTTEP manages and/or enhances the fair welfare for the staff and the Company itself. It considers the payment capacity in the present and in the future. We emphasize on the sustainable welfare for the staff and families' living. These welfare will be for most staff who cannot provide for their own financial capacity plus there is no sufficient governmental support, and lastly, this is common provision granted by the petroleum companies in the country. The program however is revised and updated regularly to reflect the current state of the society and economy, factors related to the Company's business operation, as well as issues that are of the employees' concern.

Moreover, PTTEP manages the provident fund for the employees in order to enrich their livings and provide security for them when they resign or retire. The provident fund consists of staff and the Company's regular contributions. The Company makes a monthly contribution at a rate of 15% of an employee's basic salary while employee has an option to contribute in a range between 2% to 15% on a monthly basis. The receipt of the provident fund is subjected to the Company's requirements.

5. PTTEP gives priority in human resource development to enhance capacity for business performance. It deems that human resource is a key asset of the Company. PTTEP supports and promotes employees through training and curriculum in the short and long terms. Apart from academic and technical capacity development, the Company plants the working value altogether so that all employees can work with the same standard as to attain the Company's vision and mission.

6. PTTEP realizes the value and importance in a prompt consultation between employees and supervisors promptly in order to maintain a good relationship. In the event that a conflict arises between employees and their supervisors, employees may lodge a complaint as provided by the Company. Employees who report and acting good faith shall be protected from any discrimination or other forms of retaliation or unfair treatments, such as termination of employees. In addition, employees are also permitted to file a complaint or to provide the Company with information regarding possible misconducts or wrongful acts through the CG Hotline. The investigation, in this circumstance, is confidential and acknowledged only by the related parties to protect and relieve whistleblowers from all potentially negative effects.

7. PTTEP conducted the Employee Engagement Survey for the second time in 2013. The objective of the survey was to measure the employees' level of engagement in respect to the Company in various aspects. However, it was the first time that the Company used the Aeon Hewitt statistical tool in conducting of the survey, and the score result was 49%, while the average score of other companies in the industry in the Asia Pacific region was 58%^{*}.

The result of the survey has essentially led the Company to develop the plans to raise the degree of its employees' engagement, at the corporate level as well as the function group level. At the corporate level, the plan consists of 5 undertakings, namely, (1) to establish an environment of Trust & Respect and Synergy, (2) to increase people management skills of the supervisors, (3) to assist the supervisors with team management, (4) to raise the service level of the human resource department, and (5) to upgrade the work process. The plan for the function group level however varies; depending on the results of the engagement survey that each of groups has received.

Currently, the above plans are being implemented and monitored periodically of the progress, whereas the Company's next employee engagement survey will be held in 2014.

(3) Clients

PTTEP is committed to its mission to be the producer and supplier for crude oil, liquefied natural gas and natural gas at fair and competitive prices. It sells products under short to long term contracts and on spot markets. The Company equally treats all buyers for optimal

^{*} Source: Aeon Hewitt

^{*} In 2011, the average result score was 83.60% (Mercer)

benefit to all parties. The Company is committed to strictly comply with contracts and regularly coordinates with buyers so that it can produce and deliver quality products as determined in the contracts and meet the demand of the buyer with punctuality.

(4) Governments

PTTEP surveys and produces petroleum under relevant state agencies' supervision in the country or other countries where PTTEP has investments. The government plays a role in smoothly supporting its business according to the policy, rules and regulations in each country. As a result, based on its transparency and integrity, PTTEP regularly coordinates and exchanges information with the local and foreign governments.

PTTEP gives a priority in building up and maintaining long-term relationship with the local and foreign governments. Activities are held on a regular basis. More information is disclosed in the Company's 2013 Sustainability Report.

(5) Associated partners

The joint investment project between PTTEP and domestic and overseas associated partners will operate business under the international mutual working agreement. This agreement includes details regarding out the rights and duties of associated partners with their eligibility to become the project's management committee, which directs management, procurement of products and services and annual budget with certain scope and resolution. Associated partners are eligible for inspection of financial information and annual financial statements with proper and clear measures. An example includes penalty in a case that associated partners do not abide by an agreement. Transparent dissemination of information remains a focus among associated partners and third parties.

(6) Communities/ Societies

Having followed the Business Ethics, Corporate Social Responsibility and its confidence of people's living quality being a major foundation for sustainable social development, PTTEP operates its core business – petroleum exploration and production - together with the development of the society's living quality and culture and environment conservation. This is to help communities, societies and PTTEP to grow together under a concept "From assets in the ground to the intellectual property with environmental conservation." More details are in the Sustainability Report 2013.

(7) Environment

PTTEP strives to achieve excellence and a position of leadership by having an injury-free workplace. PTTEP has a Safety, Security, Health and Environment Policy (SSHE Policy) as its commitment and its SSHE Management System (SSHE MS) is the core of SSHE management and PTTEP's ability to deliver its vision and commitment in SSHE. There are seven elements of SSHE MS along with 27 standards which are implemented by all of the Company's operations. Its SSHE practices also extend to the Company's supply chain management. PTTEP also publicly discloses its SSHE performances indexes, such as Lost Time Injury Frequency Rate, Total Recordable Injury Rate, and Hydrocarbon and Chemical Spill rates on the Company's website and in its annual Sustainability Report.

A cornerstone of sustainability is a strong environmental performance. PTTEP's approach to managing its environmental impacts concentrates on our Green Practices such as having an international standardized environmental management system, eco-efficiency practices for mitigating environmental impacts from our operations, lowering our ecological, carbon and water footprints, increasing biodiversity, as well as creating value added processes to our business. To mitigate environmental impacts from its operations, PTTEP also implemented the ISO 14001:2004 one common system for certified sites in Thailand which include Arthit Project, Greater Bongkot North Project, S1 Project, PTTEP 1 Project, Petroleum Core Research Center and Petroleum Development Support Base in Songkhla to improve the efficiency of the Environmental Management System in which this year's certification was done by AJA Registrars under the United Kingdom Accreditation Services (UKAS). In addition, PTTEP also implements the Green Supply Chain practices which involve Green Procurement, Green Logistic and Green Information Technology (IT) to use green and environmental friendly products in its operations. More information on our Green Practices can be found in the Sustainability Report 2013.

(8) Sellers/buyers

PTTEP regards the sellers/buyers as a major factor to grow its business with sustainability. Therefore, the Company is committed to conducting its business with fairness while treating them equally as counterparties under Good Corporate Governance and allowing them to compete fairly with one another. Meanwhile, the Company has a policy to continue to provide a strong support to those who highly emphasize on business codes of conduct,

responsibility to the society and environment, all of which are the basis of a sound and sustainable business operation.

In 2013, the procurement regulation and procedures of the Company and its subsidiaries have been revised to enhance flexibility when conducting business with counterparties. The Company and its required subsidiaries also notified the contractors, sellers and buyers to adopt the Notification of the National Anti-Corruption Commission (NACC) Concerning Principle and Methods of Preparing Revenue and Expenses Accounts of Project between Individual/Company and Government Agencies B.E. 2554. According to the Notification, contractual parties of PTTEP and its required subsidiaries are required to prepare and submit their revenue and expense accounts to the Revenue Department. Meanwhile, PTTEP has since published on its website to disclose complete information regarding reference prices of all its bids to promote transparency, fair competition and equality.

During the year, the Company's Sustainable Development Working Team had drafted policy, strategy, and also various operational plans fitted to shift the Company increasingly toward Green Procurement to create shared value, together with its counterparties, in roads to higher Corporate Social Responsibility.

The Company and its subsidiaries, among other Thai organizations, are participants of the UN Global Impact in the area of human rights, and their support and respect in the area have been translated to the following set of policies that their respected counterparties must adhere to.

1. PTTEP does not support compulsory labor or forced labor.
2. Traders are required to abide by labor laws related to that country in a strict manner.
3. Traders are required not to employ child labor whose age is below the legal permission in that country.
4. Traders must eliminate unequal treatment for employment and occupation.

PTTEP is fully committed to include the UN Global Compact principles as a part of the strategy for procurement and business with traders. This is expected to expand into the Company's traders for collaboration and promotion of the sustainable development in the world community.

(9) Creditors

PTTEP pays attention on rights of all internal and external stakeholders, including its creditors and treats them with equality according to Good Corporate Governance of PTTEP Group.

Emphasizing on information disclosure to all stakeholders, PTTEP does it with accuracy, completeness, speed and transparency. Important information includes financial and non-financial information. Financial data, particularly in the part of financial statements, passed auditors' review/inspection, as accurate according to the Generally Accepted Accounting Principle, and gained an approval from the Audit Committee/the Board prior to disclosing it to the general public.

To its shareholders and other creditors, PTTEP launched debentures, according to the SEC's regulations and announcements, and abided by the Company's policy, objectives and resolutions of the shareholders' meeting in a strict manner. The Company also considered its responsibility to follow the rights and duties of an issuer of debentures and borrowing conditions. Information is fully disclosed to all stakeholders. There is a contingency plan if the stakeholders have damage arising from the Company, which does not comply with the requirements on rights and duties of an issuer of debentures and borrowing conditions.

(10) Competitors

Based on professionalism and equality, PTTEP treats its competitors under transparent and fair rules. It avoids defaming its competitors by fallacy.

(11) Custom and Tradition

PTTEP adheres to local custom and tradition in its operation areas. Trainings are provided by knowledgeable and experienced instructors, including representatives from the Ministry of Foreign Affairs or Embassy in which they provide suggestions and provided information, including custom, tradition, careful issues and local practices for employees who will be stationed there so that they understand and behave in a proper manner.

(12) Human rights

PTTEP is responsible for labour rights in any area of operation with prohibition of direct and indirect employment of child labour and forced labour. This is in consistent with

United Nations (UN) for Human Rights. Whether or not a country PTTEP invests in has local laws on human rights, PTTEP makes a fair employment with safe work environment and hygiene. No threat exists among employees or those related to the Company. Ethical partners without any infringement of human rights are employed. PTTEP promotes consultation between executives and employees through the employees' representatives in the welfare committee. Views and suggestions are listened for improvement of welfare and other proper and necessary benefits to enrich employees' quality of living.

(13) Laws

PTTEP respects laws in everywhere it operates business with anti-corruption. The Board set legal compliance and anti-corruption in the business ethics. Such includes legal respect and political non-bias. PTTEP directors, executives and employees are required to understand them, strictly abide by laws related to its operations in all areas, and perceive the matter of gifts, reception and non-corruption. The Company's capital or resources shall not be used to support any political party or any politician. PTTEP's personnel must not have corruption, must not give or receive bribery, and must make related persons understand PTTEP stance. They shall inform the Company if a corruption is seen. This issue is in other matters of the business ethics. Such other matters include no request for benefits from the procurement activities, prohibition of no direct or indirect use of power and authority to seek a position or benefits for oneself or others, and prohibition of intellectual property or license violation – particularly for the Company's IT and communications. Thus, PTTEP Group can see its operations with accuracy and efficiency. Directors, executives and employees all must abide by the Business Ethics.

PTTEP communicates the Business Ethics internally and externally. Training is provided to executives and employees on a regular basis. Business partners are required to follow PTTEP's Business Ethics and are informed PTTEP practices regarding New Year's gift reception. The Business Ethics is disseminated on PTTEP's website for external parties. PTTEP set up the Compliance like the operation supervision department to oversee legal risks and have PTTEP operations to follow related laws. Moreover, PTTEP established the Compliance Department as PTTEP Group's center of compliance performance supervision which has direct reporting line to Senior Vice President, Legal Division and President and Chief Executive Officer. In year 2013, President and Chief Executive Officer announced the Compliance Policy to

express PTTEP Group's commitment to full legal compliance and define roles of all personnel in promoting compliance. Compliance Program has also been implemented to enhance employees' awareness on compliance matter.

9.1.2.3 Whistleblowing Regulation Protection

The Company's ultimate operational goal is to optimize value of the Company for shareholders, to create a long-term satisfaction for its stakeholders, and, for itself, to become a company of "Growth, Prosperity, Stability, Sustainability and Dignity". However, the Company understands that, to achieve all these, confidence and faith in Good Corporate Governance and Business Ethics of PTTEP Group must be put in place and to practice. To provide itself with the opportunity to succeed, the Company has established a CG Hotline, where the directors, management, employees, and external parties are able to inform, with honesty and integrity of any suspicious misconduct or wrongdoing that might be of violation to the laws, regulation and Good Corporate Governance and Business Ethics of the PTTEP Group.

To instill confidence for the whistleblowers for any retaliation as a result of reporting in good faith, the Company has formally developed a set of regulations specifically to handle whistleblowing cases and protection on related parties. The information received and his or her identity is treated with confidentiality, being disclosed only among those who must be involved in the case. Meanwhile, the investigation is conducted strictly in order and within the timeframe as prescribed in the Regulation, while the progress must be reported to the Audit Committee or the Corporate Governance Committee (as the case may be), and the Board on a quarterly basis. The CG Hotline comprises several channels as follows:-

- (1) Mail to director, supervisor, or Corporate Governance Section
of the Corporate Secretary Office
PTT Exploration and Production Public Company Limited
555/1 Energy Complex Building A 33th Floor
Vibhavadi Rangsit Road, Chatuchak, Chatuchak, Bangkok 10900
- (2) Fax to supervisor or Corporate Governance Section
of the Corporate Secretary Office (+66-2537-4949)

- (3) Fax to supervisor or Corporate Governance Section
of the Corporate Secretary Office (cg hotline@pttep.com)
- (4) Website: www.pttep.com
- (5) PTTEP Group's intranet website (CG Portal)

In 2013, CG Hotline received a total of eight complaints, and all of which were concluded. The results of the investigations were summarized for whistleblowers whether or not they made report anonymously.

9.1.3 Information Disclosure and Transparency

9.1.3.1 Disclosure of Financial and Non-Financial Information

Information disclosure is one of the key factors to the Good Corporate Governance. PTTEP values information disclosure to the Stock Exchange of Thailand (SET) and shareholders that it must be correct, sufficient, prompt, and on equal treatment basis to all parties. The process of preparing information is conducted in accordance with the Business Ethics. In PTTEP, the departments responsible for providing information and replying all queries to the SET and the general public are the Investor Relations (IR) and the Corporate Communication through clear information disclosure procedures.

The key information of PTTEP consists of the financial information and non-financial information. In 2013, the financial information is disclosed through financial statements, which was reviewed/ audited by the auditor as presented fairly, in all material respects, and in accordance with Thai Financial Reporting Standards. The financial statements are subsequently approved by the Audit Committee/ the Board before disclosing to shareholders. The Board reported the financial statements in the annual report. Moreover and in addition to SET's requirements, PTTEP releases its unreviewed quarterly financial statements and unaudited annual financial statements to allow timely access to financial information for shareholders and investors. Unless stated otherwise, the information before and after review/audit has no significant change. PTTEP discloses non-financial information, such as related party transactions, management analysis, risk management, invitation letter for shareholders' meeting, minutes of meeting, Annual Corporate Governance Report and the 56-1 Form in accordance with the SET and SEC's requirements.

Information that PTTEP disclosed to the SET, shareholders, investors and the general public are disseminated in both Thai and English languages on PTTEP's website, such as financial statements, annual report, the 56-1 Form, invitation letter for shareholders' meeting, minutes of meeting. The website also features other important information that may be of interest to the aforementioned audience, as well as regularly maintain its website through regular content updates. Key information available on the website are petroleum exploration and production projects, investment projects, the quarterly and annual analyst meeting presentations, webcast, roadshow presentations, historical and latest stock performance, analyst coverage, PR news, report on stability, occupation health, safety and environment included in the Annual Sustainable Development Report, etc.

In 2013, PTTEP released the first edition of the quarterly investors' newsletter, Explorer's Journal, which includes information that are beneficial to shareholders and investors, namely quarterly performance highlights, project updates, Good Corporate Governance, sustainability corner, and knowledge sharing regarding some fundamentals of exploration and production (E&P) business. The newsletter, published in bi-lingual in Thai and English, are available in hardcopy and electronic format, the latter downloadable from PTTEP's website, and serves as another communication channel between the Company and shareholders for news and updates related to PTTEP.

During 2013, PTTEP published its information through the SET system in a total of 37 articles and organized the activities to meet and respond to inquiries from shareholders, analysts and investors. The activities are summarized as follows;

Activities	Amount (Times)
Domestic and overseas roadshows/conferences	20
Analyst meeting	4
Daily telephone correspondences	4 (Average)
Opportunity day (by the SET)	4
Shareholders and investors' site visit	6

Aside from the above activities, the Company participated in events organized by SET to meet retail investors, such as Money Expo and SET in the City. In addition, PTTEP extends interaction with analysts and fund managers, through company visits and conference

calls, regularly throughout the year, accumulating to more than 70 meetings. Another channel to disclose information to shareholders was through the Annual General Meeting of Shareholders in 2013, where we have IR corner, which PTTEP's investor relations officers gave information and answers to questions raised by shareholders.

PTTEP enforces its directors and executives with the position of the Executive Vice President or above, Senior Vice President of Accounting Department, Senior Vice President of Finance and Strategic Information Technology Division, the Vice President of Managerial Account Department, and the Vice President of Finance Department to report the conflict of interest either for themselves or for other related persons promptly once the conflict exists. The Corporate Secretary shall deliver this report to the Chairman of the Board and the chairman of investigative director within seven days after receiving such report as stipulated by the Board, in accordance with the Securities and Exchange Act (No.4), B.E. 2551 and the announcement of the Capital Market Supervisory Board.

PTTEP discloses the role and duties of the Board and Sub-committees, as well as the meeting attendance of each Director in part 8. Duties and performance of sub-committees are disclosed in part 9.18, while Executive's remuneration packages are disclosed in part 8.4.

The importance that PTTEP gives to information disclosure with accuracy, completeness, timeliness and transparency is the key to achieving Good Corporate Governance and Business Ethics. PTTEP is committed and dedicated to deliver the best possible performance from its business operations.

9.1.3.2 Investor Relations (IR)

Investor Relations (IR) is responsible for communicating information and news that reflects PTTEP's fair value to analysts, shareholders, and investors in general under the rules of SET and SEC to foster confidence in the analysts and investors community. Moreover, IR enhances PTTEP's positive corporate image and perception amongst analysts and investors. IR also coordinates and advises about investor relations tasks to PTTEP Executives, investors or interested persons may contact IR for more information through three channels.

- (1) By phone: +66-2537-4675, +66-2537-4075, +66-2537-7347,
+66-2537-5746 and +66-2537-5517

(2) Bye-mail: ir@pttep.com

(3) By fax: +66-2537-4444 and +66-2537-4467

9.1.4 The Board's Responsibilities

Responsibilities of the Board are described in details in part 8.1.2, can be summarized as follows:-

(1) Policy-making and operation direction

The Board is responsible for making decisions regarding the Company's operational policies and determination of the corporate vision, mission, and values. The Board is also assigned to be directly involved in the Company's budgetary and planning, and organization development strategy to accommodate continuous changes in the business environment, as well as providing the management with advices in leading the Company toward its goal to become an entity of "Growth, Prosperity, Stability, Sustainability and Dignity".

(2) Good Corporate Governance and Business Ethics

The Board is responsible for the establishment of PTTEP Group's Good Corporate Governance and Business Ethics for the directors, management, and employees to adhere and hold on to. The Good Corporate Governance and Business Ethics are assembled to ensure that the PTTEP Group is operated with good standards, transparency, efficiency, ethics, and justification, and that the rights of the stakeholders are preserved proportionately to their fair share to maintain the general confidence and acceptance in the Company. The unit responsible for matters regarding corporate governance issues has been assigned by the Board.

(3) Internal control and auditing

The Board is responsible for assuring that PTTEP Group is equipped with an internal control system which is effective and comparable to their acceptable risk levels. The Company's Audit Committee and the Internal Audit Department are assigned to periodically and regularly review and monitor the internal controls, and to submit the results directly to the Audit Committee to ensure that they are in line with the PTTEP Group's operational objectives, in compliance with relevant laws and regulations, and in trust of the management, investors, and stakeholders.

The Company's internal control system is comparable to that accepted by the international standards, considering the control environment, risk assessment relative to

objectives, effective control plans, internal and external provisions of adequate and reliable information and communications, as well as routine monitoring and evaluation procedures.

(4) Risk management

The Board is responsible for assuring that management of the risks that hinder the Company from its strategic goals is in place. In doing so, the Board has appointed the Risk Management Committee to determine risk management policy and framework, to monitor and promote, and to ensure that the risk management of the PTTEP Group is properly functioned and effective. The Risk Management Committee has also been assigned to assess risks which are of significance at the organization as well as project levels, to develop operational, monitoring and evaluation plans, to implement and continuously revise them to mitigate and reduce the risks down to the acceptable levels, and to report the results to the Board periodically or immediately.

(5) Prevention of conflicts of interest

The Board establishes various management measures to ensure that the management is efficient and transparent, and acts in the best interest of the PTTEP Group, through assuring that the Company and its management are without any conflicts of interest. Shall any directors, executives, or employees have a stake potentially leading to a conflicts of interest, he or she must withdraw from the participation or be abstained from voting in such issue. Thereafter, a report must be filed to inform the authority of the stake according to the Company's Business Ethics as specified for the directors, management, and employees to follow as the business codes of conduct.

(6) Governance and compliance

The Board values the importance of proper and complete compliance in all the areas that the PTTEP Group operates in. The Board also provides the Company with the supports required in conforming to the rules and regulations by which they are governed. Management of risks potentially rising from misconduct is considered one of the keys that allow the PTTEP Group to function discretely and properly as well as to be able to operate according to its strategy toward the business goal. The Compliance Department has been assigned by the Board to be responsible for this matter.

9.2 Sub-Committees

It is the Board's responsibility to appoint directors who have expertise and knowledge in certain area, in accordance to regulations specified by PTTEP. Each sub-committee is responsible for certain tasks specified by their respective charters' directors. Qualifications, responsibilities and service term of the sub-committees are clearly prescribed by the Company's regulations, through the designated charter. All the members of the Audit Committee and the Corporate Governance Committee must be independent directors, while the majority of the members of the Nominating Committee's and the Remuneration Committee's member must be independent directors. However, the Chairman of the Board is not allowed to obtain any chairmanships or directorships in the Company's sub-committees. Additionally, Chairman of all sub-committees must be independent directors, only with exception of the Risk Management Committee.

From every meeting, the Company's sub-committees are required to report the results to the Board for acknowledgement on a regular basis, as well as to file in the Company's 56-1 Form and annual report of their duties completed over the year.

Currently, the Company has five sub-committees, namely, (1) the Corporate Governance Committee, (2) the Audit Committee, (3) the Remuneration Committee, (4) the Nominating Committee, and (5) the Risk Management Committee. See no. 8.1.3 and 8.1.7 under the Management Structure part, respectively, for details of the directors, including his or her duties and responsibilities, number of the meeting held over the year and number of meetings attended, as well as information on the performance and duties of the sub-committees.

9.3 Nomination of the Board and Management

9.3.1 Nomination of the Board, the President and Chief Executive Officer

When there is a vacancy of a director position, it is the duty of the Nominating Committee to search for candidates for the replacement. The process begins with the Committee going through the list of directors of state-owned enterprises (Directors' Pool), gathered by the State Enterprise Policy Office (SEPO) whose top personnel are regarded as highly-qualified in the area of state-enterprising. PTT Plc., the Company's major shareholder, meanwhile is consulted with until the names are short-listed to the individual with a proper skill, experience, and the qualifications which are crucial, yet perhaps remained missing in the Boardroom, to the

Company's E&P operation in making it more completed and well-rounded for the most benefits. Potential conflicts of interest of the new director must also be considered in the process. The Nominating Committee will search for candidates who possess qualifications that are useful and suitable for the PTTEP Group, in which the details are disclosed in the Management Structure part. Election of directors to replace those who are due to retire by rotation must obtain an approval from the annual general shareholders' meeting by the majority rule which is based on the number of the Company's shareholders with voting eligibility at the meeting. The election process is as follows:-

(1) The Nominating Committee proposes a list of individuals with the qualifications to be reviewed by the Board prior to the shareholders' meeting. The Company's shareholders meanwhile may also nominate other individuals whom they see fit for the director position. Their rights to make the nomination, with the validation period being from 1 October to 31 December, is declared through the Stock Exchange of Thailand and published in the website which has been additionally provided for the shareholders to learn more of the rules as well as to submit the director nomination form.

(2) Should the number of director candidates be no greater than the number to be elected, the shareholders' meeting is to elect those candidates as directors by voting for individual candidates, under which they must receive majority votes.

(3) Should the number of director candidates exceeds the number to be elected, a ballot is to be held. Each shareholder may vote for as many candidates for directors as the number of open positions, and voting is carried out for individual candidates. Those with the highest ballots are to be elected directors, as many as the number of open positions accommodates.

When a director position becomes vacant for reasons other than rotation, the Board may elect the new director with the three-fourth majority voting rule. The Director however is to remain in his or her position for only as long as the remaining term of the predecessor.

The Nominating Committee is responsible for nominating the President and Chief Executive Officer for the Board's approval, considering the candidates' skills, experience, vocation and occupation, his or her possession of the qualities necessarily to bring about the best of interests to the Company, as well as potential conflicts of interest. For further details on the nomination of the Board, the President and Chief Executive Officer by the Nominating

Committee, please see the Succession Plan of the President and Chief Executive Officer under the Corporate Governance part.

9.3.2 Nomination of Executives

The President and Chief Executive Officer is granted with the authority to select and appoint the individuals, who possess knowledge, capabilities, and experience in the business, in management positions. The individuals however are required to be first nominated through a process according to the Company's Personnel Administration Regulation as well as to be first acknowledged by the Board. This is with exception of appointment of Executive Vice Presidents, where the authorization remains reserved for the Board. In the circumstance in which the individuals are outsiders nominated for the Company's management-level positions, an interview with the Board is required. Meanwhile, for the outsiders nominated for an appointment of a head position in the audit department must be agreed by, an approval by the Audit Committee prior to an appointment must also be made.

9.4 Director and the Executive Development

9.4.1 Director Development

Orientation of new directors

The orientation which PTTEP provides to the new director consists of:

(1) A presentation by the President and Chief Executive Officer, and executives is provided. The briefing involves the nature and the operation guideline of the business, knowledge and techniques regarding to the petroleum exploration and production, relevant rules and regulations, Good Corporate Governance and Business Ethics of the PTTEP Group, and essential information for the directors to perform their duties with efficiency.

(2) The Director manual contains essential information, including strategic plan, relevant rules and regulations, and Good Corporate Governance and Business Ethics for PTTEP Group, which will be beneficial for his or her performing duties as a director. The manual is reviewed and updated regularly for the directors to use as a reference.

New directors who attend the orientation are requested to evaluate effectiveness of the orientation for further improvement. The director who is elected as the Chairman is also required an extra session to be acknowledged on the subjects related to his or her new role, namely,

performing their duties with efficiency, and conducting and directing of the directors and shareholders' meetings.

Directors' training

Directors are knowledgeable and ambitious to learn and understand more about the business and their duties as a director, and they are being supported accordingly by the Company through seminars and trainings. The followings are the details of the seminars and trainings attended by ten directors during 2013.

Director	Course
Mr. Maitree Srinarawat	<ul style="list-style-type: none"> ● Seminar on The 2nd National Director Conference 2103:"Board Leadership Evolution", Thai Institute of Directors Association (IOD) ● Infrastructure in A Market Economy, Harvard Kennedy School ● Successful Formulation & Executive of Strategy (SFE 9/2013), Thai Institute of Directors Association (IOD)
Mrs. Varanuj Hongsaprabhas	<ul style="list-style-type: none"> ● How to develop a Risk Management Plan (HRP 4/2013), Thai Institute of Directors Association (IOD) ● Risk Management Committee Program (RMP 1/2013), Thai Institute of Directors Association (IOD)
Mr. Chakkrit Parapuntakul	<ul style="list-style-type: none"> ● Senior Executive Program on Administrative Justice, Class 5, The Administrative Court ● Seminar on "The Aerotropolis Strategy and Thailand's Competitiveness", State Enterprise Policy Office (SEPO)
General Pornchai Kranlert	Role of the Compensation Committee (RCC 17/2013), Thai Institute of Directors Association (IOD)
General Warawat Indradat	Role of the Compensation Committee (RCC 17/2013), Thai Institute of Directors Association (IOD)
Mr. Ampon Kittiampon	Executive Program on Business and Industrial Development and Investment, Class 1, Institute of Business and Industrial Development
Mr. Viraphol Jirapraditkul	Executive Program on Energy Literacy for a Sustainable Future, Class 3/2013, Thailand Energy Academy

Director	Course
Mr. Manas Jamveha	Role of Chairman Program (RCP 32/2013), Thai Institute of Directors Association (IOD)
Mr. Nuttachat Charuchinda	Executive Program on Energy Literacy for a Sustainable Future, Class 3/2013, Thailand Energy Academy
Mr. Tevin Vongvanich	Executive Program on Energy Literacy for a Sustainable Future, Class 3/2013, Thailand Energy Academy

Currently, of the total 15 directors, 11 directors received training in the Director Certification Program (DCP) of the Thai Institute of Directors (IOD), and one director received training in the Director Accreditation Program (DAP) also from IOD. The Company has applied an IOD membership for all of the directors, as well as providing them with information regarding new seminars or trainings, in order to keep them consistently informed. Details of the training courses attended by the Company's Board's members are disclosed in Attachment 1.

The Company invited speakers to lecture and share their opinions with the directors in 2013. There were two lectures during the year, namely, of Mr. Ronald Paul Kies, Senior Reservoir Engineer from the Company's Strategy and Business Development Group, who spoke of Shale Oil and Shale Gas to the Board's members; and of Mr. Ganesan Kolandavelu, Executive Director from the KPMG Phoomchai Business Advisory Limited, who lectured in "Fraud Challenges for the Oil and Gas Industry" to the Risk Management Committee. In addition to the lectures, the Company notified the directors regularly of laws and best practices of the Good Corporate Governance for their better knowledge and understanding.

9.4.2 Development and Succession Plan of Executives

PTTEP has a management competency assessment against its PTTEP Management Success Profile which includes Competency, Personal Attributes, Organization Knowledge and Experience through readiness assessment center. After readiness assessment participation, the management shall receive the feedback and work together with their superior to formulate a development plan to enhance overall management and leadership competency.

In addition, PTTEP has a systematic succession planning for key positions to replace retiring staff and/or fill new positions as a result of the Company's expansion domestically and internationally. The Career Review Board Committee is authorized to select and appoint successors with required qualifications, knowledge, ability and experience to the targeted key

positions. Individual development plan will, then, be created, both short and long terms and short term, to ensure that successors will be ready and qualified for the positions that they will assume.

9.4.3 Succession Plan of the President and Chief Executive Officer

PTTEP formulates a succession plan for the President and Chief Executive Officer to prepare the Company for the situation where the President and Chief Executive Officer is unable to perform his or her duties or when the serving term is completed. The plan also helps to minimize the risks and the impacts, potentially resulting from the discontinuity, on the management. The succession planning procedure is as follows:-

(1) PTT Group Management Committee (PTTGMC), a committee in which the Company's President and Chief Executive Officer is a director, forms the Group Leadership Development Program (GLDP). The program primary focus is to enhance the capability of the PTT Group executives, vice presidents and above, in order to prepare them for the possible nomination to become a President and Chief Executive Officer in one of PTT Group of companies.

(2) PTT GMC, with PTT being the Company's major shareholder, reviews the executive names from (1), short-lists, and proposes them to the PTT's Board of Directors who is responsible to select the Company's next President and Chief Executive Officer.

(3) After receiving the name of candidates accompanied by opinions of PTT's Board from (2), the Company's Nominating Committee reassesses the individual's knowledge, capability, and experience beneficially related to the business, conflict of interest, and his or her vision to lead the Company to grow according to the strategic plan.

(4) The Nominating Committee proposes the name of the final candidate, together with opinions, to the Board to approve and thereafter appoint the Company's President and Chief Executive Officer.

9.5 Authority of the President and Chief Executive Officer

(1) Authority under resolutions from shareholder meetings

The President and Chief Executive Officer is the authorized signatory who may sign to bind the Company with external parties under clause 9, paragraph 6, of the Company's Articles of Association registered with the Ministry of Commerce.

(2) Authority under resolutions from the PTTEP Board's Meetings

The Board authorizes the President and Chief Executive Officer to act and conduct, on the Company's behalf, normal course of business operations under the stated objectives in its Memorandum of Association, petroleum concessions and other agreements, including other businesses in which the company has interests. In addition, the President and Chief Executive Officer is also authorized to be the acting body and conduct the business under PTTEP Regulations, namely, the budgetary, Finance and Accounting Charter B.E. 2555, Regulation on Human Resources Management B.E. 2548, Procurement Charter B.E. 2550, and Procurement procedure relating to exploration and production of petroleum business B.E. 2555, by applying of practices comparable to those of other private companies in the E&P business as well as in best interests of the company. Delegation of authority is permitted unless the concerned attorney has a direct or indirect conflict of interest with the company or its subsidiaries in exercising of the authority.

9.6 Corporate Governance Concerning Subsidiaries and Associated Companies

PTTEP established subsidiaries and/or associated companies mainly to conduct its core business. Its continuous expansion in domestic territory and overseas necessitates the establishment of subsidiaries and/or associated companies in the region where the Company invests for flexible, efficient business operations and competitive advantages comparable with other international oil companies. To achieve this, PTTEP considered factors such as rules and regulations, financial structure, tax regimes, and risk management.

PTTEP's policy is to manage its subsidiaries as "One Company" with a clear direction that its subsidiaries follow PTTEP's business direction and strategy and being mainly managed as one team by PTTEP executives and employees. In addition, its management and internal control systems are also to be adopted and implemented in all PTTEP subsidiaries in the same way that they are standardized at PTTEP. To manage associated companies, PTTEP nominates a representative to serve as a shareholder and/or a member of each board of directors to participate in defining the overall business strategy and policy for these companies. To manage subsidiaries and associated companies, PTTEP adheres to its Good Corporate Governance principles and Business Ethics as its principles to ensure effectiveness, transparency, fairness, and achievement of its business goals.

The Company's management is responsible for appointing of directors of the Company's subsidiaries and associated companies by selecting 1–3 individuals from its executives, divisional level, or above. The Company may also have to appoint local directors, who will be controlled by PTTEP, depending on the laws and regulations of each country in which the investments are made, to manage subsidiaries to operate businesses within the framework and in line with the Company's policy and business strategy. To allow flexibility in managing businesses, the Company will delegate its authority to directors of its subsidiaries and associated companies based on the Corporate DAS (Delegation of Authority and Signatories) which is a general concept practiced by leading E&P companies. For an effective monitoring process, subsidiaries and associates are required to report to management on their performance.

9.7 Directors' Serving Terms and Their Directorship in Other Companies

PTTEP prescribes that one-third of the directors shall be retired by rotation in each of the Annual General Shareholders' meeting. According to the Articles of Association, the Board shall consist of no more than 15 members, effectively resulting in a 3-year serving term. The Company's Board also determines that all directors, including independent directors, are allowed to be in the directorship no more than three consecutive terms or nine years (effective from 2006). This essentially allows the Company to be able to appropriately reap the most benefits from the directors' distinctive capability, and versatility of their qualifications.

A two-term limit, or six years in equivalence, to be too stringent for the Company to benefit from the capability and experience that the Directors have earned over the years in the position, and for the Nominating Committee to best select the replacements for optimal benefits of the Company as well as the shareholders.

In terms of qualification, the Company's Directors shall not assume directorship or executive-level position in more than four listed companies. Information related to the directors' directorship in other companies is disclosed in Attachment 1. Currently, none of the Company's Directors holds directorship or executive-level position in more than four listed companies.

Similarly, serving term is three years for the directors of the Company's sub-committees, namely, the Audit Committee, the Remuneration Committee, the Nominating Committee, the Corporate Governance Committee, and the Risk Management Committee.

9.8 Roles of the Chairman, and the President and Chief Executive Officer

PTTEP's Chairman, and President and Chief Executive Officer, who always are different individuals, are selected by the Board. The Chairman does not participate in the daily management of the business, providing that conducting and monitoring of the business policies are entirely separated from the daily operational management.

The Chairman has the leader role to supervise the Board to perform its duties with efficiency and independently from the management. The Chairman, together with the Board, however is required to coordinate with the Company's President and Chief Executive Officer in determination of the Company's meetings' agendas. He or she is also required to serve as the Chairman in the Board's and shareholders' meetings to ensure of the efficiency and integrity in compliance with the Good Corporate Governance and Business Ethics of the PTTEP Group. The Chairman is not allowed to hold any positions in any of the Company's sub-committees, as clearly stated in their charters, for greater propriety and transparency.

The President and Chief Executive Officer, meanwhile, is responsible for the Company's daily management with the authority as empowered and granted by the Board.

9.9 Independence of Chairman

PTTEP considers independency to be the first priority when electing the Company's Chairman of the Board. Shall there be none who is suitable for the position, other directors will be considered. The current Chairman, who is an independent director, has performed his duties with autonomy and discretion. The Chairman and his performance are appraised by his Board's members and examined for future improvements, whereas his appraisal scores are disclosed in the 56-1 Form as well as the Company's annual report under section Self Appraisal of the Board.

In addition, all of the Company's directors are also allowed to independently to express their views with freedom regarding the business operation, whether in the Board's meetings, sub-committees' meetings, or at work in other functions. This is to ensure that the management is able to perform with efficiency, accuracy, transparency, and in interests of the shareholders.

9.10 Policy and Practices for the President and Chief Executive Officer, and Executives with Directorship in Other Companies

Although PTTEP puts a great value on the President and Chief Executive Officer's, and executives' knowledge and experience earned from his or her directorship in other organizations

outside the company; it is clearly stated in the Good Corporate Governance and Business Ethics for PTTEP group regarding the amount of time that the President and Chief Executive Officer, and executives are allowed, on only-if-necessary and no-harms-done basis, with other companies or organizations which are not of their own or families. In addition, the individuals must be given the approval from the Company's authority as well as accept the condition that they shall not, in every aspect, associate the company and their position in the company in those external activities. Meanwhile, remunerations of the executives who are assigned by the Company to assume directorship in the organizations or units in, or related to, the petroleum exploration and production are considered PTTEP's; otherwise, the remunerations are considered theirs. For more information on the directorships held by each director, please see Attachment 1.

9.11 Conflict of Interest Policy

PTTEP, with the following principles, commits to prevention of conflicts of interest to ensure the stakeholders' confidence that the Company's business management is efficient, transparent, and in compliance with the Good Corporate Governance and Business Ethics of the PTTEP Group and its subsidiaries.

(1) Directors, management, and employees shall treat the Company's interests with priority and shall not involve or be involved in any activities potentially leading to a conflict of interest.

(2) Directors, management, and employees shall review and disclose their transactions of conflict of interest to the Company.

(3) Directors, management, and employees shall not participate in considering or voting in any matters in which they have stakes and shall completely disclose the information.

(4) Directors, management, and employees shall strictly adhere to laws and regulations as required by the SET, particularly those of connected transactions.

PTTEP establishes the following preventive measures for the conflict of interest as follow:

(1) Directors, management, employees, and related persons must avoid any financial involvements or engagement in a relationship with outsiders that may be resulted in the Company's loss of benefits, conflicts of interest, or operational inefficiency.

(2) Directors, management and employees, who may have potential conflicts of interest regarding procedures relating to the bid offer, selection and awarding or any transactions, must report to their supervisor or those participating in the mentioned process through the Company's "Conflict of Interest Declaration" form. They must also withdraw themselves from participating in such processes.

(3) Directors, management, and employees must review and assess themselves regarding conflict of interest transactions, as specified and required in the annual Self Appraisal Form.

(4) Directors, management, and employees must notify the Company immediately if there is a suspicion or uncertainty that their job, they or related persons involving or holding shares in any businesses that have transactions with the Company which may lead to a conflict of interest.

9.12 Business Ethics

PTTEP is committed to operating ethically as Business Ethics are regarded as the behavioral framework and guideline for the directors, management and employees to carry out business operations effectively, transparently and ethically, as well treating all stakeholders fairly. These practices will result in confidence and acceptance in the efficiency and transparency of the Company's business operations, thereby creating long-term sustainable value for all stakeholders.

The Business Ethics of PTTEP Group is part of the Good Corporate Governance and Business Ethics (CG&BE) of the PTTEP Group, which is regarded as the highest regulation for the business operations of PTTEP. The Board established the CG&BE in 2001, and it has since been revised every year. The current CG&BE was revised in 2013. The progress of the revision process was reported to the Company's Corporate Governance Committee throughout the year before being approved by the Board on 27 February, 2014. The new structure of the current CG&BE enables audiences to understand the contents more easily. In addition, new topics, such as "Protection against Money Laundering" and "Trade Competition", were also added. The Company also invited some international experts to participate in this revision project, as well as Company executives and Senior Vice Presidents and above, to provide their valuable insight. The CG&BE can be downloaded from the Company's website.

Components of the PTTEP Group's Business Ethics consist of principles, samples of questions and answers as well as information for additional study, and departments responsible for each principle. There are ten ethical topics that reflect the organizational values in operating businesses of the PTTEP Group that must be adhered to by all directors, management, and employees.

- (1) Respect of laws, by-laws, regulations, and cultural differences, customs, and traditions
- (2) Political neutrality
- (3) Human resources
 - Working environment
 - Privacy, indiscrimination, and anti-harassment
 - Illegal drugs and substances, and alcohols
 - External assignments and off-duty activities of management and employees
- (4) Use and protection of information and assets
 - Recording, use, disclosure, and storage of information
 - Use and protection of digital information and information technology
 - Use and protection of intellectual property
 - Trading of securities and use of internal information
- (5) Conflict of interest
- (6) Procurement and Contract
- (7) Anti-corruption
- (8) Trade competition
- (9) Protection against money laundering
- (10) Safety, Security, Health and Environment

The Company distributed CG&BE booklets to all directors, management, and employees for their reference and adherence. They were also required to sign their names as an accord to be committed to applying CG&BE principles to carry out the highest working standards. In addition, the booklets were provided to the Company's business partners, regulatory organizations, parties with regular business relationships with the Company and other interested parties. For the convenience of shareholders, investors and interested parties, contents of the CG&BE booklets can also be found on the Company's website, under the Good Corporate Governance section.

PTTEP continuously enhances and promotes knowledge and understanding of CG&BE among directors and personnel. The Board governs the ways CG&BE is communicated to the directors and personnel to strengthen their confidence in CG&BE so that they can adhere to CG&BE for their business conduct. Means of communication endorsed by the Board are as follows:

(1) Introduction to CG&BE was included as one section of the orientation for the new directors, new members of the Corporate Governance Committee, and new employees. In 2013, two CG&BE orientation sessions were conducted for new directors, three for new members of the Corporate Governance Committee, and 13 for new employees.

(2) The CG&BE Introduction courses were conducted for new employees whose working period with the Company was between one and two years. The training was designed to motivate and stimulate employees to express their viewpoints and to cultivate their values to coincide with those of the Company. Moreover, the last section of the course included various interesting E&P-related scenarios to allow employees to understand and apply CG&BE in their daily business operations. In 2013, four sessions of the course were conducted which were attended by directors from the Corporate Governance Committee.

(3) The CG&BE Management course was conducted for new management. The course emphasized exemplary cases and new management had an opportunity to share their opinions and valuable insights on past situations that the Company mishandled due to the lack of good corporate governance. The directors of the Corporate Governance Committee meanwhile were provided with an opportunity throughout the course to receive feedback and discuss the results constructively with the Company's new management. Lessons learned during the course were later used to improve business processes of the Company.

(4) CG&BE promotions to the Board were prepared ten times for the Board's meetings. The Chairman would, before the start of the meeting, verbally inform the meeting of new issues regarding the duties and responsibilities of the Board as well as encourage directors to adhere to CG&BE.

(5) A CG Visit was organized for the Corporate Governance Committee to meet management and employees of each department with the aim to follow up on the enforcement of CG&BE to subordinates and implementation of CG&BE by the management as well as the management's role of being CG Leaders. The Visit also allowed the Committee to gather information regarding the integration of CG&BE principles to their work (CG-in-Process), and to hear opinions shared by management and employees.

(6) CG Heroes was organized to search among management and employees of each department for CG Role Models who have been praised by colleagues for strictly adhering to CG&BE. The objective was to recognize and honor these Heroes.

(7) An E-Learning activity was held as another channel to provide management and employees an opportunity to understand and learn more of the Company's Business Ethics. The proper working environment that supports good Business Ethics was also introduced and promoted. The activity consisted of six animated clips related to CG&BE in various aspects, as well as a quiz on CG&BE. Results of the quiz are one of the key performance indicators of each department.

(8) A Knowledge Program was organized for the first time this year on a monthly basis to provide PTTEP with another channel for the Company to educate employees on CG&BE, and to promote and raise awareness for the working environment which would be considered in compliance with CG&BE.

(9) The Corporate Secretary has a duty to report CG&BE promotion activities on a quarterly basis to the Corporate Governance Committee and the Board, who is responsible for the follow up and evaluation of these reports. The objective is to allow the Board and the Corporate Governance Committee to effectively keep track of the business operations regarding CG&BE issues. Moreover, for continuous improvement, the 2013 performance results regarding CG&BE were used as input to develop the work plan for 2014, which has already been approved by the Corporate Governance Committee.

9.13 Internal Controls

PTTEP understands the importance of internal control and emphasize in particular that it is adequate, appropriate and efficient in managing risks to remain within acceptable levels. The Board, therefore, has authorized the Audit Committee and the Internal Audit Department to regularly review and monitor the Company's internal control for the purpose of improving control activities to suit the current circumstances and environment as well as changing risks. In addition, the President and Chief Executive Officer has assigned the internal control section to be responsible for determining business procedures to comply with internal control standards, assessment, and reporting to ensure the achievement of the following corporate objectives:

- Efficient and effective operations, including safeguarding of asset and prudent use of resources
- Accurate, reliable, timely and transparent reporting
- Compliance with laws, rules and regulations as well as the Company's policy and procedure

The Company's internal control procedure is based on the regulations of The Committee of Sponsoring Organizations of the Treadway Commission (COSO), consisting of five components as follows:

1. Control Environment

PTTEP has a good, proper, and adequate control environment and operates its business under Good Corporate Governance and Business Ethics of PTTEP Group to achieve the goal of "Growth, Prosperity, Stability, Sustainability and Dignity". The Board has appointed the Corporate Governance Committee to determine a policy and supervise the operations of Good Corporate Governance and Business Ethics of PTTEP Group. Furthermore the President and Chief Executive Officer has assigned the Corporate Secretary Office to be responsible for issues related to Corporate Governance. The Good Corporate Governance and Business Ethics Policy is formulated in writing. The Regulation is acknowledged and signed by the directors, management and employees as an understanding and commitment to follow the Regulation. It is reviewed and updated in accordance with constantly changing economic, social, and regulatory environment as well as communicated to the directors, management and employees frequently through Company's training courses and activities.

2. Risk Assessment

PTTEP recognizes the importance of risk management which the Board has delegated and appointed the risk management committee to be responsible for setting up appropriate risk management policy and framework, and supervision, to support the Company to manage risks efficiently. Furthermore, the CEO has assigned the risk management department to be responsible for identification and assessment of any risks that might affect corporate's objectives as well as monitoring of risk mitigation plans to ensure that those risks could be managed to remain at an acceptable level.

3. Control Activities

PTTEP gives attention on efficient control activities that are in line with acceptable risks and appropriate for the business circumstances and activities of each department. These control activities are implemented through regulation, policy, and working procedures. They are also reviewed and improved continuously, including the development of control activities through information technology system. Moreover, PTTEP encourages its employees to recognize the importance of strictly complying with the control activities as well as related laws and regulations. This is to reduce risks covering various aspects, especially fraud risk and preventing violation of the laws.

4. Information & Communication

PTTEP has set up external and internal communication channels that are efficient and effective. Financial and other information must be accurate, complete, timely, and of high quality. There are specific departments detailed to communicate the information to their related stakeholders. Apart from these, the Company has also set up special communication channel so that the stakeholders can report their complaints confidentially.

5. Monitoring Activities

PTTEP specifies that the evaluation and monitoring process are performed correctly and frequently. The internal control is evaluated on a yearly basis at both corporate and process level. This is to ensure the improvement of the internal control and continued relevance according to the dynamically changing situation, environment, and risk factors. The Internal Audit Department also inspects and verifies that the existing controls are constantly followed as

well as provides any recommendation for improvement on timely manner. All of these are regularly reported to the Audit Committee.

The result of 2013 internal control adequacy evaluation is disclosed in part 11 – Internal Controls and Risk Management

9.14 Risk Management

The Board sets the risk management policy, which is extended throughout the Company. In 2005, the Board set up Charter for the Risk Management Committee to determine its duties and responsibilities according to the risk management policy.

The Risk Management Department is responsible for ensuring the adequacy of the risk management system and its effectiveness across the organization. Its duties are to examine and identify risks and irregularities that may prevent operations from achieving strategic and implementation goals. Moreover, they are responsible for systematically and effectively mitigating the Company's exposure to risks, as well as monitoring the results and periodically reporting them to the management, the Risk Management Committee and the Board. Moreover, the Risk Management Department should cultivate a positive risk management culture throughout the organization.

9.15 Remuneration of Auditors

9.15.1 Audit and Non-Audit Fees

(1) Audit fee

For the year 2013, PTTEP and its subsidiaries, both domestic and overseas, had audit fees with the Office of the Auditor General and other auditing firms for a total of USD 1 million.

(2) Non-Audit fee

For the year 2013, PTTEP had a non-audit services fee with the Office of The Auditor General for a total of USD 0.5million. This fee was charged for the preparation of Letters of Comfort for the Offering Memorandums for the international bond issuance.

9.15.2 Summary of the Auditors' Report for the Past Three Years (2011 –2013)

The Office of the Auditor General expressed an unqualified opinion in the Auditors' Report on the PTTEP consolidated financial statements for the past three years.

9.16 Other Practices on Good Corporate Governance

PTTEP places importance in governing its business operations with the Good Corporate Governance and Business Ethics of PTTEP Group as well as with best practices from international standards by appropriately integrating them with the current practices and by taking into account environmental impacts from its operations as well as the optimal benefits for the Company, shareholders and other stakeholders. Some of the practices resulted from the Company's continuous effort to surpass requirements set by the Stock Exchange of Thailand's (SET) Principles of Corporate Governance for Listed Companies 2012 can be summarized as follows:-

- (1) In an election of directors, each candidate must receive votes of more than half of the total number of the shareholders who attend the meeting and cast their votes (majority vote) even if the number of the candidates equals to the number of directors required from the election at the time.
- (2) A director, who turns 70 years of age, is immediately disqualified to serve as a director of the Company.
- (3) A director's serving term cannot be more than three consecutive terms or nine years, without any exceptions.
- (4) The total number of independent directors must not be less than half of the total number of all directors.
- (5) Rights to attend meetings must be carefully examined to ensure that granting of proxies is conducted properly to not interfere with the rights of the shareholders who attend the shareholders' meetings.
- (6) Performance appraisals of the Board and the Sub-committees are conducted with integrity, including an individual self-appraisal, an individual cross-appraisal, an appraisal of the whole Board and each Sub-committee, and an appraisal of the Chairman, thereafter, results of appraisals are translated into plans for further performance improvements of directors.
- (7) Meeting of the independent directors must be conducted on a quarterly basis to discuss ongoing issues and to exchange of their opinions over matters.

(8) Activities and knowledge regarding Good Corporate Governance and Business Ethics of the PTTEP Group are consistently being promoted and communicated to directors, management and employees through communication channels most effective and appropriate for each target audience. Meanwhile, activities have been developed to systematically gauge the understanding level and the assessment was one of key performance indicators of all individuals across all function groups. Monitoring system has also been put in place to solidify the progress and results of the findings. For further information, please see part 9.12

In addition to the above, PTTEP has also implemented the followings;-

(1) PTTEP strongly believes in independency of the Chairman. Although it is not a policy that the Chairman must be an independent director, the Company's independent directors are always given the priority. In searching of the candidate, the Company also considers other fundamental attributes, such as knowledge and expertise in the business, working experience, leadership characteristics as well as performance appraisal results. This is to ensure that the Chairman governs PTTEP with full independency. Currently, the Company's Chairman is an independent director. For further information on the Independence of Chairman, please see part 9.9

(2) Invitation letters of the shareholders' meeting are issued in advance to provide shareholders with adequate amount of time to review. The Company's Annual General Shareholders' Meeting is scheduled for the month of March in every year to ensure that the shareholders' rights, such as rights to dividend payment, are exercised in a timely manner. However, for the best interest of shareholders, the audit of PTTEP's financial statements relatively takes more time than other companies due to the complexity of having international operations across various countries. The Company is currently able to distribute the invitation letter 16 days prior to the date of the meeting. However, the Company publishes the letter on the Company's website at least 30 days in advance.

9.17 Awards and Recognitions for Good Corporate Governance

(1) Board of the Year Awards 2012/2013

The Board received four awards which consisted of (1) Board of the Year for Exemplary Practices, (2) Hall of Fame - awarded to the Board that has been honored with the Board of the

Year Awards for Exemplary Practices for 3 consecutive times, (3) Board of the Year for Distinctive Practices, and (4) Audit Committee of the Year.

(2) NACC Integrity Awards

PTTEP was selected by the National Anti-Corruption Commission (NACC) as one of the chosen four awardees for this the Integrity Award among 66 organizations participating this year. The Award was organized to honor and support the morale of companies serving as outstanding role models, and to create awareness within the society and encourage other organizations to have commitment in running businesses with ethics and integrity as well as to be dedicated responsible for communities and societies.

(3) Two Awards from the SET Awards 2013

- SET Award of Honor: Top Corporate Governance Report Awards were presented to listed companies with outstanding CG Report for the minimum three consecutive years by taking into account reports issued by listed companies regarding their practices that are in compliance with the SET's CG 2012.

- Investor Relations Awards were presented to listed companies with outstanding performance in the area of investor relations, considering from the effort put in to give importance to investor relations, as well as the support and the high level of involvement from the Company's Board of Directors and management. The Awards also took into account the arrangement of investor relations activities, timely information disclosure with transparency and completeness, and also evaluated the variety and efficiency of available communication channels. Year 2013 was the first year for PTTEP to receive this Award.

(4) Best Managed Company in Thailand of 2013 and Best Managed Company in Asia for Oil & Gas of 2013

The Euromoney Magazine's Awards were presented to listed companies with outstanding management methodology and acumen as reflected in their strong performance and profitability, growth potential, information disclosure transparency, and good corporate governance.

(5) Thailand Top Company Award

The Award, co-organized by Business+ magazine and University of the Thai Chamber of Commerce, was presented to the best Thai company among more than 1,000 companies with best operations in Thailand.

(6) Prestigious Platinum Corporate Award

The Award, from The Asset Magazine in Hong Kong, was presented to companies for the Excellency in areas of financial performance, management acumen, corporate governance, investor relations, and social and environmental responsibility.

(7) Best Public Company 2013 Resources Industry Award

The Award was given to listed companies on the Stock Exchange of Thailand that had excellent performance and efficient management.

(8) Asian Corporate Directors 2013 and Asia's Outstanding Company

Asian Corporate Directors 2013 was awarded to Mr. Tevin Vongvanich, PTTEP's President and Chief Executive Officer, as one of the directors who have been building their organizations to have high standards of business ethics, while meeting expectations of their shareholders in the growing business. Meanwhile, Asia's Outstanding Company was awarded to PTTEP as a leading company adhering to the best Corporate Governance practices and continues to improve.

9.18 Reports of the Sub-Committees

9.18.1 The Corporate Governance Committee Report

PTTEP places great importance on the adherence to the Good Corporate Governance and Business Ethics of the PTTEP Group for its business operation and has therefore continuously made improvements them. The Board of Directors has assigned the Corporate Governance Committee, which consists of at least three independent directors, to supervise and ensure that Good Corporate Governance and Business Ethics are in compliance with across the Company.

In 2013, the Committee, with serving term from 25 April 2011 to 24 April 2014, consisted of General Pornchai Kranlert as the Chairman, and Mr. Maitree Srinarawat and Mr. Achporn Charuchinda as the members. During the year, the Committee held seven meetings and all incumbent members attended every meeting. The results of the meetings can be summarized as follows:-

(1) Assessed and reviewed Good Corporate Governance and Business Ethics of PTTEP Group to be in compliance with the laws, international practices, leading companies' practices, and recommendations of other institutions. All results were submitted for the Board's approval.

(2) Reviewed the Reporting and Whistleblowing Regulation 2013 to be in compliance with the laws, international practices, leading companies' practices, and recommendations of other institutions. All results were submitted for the Board's approval.

(3) Promoted corporate operations, and work implementation of committees, executives and employees to be in line with the Good Corporate Governance and Business Ethics of PTTEP Group. The Committee monitored and made suggestions over the activities organized to enhance knowledge and understanding of Good Corporate Governance and Business Ethics of PTTEP Group as well as over the complaints which came through the CG Hotline on a quarterly basis. CG Visit was organized to allow the Committee to meet with executives to follow up on the CG implementation executed by executives, in which they are considered to be CG Leaders. In addition, the Committee participated in and emphasized on the significance of Corporate Governance by organizing one CG training course for new executives and four training courses for new employees throughout 2013.

(4) Established CG reporting guidelines to be in accordance with the principles of the Stock Exchange of Thailand. The objective was to incorporate the CG Report to be a part of the annual report of the Company for all stakeholders.

(5) Monitored and provided recommendations on implementations that follow the Corporate Governance Report of Thai Listed Companies 2014 and reported the results to the Board for acknowledgment or consideration (as the case may be).

(6) Reviewed and provided recommendations relating to the management of PTTEP's procurement before the management would propose procurement proposals to the Board for approval. The Committee also reviewed and evaluated strategy, criteria and process relevant to the decision-making processes of procurement from projects across the Company in order to help govern and support the procurement process to be effective and in compliance with the Good Corporate Governance and Business Ethics of PTTEP Group, thereby enhancing confidence among bidders that the Company's procurement processes are transparent, neutral and ethical.

(7) Monitored and provided recommendations on implementations relating to being a member of Private Sector Collective Action Coalition against Corruption, and presented them to the Board for acknowledgement or consideration (as the case may be).

(8) Provided recommendations and monitored PTTEP's Corporate Social Responsibility (CSR) performance and work plan to help the CSR plan of the Company to, with sustainability, create added values to the society in the long-term.

The Corporate Governance Committee reported minutes of all meetings to the Board on a regular basis. In 2013, the Committee abided by its assigned tasks, according to the Charter for the Corporate Governance Committee B.E. 2548 and its amendment with prudence, competence and independence. It properly provided straightforward opinions for optimal benefits of PTTEP, shareholders, and other stakeholders.

General Pornchai Kranlert

(Pornchai Kranlert)

Chairman of the Corporate Governance Committee

9.18.2 The Audit Committee Report

PTTEP's Audit Committee consists of three independent directors who possess knowledge, expertise and experience in economics, finance, accounting, and laws. The Audit Committee was chaired by Mr. Ampon Kittiampon, with Mrs. Varanuj Hongsaprabhas and Mr. Achporn Charuchinda being the members of the Committee. All are knowledgeable and experienced in reviewing financial statements.

In 2013, the Audit Committee performed its duties, as assigned by the Board of Directors, according to the Company's regulations, the Audit Committee Charter, and regulations of the Stock Exchange of Thailand. The Audit Committee had a total of 16 meetings during the year with the management, the Company's internal auditors and External auditors. Duties performed during 2013 by the Audit Committee are summarized as follows:-

(1) Reviewing of financial reports

The Audit Committee reviewed the Company's quarterly and annual financial statements together with the management and the external auditor which is the Office of the Auditor General. The Committee inquired, commented, and provided recommendation to the management on the financial statements to ensure that these statements were completed and accurate and that they were in compliance with accounting standards, including the International Financial Reporting Standards (IFRS), as well as adequate and timely disclosure of significant matter.

In addition, the Audit Committee also provided recommendations on the Company's Management Discussion and Analysis (MD&A) regarding with clear information, analysis on business performance and potential risks on the Company's operation, measurement for the management to manage the risks in order to provide beneficial information to shareholders.

(2) Reviewing of the internal control system

The Audit Committee reviewed the Company's internal control and internal audit system to ensure their adequacy, appropriateness, and efficiency as well as encouraged the Company to implement Check and Balances system and preventive control to ensure that the operations are effective to support the Company's expansion plan.

(3) Reviewing of connected transactions or transactions with potential conflicts of interest

The Audit Committee reviewed connected transactions or transactions with potential conflict of interests to ensure their accuracy, rationality, and optimal benefits for the Company and its minor shareholders. The Committee also reviewed that the information related to the transactions was disclosed properly, completely, and accurately.

(4) Examining compliance of laws and related regulations

The Audit Committee reviewed the Company and its subsidiaries' performance for compliance with the securities and exchange laws, SET's regulations, and other laws related to the business. The Committee also provided support to the Compliance Department through recommendations intended to increase the effectiveness of the Company's compliance process.

(5) Oversighting of internal auditing

The Audit Committee approved the annual audit plan of the Internal Audit Department and reviewed audit results. The Audit Committee focused on effectiveness of audit planning and direction which aligned with the Company's key risks and direction. The Committee also considered a revision of the Audit Committee Charter of 2013, appraised the annual performance of the Chief of the Internal Audit Department, endorsed of budget and workforce requirements of the Internal Audit Department.

(6) Nominating of/ and meeting with the external auditor

The Audit Committee considered and nominated the Office of the Auditor General to continue to serve as the Company's external auditor and decided the audit fees for the year 2013. In addition, the Committee participated in meetings with the external auditor and Internal Audit Department in the absence of the PTTEP management to acknowledge the external auditor's approach and audit plan, and auditing problems or obstacles faced during its audit to seek for suggestions and improvements. In 2013, two such meetings were conducted.

The Audit Committee performed its duties with prudence. The Committee made recommendations and suggestions practically to promote the Company's Good Corporate Governance for protection and optimization of interests of shareholders and stakeholders. The Audit Committee's 2013 performance was assessed by completing self-appraisal, assessment by the Board of Directors and related units. The Audit Committee was graded "Very Good" for its performance.

The Audit Committee's opinions regarding the results of the duties performed in 2013 as stated above are summarized as follows:-

- The Company's accounting system and financial reports were accurate and reliable and were disclosed in a complete, adequate and timely manner.
- The Company's internal control systems were adequate, suitable, and have been continuously improved to suit the company's businesses at the present and in the future while complying with related laws and regulations.
- The Office of the Auditor General, PTTEP's external auditor, was independent and experienced in auditing of financial reports to ensure accuracy and reliability, as well as complete, adequate, and timely disclosure of essential information.
- According to reviews of the Company's connected transactions or those with potential conflict of interest, the Audit Committee regarded the Company's disclosure of information as being accurate and complete. The conditions and prices related to the transactions were fair and appropriate, and approved by the management and the Board prior to the execution.

Ampon Kittiampon

(Mr. Ampon Kittampon)

Chairman of the Audit Committee

9.18.3 The Nominating Committee Report

PTTEP's Good Corporate Governance requires the Nominating Committee to consist of at least three directors. Chairman and most of the Committee members must be independent directors with their responsibility according to the Charter for the Nominating Committee and three-year term.

The current Nominating Committee's term extends from 28 June 2012 to 27 June 2015. General Warawat Indradat (Independent Director), who has replaced Mr. Chaikasem Nitisiri since 31 October 2013, acts as the Chairman, while General Pornchai Kranlert (Independent Director) and Mr. Pailin Chuchottaworn serve as the two remaining members

In 2013, the Nominating Committee performed its duties, as assigned by the Board of Directors in the Charter for the Nominating Committee with prudence, full competence and independence. The duties and responsibilities involved the preparation of candidate lists and thereafter nomination of a qualified individual for a director or the President and Chief Executive Officer when there was a vacancy due to retire by rotation or other reasons, and consideration of a qualified director to be the Chairman or a member of the Sub-committee. Other duties included review of the Board Performance Target and performance appraisal form of the Board, Chairman, Sub-committees, President and Chief Executive Officer, as well as revision of the Charter.

In 2013, the Nominating Committee convened five times and its members with vested interests duly abstained on relevant agenda. All outcomes of the meetings were reported to the Board of Directors for acknowledgment.

PTTEP disclosed its detailed principles and procedures for nomination of directors, President and CEO in the annual report.

General Warawat Indradat

(Warawat Indradat)

Chairman of the Nominating Committee

9.18.4 The Remuneration Committee Report

The Board appointed the Remuneration Committee, which mainly consists of independent directors. The Remuneration Committee is chaired by an independent director. Its responsibility is to consider appropriateness of remuneration for the Board, Sub-committees, President and Chief Executive Officer, and the salary structure of senior management. The underlying principles or procedures and structure were fair and reasonable.

In 2013, the Remuneration Committee convened two times to perform its duties and to achieve its role and responsibility with prudence, carefulness and independence, as designated by the Board of Directors in the Charter for the Remuneration Committee. All members of the Remuneration Committee attended the meetings. The minutes of the meetings were reported to the Board with the following issues.

- Review of remuneration for the Board and Sub-committees.

The remuneration was based, by 50 percent, on their performance, on a whole-board basis, according to the 2013 Board's Self-Appraisal Form and, by 50 percent, on their performance in comparison to key performance indicators according to the Board Performance Target set by the Nominating Committee since late 2012. Other factors taken into consideration included corporate performance results, remuneration at other comparable listed companies, duties and responsibilities required and the overall economic situation. The underlying principles or procedures and structure were fair and reasonable.

- Review of remuneration for President and Chief Executive Officer

The remuneration was based on fair and reasonable principles or procedures and structure with regard to his duties and responsibilities, and annual performance results.

- Review of salary and compensation structure

The structure was competitive compared to leading companies. Remuneration and welfare were determined to be in accordance to the job requirements and positions. The structure also aims to attract more adept and competent new recruits to the organization, while creating work motivation, stability, confidence, and loyalty to the employees in the long term.

The Remuneration Committee performed its role in a transparent, fair and reasonable manner. For the stakeholders' confident, the Committee disclosed its remuneration in the annual report.

General Pornchai Kranlert

(Pornchai Kranlert)

Chairman of the Remuneration Committee

9.18.5 The Risk Management Committee Report

The Risk Management Committee is made up of six members, Mr. Prajya Phinyawat as Chairman with Mr. Viraphol Jirapraditkul, Mrs. Varanuj Hongsaprabhas, Mr. Manas Jamveha, Mr. Chakkrit Parapuntakul and Mr. Tevin Vongvanich as the members.

The Risk Management Committee members performed their duties and responsibilities as assigned by the Board of Director and in accordance with the Risk Management Charter. During 2013, the Committee held 15 meetings which can be summarized as follows:-

(1) Promoted and embedded the risk management culture through all staff and risk owners to implement the policy within the organization.

(2) Supported corporate strategy and objective. PTTEP conducted extensive qualitative and quantitative evaluation of its Corporate Risk Profile. The Risk Management Committee was able to provide constructive insight and direction on how to mitigate risks and oversight over the progress. Key Risk Indicator (KRI) was established to provide early warning for corporate risks that could prevent the organization from achieving its goal with quarterly monitoring.

(3) Evaluated and authorized appropriate measures to manage and mitigate critical risks to PTTEP at the strategic level and provided oversight over new investments, extension of concession, entry of new phases, divestment, financial risk management and oil price hedging policy, prior to the Board's approval.

(4) Considered the corporate strategic plan, key performance indicators, five-year investment plan (2014-2018), 2014 annual budget, and relevant risks prior to the Board's approval.

The Risk Management Committee reported its findings to the Board on a regular basis.

In summary, it is our view that the Committee had performed its duties in 2013 prudently, competently and independently with knowledge and capability while providing candid views to all parties for the benefit of PTTEP, all shareholders, and stakeholders.

Prajya Phinyawat

(Mr. Prajya Phinyawat)

Chairman of the Risk Management Committee

9.18.6 Independent Directors Committee Report

According to the guidelines of Good Corporate Governance set forth by the Stock Exchange of Thailand, the role of an Independent Directors Committee is to oversee and make recommendations independently in regard to the Company's management to ensure and protect its overall interest as well as fair benefits for each shareholder. PTTEP's Independent Directors Committee therefore is suitably considered as a part of the Company's Good Corporate Governance.

The current Independent Directors Committee consists of nine independent directors out of 15 of the Board's members, which is a selection ratio more stringent than the Securities and Exchange Commission's requirement. Mr. Norkun Sitthiphong acts as the Chairman, while General Pornchai Kranlert serves as deputy of the Committee. The remaining members are Mrs. Varanuj Hongsaprabhas, General Warawat Indradat, Mr. Maitree Srinarawat, Mr. Ampon Kittiampon, Mr. Prajya Phinyawat, Mr. Achporn Charuchinda, and Mr. Athapol Yaisawang.

In 2013, the Committee convened four times to perform its duties and to achieve its role and responsibilities. All incumbent members attended the meetings while its members with vested interests duly abstained on relevant agenda, to fulfill its assigned tasks with prudence, competence and independence. The Committee reported minutes of all meetings to the Board on a regular basis, and the results of the meetings can be summarized as follows:-

(1) Reviewed and revised the Charter of the Independent Directors Committee to be in line with international standards and leading companies. This was aimed to ensure the accuracy, adequacy, and up-to-date contents of the Charter.

(2) Commented and recommended on important issues of the management for the Company's overall best interest as well as benefits to shareholders and reported to the Board.

(3) Reviewed and verified the qualifications and eligibilities of the independent directors.

The Independent Directors Committee performs its duties through offering recommendations and views on significant matters which are beneficial to the Company, investors and minor shareholders with independence, transparency and freedom from involvement in any interests, in order to assist the Board to perform with greater efficiency and effectiveness.

Norkun Sitthiphong

(Mr. Norkun Sitthiphong)

Chairman of the Independent Directors Committee

10. Corporate Social Responsibility

10.1 Operational Policy towards Responsibility for the Society and the Stakeholders

PTTEP commits to the vision to become a leading Asian E&P company, driven by technology and green practices, to create sustainable values for all of the stakeholders.

The Company has developed the Sustainability Development Policy, also known as the G.R.O.W.T.H. Policy, to be adopted across the entire organization. The purpose is to demonstrate the Company's definite objective and determination to overcome all of the challenges towards developing and becoming a sustainable organization. (For the Sustainability Development Policy, see the Company's website.)

The Company has also developed the Sustainable Development Guideline underlying various aspects which are important to sustainability of the organization, in an effort to establish understandings within to ensure that all the functions are in line with each other. Harmony in respect to social responsibility among the divisions is also established by having them operate with policy in adherence to international standard policies, such as ISO 26000's CSR policy, International Association of Oil & Gas Producers' (OGP) Safety, Security, Health, and Environment (SSHE) policy, and the Universal Declaration of Human Rights (UDHR).

As for the Company's responsibility towards the stakeholders, the Company has designated each division to have its own separate responsibility and participation programs since they are involved with different groups of the stakeholders.

For details, see PTTEP Sustainability Report 2013.

10.2 Operation and Reporting

The Company has adopted the Global Reporting Initiative (GRI)'s sustainability report, which is one of the world's most prevalent standards for sustainability reporting, to provide information regarding the Company's economic, environmental, and social and governance performance. Information about the Company's capability to reduce greenhouse gas emission, for example, is included in the report. The high standard essentially allows PTTEP to monitor its sustainability effectively, comparably to those of the Company's financial management. The report and its indices have also reflected and, at the same time, been incorporated into other parts of the Company's business. This ranges from business planning, corporate risk

assessment, internal control process, internal auditing, monitoring and reporting of the Company's performance. In the past year, all of the indices were on the targets.

PTTEP also has another report dedicating specifically to sustainability. The report is of a standard comparable to the GRI's sustainability report for Application Level A+ companies and to the report required in auxiliary of the oil and gas industry. The Company's sustainability reporting also demonstrates its continuous effort in fulfilling the ten principles of the United Nations Global Compact (UNGC) as well as meeting other respectable reporting standards of the oil and gas industry. The Company discloses the information regarding sustainability as it is the vital information for stakeholders in helping them decide for themselves of the Company's future.

For details, see PTTEP Sustainability Report 2013.

10.3 Impacts of Business Operation on Social Responsibility

None

10.4 Projects and Activities for Benefits of the Society and the Environment (After Process)

PTTEP believes that, for a business to be sustainable, the society and the environment, in which it situates and operates, must also be sustainable. Therefore, in addition to the general management of our business projects and their own sustainability, the Company also emphasizes on other types of projects and activities which lead to sustainability development of the society and the environment.

We learn from our experience how to initiate new projects and to organize activities effectively for further the development. The Company has divided our projects and activities for the society and the environment clearly into four separate areas, namely, education, arts-culture and sports, environmental rehabilitation and conservation, and other social concerns. This way, all of the Company's functions are able to systematically move forward in the same direction.

In the past year, the Company focused on large projects as they allow the Company to face societal challenges relating to the sustainability development from a wider perspective. The reforestation of 200,000-rai area "PTTEP GREEN UP" is an example of the projects which are able to stimulate positive responses and produce significant impacts to the society, the environment and the organization. In addition, through, the "PTTEP GREEN UP" reforestation of 200,000-rai area, the campaign was created to support, the project, where the Company's

employees' and their family members were invited to participate. The campaign was able to raise an environmental awareness in those who were involved, as well as to dynamically raise the employees' working capability and proficiency.

For details, see PTTEP Sustainability Report 2013.

11. Internal Controls and Risk Management

11.1 Board of Directors' Evaluation on the Company's Internal Controls of PTTEP

PTTEP recognizes the importance of appropriate and adequate risk management and internal controls for improving efficiency and effectiveness in business operations, resource utilization, accurate and reliable reporting, and compliance with laws and regulations.

As a result, PTTEP has designed, implemented, assessed and continuously improved its internal control system. The Audit Committee conducted an assessment of the internal control covering five elements according to the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The assessment in each element is summarized as follows.

1. Control Environment

PTTEP has a good, proper and adequate control environment, which promotes and embeds ethics into the Company's culture as well as clearly defined organizational structure and job responsibilities as follows:-

- PTTEP operates its business under Good Corporate Governance and Business Ethics (CG&BE) of the PTTEP Group. Written policy is formulated with an annual review for possible amendment and assessment of conformance to the policy. Furthermore, communication regarding CG&BE is communicated to the directors, management, and employees on a regular basis through various training courses and activities. For example, CG&BE Course for new management and employees, CG&BE Knowledge Program and BE E-learning for all employees. Moreover, the CG&BE Visit was organized to allow each business unit to directly report to the Corporate Governance Committee of the Company regarding CG&BE practices and challenges.
- PTTEP has established clear delegation of roles and responsibilities between the Board of Directors of PTTEP (the Board) and the management. The organization structure, reporting lines, authorities and responsibilities in each unit are appropriately organized with high flexibility and efficiency according to the principles of Good Corporate Governance which corresponds with the dynamically changing business environment.
- PTTEP has clear human resource management policies in writing such as manpower management, recruitment, and compensation. Human resource competency development is placed as a high priority in the Company and; hence, the human resource

development plan is individually developed for each staff member. This is to provide a guideline in the enhancement of personnel's knowledge and capability in order to respond to PTTEP's business requirement.

2. Risk Assessment

The Board recognizes the benefits of risk management which can be reflected through the implementation of international risk management standards, establishment of risk management policy, procedure, and tools, which are as follows:-

- Risk Management Committee is appointed to be responsible for determining risk management policy and framework of the Company. This includes governing and supervising risk management to ensure successful achievement of activities both at the corporate-wide and at the project level. All of these are reported to the Board throughout 15 Committee Meetings in 2013.
- Risk management policy is in place and the Company has seriously and strenuously conducted risk management in order to ensure the success in any corporate's objectives.
- PTTEP manages risk at corporate level, so called Enterprise Risk Management, and operational level. The enterprise risk management focuses on managing risks that might affect the overall corporate-wide objectives while operational risk management focuses on risks that might affect department and project level objectives. The Company assesses the risks in every category from both external and internal factors as well as evaluates the impact and likelihood of those risks. Mitigation plans are developed and then executed to reduce the risk level through different measures for instance, establishing the Operational Risk Committee which specifically manages technical and safety risks. The Operational Risk Committee also supports the different projects in order to enhance efficiency of their operations. In 2013, Operational Risk Committee convened 7 times. In addition, PTTEP also introduced the Key Risk Indicator system (KRI) to act as early warning for risk factors that might prevent the Company from achieving its business objectives.
- Risk management has been communicated constantly by emphasizing that risk management is responsibility of the directors, management, and all employees, including PTTEP's contractors which they must follow for successful and sustainable development of the Company.

The details of risk management are presented in part 3 - "Risk Factors".

3. Control Activities

The objective of control activities is to ensure PTTEP's businesses are systematically and efficiently operated as well as ensuring that risks could be appropriately managed. PTTEP has significant control activities as follows.

- PTTEP has explicit written regulations and policies and operates under the regulations which are; CG&BE, Human Resources Management Regulation, Budgeting, Finance and Accounting Regulation, General Procurement Regulation, Procurement for Exploration and Production Regulation and Reporting and Whistleblowing Regulation. Additionally, there are charters that specifically govern all five committees namely, the Audit Committee, the Remuneration Committee, the Nominating Committee, the Risk Management Committee, and the Corporate Governance Committee. These regulations and charters are the frameworks that define the scope and authority of directors and management. Apart from these, PTTEP has Delegation of Authority & Signatures (DAS) manual that allows the President and CEO to clearly delegate the approval authorities to other management according to their roles and responsibilities for flexibly managing the business.

- PTTEP constantly develops and reviews business process such as Business Development process including M&A Pre-Deal and Post-Deal Integration, Human Resources related process and International administration process. Moreover, many business processes such as procurement process, contract management process, and payment process are assessed on the appropriateness of control activities according to the risk level and the compliance of control activities so-called Control Self Assessment (CSA).

- PTTEP ensures it strictly follows all laws and regulations and the compliance department was appointed by the President and Chief Executive Officer to ensure that the Company fully complies with related regulations through many activities such as the development of compliance policy, compliance checklist, legislation database, and corporate compliance management system. The activities also include monitoring and providing suggestions to prevent non-compliance cases.

- PTTEP has implemented control activities through information technology by controlling IT infrastructure and security in different aspects such as data access, data transfer, and data migration in the system. The information contained in the PTTEP's system is also assigned with different data classification to allow authorized personnel to gain access at their level only.

4. Information & Communication

PTTEP has set up efficient and effective information and communication channels as follows:-

- Regarding internal communication, PTTEP provides updated information that is necessary for operating the business to all employees via the Company's intranet and email. There is also a communication channel between management and operating staff so that they can effectively coordinate their work in order to achieve any assigned tasks.
- Regarding external communication, PTTEP regularly discloses information that is accurate, complete, sufficient, and timely to all stakeholders through various channels to provide equal access to information, for instance, the Company's website. The website will be updated on a continual basis. PTTEP also has business units to provide information to all stakeholders namely, Investor Relations, Corporate Communication, Corporate Governance and Shareholders' Rights, and etc.
- PTTEP has established special communication channel for employees or external individuals to discretely report violation of laws, regulations, rules and other procedures. This channel was established with explicit written document within the Reporting and Whistleblowing Regulation.

5. Monitoring Activities

PTTEP monitors and evaluates internal control activities on a yearly basis in two areas. Firstly, internal control activities are assessed at the corporate-wide level according to the Securities and Exchange Commission's guideline. The second is the Control Self Assessment (CSA) that focuses both corporate-wide and process level in accordance with the State Audit Commission's guideline. Both of them allow all employees to realize the importance of internal control and ensure that current control activities are suitable and adequate. If there is found to be any control deficiency, it will be improved. Furthermore, the Audit Committee and the Internal Audit Department have reviewed the Company's business processes and suggested improvement required in order to ensure the adequacy and effectiveness of internal control system.

At the Board of Director Meeting No. 3/2014/376 on 27 February 2014, in which the Audit Committee also attended, the Board endorsed the Audit Committee's opinion in the adequacy of internal control system of the Company. The opinion stated that PTTEP and its subsidiaries have designed and followed the internal control system adequately in order to minimize key risks potentially harming the Company's operations. Once the control deficiencies have been detected, they are improved constantly to suit with the current and future businesses as well as comply with the related laws and regulations.

Beside these, the auditor of PTTEP and its subsidiaries' financial statements from the Office of the Auditor General has assessed the effectiveness of PTTEP's internal control system, according to the auditing standards and the rule of State Audit Commission governing the formulation of internal control standard, B.E. 2544. The auditor found that PTTEP has designed, implemented, and maintained internal control system that takes into the account of business risks and follows the objective of good internal control practice.

11.2 Head of the Internal Audit Department and Head of the Compliance Department

11.2.1 Roles and responsibilities of Head of Internal Audit Department

PTTEP has established the Internal Audit Department which has the functional/direct reporting line to the Audit Committee. The key roles, responsibilities and scope of work of the Internal Audit Department are as follows:

(1) Objective Assurance:

The auditors provide a reasonable level of assurance to evaluate and improve the effectiveness of risk management, control and governance process.

(2) Joint Venture Audits:

The auditors conduct the audit on the Operators for the projects that PTTEP has invested in to ensure that the Operators comply with the Joint Venture Agreement and other related contracts arrangements and also fair treatment to all partners.

(3) Consulting Services:

The auditors pre-determine the scope of service with the requestors before starting the engagement. Consulting engagements are designed to improve efficiency and effectiveness of existing processes or to propose additional recommendations on governance, risk

management, and control. Such recommendations may also include a set of advice on designing of control processes.

(4) Fraud

The auditors should be alert to deceptive scheme that are volatile to fraud. It is important that the auditor identifies control weaknesses that could potentially lead to fraud opportunities. The auditor is responsible for undertaking a preliminary investigation of any reported or suspected fraud at the request of the Audit Committee and/or the President and Chief Executive Officer. However, prevention, detection, further investigation and prosecution of fraud offender are set forth under the responsibility of management.

(5) Special Audit Requests

Special audit requests are not included in the annual audit plan. Internal audit department performs special audits as requested by the Company's management and/or the Audit Committee.

According to the Audit Committee Charter B.E. 2542 (Combined Charter), the Audit Committee has the duty to determine an internal audit unit's independence as well as to give an approval for a nomination, a transfer and a reward or a punishment of the Head of the Internal Audit.

The Audit Committee deems that both managements who held position as the Head of Internal Audit Department during 2013, whose details are presented in part 11.2.3, are qualified under the aforementioned title as both managements have educational background, necessary knowledge, skills, and work experiences. Moreover, both managements continue to update their professional knowledge through extensive trainings on internal audits techniques and internal auditor competency development to regularly improve the efficiency and effectiveness of the overall operation of the internal audit department.

11.2.2 Roles and Responsibilities of Head of Compliance Department

PTTEP established the Compliance Department which has a direct reporting line to Senior Vice President, Legal Division and President and Chief Executive Officer. The key responsibilities are to encourage the PTTEP Group to fully comply with applicable laws and external regulations and support management in managing the Compliance Risk efficiently through various compliance programs such as developing and maintaining of the Compliance Checklist, providing consultation, communication and training program, monitoring compliance

performance, conducting compliance risk assessment, providing advice upon the new issuance or amendment of the PTTEP Group internal regulations, and coordinating with regulators.

11.2.3 Management Holding the Positions of Head of Internal Audit and Compliance Departments

During year 2013, managements who assumed the position of the Company's Head of the Internal Audit Department and Head of the Compliance Department are as follows:-

Name	Period Holding Position of Head of Internal Audit Department	Period Holding Position of Head of Compliance Department
(1) Ms. Chaveeporn Chamsang	1 October 2013 – Present	16 June 2012 – 30 September 2013
(2) Mr. Verasak Manchuwong	1 January 2003 – 30 September 2013	1 October 2013 – Present

Further details of Head of Internal Audit and Compliance Departments are in Attachment 3.

12. Connected Transactions

12.1 Connected Transactions between Related Companies

Connected transactions of PTTEP and/or its subsidiaries with other entities that may result in conflicts of interest in the fiscal year ending 31 December 2013 are as follows:-

Connected Company	Relationship	Transaction	Value (Unit: Million USD)	Pricing Policy and/or Reason
PTT Plc. (PTT)	<ul style="list-style-type: none"> PTT, the company's major shareholder, holds 65.29% of the company's registered and paid-up capital. Co-directors are: <ul style="list-style-type: none"> (1) Mr. Pailin Chuchottaworn (2) Mr. Nuttachat Charuchinda (3) Mr. Athapol Yaisawang 	Petroleum product sales: crude oil; natural gas; liquefied petroleum gas; and condensate <ul style="list-style-type: none"> Total income Accounts receivables 	5,978.42 864.01	<ul style="list-style-type: none"> Condition and price setting follows normal business operations at the arm's length basis conditions for non-related persons or operations.

Connected Company	Relationship	Transaction	Value (Unit: Million USD)	Pricing Policy and/or Reason
		<p>Other income includes:</p> <ul style="list-style-type: none"> Income from design, equipment procurement, construction, and natural gas pipeline test from central processing platform of South Bongkot field to PTT's third gas transmission pipeline for PTT. Income from infrastructure services to support the petroleum development such as warehouse, helicopter, and accommodation for PTT personnel at Arthit and Bongkot fields Income from maintenance of natural gas meters Income from training services Income from the Company's personnel seconded to PTT <ul style="list-style-type: none"> Total income 2.67 Accounts receivables 0.68 		<ul style="list-style-type: none"> The condition and price setting for these specified other income follows normal business operations at the arm's length basis conditions for non-related persons or operations.
		Account receivable from construction of gas transmission pipelines	30.24	<ul style="list-style-type: none"> Such amount arises mostly from additional scope of work on gas-pipeline construction. The actual cost of the additional work is under negotiation with PTT. The condition and price setting for construction of gas transmission pipelines follows normal business operations at the arm's length basis conditions for non-related persons or operations.

Connected Company	Relationship	Transaction	Value (Unit: Million USD)	Pricing Policy and/or Reason
		Petroleum product purchase, other related expenses, and expense for PTT personnel seconded to PTTEP. <ul style="list-style-type: none"> Expense for the purchase of petroleum products, related equipment, related services and others Personnel expense Accounts payables 	75.89 1.49 4.74	<ul style="list-style-type: none"> The condition and price setting for the purchase of petroleum product, related equipment, related services, and others follows normal business operations at the arm's length basis conditions for non-related persons or operations. Personnel expense rates follow the actual rates PTT pays for employees seconded to the Company.
		The deferred payment which is the Company's obligation according to the Arthit Project's natural gas purchase/sale contract.	1.76	<ul style="list-style-type: none"> Condition and price setting follows normal business operations at the arm's length basis conditions for non-related persons or operations.
Star Petroleum Refining Plc. (SPRC)	<ul style="list-style-type: none"> PTT, the Company's and SPRC's major shareholder, holds 36.00% of SPRC's registered and paid-up capital. 	Crude oil sales <ul style="list-style-type: none"> Total income Accounts receivables 	84.45 10.57	<ul style="list-style-type: none"> Condition and price setting follows normal business operations at the arm's length basis conditions for non-related persons or operations.

Connected Company	Relationship	Transaction	Value (Unit: Million USD)	Pricing Policy and/or Reason
Energy Complex Co., Ltd. (Energy Complex)	<ul style="list-style-type: none"> PTTEP, Energy Complex's major shareholder, holds 50.00% of Energy Complex's registered and paid-up capital. PTT, the major shareholder of both PTTEP and Energy Complex, holds 50.00% of Energy Complex's registered and paid-up capital. The Company's executives who serves as Energy Complex's directors are: (1) Ms. Penchun Jarikasem, (2) Mr. Asdakorn Limpiti (3) Mr. Thiti Mekavichai 	<p>The Company has signed a three-year lease with Energy Complex to rent the 47,000 square meters building for office, storage and multipurpose areas at the Energy Complex Center (Enco). The Company is eligible to extend its lease period for another three years.</p> <ul style="list-style-type: none"> Total lease and service paying amount 22.58 Accounts payables - 		<ul style="list-style-type: none"> The leasing rate is referred to the rate appraised by independent evaluators, based on the market rate of office building lease.
		<p>The Company signed a loan contract with Energy Complex under the following conditions:</p> <ul style="list-style-type: none"> Contract period of 13 years and six months Expiration date on 2 October 2022 Reference interest rate follows a loan contract between Energy Complex and Krung Thai Bank Plc. dated 2 April 2009 (contract amendment is included.). The interest rate is FDR+2% per year for the period of 31 December 2013. Accrued loans 17.68 Interest receivables 0.80 		<ul style="list-style-type: none"> The mentioned contract follows the conditions of the loan contract signed by Energy Complex and Krung Thai Bank Plc., dated 2 April 2009 (contract amendment is included.) with the financial support of all Energy Complex's shareholders proportionately.
		<p>Income from the Company's personnel seconded to Energy Complex</p> <ul style="list-style-type: none"> Total income 0.06 Accounts receivables 0.01 		<ul style="list-style-type: none"> Salary rates based on the actual rates the Company pays for its employees seconded to Energy Complex.

Connected Company	Relationship	Transaction	Value (Unit: Million USD)	Pricing Policy and/or Reason
PTT ICT Solutions Co., Ltd. (PTT ICT)	<ul style="list-style-type: none"> PTT, the major shareholder of the Company, holds 20.00% of PTT ICT's registered and paid-up capital. PTT Global Chemical Plc. (PTTGC) and Thai Oil Plc. (TOP), in which PTT is their major shareholder, hold 40.00%, and 20.00% of PTT ICT's shares, respectively. Ms. Penchun Jarikasem, the Company's executive, serves as PTT ICT's director. 	The Company has signed a contract with PTT ICT for IT services and communications. <ul style="list-style-type: none"> Total expenses 19.24 Accounts payables 0.53 		<ul style="list-style-type: none"> Condition and price setting follows normal business operations at the arm's length basis conditions for non-related persons or operations.
		Income from the Company's personnel seconded to PTT ICT <ul style="list-style-type: none"> Total income 1.12 Accounts receivables 1.02 		<ul style="list-style-type: none"> Salary rates based on the actual rates the Company pays for its employees seconded to PTT ICT.
PTT International Co., Ltd. (PTT Inter)	<ul style="list-style-type: none"> PTT, the Company's and PTT Inter's major shareholder, holds 100% of PTT Inter's registered and paid-up capital. Mr. Chatchawal Eimsiri, the Company's executive, is PTT Inter's director. 	Income from procurement of drivers for executives based on contracts between PTT Inter and PTTEP Services Co., Ltd. (the Company's subsidiary). <ul style="list-style-type: none"> Total income 0.04 Accounts receivables 0.01 		<ul style="list-style-type: none"> Condition and price setting follows normal business operations at the arm's length basis conditions for non-related persons or operations.
Thai Airways Internationally. (THAI)	<ul style="list-style-type: none"> Co-directors are <ol style="list-style-type: none"> Mr. Ampon Kittiampon Mr. Athapol Yaisawang 	Expense for air ticket purchases <ul style="list-style-type: none"> Total expenses 1.84 Accounts payables 0.29 		<ul style="list-style-type: none"> Condition and price setting follows normal business operations at the arm's length basis conditions for non-related persons or operations.
PTT Global Chemical Plc. (PTTGC)	<ul style="list-style-type: none"> PTT, the Company's and PTTGC's major shareholder, holds 48.90% of PTTGC's registered and paid-up capital. Co-director is Mr. Prajya Phinyawat. 	Income from procurement of drivers for executives based on contract between PTTGC and PTTEP Services Co., Ltd. (the Company's subsidiary). <ul style="list-style-type: none"> Total income 0.02 Accounts receivables - 		<ul style="list-style-type: none"> Condition and price setting follows normal business operations at the arm's length basis conditions for non-related persons or operations.

Connected Company	Relationship	Transaction	Value (Unit: Million USD)	Pricing Policy and/or Reason
PTT Maintenance and Engineering Co., Ltd. (PTT Maintenance)	<ul style="list-style-type: none"> PTT, the Company's and PTT Maintenance's major shareholder, holds 40.00% of PTT Maintenance's registered and paid-up capital. PTTGC, in which PTT is its major shareholder, holds 60.00% of PTT Maintenance's shares. 	<p>The Company and its subsidiaries signed the contracts with PTT Maintenance for the following services:</p> <ul style="list-style-type: none"> Rail Tank Wagons Maintenance and repair General maintenance, equipment inspection and other services Training contract of MES Implementation for Stock Inventory (an inventory management system) <p>Total expenses Accounts payables</p>	<p>2.70 -</p>	<ul style="list-style-type: none"> Condition and price setting follows normal business operations at the arm's length basis conditions for non-related persons or operations.
PTT Energy Solutions Co., Ltd. (PTT Energy)	<ul style="list-style-type: none"> PTT, the Company's and PTT Energy's major shareholder, holds 40.00% of PTT Energy's registered and paid-up capital. PTTGC, TOP and IRPC, in which PTT is their major shareholder, hold 20.00% each in PTT Energy. 	<p>Expense for meeting and seminar arrangement, consultant fee for personnel training and work system</p> <p>Total expenses Accounts payables</p>	<p>0.27 -</p>	<ul style="list-style-type: none"> Condition and price setting follows normal business operations at the arm's length basis conditions for non-related persons or operations.
Sport Services Alliance Co., Ltd. (Sport Services)	<ul style="list-style-type: none"> Business Services Alliance Co., Ltd., in which PTT is its major shareholder, is Sport Services' major shareholder holding 100%. 	<p>Expense for sponsoring PTT Rayong Football Club</p> <p>Total expenses Accounts payable</p>	<p>0.17 -</p>	<ul style="list-style-type: none"> Support of PTT Rayong Football Club is the activity to support youths and people in Rayong through football as Sport Services is the owner and sponsor of PTT Rayong Football Club.
Dhipaya Insurance Plc. (TIP)	<ul style="list-style-type: none"> PTT, the Company's and TIP's major shareholder, holds 13.33% of TIP's registered and paid-up capital. 	<p>Expense for the Company's assets insurance, and its employees' health and life insurance</p> <p>Total expenses Accounts payable</p>	<p>20.71 0.10</p>	<ul style="list-style-type: none"> Condition and price setting follows normal business operations at the arm's length basis conditions for non-related persons or operations.

Connected Company	Relationship	Transaction	Value (Unit: Million USD)	Pricing Policy and/or Reason
Business Services Alliance Co., Ltd. (Business Services)	▪ PTT, the Company's and Business Services' major shareholder, holds more than 10.00% of Business Services' registered and paid-up capital.	Expense for temporary, support-role staff for the I-Prompt project with contract ending on 30 June 2013 ▪ Total expenses ▪ Accounts payable	0.04 -	▪ Condition and price setting follows normal business operations at the arm's length basis conditions for non-related persons or operations.
Top Maritime Service Co., Ltd. (Top Maritime)	▪ Co-director is Mr. Pichai Chunhavajira.	Ship lease for transporting personnel to and from Bongkot Field ▪ Total expenses ▪ Accounts payable	0.26 0.26	▪ Condition and price setting follows normal business operations at the arm's length basis conditions for non-related persons or operations.
PTT International Trading Pte. Ltd. ("PTT Inter Trading")	▪ PTT, the Company's and PTT Inter Trading's major shareholder, holds 100% of PTT Inter Trading's registered and paid-up capital.	Expense for the company's ship fuel filled in Singapore. ▪ Total expenses ▪ Accounts payables	0.87 -	▪ The condition and price setting of fuel purchase follows normal business operations at the arm's length basis conditions for non-related persons or operations.
		Expense for fuel hedging contracts ▪ Total expenses ▪ Total income ▪ Accounts payables ▪ Accounts receivables	7.02 5.38 - 1.05	▪ Condition and price setting follows normal business operations at the arm's length basis conditions for non-related persons or operations.



12.2 Preconditions and Reasons for Connected Transactions

PTTEP's Audit Committee reviewed the connected transactions which were recorded during the fiscal year ending 31 December 2013 as summarized above and considered them to be indispensable, fair and justifiable in terms of conditions and price, and/or within the arm's length basis. The transactions were also approved by the management or the PTTEP's Board of Directors ("the Board") prior to execution.

12.3 Measures and Procedure of Connected Transactions

The Board reviews the transactions potentially leading to conflicts of interest, or those which are connected or related, under proper ethical standards, however only after they are initially screened and examined by the Company's Audit Committee. The transactions are particularly of those falling within the criteria as set forth by the Stock Exchange of Thailand, the Capital Market Supervisory Board, and the Securities and Exchange Commission. The Board's responsibility also includes, when deemed appropriate, public disclosure of accurate and correct information of the transactions which might be questionable. The Company meanwhile has conducted a clear set of policies regarding conflict of interest for its directors and employees to follow and act accordingly, as well as a reporting procedure in presence of the conflict.

There are two types of approval procedures for connected transactions.

(1) Transactions requiring an approval from the Board prior to execution, such as those involve buying/selling contracts of gas, crude oil and condensate, and trade financing.

(2) Transactions which can be executed by the Company's standard procurement regulations and, if within the value pre-approved by the Board, an authorization from the management, such as procurement of fuel and petroleum products, lease of office buildings, and use of helicopter service.

Shall any of the directors, employees, or related persons have a vested interest in a transaction that the Company is involved in, he or she will not be allowed to take part in making of any of the decisions or approvals related to the transaction. The transaction, in this case, also remains to be treated under an arm's length basis, fair and justifiable in terms of both price and conditions.



12.4 Policy for and Future Possibility of Connected Transactions

12.4.1 Policy for Connected Transactions

PTTEP treats connected transactions as normal business transactions without any intentions to transfer of benefits between or among the Company and related companies, or persons. The Company strictly adheres to securities and exchange laws and regulations, including those imposed by the Capital Market Supervisory Board, the Stock Exchange of Thailand, or other related supervisory agencies, regarding connected transactions to ensure that, with reasonable business terms and conditions, and use of the market reference prices for instance, the Company's shareholders and stakeholders will continued to be treated equally and in their interests, according to the Company's Good Corporate Governance Policy.

12.4.2 Future Possibility of Connected Transactions Potentially Leading to Conflicts of Interest

PTTEP will continue to have connected transactions with related entities in the future. Most of the transactions include normal business, office building-leasing, and supporting business transactions, which can be summarized as follows:-

(1) Sales of petroleum products and purchase of fuel: Since the transactions are a normal part of the Company's business and are executed under conditions and requirements as stated in the contracts, they will continue due to their necessity to the operations.

(2) Lease of office buildings: Since leasing of office buildings is reasonable and necessary for the Company's business operations, the transactions will be continued.

(3) Hiring of information and technology services: Since it remains reasonable and necessary for the Company to be supported with information and technology services to operate its business, the transactions will continue.

13. Significant Financial Information

Since 1 January 2011, PTTEP has determined the US Dollar (USD) to be its functional currency in accordance with Thai Accounting Standard No. 21 (revised 2009) "The Effects of Changes in Foreign Exchange Rates". However, in submission of its financial statements to the Stock Exchange of Thailand and the Department of Business Development, the Company is also required to convert the financial statements from USD to the presentation currency, which is Thai Baht.

13.1 Summary of Financial Information

PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED AND SUBSIDIARIES

STATEMENTS OF FINANCIAL POSITION

AS AT DECEMBER 31,

	2011		2012		2013	
	Thousand (US Dollar)	%	Thousand (US Dollar)	%	Thousand (US Dollar)	%
Assets						
Current Assets						
Cash and cash equivalents	1,350,530	9.6	2,291,919	11.7	2,357,038	10.9
Investments in trading securities	-	-	-	-	143	0.0
Account receivable - parent company	484,200	3.4	870,244	4.4	894,253	4.1
Trade accounts receivable	150,155	1.1	170,372	0.9	152,140	0.7
Other accounts receivable	201,897	1.4	166,799	0.8	142,625	0.7
Inventories	17,360	0.1	19,311	0.1	45,387	0.2
Materials and supplies, net	271,130	1.9	304,395	1.6	327,807	1.5
Other current assets	262,527	1.9	208,205	1.1	186,194	0.9
Total Current Assets	2,737,799	19.4	4,031,245	20.5	4,105,587	19.0
Non-current Assets						
Investments in available-for-sales securities	-	-	1,248	-	1,659	0.0
Investments in associates	26,923	0.2	31,198	0.2	36,842	0.2
Long-term loans to related parties	18,485	0.1	18,935	0.1	17,675	0.1
Property, plant and equipment, net	9,300,912	65.8	10,970,970	55.9	12,671,865	58.7
Goodwill	329,695	2.3	901,240	4.6	992,293	4.6
Intangible assets, net	1,136,555	8.0	3,238,674	16.5	3,279,097	15.2
Deferred income tax assets	510,603	3.6	380,983	1.9	354,918	1.6
Other non-current assets	70,460	0.5	62,525	0.3	112,452	0.5
Total Non-current Assets	11,393,633	80.6	15,605,773	79.5	17,466,801	81.0
Total Assets	14,131,432	100.0	19,637,018	100.0	21,572,388	100.0

PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED AND SUBSIDIARIES

STATEMENTS OF FINANCIAL POSITION (cont'd)

AS AT DECEMBER 31,

	2011		2012		2013	
	Thousand (US Dollar)	%	Thousand (US Dollar)	%	Thousand (US Dollar)	%
Current Liabilities						
Short-term loans from financial institution	315,545	2.2	-	-	-	-
Trade accounts payable	72,996	0.5	114,198	0.6	131,916	0.6
Current portion of long-term debts	687,772	4.9	163,547	0.8	356,523	1.7
Working capital to co-venturers	35,665	0.3	13,719	0.1	25,073	0.1
Accrued expenses	995,314	7.0	946,553	4.8	873,623	4.0
Accrued interests payable	29,583	0.2	35,633	0.2	49,505	0.2
Income tax payable	802,476	5.7	921,173	4.7	972,249	4.5
Financial derivative liabilities	46,419	0.3	2,446	0.0	35,870	0.2
Short-term provision	75,772	0.5	32,999	0.2	48,198	0.2
Other current liabilities	78,255	0.6	144,708	0.7	139,595	0.6
Total Current Liabilities	3,139,797	22.2	2,374,976	12.1	2,632,552	12.2
Non-current Liabilities						
Debentures	2,251,987	15.9	2,517,710	12.8	2,608,763	12.1
Long-term loans from financial institution	617,861	4.4	1,091,705	5.6	1,057,696	4.9
Deferred income tax liabilities	918,666	6.5	1,512,784	7.7	1,649,131	7.6
Employee benefit obligations	62,463	0.4	78,836	0.4	84,440	0.4
Provision for decommissioning costs	703,998	5	1,070,744	5.5	1,188,900	5.5
Provision for remuneration for the renewal of petroleum production	-	-	167,450	0.9	530,471	2.5
Financial derivative liabilities	46,832	0.3	44,810	0.2	34,129	0.2
Deferred income	36,371	0.3	35,636	0.2	28,752	0.1
Other non-current liabilities	41,795	0.3	31,067	0.2	29,035	0.1
Total Non-current Liabilities	4,679,973	33.1	6,550,742	33.4	7,211,317	33.4
Total Liabilities	7,819,770	55.3	8,925,718	45.5	9,843,869	45.6
Shareholders' Equity						
Share capital						
Issued and paid-up share capital	129,475	0.9	150,684	0.8	150,684	0.7
Share premium	469,655	3.3	3,438,921	17.5	3,439,037	15.9
Subordinated capital debentures	-	-	156,570	0.8	156,570	0.7
Retained earnings						
Appropriated						
Legal reserve	12,964	0.1	15,048	0.1	15,048	0.1
Reserve for expansion	431,231	3.1	431,231	2.2	431,231	2.0
Unappropriated	5,254,384	37.2	6,503,764	33.1	7,556,734	35.0
Other components of Shareholders' Equity	13,953	0.1	15,082	0.1	(20,785)	(0.1)
Total Shareholders' Equity	6,311,662	44.7	10,711,300	54.5	11,728,519	54.4
Total Liabilities and Shareholders' Equity	14,131,432	100.0	19,637,018	100.0	21,572,388	100.0
Book value per share (US Dollar)	1.90		2.70		2.95	
Issued and fully paid-up capital at the end of year						
(Thousand share)	3,319,985		3,969,985		3,969,985	

PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED
AND SUBSIDIARIES
STATEMENTS OF INCOME
FOR THE YEARS ENDED DECEMBER 31,

	2011		2012		2013	
	Thousand (US Dollar)	%	Thousand (US Dollar)	%	Thousand (US Dollar)	%
Revenues						
Sales	5,439,722	95.7	6,689,555	95.3	7,171,896	96.3
Revenue from pipeline transportation	124,071	2.2	150,684	2.1	150,675	2.0
Interest income	16,239	0.3	15,874	0.2	33,065	0.4
Other income	105,061	1.8	164,557	2.3	89,263	1.2
Total Revenues	5,685,093	100	7,020,670	100.0	7,444,899	100.0
Expenses						
Operating expenses	625,396	11.0	705,654	10.1	827,377	11.1
Exploration expenses	216,890	3.8	213,036	3.0	172,020	2.3
Administrative expenses	257,409	4.5	312,223	4.4	333,290	4.5
Petroleum royalties and remuneration	645,468	11.4	788,219	11.2	816,741	11.0
Depreciation, depletion and amortization	1,117,346	19.7	1,373,836	19.6	1,637,400	22.0
Loss on foreign exchange	64,886	1.1	23,964	0.3	90,931	1.22
Loss from Montara incident	5,331	0.1	538	-	-	-
Loss on financial derivative	11,057	0.2	12,257	0.2	5,440	0.07
Management's remuneration	4,571	0.1	4,714	0.1	6,185	0.1
Impairment loss on assets	-	-	204,167	2.9	-	-
Finance costs	123,557	2.2	187,010	2.7	200,765	2.7
Total Expenses	3,071,911	54.0	3,825,619	54.5	4,090,149	54.9
Share of gain from associates	2,430	-	4,657	0.1	6,157	0.1
Profit before income taxes	2,615,612	46.0	3,199,708	45.5	3,360,907	45.1
Income taxes expenses	(1,147,365)	(20.2)	(1,354,189)	(19.3)	(1,515,265)	(20.4)
Profit for the year	1,468,247	25.8	1,845,519	26.2	1,845,642	24.8
Basic earnings per share (US Dollar)	0.44		0.55		0.46	
Diluted earnings per share (US Dollar)	0.44		0.55		0.46	
Weighted average number of outstanding ordinary shares (Thousand share)	3,319,078		3,346,624		3,969,985	

PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED
AND SUBSIDIARIES
STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31,

	2011	2012	2013
	Thousand (US Dollar)	Thousand (US Dollar)	Thousand (US Dollar)
Cash flows from operating activities			
Profit before income taxes	2,615,612	3,199,709	3,360,907
Adjustment to reconcile profit before income tax to net cash provided by (used in) operating activities			
Share of gain from associates	(2,430)	(4,657)	(6,157)
Depreciation, depletion and amortization	1,117,346	1,373,836	1,637,400
Impairment loss on assets	-	204,167	-
Amortization of prepaid expenses	5,714	15,538	6,953
Amortization of exploration expenses	150,450	94,680	71,438
Loss on disposal of assets	1,726	2,324	7,834
Income recognized from deferred income	(11,455)	(735)	(6,884)
Loss on financial derivatives	11,057	12,257	11,322
Employee benefit obligations	15,264	15,619	13,224
Loss (Gain) on foreign exchange	(62,284)	6,096	27,821
Interest income less than interest expenses	103,957	156,458	161,222
	3,944,957	5,075,291	5,285,080
Changes in operating assets (increase) decrease	(1,036,853)	(1,620,485)	(1,545,233)
Net cash provided by operating activities	2,908,104	3,454,805	3,739,847
Cash flows from investing activities			
Cash received from long-term loans to related parties	274	184	-
Cash payment from purchase of business	(1,889,560)	(1,883,985)	(240,945)
Loss from investments in related parties	-	(141)	-
Dividends received from associates	-	523	513
Interest received from loans	2,158	853	800
Increase in property, plant and equipment	(2,206,095)	(2,805,793)	(2,633,409)
Increase in intangible assets	(114,199)	(47,119)	(32,847)
Net cash used in investing activities	(4,207,422)	(4,735,478)	(2,905,888)

PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED
AND SUBSIDIARIES
STATEMENTS OF CASH FLOWS (cont'd)
FOR THE YEARS ENDED DECEMBER 31,

	2011	2012	2013
	Thousand (US Dollar)	Thousand (US Dollar)	Thousand (US Dollar)
Cash flows from financing activities			
Decrease in short-term loans with maturity date within 3 months from financial institution	(266,053)	(5,337)	-
Proceeds from short-term loans with maturity date within 1 year from financial institution	329,760	1,502,770	-
Payments of short-term loans with maturity date within 1 year from financial institution	-	(1,849,946)	-
Payments of short-term loans	-	-	(62,000)
Proceeds from issuance of debentures	700,000	500,000	500,000
Payments of debentures	-	(779,225)	(175,605)
Proceeds from long-term loans from financial institution	625,000	478,118	-
Interest paid for loans	(123,106)	(173,185)	(164,333)
Cash payments for financial costs	(10,677)	(20,709)	(9,778)
Proceeds from issuance of subordinated capital debentures	-	157,138	-
Interest paid for subordinated capital debentures	-	(4,758)	(9,393)
Cash payments for financial costs from issuance of subordinated capital debentures	-	(567)	-
Proceeds from issuance of common stock	7,649	3,011,635	-
Cash payments for transaction cost of capital	-	(21,161)	-
Dividends paid	(560,133)	(587,634)	(783,293)
Net cash provided by (used in) financing activities	702,440	2,207,139	(704,402)
Net increase (decrease) in cash and cash equivalents	(596,878)	926,466	129,557
Cash and cash equivalents at the beginning of the year	1,979,478	1,350,530	2,291,919
	1,382,600	2,276,996	2,421,476
Adjustment for the effect of exchange rate changes	(32,070)	14,923	(64,438)
Cash and cash equivalents at the end of the year	1,350,530	2,291,919	2,357,038

13.2 Summary significant financial ratio table

		Financial Ratios		
		2011	2012	2013
Liquidity ratio				
Current Ratio	(Times)	0.87	1.70	1.56
Quick Ratio	(Times)	0.63	1.40	1.29
Cash Flow from Operations to Current Liabilities Ratio	(Times)	1.15	1.25	1.49
Account Receivable Turnover	(Times)	10.87	8.17	7.02
Collection Period	(Days)	34	45	52
Profitability Ratio				
Net Profit Margin	(%)	25.83	26.29	24.79
Return on Equity	(%)	25.06	21.68	16.45
Efficiency Ratio				
Return on Assets	(%)	11.83	10.93	8.96
Return on Fixed Assets	(%)	29.69	26.12	23.10
Assets Turnover	(Times)	0.46	0.42	0.36
Financial Policy Ratio				
Debt to Equity Ratio	(Times)	0.61	0.35	0.34
Times Interest Earned	(Times)	42.39	30.49	31.97
Dividend Ratio	(%)	40	38	40
Data per Share				
Book Value per Share	(USD)	1.90	2.70	2.95
Net Profit per Share	(USD)	0.44	0.55	0.46
Dividend per Share	(THB)	5.40	5.80	6.00
Growth Rate				
Total Asset	(%)	32.15	38.96	9.86
Total Liabilities	(%)	47.94	14.14	10.29
Sales	(%)	25.30	22.94	7.05
Net Profit	(%)	6.36	25.70	0.01

14. Management Discussion and Analysis of Operating Results for 2013

14.1 PTTEP Performance

Global macroeconomic overview: In 2013, the global economy slowed down. The International Monetary Fund (IMF) projects global economic growth for 2013 to be 2.9%, a decrease from the 3.2% growth reported in 2012. The economic growth of developed market (DM) economies led the slowdown, while growth from emerging market economies (EM) was stagnant with no clear indication of expansion.

Regional macroeconomic overview: The IMF is currently in the progress of revising up its 2013 growth estimates for the United States (US), from its previous October forecast of 1.6%. The US economy grew at 2% during the second quarter of 2013, and recorded a year-high growth rate of 3.6% during the third quarter. Additionally, the US Bureau of Economic Analysis (BEA) announced a review of third quarter US Real Gross Domestic Product (GDP) which increased 4.1% from the continued expansion of private inventory investment, private domestic consumption and expenditure, investment in the residential property sector, and the renewed increase of local government expenditure. The US economy is showing signs of gradual recovery while also facing pressure from fiscal measures to reduce the budget deficit. Moreover, the US Central Bank has announced that it will begin to gradually taper its quantitative easing (QE) program in 2014 as the economy improves, with the timing and magnitude of the tapering dependent upon the pace of economic recovery. The US dollar, as a result, will likely appreciate, benefitting from a reduction of fiscal risk and an improved economy.

Eurozone economies are still in the early phase of recovery, with forecasted growth estimates for 2013 at -0.4%, an increase over the 2012 growth rate of -0.6%. During the third quarter of 2013, the Eurozone economy grew at 0.1%, versus a second quarter figure of 0.3%, with the recovery still at risk due to underlying fiscal conditions such as high levels of public debt, and high levels of unemployment. Moreover, the Eurozone's inflation rate of 0.7% is lower than the targeted 2% rate set by the European Central Bank (ECB), and therefore risks facing a deflationary situation similar to Japan. Consequently, the ECB has lowered its policy rate from 0.50 basis points to a historical low of 0.25 basis points; resulting in the likelihood of the Eurozone currency depreciating relative to the US dollar.

The Japanese economy expanded at a decreasing rate, with 2013 economic growth projected at 1.7%, a decrease relative to the 2% growth in 2012. During the third quarter, the economy grew at 0.3% versus the second quarter growth of 0.9%. Public expenditure increased 6.5% as a result of expansionary fiscal policies from the government resulting in a considerable amount of supplementary budget. Private consumption expenditure rose 0.1%, marking a consecutive growth over four quarters. On the other hand, exports decreased 0.6% due to lower exports to Asian and US markets, marking the first quarterly decrease after three consecutive quarters of growth.

The Chinese economy grew at a relatively stable rate, with 2013 growth projected at 7.7%, equivalent to the previous year's growth rate of 7.7%. In the third quarter, the Chinese economy expanded at 2.2% where in the second quarter it grew at 1.7%. During November, the country announced an economic reform plan focused on a market-driven economy, which is a significant reform relative to those of the past three decades. Particular emphasis is geared towards the financial sector where foreign exchange rates and interest rates will be governed by market dynamics, as well as towards the mechanisms for guaranteeing deposits which will involve screening and purging financially weak banks from the system in order to strengthen the industry in the long run and enable a stable economic recovery.

In Thailand, the Office of National Economic and Social Development Board (NESDB) announced the 2013 projected economic growth figure at 3%, a considerable decrease versus the 6.4% figure recorded in 2012. Thai economic growth during the third quarter slowed down to 2.7% versus the 3% growth rate of the same quarter of the previous year, and versus the 2.8% growth rate of the previous quarter. Household expenditure of durable goods decreased from a relatively high figure recorded during the same period last year, while expenditure on other goods and services contracted correspondingly with income and as lending to households were carried out with greater precaution due to the high levels of household debt. Private investment expenditure in the machinery & equipment sector decreased from previously high levels, whereas private investment expenditure in the construction sector continued to increase. Exports contracted due to sluggish global demand, but factors exist to support expansion in the production sector, particularly for hotels, restaurants, financials and transportation.

Politics was a key factor for the Thai economy in the fourth quarter of 2013. In 2014 the Thai economy is expected to grow at a slower pace due to the escalation of political conflicts which will

likely require a considerable amount of time to resolve, and will directly impact the government's investment budget, as well as affect private investment and put pressure on household expenditure which is the largest contributor to Thailand's economy (approximately 55% of GDP). However, the Monetary Policy Committee (MPC) meeting held in October resolved to reduce the policy rate at by 0.25% per annum, from 2.50% to 2.25% per annum to support economic recovery.

The year 2013 was characterized by uncertainties in various factors of the global economy and of oil prices which consequently impacted energy costs and the Thai domestic economy. Examples include the slowdown of large emerging market economies which consume enormous amounts of energy such as that of China, the recovery of the US economy which is the largest importer of energy in the world, and the volatility of the Thai currency as a result of inwards and outwards capital flows. These factors had an effect on overall imports and exports and particularly on the cost of energy imports for Thailand. PTTEP closely monitors the economic and oil price conditions and reviews its operating and investment plans accordingly, such that they are aligned with the strategic plan. PTTEP also continuously carries out improvements in the organization's quality and capabilities to achieve sustainable growth in exploration, development and production.

PTTEP has operations in Thailand and internationally, altogether summing up to 42 projects in 10 countries. The following are the highlights of activities from key projects.

Project Activity Highlights in Thailand: PTTEP has 18 projects in Thailand which are mainly projects in the production phase located in both the Gulf of Thailand and onshore. The following section highlights the key project activities during over the course of 2013.

S1 Project: The Project is the largest onshore crude oil field in Thailand covering the Kamphaeng Phet, Sukhothai and Phitsnulok provinces. On 25 February 2013, the Project achieved a record high production rate of 37,890 BPD, the highest since it began operations 30 years ago. In 2013, the Project produced crude oil at an average rate of 32,749 BPD, and is able to maintain production levels above the 30,000 BPD rate through the of drilling new production wells, Artificial Lifting and Waterflooding. The Project has drilled new exploration and appraisal wells to expand its production acreage in order to maintain crude oil production levels in the future.

Bongkot Project: The Project, located in the south of the Gulf of Thailand, is the largest natural gas field in the Gulf of Thailand, and consists of the Greater Bongkot North and the Greater Bongkot South fields. During 2013, the Project produced natural gas at an average rate of 920

MMSCFD and condensates at an average rate of 32,486 BPD. The natural gas production from this Project represents 20% of Thailand's natural gas demand.

Project Activity Highlights in South East Asia: PTTEP has 15 projects in this region with the following as key activities during 2013:

Myanmar Zawtika Project: The Project is located offshore in the Gulf of Moattama, in the Republic of the Union of Myanmar, and is in the commissioning phase for production in the first quarter of 2014. In 2013, the Project completed the installation of 3 wellhead platforms, the laying of intra-field sealines, the laying of the offshore export pipeline and the installation of the central processing platform. The construction of the onshore pipeline and facility as well as the drilling of production wells are currently in progress.

Myanmar M3 Project: The Project is located offshore in the Gulf of Moattama, in the Republic of the Union of Myanmar. During 2013, the Project completed drilling four appraisal wells (Aung Sinkha-3, Aung Sinkha-4, Aung Sinkha-5 and Aung Sinkha-6) with discoveries of gas and condensates in all four wells. The Project is currently in the progress of conducting further studies to assess the commerciality of the Project, and plans to drill 8 additional appraisal wells, commencing in the third quarter of 2014 for potential development and production from the Aung Sinkha field.

Myanmar M11 Project: The Project is located offshore in the Gulf of Moattama, in the Republic of the Union of Myanmar. During 2013, the Project completed drilling the Manizawta-1 deep water exploration well (MNZ-1) at a water depth of approximately 1,000 meters. The Project did not encounter commercially viable petroleum, and is in the progress assessing the potential of remaining areas in order to plan for further activities.

Myanmar PSC and EP-2 Project: The Project is located onshore, north of the city of Yangon. In December 2013, the Project completed 2D seismic acquisition of 1,966 kilometers for the PSC-G field and 518 kilometers for the EP-2 field. The Project is currently studying the geological structures in order to plan for 4 exploration wells in 2014 – 2015.

Vietnam 16-1 Project: The Project, located offshore, south-east of Vietnam, successfully completed the drilling of an appraisal well in Area H5 of the Te Glac Trang (TGT) field, and prepared plans to install a well head platform to support production from this area, which is expected to start production in 2015. During 2013, the Project produced crude oil at an average rate of 44,641 BPD and natural gas at an average rate of 30 MMSCFD.

Additionally, the Project has successfully tested the Floating Production Storage and Offloading Unit (FPSO) for a production rate of 60,000 BPD of crude oil. This has enabled the project to maintain its production rate at approximately 43,000 BPD despite having to share the FPSO, since May 2013, with another nearby project in Vietnam.

Project Activity Highlights in Australasia: PTTEP has 1 project in this region. The following are key highlights for 2013 from PTTEP's projects in this region.

PTTEP Australasia Project:

Montara Field: The field is located in the Timor Sea in Australia. Production from this field began in early June 2013, and in August 2013, the Project sold its first offload of approximately 500,000 barrels of crude oil. The Project is currently producing crude oil at an average rate of 17,000 BPD, and in 2014, the Project plans to gradually ramp up its production rate from additional production wells to reach crude oil productions levels of approximately 25,000-30,000 BPD in the first half of 2014.

Regarding the compensation claims from insurance companies, since the time of the incident until the end of 2013, PTTEP has received a total compensation claim of USD 234 million, of which USD 21 million were received during the fourth quarter of 2013. The remaining compensation claims are in progress and PTTEP expects to receive the remaining claims during 2014.

With respect to the claim submitted by the Government of Indonesia for compensation for oil leakage from the Montara incident, PTTEP continues to assess the case with the Indonesian government through the use of scientific evidence to determine the impact (if any).

Cash Maple Field: The Project, located in the Timor Sea in Australia, is progressing with geological and geophysics engineering studies and the analysis of commercial feasibility for the development of the Cash-Maple field. The drilling of an additional exploration well is planned for early 2014.

Project Activity Highlights in North America: PTTEP has 1 project in this region and the following are key highlights for 2013:

Canada KKD Oil Sands Project: The Project, located in Alberta, Canada, completed the 2012-2013 Winter Evaluation Program for the assessment of bitumen quantities and production planning for Leismer, Corner and Thornbury. The Leismer field produced bitumen at an average rate of 14,800 BPD during 2013.

However, in January 2014, PTTEPCA entered into a Partnership Unit Redemption Agreement (PURA) with Statoil Canada Limited (SCL) to restructure the ownership of the five areas of the KKD Project, by exchanging PTTEPCA's 40% of its interest in Leismer and Corner (LC) for an additional 60% in Thornbury, Hangingstone and South Leismer (THSL) plus cash of USD 200 million and plus an additional amount to be calculated from working capital adjustments related to expenditures and revenues of the KKD Project from 1 January 2013 until the closing date (equivalent approximately to USD 235 million as at 31 December 2013). This transaction is subject to the conditions precedent to closing prescribed in the PURA, including approval of the Government of Canada, with an expected closing date by the third quarter of the year. At the close of the transaction as prescribed in the PURA, PTTEPCA will hold 100% of and operate the THSL fields while also receiving the aforementioned cash amounts from SCL; and SCL will hold 100% of and operate the LC fields.

Project Activity Highlights in Africa and the Middle East: PTTEP has 7 projects in this region, with the following as key highlights in 2013:

Algeria 433A and 416B: The Project is an onshore oil field located in the east of Algeria. In 2013, the Project completed drilling 7 out of 12 total development wells, and is carrying out the construction of processing and pipeline facilities (EPC1) as well as the construction of living quarters and utility facilities (EPC2). Production is scheduled to begin by the end of 2014.

Algeria Hassi Bir Rekaiz Project: The Project is an onshore oil field located in the east of Algeria. In 2013, the Project completed drilling its first program of 9 exploration wells, and discovered crude oil and natural gas in 8 of those wells. The Project is currently in the second exploration phase (May 2013 to May 2015), and is undergoing preparations to conduct 2D and 3D seismic acquisition as well as to drill additional appraisal wells. The seismic program and appraisal drilling is expected to commence during the first quarter of 2014.

Mozambique Rovuma Offshore Area 1 Project: The Project is located off the coast of Mozambique, and is currently progressing with the development of offshore natural gas fields, and is planning the development of onshore Liquefied Natural Gas or LNG facilities construction in the industrial zone at Cape Afungi, in Cabo Delgado province in northern Mozambique. During 2013, the Project drilled a total of 10 exploration and appraisal wells, and discovered natural gas in 6 of the wells, namely: Orca-1, Espadarte-1, Atum-3, Golfinho-5, Golfinho-6 and Manta-1. The drilling results for the remaining wells without commercial petroleum discoveries are being used as geological information for future fields.

Moreover, in 2014, the Project has plans to drill 8 additional exploration and appraisal wells for continual exploration and assessment, as well as carry out the LNG Engineering and Construction Development as planned. The Project expects to commence LNG production and sales towards the end of 2018 or in 2019.

Kenya L5, L7, L11A, L11B and L12 Project: The Project is located in offshore Kenya, and in 2013 drilled 2 exploration wells, namely the Kiboko-1 well in the L11B field, and the Kubwa-1 well in the L7 field. Both wells made no petroleum discoveries in commercial quantities; however, the drilling results provide valuable data for further geological study. An additional exploration well is planned for 2014.

Portfolio Management: In 2013, PTTEP continued carrying out portfolio management activities to ensure appropriate investments and risk management while adding value to projects. To keep pace with the changing social, economic and political landscape, PTTEP, on a regular basis, studies and analyzes pertinent investment factors as well as impacts of investments to incorporate into its investment considerations and decisions. Additionally, the Company reviews its target countries for expansion of its investments (Focused Countries) by grouping the countries according to the opportunities available, appropriateness and consistency with the Company's direction and goals. The analysis is based on factors such as petroleum potential, geography, government sharing of interests, business and political risks, and PTTEP's competitive advantages. The following are highlights of PTTEP's portfolio management activities in 2013.

Acquisition of Natuna Sea A: The Natuna Sea A Project is an oil and gas production project located in the west of the Natuna Sea, in Indonesia. In December 2013, PTTEP and Pertamina, on a 50:50 basis, completed the acquisition for the entity holding a 23% interest in the Natuna Sea A Project. The total consideration for the acquisition consisted of USD 526 million (PTTEP's share is USD 263 million) for the purchase of the equity in Hess Corporation's subsidiary, and the assumption of USD 124 million (PTTEP's share is USD 62 million) of the subsidiary's intercompany debt. As a result, PTTEP has 11.5% interest in the Natuna Sea A Project. The Project is currently producing natural gas at an average rate of 220 MMSCFD, and crude oil at an average rate of 2,350 BPD.

The acquisition of the Natuna Sea A Project follows PTTEP's strategic growth plan of acquiring producing assets which provide immediate contribution to growth in profits, production rate, and reserves. The Project also serves to strengthen PTTEP's production base in South East Asia.

Changes to the Ownership Structure in the Canada Oil Sands KKD Project: As mentioned in the sections above, the restructuring of ownership in the KKD Project forms part of the Company's portfolio management activities to achieve an optimal balance between its investment plans and its investment returns given the current underlying business and economic conditions. Additionally, it is an opportunity for each company to steer its investment plans according to its own strategic directions. PTTEP believes that Canadian Oil Sands will become a future base for the Company's growth in unconventional resources.

Seeking Joint Venture Partners for Projects in the Republic of the Union of Myanmar: In January 2013, the government of the Republic of the Union of Myanmar gave approval for Total E&P Myanmar (TEPM) and JX Nippon Oil & Gas Exploration (JX NOEX) to become partners in **Myanmar M11 Project** with 40% and 15% participation interests, respectively. PTTEP remains the operator and holds 45% participation interest.

In September of the same year, the government of the Republic of the Union of Myanmar also gave approval for Mitsui Oil Exploration Co. Ltd., (MOECO) to become a partner in the **Myanmar M3 Project** with 20% participation interest, while PTTEP holds the remaining 80% participation interest and is also the operator.

The search and selection of joint venture partners to participate in these projects follows PTTEP's portfolio management objective of ensuring appropriate levels of investment and risk while adding value to projects.

Securing New Exploration Permits: In 2013, the government of the Republic of the Union of Myanmar granted exploration rights for the **Myanmar MD-7 and MD-8 Project** to PTTEP. Both exploration fields are located in the deep waters of the Gulf of Moattama, and are adjacent to exploration fields in the Andaman Sea, in Thailand, where PTTEP has existing exploration rights, and will enable coordinated work effort.

Relinquishment of Various Exploration Rights: In 2013, PTTEP relinquished exploration rights in several projects such as Australia WA-423-P and Cambodia B, as well as relinquished exploration rights in the ACP17 and ACP40 fields of the PTTEP Australasia Project. The relinquishments have been approved by the respective governments.

Moreover, with respect to the Indonesia Sadang, Indonesia Sageri and the New Zealand Great South projects, as well as fields L21/48 and A6/48 in Thailand, PTTEP has submitted relinquishment documents to the respective governments of each project and is awaiting official approval.

In summary, although economic conditions in Thailand remain uncertain due to the political situation, the global economy is expected to continue expanding from the recovering global economies. PTTEP is expected to grow continuously and sustainability from its investments in both domestic and international assets such as from the Myanmar M3, Algeria Hassi Bir Rekaiz, and Mozambique Offshore Area 1 projects, as well as from the Cash Maple field in the PTTEP Australasia Project. Furthermore, PTTEP continues to operate without business interruption from the political situation in Thailand as a result of its preparation and implementation of an effective Business Continuity Management (BCM) plan.

14.2 Results of Operations

Since 1 January 2011, PTTEP has determined the USD to be its functional currency in accordance with Thai Accounting Standard No.21 (revised 2009) "The Effects of Changes in Foreign Exchange Rates". However, in submission of its financial statements to the Stock Exchange of Thailand and the Department of Business Development, the Company is also required to convert the financial statements from USD to the presentation currency, which is Thai Baht (THB).

Detailed discussion of financial results for the year and final quarter are as follows:

14.2.1 Results of Operations – Full Year Comparison

	Millions of USD (excepting USD per share amounts)		Millions of THB (excepting THB per share amounts)	
	2013	2012	2013	2012
Earnings summary				
Total Revenues	7,445	7,021	228,741	218,137
Total Expenses	(4,090)	(3,826)	(126,065)	(118,846)
Operating Income	3,355	3,195	102,676	99,291
Share of gain from associates	6	5	191	145
Profit before income taxes	3,361	3,200	102,867	99,436
Income tax expenses	(1,515)	(1,354)	(46,712)	(42,120)
Profit for the year	1,846	1,846	56,155	57,316
Diluted earnings per share	0.46	0.55	14.07	17.08

Profit from normal operations	2,114	1,999
Gain (Loss) from non-recurring items	(268)	(153)
Profit for the year	1,846	1,846

Regarding the results of operations for the year 2013, PTTEP and its subsidiaries' totaled a net profit of USD 1,846million (equivalent to THB 56,155 million) or USD 0.46 per share-diluted (equivalent to THB 14.07 per share-diluted), compared with 2012's net profit of USD 1,846 million (equivalent to THB 57,316 million) or USD 0.55 per share-diluted (equivalent to THB 17.08 per share-diluted). Return on equity for 2013 was 16.45%.

PTTEP and its subsidiaries' net profit of USD 1,846 million for 2013 comprised the recurring net profit for this year, which amounted to USD 2,114 million, and the loss from non-recurring items, which amounted to USD 268 million.

For the results of recurring operations in 2013, PTTEP and its subsidiaries' recurring net profit was USD 2,114 million, an increase of USD 115 million or 6% against 2012 which was USD 1,999 million. PTTEP and its subsidiaries' return on equity from normal operations for 2013 was 18.84%.

For 2013, total revenues for PTTEP and its subsidiaries amounted to USD 7,445 million (equivalent to THB 228,741 million baht), an increase of USD 424 million or 6% against 2012 which was USD 7,021 million (equivalent to THB 218,137 million). The increase was mainly due to an increase of sales revenue of USD 483 million, caused by the following:

(1) There was a higher average sales volume for 2013, which increased to 292,629 BOED against 2012, which was 275,923 BOED. This average sales volume increased from the net effect of the following;

- Bongkot Project: Sales volume of natural gas and condensate increased because Greater Bongkot South started its production as required by the Gas Sales Agreement in June 2012.
- S1 Project: Crude oil sales volume increased because of higher production volume produced from new wells and Artificial lift technique.
- Vietnam 16-1 Project: Sales volume increased because the Gas Sales Agreement was completely signed in November 2013, therefore, December 2013 is the first period

that the Project is able to recognize revenue from sales volume occurred during the period August 2011 to May 2013.

- PTTEP Australasia Project: Crude oil sales volume increased because Montara began offloading crude oil for sales in August 2013.
- Natuna Sea A Project: Sales volume of natural gas and condensate increased because of the acquisition of Natuna 2 B.V. which held interest in the Natuna Sea A Project in December 2013.

However, in

- Arthit Project: Sales volume of natural gas and condensate decreased because of lower nomination from PTT.

The average sales volume for 2013, if excluded gas sales volume of Vietnam 16-1 Project which the Gas Sales Agreement was completely signed in November 2013, would be 290,173 BOED.

(2) The higher average petroleum sales price for 2013, which rose to USD 65.58 per BOE against 2012, which was USD 64.86 per BOE. The increase was mainly due to an increase of average gas sales prices for 2013 comparing to those of 2012 based on price formula in the Gas Sales Agreements.

The average sales price for 2013, if excluded gas sales of Vietnam 16-1 Project, would be USD 66.09 per BOE.

PTTEP and its subsidiaries' revenue from pipeline transportation from proportionate revenue in Moattama Gas Transportation Company (MGTC) and Taninthayi Pipeline Company LLC (TPC) remained stable comparing to those of 2012.

This year, PTTEP and its subsidiaries' other revenues decreased by USD 76 million, principally because of the recognition of other income from the insurance claim from the Montara incident amounting USD 92 million in 2012; whereas, this insurance claim was recognized, amounting USD 21 million in 2013.

PTTEP and its subsidiaries incurred expenses for 2013 amounting to USD 4,090million (equivalent to THB 126,065 million), an increase of USD 264 million or 7%, compared with USD 3,826million (equivalent to THB 118,846 million) for 2012. This increase is attributed to the following:

(1) Depreciation, depletion and amortization expenses escalated, amounting to USD 263 million, mainly from increases in the completed assets and production volume of the Bongkot and S1 projects, and from increase in completed assets of the Contract 4 and MTJDA-B17 projects. In addition, they also increased from PTTEP Australasia Project began offloading crude oil for sales in August 2013. However, depreciation, depletion and amortization expenses of the Vietnam 16-1 Project decreased due to higher proved reserves and proved developed reserves revision in 2013.

(2) Operating expenses increased amounting to USD 121 million, mainly from maintenance expenses of a planned shutdown of Greater Bongkot North, increased operating expenses of Greater Bongkot South since it started production as required by the Gas Sales Agreement in June 2012, and higher operating expenses of PTTEP Australasia Project began offloading crude oil for sales in August 2013. In addition, they also increased from cost of diluents of the Canada Oil Sands KKD Project.

(3) Loss on foreign exchange increased amounting to USD 67 million. In 2012, PTTEP and subsidiaries recognized a loss on foreign exchange in the amount of USD 24 million mainly derived from the GBP loans to acquire Cover Energy Plc.; whereas, loss on foreign exchange was recognized, amounting USD 91 million in 2013 caused by the following:

- Loss on foreign exchange from USD transactions in PTTEP Canada Limited amounting to USD 52 million, mainly derived from USD loan given the CAD depreciation against the USD.
- Loss on foreign exchange amounting to USD 39 million mainly due to an increase in realized and unrealized loss on foreign exchange from Thai Baht transactions given the Baht depreciation against the USD.

However,

(4) Impairment loss on assets decreased amounting to USD 204 million due to no recognition of impairment loss from Montara assets of PTTEP Australasia Project in 2013; while, there was recognition of this impairment loss amount of USD 204 million in 2012 due to the increase of project cost, the delay of the first oil production and change in production profile.

(5) Exploration expenses decreased amounting to USD 41 million due to:

- Exploration expenses decreased amounting to USD 40 million, mainly from lower seismic cost of the PTTEP Australasia, A4/48 & A5/58 and Myanmar M11 projects; whereas, partial exploration expenses increased from seismic cost of Myanmar PSC G & EP2.

While,

- Exploratory well write-off costs decreased amounting to USD 1 million. The exploratory well write-off costs of 2013 amount USD 71 million were driven by the Kenya L5, L7, L11A, L11B & L12 (USD 19 million), Mozambique Rovuma Offshore Area 1 (USD 19 million), Myanmar M11 (USD 11 million) and S1 projects (USD 10 million); while, there were USD 72 million exploratory well write-off costs in 2012, principally from the Bahrain 2, Canada Oil Sands KKD Oman 44 and Algeria Hassi Bir Rekaiz projects.

In 2013, PTTEP and its subsidiaries incurred income tax expenses of USD 1,515 million, an increase of USD 161 million or 12%, against those of 2012 of USD 1,354 million. The increase was mainly due to increases in petroleum income tax and corporate income tax mainly from deferred income tax affected by functional currency given the Baht depreciation against the USD.

In 2013, PTTEP and subsidiaries recognized a loss from non-recurring items of USD 268 million, an increase loss of USD 115 million or 75%, against that of 2012 of USD 153 million, mainly resulted from the net effect of:

(1) Higher loss from effect of foreign exchange amounted to USD 313 million caused by the following:

- In 2013, income tax expenses affected by functional currency increased, amounting to USD 179 million against that of 2012. The increase was mainly due to higher deferred income tax liabilities, because of a decrease in net assets after they were translated into USD on 31 December 2013, compared with net assets after they were translated into USD on 31 December 2012, given the Baht depreciation against the USD. The decrease of net assets resulted in a decrease of depreciation expenses in USD and an increase of future income tax amounted to USD 144 million, accordingly. However, in 2012, income tax expenses affected by the functional currency resulted in a decrease of future income tax amounted to USD 35 million given the Baht appreciation against the USD.

- Loss on foreign exchange increased amounting to USD 67 million. In 2012, PTTEP and subsidiaries recognized a loss on foreign exchange in the amount of USD 24 million mainly derived from the GBP loans to acquire Cover Energy Plc.; whereas, loss on foreign exchange was recognized, amounting USD 91 million in 2013 caused by the following:

- Loss on foreign exchange from USD transactions in PTTEP Canada Limited amounting to USD 52 million, mainly derived from USD loan given the CAD depreciation against the USD

- Loss on foreign exchange amounting to USD 39 million mainly due to an increase in realized and unrealized loss on foreign exchange from Thai Baht transactions given the Baht depreciation against the USD.

(2) Other income from net impact from Montara incident decreased amounting to USD 65 million, principally because of the recognition of the insurance claim from the Montara incident amounting USD 21 million in 2013; whereas, this insurance claim was recognized, amounting USD 92 million in 2012.

However,

(3) Impairment loss on assets decreased amounting to USD 204 million due to no recognition of impairment loss from Montara assets of PTTEP Australasia Project in 2013; while, there was recognition of this impairment loss amount of USD 204 million in 2012 due to the increase of project cost, the delay of the first oil production and change in production profile.

(4) Decommissioning costs decreased amounting to USD 52 million due to no recognition of decommissioning costs for Jabiru and Challis fields (stopped producing field); while, there was additional recognition of this decommissioning costs amounting to USD 52 million in 2012.

14.2.3 Financial position

	Unit : Millions of USD		Unit : Millions of THB	
	31 Dec 2013	31 Dec 2012	31 Dec 2013	31 Dec 2012
Total Assets	21,572	19,637	707,867	601,513
Current Assets	4,105	4,031	134,719	123,483
Non-current Assets	17,467	15,606	573,148	478,030
Total Liabilities	9,844	8,926	323,012	273,409
Current Liabilities	2,633	2,375	86,383	72,749
Non-current Liabilities	7,211	6,551	236,629	200,660
Shareholders' Equity	11,728	10,711	384,855	328,104
Total Liabilities and Shareholders' Equity	21,572	19,637	707,867	601,513

As of 31 December 2013, PTTEP and its subsidiaries commanded total assets of USD 21,572 million (equivalent to THB 707,867 million), an increase of USD 1,935 million higher than the total on hand at the end of 2012 at which point total assets were USD 19,637 million (equivalent to THB 601,513 million). This increase was mainly due to

(1) An increase of USD 1,701 million in property, plant and equipment, mostly from petroleum exploration and production assets of the Zawtika Project, PTTEP Australasia Project, Bongkot Project, Arthit Project, and Natuna Sea A Project which is the result of the acquisition of Natuna 2 B.V. in December 2013.

(2) An increase of USD 131 million in intangible assets and goodwill chiefly from the increase of goodwill amounting to USD 112 million from the acquisition of Natuna 2 B.V., the subsidiary of Hess Corporation, which holds interest in the Natuna Sea A Project. As a result, the PTTEP has indirectly obtained 11.5% participating interest in the Natuna Sea A Project. In addition, the increase in intangible assets and goodwill resulted from investing in exploration projects such as Mozambique Rovuma Offshore Area 1 and Algeria Hassi Bir Rekaiz projects.

(3) An increase of USD 74 million in current assets mainly from cash and cash equivalents. An increase of USD 65 million of cash and cash equivalents mainly from cash inflow of operating activities and bond issuance, offset with cash outflow in the exploration and production assets, and repayment of bond from financial institutions and from dividend payments for the second half of 2012 and the first half of 2013. Moreover, the current assets also increased from the increasing of inventory amount of USD 26 million and account receivable-parent company amount of USD 24 million.

Most current assets as of 31 December 2013 were cash and cash equivalents; account receivable-parent company; and materials and supplies. A large proportion of the non-current assets as of 31 December 2013 were assets used in joint-venture exploration and production, presented under property, plant, and equipment, net; intangible assets, net; and goodwill. PTTEP and subsidiaries Current Ratio as of 31 December 2013, was 1.56 times.

PTTEP and its subsidiaries had total liabilities of USD 9,844million (equivalent to THB 323,012million), an increase of USD 918million higher than the total liabilities at the end of 2012, when total liabilities were USD 8,926million (equivalent to THB 273,409million), principally due to

(1) An increase of USD 258 million in current liabilities mainly from:

- A current portion of long-term debts increased of USD 193million, primarily from the reclassification a portion of the Thai baht debentures of THB 11,700 million equivalents to USD 373 million from non-current liabilities to current liabilities. Moreover, during the second quarter of 2013, there was repayment of Thai baht debentures of THB 5,000 million equivalent to USD 166 million
- Income tax payable increased of USD 51 million due to the increase of corporate income tax and petroleum income tax
- Accrued expenses decreased of USD 73 million mostly derived from the PTTEP Australasia Project's decreases of accrued expenses of the cost of production asset construction

However,

(2) An increase of USD 660 million in non-current liabilities mainly from:

- An increase in provision for remuneration for the renewal of petroleum production of USD 363 million mostly from Bongkot Project.
- An increase in debentures of USD 91 million mainly from the issuance of unsubordinated debentures of USD 500 million in September 2013 offset with the reclassification of a portion of Thai Baht debentures of THB 11,700 million equivalent to USD 373 million to current liabilities (current portion of long-term debts); together with a repurchase of a portion of 30 years USD unsecured and unsubordinated debentures amounting to USD 10 million of PTTEP CIF

(3) An increase in deferred income tax liabilities amounting to USD 136 million, mainly from deferred income tax liabilities resulting from effect of foreign exchange in 2013 and from the acquisition of Natuna 2 B.V., the subsidiary of Hess Corporation, which holds interest in the Natuna Sea A Project,

(4) An increase in provision for decommissioning costs amounting to USD 118 million mainly from the MTJDA-B17 and Zawtika projects.

Capital Structure

Bills of Exchange

PTTEP maintains the Short-term Financing Program ("PF") which involves the issuance of Bills of Exchange (B/Es) via Public Offerings to institutional and high net-worth investors in Thailand. B/Es

are issued on a revolving basis with the total revolving credit of up to THB 50,000 million. The B/Es facility was approved by the Resolution of the Board of Directors' meeting in February 2009 and in November 2010.

As of 31 December 2013, there were no outstanding B/Es.

Bonds

On 16 September 2013, PTTEP has issued 5 years unsecured and unsubordinated debentures to foreign institutional investors for the total amount of USD 500 million with a coupon rate of 3.707% per annum.

The debentures has been rated BBB+ by Standard and Poor's and Baa1by Moody's. The proceeds from the debentures issuance were used for general corporate purposes, including, but not limited to, funding petroleum exploration and production activities.

The Board of Directors and the general shareholders' meeting in year 2010 have approved the Company's issuing and offering of debentures, whose approved amount remaining was THB 83,400 million.

During the year 2012, PTTEP CIF repurchased a portion of its 30 years USD 500 million with a coupon rate of 6.35% per annum unsecured and unsubordinated debentures which were issued in June 2012. PTTEP CIF had cancelled out the US Dollar 10 million repurchased debentures. As a result, the principle amounts of the debentures have been decreased to USD 490 million.

Subordinated Capital Structure

No subordinated capital debentures issuance in year 2013.

Short-Term Loans from Financial Institutions

In February 2012, PTTEP entered into an unsecured, unsubordinated revolving credit facility agreement THB 20,000 million. During the availability period of 5 years, the loan has a floating interest rate of THBFIX + 1.10%.The outstanding principal of the loan as of the end of the availability period may, subject to negotiation between the parties, be converted into a term loan to be repaid within 5 years after the end of the availability period. This revolving credit facility will be used for general corporate purposes.

The Board of Directors' meetings in year 2010 and 2011 approved the Company's entering into loan agreements, whose approved amount remaining was THB 68,250 million.

As of 31 December 2013, there was no outstanding loan.

Long-Term Loans from Financial Institutions

In March 2013, PTTEP Offshore Investment Company Limited (PTTEPO) has signed the Amendment Deed relating to the USD 500 million facility agreement dated 24 November 2010, and the Amendment Deed relating to the USD 75 million facility agreement dated 1 December 2010. The Amendment Deeds extend the final maturities of the Facility Agreements from November 2015 and December 2015, to November 2017 and December 2017, respectively.

The total outstanding loan as of 31 December 2013 was USD 575 million.

Commitment and Guarantee

Loans Agreement

PTTEP has a subordinated loan agreement with Energy Complex Company Limited (EnCo) with the loan limit of THB 1,250 million. The agreement was effective from 2 April 2009 and shall continue for 13 years and 6 months.

As of 31 December 2013, the outstanding loan to EnCo was THB 580 million.

Loan Guarantee

PTTEP has guaranteed the unsecured and unsubordinated loan agreements of PTTEP Offshore Investment Company Limited (PTTEPO) with the total amount of USD 575 million.

PTTEP has guaranteed the unsecured and unsubordinated loan agreements of PTTEP Canada International Finance Limited (PTTEP CIF) with the total amount of CAD 475 million.

Bond Guarantee

PTTEP has guaranteed the unsecured and unsubordinated debentures of PTTEP Australia International Finance Pty Ltd (PTTEP AIF) with total amount of USD 700 million.

PTTEP has guaranteed the unsecured and unsubordinated debentures of PTTEP Canada International Finance Limited (PTTEP CIF) with total amount of USD 1,190 million.

Cash Flows

For the year ended 31 December 2013, PTTEP and its subsidiaries had a net cash flow from operating activities of USD 3,675 million, chiefly due to the cash received from sales revenue offset with cash payments of expenses and tax expenses.

PTTEP and subsidiaries had a net cash flow used in its investing activities of USD 2,906 million, mainly resulting from:

(1) Additional investment in exploration and production assets as well as intangible assets, amounting to USD 2,666 million, principally from Zawtika, Bongkot, Arthit, and PTTEP Australasia projects.

(2) Payment of the acquisition of the share capital of Natuna 2 B.V., a subsidiary of Hess Corporation which hold interest in the Natuna Sea A Project, amounting to USD 266 million offset with cash on hand in Natuna 2 B.V. amounting USD 25 million, totaling a net payment of USD 241 million.

PTTEP and its subsidiaries had a net cash flow used in financing activities of USD 704 million, resulting from the net effect of:

Cash payments of:

- Dividend payments amounting to USD 783 million
- Bond payments amounting to USD 176 million
- Interest payments for loans / subordinated capital debentures amounting to USD 174 million
- Short-term loan payment amounting to USD 62 million
- Financial costs payments amounting to USD 9 million

Cash receipts from:

- Bond issuance amounting to USD 500 million

As of 31 December 2013, PTTEP and its subsidiaries held total cash and cash equivalents of USD 2,357million, an increase of USD 65 million from that of 31 December 2012 at which point cash and cash equivalents totaled USD 2,292 million.

14.3 Major Factors with Potential Impact on Operations

The oil price environment during the fourth quarter of 2013 is characterized by price volatility due to a number of factors. Dubai crude prices during the fourth quarter averaged USD 105.42 per BBL, a decrease versus the previous quarter's average of USD 105.95 per BBL, as well as a decrease relative to previous year's fourth quarter average of USD 107.49 per BBL. Dubai crude prices averaged USD 105.04 per BBL over the course of 2013, a decrease from the 2012 average price of USD 109.02 per BBL.

The reduced violence in Syria and Egypt towards the end of 2013 helped relieve supply concerns around crude oil exports to the rest of the world; crude oil prices, however, still remained

volatile during the fourth quarter due to worries about the US debt ceiling, unrest in Libya, and unclear outcomes from the negotiations regarding solutions to the Iranian nuclear problem. Price volatility persisted with the subsequent successful talks with Iran regarding its nuclear program which resulted in expectations that Iranian crude oil production would contribute to future global supply.

In 2014, potential factors affecting oil price volatility include the anticipated increases of crude oil supply from Iraqi, Iranian and Libyan production, as well as from the US as a result of technological advances in shale oil production, causing a situation of excess crude oil in the global market. However, political uncertainty in the Middle East and violence in South Sudan may affect exports of crude oil. On the other hand, the recovery of the Eurozone, the increased prospects of global economic growth, as well as the local currency depreciation versus the US dollar of oil importing nations, are factors impacting the demand for crude oil.

PTTEP closely monitors global economic conditions and energy demands given the uncertainty and volatile conditions of the global economy and oil prices, and has developed the following guidelines for management of operations amidst the changing economic conditions.

Responding to the increase in energy demand:

PTTEP's production rate between January and December 2013 averaged 329,471 BOED, which is an increase over its average production rate over the same period in 2012 of approximately 313,972 BOED. During the fourth quarter of 2013, PTTEP produced at an average rate of 327,617 BOED, a relatively flat figure compared to its previous quarter's average production rate of 327,127 BOED. Thailand's domestic energy demand, according the Ministry of Energy, in October 2013, was approximately 2 MMBOED, a year-on-year increase from 1.97 BOED or approximately 1.5%, driven by energy requirements for development of the economy. The Ministry Energy has established the direction of energy policies for 2013 – 2014 with emphasis on balancing the need for energy security and the development of renewable energy for the future, for example the production of ethanol, bio-plastics, and bio-diesel. The Ministry has also established policies geared towards energy conservation and efficient usage of energy as well as restructuring energy prices to accurately reflect the actual costs.

PTTEP has reviewed the supply plan and improved production in order to meet the rise in energy demand. The Company has been cooperating with the related government agencies to

collectively outline an optimal supply plan, and forecast future energy demand from both domestic and neighboring countries, in both the short term and the long term. PTTEP has continuously been reviewing and adjusting its production plan as well as project development plans, including developing various technologies in exploration and production. Additionally, PTTEP is constantly seeking for investment opportunities in order to increase its reserves, with the purpose of meeting the nation's demand.

Improving efficiency and cost optimization:

In 2013, PTTEP received an assessment recognizing its excellence within the PTT Group. PTTEP also received the Center of Excellence Awards for 2013 from PTT Group for Safety, Security, Health and Environment (SSHE) as well as for Performance Management.

During the fourth quarter of 2013, PTTEP, for the first time, officially appointed a PTTEP Operational Excellence Committee, with the Executive Vice President of the Domestic Asset Group as the chairman of the committee.

Moreover, PTTEP participated in the Operational Excellence and OpEx Transformation project with other PTT Group companies in order to jointly define the direction, objectives and strategies for the development of quality and for the management of operational costs, with emphasis placed on continuous development and aligned objectives with PTT Group's plan in order to ensure sustainable Operational Excellence.

PTTEP manages its operational costs efficiently and transparently by continuing to adhere to its established Supply Chain Management policies. In 2013, the Company implemented the Supply Chain Plus Project which reduced operating costs by USD 14.65 million, exceeding its cost reduction target of USD 12 million. The success was achieved through the implementation of procurement and logistics strategies such as:

- Procurement from Low Cost Country (LCC)
- Preparation of Price Agreements for high volume items
- Usage of procurement strategies appropriate to varying situations and to volatile market conditions in order to procure goods and services at the most reasonable price
- Inventory Optimization to reduce storage costs and inventory
- Enhancement of logistics performance through management and control in order to avoid vessel delays, and also to ensure accuracy and adequacy of shipments.

PTTEP's procurement process has also been reviewed and amended to comply with the National Anti-Corruption Commission (NACC)'s law. The Company has further announced that it has adopted the guidelines for Green Procurement, which focuses on procurement of products and services that are environmentally friendly, covering a total of 72 products and service categories including stationeries, IT equipment, electrical appliances, construction materials, cleaning materials, spare parts, and other green-labeled products. PTTEP has also improved its procurement process to respond to the dynamic operational requirements of the business.

Managing Risks on oil price volatility:

PTTEP enters into derivative contracts, using Brent crude as its reference price, to hedge pricing risks of the petroleum products related to the company. PTTEP continues to closely monitor events and economic conditions which have potential impact on oil prices. Moreover, PTTEP simulates scenarios of various oils price levels to assess and prepare operating plans for each scenario.

Capability Development:

PTTEP realizes the urgency required in developing the organization's capabilities to prepare for business expansion into overseas territories which are increasingly challenging. PTTEP, therefore, has been developing a Center of Excellence (COE), and has set out clear plans with emphasis on enhancing knowledge in seven key areas which are important and aligned with the company's strategy for rapid growth. The seven areas for knowledge development include: (1) Exploration; (2) Production; (3) Frontier; (4) Capital Project Management; (5) Unconventional; (6) Merger & Acquisitions; and (7) Health, Security and Environment. PTTEP is currently in the process of defining key milestones to achieve in each year and preparing the corresponding action plans. Together with the establishment of a Technology Center, which will be the center of research for new technologies, PTTEP aims to develop knowledge and capabilities for the organization and its people. The Conceptual Design study for this Technology Center will commence in 2014.

Safety, Security, Health and Environment (SSHE):

PTTEP strives to be Lost Time Injury free organization by 2013 through effective management of SSHE. PTTEP, in 2012, ranked in the top quartile of Lost Time Injury Frequency (LTIF) amongst the members of the International Association of Oil and Gas Producers (OGP). At the end of the fourth quarter of 2013, PTTEP achieved an LTIF of 0.18 and a Total Recordable Incidence Rate (TRIR) of 1.12. If PTTEP maintains its current LTIF and TRIR at the current levels, it will continue to rank in the top quartile of OGP members in 2013, with official announcements to be made in 2014. The hydrocarbon spill rate of PTTEP is at 2.92 tonnes per million tonnes production, which is better than

the average rate of 7.94 tonnes per million tonnes production of OGP members. Additionally, to further strengthen PTTEP's safety culture and encourage the participation of employees to take part in creating SSHE awareness, and also as a part of the "Life Saving Program," PTTEP launched an interactive animation game called "Safety Rush" via mobile applications available through Appstore, Facebook, and PTTEP's SSHE intranet. This interactive application revolves around the notion of driving safely and can be used by everyone to promote vehicle-safety awareness.

PTTEP realizes the importance of safety for its employees at all levels and has communicated news related to safety and security risks from natural disasters, epidemics and social unrest. During the fourth quarter, PTTEP issued SSHE Alerts to all employees across the organization regarding the Songkhla security situation and the public demonstrations in Bangkok.

Sustainable Development (SD):

PTTEP manages its strategy, direction and long-term objectives for sustainable growth with attention to economic, social and environmental governance. In 2013, PTTEP's 2012 Sustainability Report was given a GRI Application Level rating of A+. The GRI, or Global Reporting Initiative, is a standard framework for reporting on sustainable development, and encourages companies to measure and report on performance results of economic, social and environmental governance. The GRI standard promotes transparency and confidence in the annual sustainability report. This is the first time that PTTEP's Sustainability Report is recognized at the highest level of the GRI standard.

To further underscore PTTEP's commitment to sustainable development, PTTEP also recognizes the dangers of climate change and global warming, and is committed to reducing and offsetting greenhouse gas (GHG) emissions from its operations. PTTEP, in 2013, achieved a GHG emissions reduction of 3.51%, which surpasses its targeted 3% reduction. PTTEP has also commissioned an external third party auditor to verify its GHG emissions books in order to ensure correct disclosure in accordance with the ISO 14064-1 standard.

Moreover, in 2013, the Company participated for the first time in the assessment of the Dow Jones Sustainability Index (DJSI). The assessment from the DJSI World Universe, Oil & Gas Industry Group, ranked PTTEP 21st out of 123 participating companies, with a score in the top fifteenth percentile of companies participating in the Carbon Disclosure Project (CDP) and DJSI assessment.

During the fourth quarter, PTTEP was also one of the seven companies in Southeast Asia and Hong Kong to receive, in Hong Kong, the Second Best Year-on-Year Disclosure Score Change in the Region award from the CDP's Climate Change Disclosure Reporting for CDP Asia Ex Japan. The award was presented to PTTEP for excellence in improving its climate change disclosure and reporting.

Moreover, the S1 Project located at the Sao Thian-A oil field in Sukhothai, through its recovery of associated gas for use in power generation resulting in the reduction of carbon dioxide equivalent to 26,000 tonnes of carbon credit per annum, enabled PTTEP to be approved and registered by the Executive Board of the United Nations Framework on Conventional Climate Change (UNFCCC), and to participate in the Clean Development Mechanism (CDM) in order to have the rights to purchase and sell carbon credits in the global market; making it the first project in the Thai oil and gas business to be registered.

Corporate Social Responsibility (CSR):

PTTEP continues to carry out CSR activities to meet the needs of society in a sustainable manner. In 2013, PTTEP initiated in a reforestation campaign to reduce global warming and engaged in reforesting and maintaining 50,000 rais of forest area across 30 provinces. Additionally, under the royal initiative of Her Royal Highness Princess Maha Chakri Sirindhorn, PTTEP carried out, in conjunction with the Department of National Parks and Kasetsart University, a reforestation project for the study of ecological systems in the Si Nakhon Khuean Khan Park. Furthermore, PTTEP's "Thai Heritage & World Heritage" campaign sponsors the budget for maintenance and repair of the Khao Yai Visitor's Center. The campaign also features cooperation with the Huai Kha Khaeng Wildlife and Nature Education Center in launching a local curriculum for studying tigers. PTTEP's heritage campaigns, recognize the importance of nature and wildlife preservation, and also include the conservation of the Irrawaddy Dolphins in Songkhla Lake. Moreover, the Company gives importance to encouraging employee participation in activities to instill a sense of social and environmental responsibility. The "PTTEP Green Up" was organized to promote awareness for the conservation of nature through reforestation activities. The activity was joined by 2,163 people, including management, employees and their families.

In the areas surrounding its operations, PTTEP provides opportunities for education to support the development of a future workforce. In 2013, PTTEP granted 761 scholarships to students in the following five provinces: Suphan Buri, Chumporn, Ranong, Nakorn Si Thammarat and Songkhla. The Company also sponsored the "PTTEP: We Love Sports" project for schools in PTTEP's network in the following three provinces: Chumporn, Suphanburi, and Songkhla. Amongst many other projects, PTTEP also sponsors the restoration of ecological systems as well as also promotes occupational development through various projects. For example, PTTEP engaged in Artificial Coral Reef Projects in Amphur Langsuan and Amphur Thung Tako as well as in Chumporn Bay; in a marine habitat revival project involving the submergence of old fishing boats to the bottom of the sea; and in several crab

bank projects in the Chumporn province. In the Songkhla province, PTTEP engaged in a project to breed and nurse crab species back to the ecosystem in Amphur Singhnakorn, and also partnered with the Songkhla Municipality and the Srivijai University of Technology in Songkhla to create a knowledge park called PTTEP Smart Center to encourage the young to read as a basis for future learning.

Information Certification

The Company has reviewed this annual form 56-1 with caution and certified that the information disclosed herewith is complete, accurate, and truthful and does not cause any misunderstanding and omit any significant information required for disclosure. Moreover, the Company also certifies that:

(1) The Financial Statement and other financial details that are summarized in this form represent complete, accurate and significant information regarding the performance and the cash flow of the Company and its subsidiaries.

(2) The Company maintains an effective disclosure system that will assure the Company discloses complete, accurate and significant information of the Company and its subsidiaries. Moreover, the Company also ensures the compliance of the system.

(3) The Company maintains an effective internal control system and for ensuring compliance. The Company has disclosed its internal control assessment as of 31 December 2013 to the external auditor and the Audit Committee. The assessment included weaknesses of the system and significant changes of the internal control as well as any wrongdoing that may affect the financial statements reporting process of the Company and its subsidiaries.

Therefore, as evidence that these documents constitute the entire set that the Company has certified; the Company has authorized Mrs. Pranot Tirasai to initial all pages. If any page is without an initial of Mrs. Pranot Tirasai, the Company does not certify that the information on such page is the true copy.

	<u>Name</u>	<u>Position</u>	<u>Signature</u>
	Mr. Tevin Vongvanich	The President and Chief Executive Officer, Authorized Director who can sign to bind the Company	<u>Tevin Vongvanich</u>
Authorized Person:	Mrs. Pranot Tirasai	Corporate Secretary	<u>Pranot Tirasai</u>

Attachment 1: Information of the Board of Directors, Management and Corporate Secretary of the Company

1. Board of Directors

As of 31 December 2013, the Board of Directors of PTTEP consisted of 15 directors. Details of the 15 current directors and 4 directors, who retired during the year 2013, are as follows.

1.1 Current directors

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(1) Mr. Norkun Sitthiphong - Chairman of the Board of Directors - Chairman of the Independent Directors Committee Starting Date of the Position - 30 March 2011	60	Education	None	None	Other listed companies		
		<ul style="list-style-type: none"> • Ph.D. (Mechanical Engineering) Oregon State University, USA • M.Sc. (Mechanical Engineering) Oregon State University, USA • B.Eng. (Mechanical Engineering), Chulalongkorn University 			Feb. 2012 – Present	• Chairman	• Thaioil Plc.
					2011 – Jan. 2013	• Chairman	• PTT Plc.
					2011 – Feb. 2012	• Director	• Thaioil Plc.
					2010 – 2011	• Director	• PTT Plc.
					2009 – 2011	• Chairman	• IRPC Plc.
					2009 – 2011	• Chairman	• PTT Aromatics and Refining Plc.
		Training of Thai Institute of Directors Association			2008 – 2010	• Chairman	• PTT Plc.
		<ul style="list-style-type: none"> • The Role of Chairman Program (RCP) 21/2009 			Other companies		
					None		
		Other Training			Other organizations		
		<ul style="list-style-type: none"> • The National Defence Course (Class 47), National Defence College • Capital Market Academy Leadership Program (Class 4), Capital Market Academy 			2010 – Sep. 2013	• Permanent Secretary	• The Ministry of Energy
					2008 – Sep. 2013	• Director	• Nuclear Power Program Development Office
					2003 – 2010	• Deputy Permanent Secretary	• The Ministry of Energy

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(2) Mr. Ampon Kittiampon - Independent Director - Chairman of the Audit Committee Starting Date of the Position - 30 March 2011	58	Education	None	None	Other listed companies		
		<ul style="list-style-type: none">Ph.D. (Applied Economics) Clemson University, South Carolina, USAM.S. (Economics) Northeastern University, Boston, USABachelor of Arts (Social Sciences) Kasetsart University			2009 – Present	<ul style="list-style-type: none">Chairman	<ul style="list-style-type: none">Thai Airways International Plc.
					2005 – 2011	<ul style="list-style-type: none">Director	<ul style="list-style-type: none">PTT Aromatics and Refining Plc.
					2005 – 2011	<ul style="list-style-type: none">Director	<ul style="list-style-type: none">PTT Plc.
		Other companies					
		Oct. 2013 – Present			<ul style="list-style-type: none">Chairman	<ul style="list-style-type: none">Thai Smile Airways Co., Ltd.	
		Other organizations					
		Sep. 2013 – Present			<ul style="list-style-type: none">Chairman of the Bank of Thailand	<ul style="list-style-type: none">The Bank of Thailand	
		Aug. 2013 – Present			<ul style="list-style-type: none">Board Member of the National Economic and Social Development Board	<ul style="list-style-type: none">The Office of the National Economic and Social Development Board	
		Jun. 2013 – Present			<ul style="list-style-type: none">Honorary Board Member	<ul style="list-style-type: none">National Science and Technology Development Agency	
2012 – Present	<ul style="list-style-type: none">Committee	<ul style="list-style-type: none">The Council of Chulalongkorn University					
2012 – Present	<ul style="list-style-type: none">Chairman of the Board of Directors	<ul style="list-style-type: none">Highland Research and Development Institute (Public Organization)					

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
		<ul style="list-style-type: none"> Innovation for Economic Development (IFED), Harvard Kennedy School, USA Senior Executive Program on Industrial Business Development and Investment (Class 1), Institute of Business and Industrial Development 			2011 – Present 2011 – Present 2011 – Present and 2004 – 2010 2010 – Present 2010 – Present 2006 – Present 2005 – 2010 2004 – Aug. 2013 2004 – Oct. 2013 2004 – 2010	<ul style="list-style-type: none"> The Expert Judicial Administration Commissioner Honorary Committee Civil Service Commissioner Board Member Secretary General to the Cabinet Member Committee Board Member Member Secretary General 	<ul style="list-style-type: none"> The Office of Judiciary The Council of Walailak University The Office of the Civil Service Commission His Royal Highness Crown Prince Maha Vajiralongkorn Scholarship Foundation The Secretariat of the Cabinet Council of State Thailand Board of Investment The Bank of Thailand Monetary Policy Committee The Office of the National Economic and Social Development Board

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(3) General Pornchai Kranlert - Vice Chairman of the Independent Directors Committee - Chairman of the Corporate Governance Committee - Chairman of the Remuneration Committee - Member of the Nominating Committee	62	Education	None	None	Other listed companies		
		<ul style="list-style-type: none"> Master of Public Administration, National Institute of Development Administration Bachelor of Political Science, Ramkhamhaeng University 			2005 – 2006	• Director	• IRPC Plc.
		Training of Thai Institute of Directors Association			Other companies		
		<ul style="list-style-type: none"> Director Accreditation Program (DAP) 61/2007 Director Certification Program (DCP) 161/2012 Role of the Nomination and Governance Committee (RNG) 3/2012 Role of the Compensation Committee (RCC) 17/2013 			2012 – Present	• Director	• Mah Boon Krong 888 Co., Ltd.
					2012 – Present	• Director	• Mah Boon Krong Dairy Goats Co., Ltd.
					2012 – Present	• Director	• Mah Boon Krong Food Co., Ltd.
					2011 – Present	• Director	• APT Bearing Parking Co., Ltd.
					2011 – Present	• Director	• APT Bearing Mall Co., Ltd.
		Other Training			Other organizations		
		<ul style="list-style-type: none"> The National Defence Course 			2007 – 2011	• Special Advisor	• Office of the Permanent Secretary for Defence
Starting Date of the Position - 1 January 2012					2006 – 2007	• Deputy Chief of Staff	• Royal Thai Armed Forces Headquarters
					2005 – 2006	• Deputy Commander in Chief	• Royal Thai Army

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
		(Class 44), National Defence College • Capital Market Academy Leadership Program (Class 8), Capital Market Academy • Thai Intelligent Investors (Class 1), Thai Investors Academy					

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(4) Mr. Prajya Phinyawat	62	Education	15,000 Shares (0.00038%)	None	Other listed companies		
- Independent Director		2011 – Present 2009 – 2011 2008 – 2011			• Director • Director • Chief Operating Officer, Downstream Petroleum Business Group and Senior Executive Vice President, Oil Business Unit	• PTT Global Chemical Plc. • Thailoil Plc. • PTT Plc.	
- Chairman of the Risk Management Committee							
Starting Date of the Position							
- 28 March 2012							

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(5) Mr. Viraphol Jirapraditkul	58	Education	None	None	Other listed companies		
- Director with Authorized Signature		None					
- Member of the Risk Management Committee		Other companies					
Starting Date of the Position		Apr. 2013 – Present			• Board Member	• Thai Petroleum Pipeline Co., Ltd.	
- 29 March 2007		2012 – Aug. 2013			• Board Member	• National Power Supply Plc.	
		Other organizations					
		Oct. 2013 – Present			• Chief Inspector General	• The Ministry of Energy	
		2008 – Present			• Board Member	• Ramkhamhaeng University Council	
		2011 – Sep. 2013			• Director-General	• Department of Energy Business, The Ministry of Energy	
		2007 – 2011			• Board Member	• Electrical and Electronics Institute	
		2007 – 2011			• Board Member	• Energy FundAdministration Institute (Public Organization)	
	2006 – 2011	• Director-General	• Energy Policy and Planning Office, The Ministry of Energy				

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
		Other Training <ul style="list-style-type: none"> • Senior Executive Service Program (Class 1), Office of the Civil Service Commission • Program for Chief Information Officer, Office of the Civil Service Commission and National Electronics and Computer Technology Center • National Defence College (Class of Year 2007) • Senior Executive Justice Governing Officer Course (Class 3) • Certificate of Energy Literacy for a Sustainable Future Program (Class 3), Thailand Energy Academy 					

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(6) Mr. Tevin Vongvanich - President and Chief Executive Officer - Director with Authorized Signature - Member of the Risk Management Committee Starting Date of the Position - 30 November 2009	55	Education	100,787 Shares (0.00254%)	None	Other listed companies		
		<ul style="list-style-type: none"> M.Sc. (Petroleum Engineering), University of Houston, USA M.Sc. (Chemical Engineering), Rice University, USA B.E. (Chemical Engineering), Chulalongkorn University 			2010 – 2012	• Director	• Thaioil Plc.
					2009 – 2012	• CFO	• PTT Plc.
					2009 – 2011	• Director	• PTT Chemical Plc.
					2009 – 2011	• Director	• PTT Aromatics and Refining Plc.
					2009 – 2010	• Director	• Bangkok Aviation Fuel Services Plc.
					2007 – 2010	• Director	• Bangchak Petroleum Plc.
		Training of Thai Institute of Directors Association			Other companies		
		<ul style="list-style-type: none"> Director Certification Program (DCP) 21/2002 Financial Statements for Directors (FSD) 6/2009 Role of the Compensation Committee (RCC) 12/2011 Role of the Nomination and Governance Committee (RNG) 3/2011 			2009 – 2011	• Chairman	• PTT ICT Solutions Co., Ltd.
					2008 – 2011	• Director	• PTT International Co., Ltd.
					Other organizations		
					Jun. 2013 – Present	• Honorary board member	• National Science and Technology Development Agency
					2010 – Present	• Chairman	• Thailand Management Association

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
		Other Training <ul style="list-style-type: none"> Senior Executive Program (S.E.P. 7), Sasin Graduate Institution of Business Administration of Chulalongkorn University Energy Literacy for a Sustainable Future (Class 3), Thailand Energy Academy 					

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(7) Mr. Chakkrit Parapuntakul - Director with Authorized Signature - Member of the Risk Management Committee	54	Education	None	None	Other listed companies		
		<ul style="list-style-type: none">M.B.A. Angelo State University, Texas, USABachelor of Accounting, Thammasat University			2012 – Present	<ul style="list-style-type: none">Chairman of the Board of Directors	<ul style="list-style-type: none">ASEAN Potash Mining Plc.
		Training of Thai Institute of Directors Association			2008 – Present	<ul style="list-style-type: none">Advisor to the Audit Committee	Eastern Water Resources Development and Management Plc.
		Starting Date of the Position			Other companies		
		- 1 January 2011			<ul style="list-style-type: none">Director Accreditation Program (DAP) 8/2004Audit Committee Program (ACP) 5/2005	Oct. 2013 – Present 2010 – 2011	<ul style="list-style-type: none">DirectorChairman
	Other Training	Other organizations					
	<ul style="list-style-type: none">Capital Market Academy Leadership Program (Class 11), Capital Market AcademyThe Joint State – Private Sector Course (Class 52), National Defence College	Oct. 2012 – Present	<ul style="list-style-type: none">Deputy Permanent Secretary	<ul style="list-style-type: none">The Ministry of Finance			
		2009 – Oct. 2012 2008 – 2009	<ul style="list-style-type: none">Director – GeneralDeputy Director– General	<ul style="list-style-type: none">Public Debt Management OfficePublic Debt Management Office			

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
		<ul style="list-style-type: none"> • Program for Chief Information Officer (Class 46), Office of the Civil Service Commission • Executive Development Program (EDP) (Class 66), Kellogg School of Management, • Chicago, USA • Training Course on Administrative Justice for Executives (Class 5), Institute for Administrative Justice, The Administrative Court 					

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(8) Mr. Pailin Chuchottaworn - Director with Authorized Signature - Member of the Nominating Committee	58	Education	None	None	Other listed companies		
		<ul style="list-style-type: none"> Ph.D. of Philosophy (Sustainable Energy and Environment) Rattanakosin College for Sustainable Energy and Environment, Rajamangala University of Technology 			Oct. 2013– Present 2011 – Present	<ul style="list-style-type: none"> Director President and Chief Executive Officer 	<ul style="list-style-type: none"> PTT Global Chemical Plc. PTT Plc.
		<ul style="list-style-type: none"> Ph.D. of Engineering (Chemical Engineering), Tokyo Institution of Technology, Japan Master of Engineering (Chemical Engineering), Tokyo Institution of Technology, Japan Bachelor of Engineering (Chemical Engineering) (Hons.) Chulalongkorn University 			2009 – Apr. 2013 Jun. – Sep. 2011 2009 – May 2011	<ul style="list-style-type: none"> Director Chief Operation Officer , Upstream Petroleum and Gas Business Group, Acting Chief Executive Officer Senior Executive Vice President, PTT, working as Chief Executive Officer 	<ul style="list-style-type: none"> IRPC Plc. IRPC Plc. IRPC Plc.
Starting Date of the Position							
- 1 December 2011							

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
		Training of Thai Institute of Directors Association			Other companies		
		<ul style="list-style-type: none"> Director Certification Program(DCP) 51/2004 Director Accreditation Program (DAP) 24/2004 Finance for Non-Finance Director (FND) 14/2004 			May – Sep. 2011 2006 – May2011 Jun. – Sep. 2011 2009 – Jun. 2011 2008 – 2009	<ul style="list-style-type: none"> Chairman Director Chairman Director Senior Executive Vice President, Petrochemicals &Refining Business Unit, PTT, working as President 	<ul style="list-style-type: none"> PTT Asahi Chemical Co., Ltd. PTT Asahi Chemical Co., Ltd. PTT Polymer Marketing Co., Ltd. PTT Polymer Marketing Co., Ltd. PTT Polymer Marketing Co., Ltd.
		Other Training			2008 – 2009	<ul style="list-style-type: none"> Senior Executive Vice President, Petrochemicals &Refining Business Unit, PTT, working as President 	<ul style="list-style-type: none"> PTT Asahi Chemical Co., Ltd.
		<ul style="list-style-type: none"> PTT Executive Leadership Program, GE Crotonville, U.S.A. NIDA Executive Leadership Program 2007, Wharton University of Pennsylvania, U.S.A Industrial Liasion Program (ILP), Massachusetts Institute of Technology, U.S.A. Top Executive Program in Commerce and Trade 			Other organization		
					None		

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
		(TEPCOT) Year 1, University of Thai Chamber and Commerce <ul style="list-style-type: none"> Capital Market Academy Leadership Program (Class 8),Capital Market Academy The Joint State - Private Sector Course(Class 22), National Defence College The 7th “Corporate Governance for Directors and Top Executives of State Enterprises and Public Organizations”, Year 2011, King Prajadhipok’s Institute Energy Literacy for a Sustainable Future (Class 1/2012), Thailand Energy Academy 					

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(9) Mrs. Varanuj Hongsaprabhas - Independent Director - Member of the Audit Committee - Member of the Risk Management Committee Starting Date of the Position - 1 January 2012	65	Education	None	None	Other listed companies		
		<ul style="list-style-type: none"> M.S. (Financial Management), North Carolina State University, USA B.A. (Economics), North Carolina State University, USA 			2010 – 2011	• Director	• TOT Plc.
		Training of Thai Institute of Directors Association			Other companies		
		<ul style="list-style-type: none"> Director Certification Program (DCP)84/2007 The Role of Chairman Program (RCP) 23/2010 Audit Committee Program (ACP) 22/2008 Role of the Nomination and Governance Committee (RNG) 2/2011 Monitoring Fraud Risk Management(MFM) 8/2012 			2009 – 2010	• Director	• ACT Mobile Co., Ltd.
					Other organizations		
					2006 – 2009	• Director	• Port Authority of Thailand

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship with Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
		<ul style="list-style-type: none"> Monitoring the System of Internal Control and Risk Management (MIR) 13/2012 The Board's Role in Mergers and Acquisitions (M&A) 2/2012 Board Performance Review Course(BPR) 1/2012 IOD National Director Conference 2012 How to Develop a Risk Management Plan (HRP) 4/2013 Risk Management Committee Program (RMP) 1/2013 Corporate Governance Program for Director and Senior Management of State Enterprises and Public Organizations 10/2013, Public Director Institute 					

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(10) Mr. Manas Jamveha - Director with Authorized Signature - Member of the Risk Management Committee	57	Education	None	None	Other listed companies		
		None					
		Other companies					
		None					
		Other organizations					
		Oct. 2012 – Present			• Comptroller General	• Comptroller General's Department, The Ministry of Finance	
		2011– Oct. 2012			• Deputy Permanent Secretary	• The Ministry of Finance	
		2010 – 2011			• Inspector General	• The Ministry of Finance	
		2008 – 2010			• Advisor on Fiscal System Development	• Comptroller General's Department, The Ministry of Finance	
Starting Date of the Position							
- 1 January 2012							
		<ul style="list-style-type: none">• Master of Business Administration, Sukhothai Thammathirat Open University• Master of Political Science, Thammasat University• Bachelor of Laws, Thammasat University					
		Training of Thai Institute of Directors Association					
		<ul style="list-style-type: none">• Director Certification Program (DCP)71/2008• Audit Committee Program (ACP) 41/2012• The Role of Chairman Program (RCP)					
		Other Training					
		<ul style="list-style-type: none">• The National Defence Course (Class 50) National Defence College					

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
		<ul style="list-style-type: none"> • Certificate from Public Director Institute (PDI 1) • Certificate on Top Executive Political • Top Executive Program • Executive Development Program, Kellogg School of Management, Northwestern University, USA • Middle Management • Professional, Revenue, Canada 					

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(11) Mr. Achporn Charuchinda - Independent Director - Member of the Corporate Governance Committee - Member of the Audit Committee Starting Date of the Position - 1 January 2013	60	Education	None	Uncle of Mr. Nuttachat Charuchinda	Other listed companies		
		<ul style="list-style-type: none"> L.L.B., Faculty of Law, Thammasat University Barrister-at-Law, Institute of Legal Education of the Thai Bar Association 			2012 – Present	<ul style="list-style-type: none"> Member of the Legal Committee 	<ul style="list-style-type: none"> Thai Airways International Plc.
					2008 – 2010	<ul style="list-style-type: none"> Executive Director 	<ul style="list-style-type: none"> Siam City Bank Plc.
		Training of Thai Institute of Directors Association			Other companies		
		None			Oct. 2013 – Present	<ul style="list-style-type: none"> Director 	<ul style="list-style-type: none"> Thai Smile Airways Co., Ltd.
		Other Training			Other organizations		
		<ul style="list-style-type: none"> Law Drafting Certificate, India The National Defence Course (Class 46), National Defence College 			Oct. 2013 – Present	<ul style="list-style-type: none"> Board Member 	<ul style="list-style-type: none"> The Bank of Thailand
					Jul. 2013 – Present	<ul style="list-style-type: none"> Chairman of the Securities and Exchange Commission Board 	<ul style="list-style-type: none"> The Securities and Exchange Commission Board
					Jun. 2013 – Present	<ul style="list-style-type: none"> Honorary Board Member 	<ul style="list-style-type: none"> The National Science and Technology Development Agency
					2012 – Present	<ul style="list-style-type: none"> Member of the Board of Directors 	<ul style="list-style-type: none"> The Metropolitan Waterworks Authority
					2011 – Present	<ul style="list-style-type: none"> Member of the National Energy Policy Council 	<ul style="list-style-type: none"> Energy Policy and Planning Office, The Ministry of Energy

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
					2011 – Present	<ul style="list-style-type: none"> Member of the Office of the Civil Service and Educational Personnel Commission 	<ul style="list-style-type: none"> The Office of the Civil Service and Educational Personnel Commission, The Ministry of Education
					2011 – Present	<ul style="list-style-type: none"> Member of the Institutions Policy Committee 	<ul style="list-style-type: none"> The Bank of Thailand
					2003 – Present	<ul style="list-style-type: none"> Member of the Council of State 	<ul style="list-style-type: none"> The Office of the Council of State
					2011 – Sep. 2013	<ul style="list-style-type: none"> Member of the National Water and Flood Management Committee 	<ul style="list-style-type: none"> The Office of the National Water and Flood Management Policy
					2010 – Sep. 2013	<ul style="list-style-type: none"> Member of the Decentralization to Local Government Organization Committee 	<ul style="list-style-type: none"> The Office of the Permanent Secretary, The Prime Minister's Office

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
					2010 – Sep. 2013	• Board Member	• The Energy Conservation Promotion Fund
					2010 – Sep. 2013	• Member of the Administrative Courts Officials Commission	• The Office of the Administrative Courts
					2010 – Sep. 2013	• Member	• The Government Pension Fund
					2010 – Sep. 2013	• Secretary - General of the Office of the Council of state	• The Office of the Council of State
					2007 – Sep. 2013	• Chairman of the Audit Committee for the Financial Institutions Development Fund	• The Bank of Thailand
					2007 – Sep. 2013	• Member of the Financial Institutions Development Fund	• The Bank of Thailand

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(12) General Warawat Indradat - Independent Director - Chairman of the Nominating Committee - Member of the Remuneration Committee Starting Date of the Position - 27 March 2013	64	Education	None	None	Other listed companies		
		<ul style="list-style-type: none">Master of Business Administration, The Civil Military MBA Program, Kasetsart UniversityThe Royal Thai Army Command and General Staff College (Class 62)Bachelor of Science (Army), Chulachomklao Royal Military Academy (Class 21)Command and General Staff Officer Course (Ft. Leavenworth, Kansas, USA) Training of Thai Institute of Directors Association <ul style="list-style-type: none">Director Certification Program (DCP) 162/2012Role of the Compensation (RCC) 17/2013			2012 – Apr. 2013	<ul style="list-style-type: none">Member of the Corporate Governance Committee	<ul style="list-style-type: none">PTT Plc.
					2011 – Apr. 2013	<ul style="list-style-type: none">Independent Director	<ul style="list-style-type: none">PTT Plc.
					Other companies		
					2010 – Present	<ul style="list-style-type: none">Executive Chairman	<ul style="list-style-type: none">U Place Apartment,Co., Ltd.
					Present	<ul style="list-style-type: none">Executive Chairman	<ul style="list-style-type: none">Sai Panadda (1997), Co., Ltd.
Other organizations							
2012 – Present			<ul style="list-style-type: none">Advisor to the Executive Board of the Royal Thai Army Radio and Television, Royal Thai Army Radio and Television Station Channel 5Executive DirectorSenior Expert	<ul style="list-style-type: none">Royal Thai Armed Forces HeadquartersRoyal Thai Armed Forces HeadquartersThe Royal Thai Army			

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
		Other Training <ul style="list-style-type: none"> Advanced Security Management Program (Class 3), National Defence College Institute (PDI), Public Director Institute (Class 9) Certificate of Energy Literacy for a Sustainable Future Program (Class 2), Thailand Energy Academy Defense Resource Management Course, Naval Post-graduate School, California, USA 					

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(13) Mr. Maitree Srinarawat - Independent Director - Member of the Corporate Governance Committee	64	Education	None	None	Other listed companies		
Starting Date of the Position - 27 March 2013		<ul style="list-style-type: none">Ph.D. in Civil Engineering (Transportation), University of Texas at Austin, Texas, USAM.Eng. in Civil Engineering (Transportation), Texas A&M University, College Station, USAB.Eng. in Civil Engineering, Chulalongkorn University			2008	<ul style="list-style-type: none">Member of the Executive Board	<ul style="list-style-type: none">Airports of Thailand Plc.
		Other companies					
		None					
		Other organizations					
		2012 – Present			<ul style="list-style-type: none">Member	<ul style="list-style-type: none">The Steering Committee for Set up an Aerospace Industrial Estate and Aerospace Repair Hub at NakornRatchasima Airport	
		2012 – Present			<ul style="list-style-type: none">Member	<ul style="list-style-type: none">The Joint Steering Committee for Rail Development (Sino-Thai)	
		2012 – Present			<ul style="list-style-type: none">Honorary Member	<ul style="list-style-type: none">The Steering Committee for the Selection of the Civil Servant to Appoint as an Executive, Higher Level and Director, Higher Level, The Ministry of Transport	
		2012 – Present			<ul style="list-style-type: none">Honorary Commissioner	<ul style="list-style-type: none">The Civil Service Sub-Commission, The Ministry of Transport	
2012 – Present		<ul style="list-style-type: none">Member of the			<ul style="list-style-type: none">The Bureaucracy Development		
		Other Training					
		<ul style="list-style-type: none">The State, Private Sector and Political Sectors Course (Class					

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Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(14) Mr. Nuttachat Charuchinda - Director with Authorized Signature - Member of the Remuneration Committee Starting Date of the Position - 1 November 2013	58	Education	None	Nephew of Mr. Achporn Charuchinda	Other listed companies		
		<ul style="list-style-type: none"> Master of Business Administration, Thammasat University Bachelor of Engineering in Civil Engineering, Chiang Mai University 			Oct. 2013 – Present	<ul style="list-style-type: none"> Chief Operating Officer, Upstream Petroleum Business Group 	<ul style="list-style-type: none"> PTT Plc.
		Training of Thai Institute of Directors Association			2012 – Present	<ul style="list-style-type: none"> Director 	<ul style="list-style-type: none"> ThaioilPlc.
		<ul style="list-style-type: none"> Director Certification Program (DCP) 129/2010 			2011 – Sep. 2013	<ul style="list-style-type: none"> Chief Operating Officer, Downstream Petroleum Business Group 	<ul style="list-style-type: none"> PTT Plc.
		Other Training			2010 – 2011	<ul style="list-style-type: none"> Senior Executive Vice President, Corporate Strategy 	<ul style="list-style-type: none"> PTT Plc.
		<ul style="list-style-type: none"> Program for Global Leadership (PGL), Harvard Business School, USA Oxford Energy Seminar, UK Break Through Program for Senior Executives (BPSE), IMD Institute, Switzerland 			2009	<ul style="list-style-type: none"> Executive Vice President, International Trading Business Unit 	<ul style="list-style-type: none"> PTT Plc.
		<ul style="list-style-type: none"> The Joint State – Private Sector Course(Class 20), National Defence College 			2005 – 2009	<ul style="list-style-type: none"> Executive Vice President, Natural Gas Vehicle 	<ul style="list-style-type: none"> PTT Plc.
					Other companies		
					None		
					Other organizations		
					None		

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
		<ul style="list-style-type: none"> • Top Executive Program (Class 15), Capital Market Academy • Energy Literacy for a Sustainable Future (Class 3), Thailand Energy Academy 					

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(15) Mr. Athapol Yaisawang	63	Education	None	None	Other listed companies		
- Independent Director		Dec. 2013 – Present			• Independent Director	• Thai Airways InternationalPlc.	
Starting Date of the Position		Nov. 2013 – Present			• Independent Director	• PTT Plc.	
- 17 December 2013		• LL.D. (honoris causa), Ramkhamhaeng University					
		• LL.M., Thammasat University					
		• Barrister at Law, Institute of Legal Education of the Thai Bar Association					
		• LL.B. (Hons), Thammasat University					
		Training of Thai Institute of Directors Association					
None							
Other Training							
	• Executive Director’s Program (Class 24),the 1 st Curriculum, Office of the Civil Service Commission						
	• The Joint State - Private Sector Course (Class 17), National Defence College						
		Oct. 2013–Present	• Attorney General	• Office of the Attorney General			
		2009 – Sep. 2013	• Deputy Attorney General	• Office of the Attorney General			
		2009 – 2012	• Director	• Mass Rapid Transit Authority of Thailand			
		2009 – 2012	• Director	• Government Saving Bank			
		2008 – 2011	• Director	• Expressway Authority of Thailand			
		2007 – 2009	• Chief Inspector General	• Office of the Attorney General			

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
		<ul style="list-style-type: none"> Advanced Certificate Course in Politics and Governance in Democratic System for Executives (Class 13), Political and Governance College, King Prajadhipok's Institute Capital Market Academy Leadership Program (Class 13), Capital Market Academy Rule of Law for Democracy (RLD) Program (Class 1), Constitutional College, Constitutional Education Institute, Office of the Constitutional Court 					

1.2 Retired directors

Name/Position	Age (year)	Education/Training	% of Share holding	Family Relationship among Executives	Working experiences in the 5 preceding years		
					Period	Position	Function/Company/Type of Business
(1) General Lertrat Ratanavanich	66	Education	1,000 Shares (0.00003%)	None	Other listed companies		
		Apr. 2013 - Present			• Director	• MFC Asset Management Plc.	
		Jan. 2013 – Present			• Chairman	• G Steel Plc.	
		Jan. 2013 – Present			• Chairman	• G J Steel Plc.	
		Other companies					
		Apr. 2013 - Present			• Chairman	• Wind Energy Holding Co., Ltd.	
		Other organizations					
		Jan. 2013 – Present			• Advisor to the President of the Engineering Institute of Thailand under H.M. the King's Patronage	• The Engineering Institute of Thailand under H.M. the King's Patronage	
		2012 – Present			• Chairman	• Thailand Professional Qualification Institute (Public Organization)	
		2005 – Present			• Justice	• The highest judicial court- martial member	
		2009 – 2011			• Vice Chairman (2)	• The Senate Affairs Committee	
		2009 – 2011			• Director and Chairman	• Subcommittee Study on Constitution Amendments	

Name/Position	Age (year)	Education/Training	% of Share holding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
		Other Training			2008 – 2011	<ul style="list-style-type: none"> Senator, Chairman Member 	<ul style="list-style-type: none"> and Other Related Laws, in Solidarity Committee for Political Reform and Study of the Constitution Amendments, the National Assembly The Senate Committee on Energy King Prajadhipok's Institute Council
		<ul style="list-style-type: none"> Top Executive Program for Commerce and Trade (TEPCOT 4), University of Thai Chamber of Commerce Training Course on Administrative Justice for Executives Executive Program (Class 4), Capital Market Academy The Joint State - Private Sector Course (Class 5), National Defence College National Security and International Security, Harvard University, USA Senior Managers in Government, Harvard University, USA 					

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(2) Mr. Pichai Chunchavajira	64	Education	None	None	Other listed companies		
		<ul style="list-style-type: none"> Honorary Doctorate Degree in Philosophy (Financial Management), Mahasarakham University Honorary Doctorate Degree in Philosophy (Accounting), Thammasat University M.B.A. (Finance), Indiana University of Pennsylvania, USA Bachelor of Accounting, Thammasat University 			May 2012 – Present	• Chairman	• Bangchak Petroleum Plc.
					Feb. – Apr. 2012	• Vice Chairman	• Thailoil Plc.
					2010 – Feb. 2012	• Chairman	• Thailoil Plc.
					2009 – 2011	• Director	• PTT Plc.
					1998 – 2011	• Director	• Bangchak Petroleum Plc.
					2005 – 2011	• Director	• Thai Airways International Plc.
					2009 – 2011	• Director	• IRPC Plc.
					2006 – 2010	• Director	• Thailoil Plc.
					2005 – 2009	• Director	• PTT Chemical Plc.
(2) Mr. Pichai Chunchavajira	64	Training of Thai Institute of Directors Association	None	None	1996 – 2009	• Director	• Dhipaya Insurance Plc.
		<ul style="list-style-type: none"> Director Accreditation Program (DAP) 49/2005 Director Certification Program (DCP) 143/2011 			2007 – 2009	• Director	• PTT Aromatics and Refining Plc.
		Other Training			Other companies		
		<ul style="list-style-type: none"> Capital Market Academy Leadership Program (Class 5), Capital Market Academy 			2011 – Present	• Chairman	• Thailoil Marine Co., Ltd.
					2011 – Present	• Chairman	• TOP Maritime Service Co., Ltd.
					2004 – Apr. 2013	• Director	• Thai Lube Base Plc.
					2008 – 2012	• Chairman	• Thailoil Ethanol Co.,Ltd.
					2000 – 2011	• Director	• Thailoil Power Co.,Ltd.
					2000 – 2009	• Chairman	• Thai Petroleum Pipeline Co., Ltd

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past year years		
					Period	Position	Function/Company/ Type of Business
		<ul style="list-style-type: none"> The Joint State-Private Sector Course (Class 13), National Defence College 			Other organizations		
					Feb. 2013 – Present	• President	• Thailand Boxing Association
					2011 – Present	• President, Committee of Investment	• Social Security Fund
					2011 - Present	• Director and Chairman of the Board of Executive Director	• Small and Medium Enterprise Development Bank of Thailand
					2011 – Present	• President	• Thammasart Association
					Jun. 2011 – Present	• President	• Federation of Accounting Professions
					2011 – Present	• University Council Member	• Thammasart University
					2008 – Present	• University Council Member	• Assumption University Council

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past year years		
					Period	Position	Function/Company/ Type of Business
					2005 – Jun. 2011	• Vice President and Chairman	• The Managerial Accounting Committee, Federation of Accounting Professions
					2003 - 2009	• President, Committee of Investment	• Social Security Fund

Name/Position	Age (year)	Education/Training	% of Share holding	Family Relationship among Executives	Working experiences in the 5 preceding years		
					Period	Position	Function/Company/Type of Business
(3) Mr. Chaikasem Nitisiri	65	Education	None	None	Other listed companies		
		• Honorary Doctorate Degree of Laws, Ramkhamhaeng University			2008 – Jun. 2013	• Director	• Thailoil Plc.
		• Honorary Doctorate Degree of Laws, North-Chiang Mai University			2008 – 2011	• Director	• PTT Plc.
		• LL.M. Columbia University, USA			2007 – 2010	• Director	• Thai Airways International Plc.
		• Barrister-at-Law, Institute of Legal Education of the Thai Bar Association			Other companies		
		• LL.B. (Honours) Chulalongkorn University			None		
		Training of Thai Institute of Directors Association			Other organizations		
		• Director Certification Program (DCP) 8/2001			Jun. 2013 – Present	• Minister	• The Ministry of Justice
		• The Role of Chairman Program (RCP) 16/2007			2012 – Jun. 2013	• Chairman	• The Securities and Exchange Commission
		• Financial Statements for Directors (FSD) 5/2009			2012 – Jun. 2013	• Chairman of the Executive Board	• Thailand Institute of Justice (Public Organization)
					2009 – Jun. 2013	• Senior Public Prosecutor (Advisor to the Attorney General)	• Office of the Attorney General
					2008 – Jun. 2013	• Director, Executive Board Chairman	• Government Housing Bank
					2007 – Jun. 2013	• Member	• Nation University Board

Name/Position	Age (year)	Education/Training	% of Share holding	Family Relationship among Executives	Working experiences in the 5 preceding years		
					Period	Position	Function/Company/Type of Business
		Other Training			2006 – Jun. 2013	• Member	• Saint John University Board
		<ul style="list-style-type: none"> • Certificate in International Procurement, Georgetown University, USA • The National Defence Course (Class 38), National Defence College • Advanced Certificate Course in Politics and Governance in Democratic System for Executives (Class 9/2006), Political and Governance College, King Prajadhipok's Institute • Capital Market Academy Leadership Program (Class 5/2007), Capital Market Academy • Public Director Certification Program (Class 6), Public Director Institute (PDI) 			2003 – Jun. 2013	• Member	• Council of State Committee
					2007 – 2009	• Attorney General	• Office of the Attorney General

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(4) Mr. Wichai Pornkeratiwat	60	Education	None	None	Other listed companies		
		<ul style="list-style-type: none"> Master's in Public Administration, National Institute Development Administration (NIDA) Bachelor's in Engineering (Electrical Engineering), KhonKaen University 			2011 – Oct. 2013	<ul style="list-style-type: none"> Director, Executive Director, Member of the Corporate Governance Committee and Member of the Nomination and Remuneration Committee 	<ul style="list-style-type: none"> IRPC Plc.
		Training of Thai Institute of Directors Association			2011 – Sep. 2013	<ul style="list-style-type: none"> Chief Operating Officer, Upstream Petroleum and Gas Business Group 	<ul style="list-style-type: none"> PTT Plc.
		<ul style="list-style-type: none"> Asean Executive Program (AEP), GE Management Development Institute Senior Executive Program (SEP), Sasin Graduate Institute of Business Administration NIDA Wharton Executive Leaders Program, The Wharton School, University of Pennsylvania, USA 			Mar.–Nov. 2011	<ul style="list-style-type: none"> Director 	<ul style="list-style-type: none"> PTT Exploration and Production Plc.
					2010 – 2011	<ul style="list-style-type: none"> Senior Executive Vice President, Gas Business Unit 	<ul style="list-style-type: none"> PTT Plc.
					2009 – 2010	<ul style="list-style-type: none"> Executive Vice President, Natural Gas Vehicle 	<ul style="list-style-type: none"> PTT Plc.

					Other companies
					<div>2011 – 2012</div> <div>• Chairman</div> <div>• PTTLNG Co., Ltd.</div>
					<div>2010 – 2012</div> <div>• Director</div> <div>• PTFLNG Co., Ltd.</div>
					<div>2008 – 2009</div> <div>• Acting Managing</div> <div>• PTTLNG Co., Ltd.</div>
					Other organizations
					None

Criminal offense record during the past 10 years

- | | |
|---|----|
| a) Being adjudged of convicting a crime or being on trial for convicting a crime | No |
| b) Being adjudged bankrupt or a receiver is appointed | No |
| c) Being a management in the company or partnership which is adjudged bankrupt or a receiver is appointed | No |

Remarks:

The name and number(s) of the authorized directors who may sign to bind the Company from 26 December 2013 are

- Mr. Viraphol Jirapraditkul;
- Mr. Chakkrit Parapuntakul;
- Mr. Manas Jamveha;
- Mr. Pailin Chuchottaworn and;
- Mr. Nuttachat Charuchinda

Two of the above five directors can sign jointly and affix the Company's seal or Mr. Tevin Vongvanich, the President and Chief Executive Officer, can singly sign.

2. Management

As of 31 December 2013, Management required to disclose their details by the Securities and Exchange Commission (SEC) consisted of 14 persons.

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(1) Mr. Tevin Vongvanich - President and Chief Executive Officer		Please see part 1 - Directors					
(2) Mr. Asdakorn Limpiti - Executive Vice President, Strategy and Business Development Group	59	M.S.E. (Chemical Engineering), University of Michigan, U.S.A. IOD: DCP 75 (2006)	Director: 47,783 shares (0.00120%) Spouse: 89,000 shares (0.00224%) Total: 136,783 shares (0.00345%)	None	2010-Present 2005-2010	<ul style="list-style-type: none">● Executive Vice President, Strategy and Business Development Group● Vice President, Strategy and Capability Development Division	PTTEP PTTEP

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(3) Mr. Somkiet Janmaha - Executive Vice President, Geosciences, Reservoir Engineering and Exploration Group	59	M.S. (Geophysics), Stanford University, U.S.A. IOD: DCP 49(2004)	402,697 shares (0.01014%)	None	2010-Present	● Executive Vice President, Geosciences, Reservoir Engineering and Exploration Group	PTTEP
					2005-2010	● Vice President, Geosciences and Exploration Group	PTTEP
(4) Mr. Somporn Vongvuthipornchai - Executive Vice President, International Asset Group	55	Ph.D. (Petroleum Engineering), University of Tulsa, U.S.A.	Director: 176,787 shares (0.00445%)	None	2010-Present	● Executive Vice President, International Assets Group	PTTEP
			Spouse: 3,500shares (0.00009%) Total: 180,287 shares (0.00454%)		2006-2010	● Vice President, International Assets	PTTEP

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(5) Mr. Chatchawal Eimsiri - Executive Vice President , attached to President and Chief Executive Officer	54	M.Sc. (Operation Research), London School of Economics and Political Science, University of London, United Kingdom IOD: DCP 91(2007)	7,091 shares (0.00018%)	None	2011–Present	● Executive Vice President, attached to President and Chief Executive Officer (Seconded to PTT)	PTT
					2000-2011	● Vice President, Finance and Accounting Division	PTTEP
(6) Ms. PENCHUN JARIKASEM Executive Vice President, Finance and Accounting Group	58	M.Sc.(Business Administration), Thammasart University IOD: DCP 113(2009)	13,185 shares (0.00033%)	None	2011-Present	● Executive Vice President, Finance and Accounting Group	PTTEP
					2006-2011	● Executive Vice President, Corporate Finance	PTT
(7) Mr. Somchai Manopinives Executive Vice President, Operations, Supply Chain and Technology Group	59	M.S. (Petroleum Engineering), University of Kansas, U.S.A.	67,489 shares (0.00170%)	None	2012-Present	● Executive Vice President, Operations, Supply Chain and Technology Group	PTTEP
					2010 – 2012	● Senior Vice President, Technology and Operations Division	PTTEP

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
					2009 – 2010	● Vice President, Joint Venture and Thai Onshore Assets Division	PTTEP
					2008 - 2009	● Vice President, Arthit Asset Division	PTTEP
(8) Mr. Phongsthorn Thavisin - Executive Vice President, Development and Engineering Group	54	B.Sc. (Petroleum Engineering) The Pennsylvania State University	6,844 shares (0.00017%)	None	2012-Present	● Executive Vice President, Development and Engineering Group	PTTEP
					2010-2012	● Senior Vice President, Engineering and Construction Division	PTTEP
					2009-2010	● Vice President, Production Development Division	PTTEP
					2006-2008	● Senior Manager, Safety, Security, Health and Environment Department	PTTEP

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(9) Mr. Thiti Mekavichai - Executive Vice President, Human Resources and Business Services Group	52	B.Sc. (Geography), Srinakarinvirot (Prasarnmitr) University	16,073 shares (0.00040%)	None	2012-Present	● Executive Vice President, Human Resources and Business Services Group	PTTEP
					2011-2012	● Senior Vice President, Human Resources Division	PTTEP
(10) Mr. Pairoj Rangponsumrit - Executive Vice President, Domestic Asset Group	58	M.Sc. (Mathematics) Mahidol University	Director: 107,418 shares (0.00271%) Spouse: 3,500 shares (0.00009%) Total: 110,918 shares (0.00279%)	None	2013-Present	● Executive Vice President, Domestic Asset	PTTEP
					2011-2013	● Senior Vice President, S1 Asset	PTTEP
					2010-2011	● Senior Vice President, Bongkot Asset	PTTEP
					2008-2010	● Vice President, Bongkot Asset	

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(11) Ms. Pornthip Uyakul - Senior Vice President, Accounting Division, Finance and Accounting Group	59	M.Sc. (Accounting), Thammasart University	65,119 shares (0.00164%)	None	2013-Present	● Senior Vice President, Accounting Division	PTTEP
					2010-2013	● Senior Vice President, Supply Chain Management Division	PTTEP
					2006-2010	● Senior Manager, Procurement Department	PTTEP
(12) Mr. Yongyos Krongphanich - Senior Vice President, Finance and Strategic Information Technology Division, Finance and Accounting Group	53	M.Sc. (Accounting), Thammasart University	63,056 shares (0.00159%)	None	2013-Present	● Senior Vice President, Finance and Strategic Information Technology Division	PTTEP
					2011-2012	● Senior Vice President, Accounting Division	PTTEP
					2010-2011	● Vice President, Joint Venture Myanmar Asset	PTTEP
					2009-2010	● Senior Manager, Joint Venture Projects	PTTEP

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
					2005-2009	<ul style="list-style-type: none"> Senior Manager, Seconded to Carigali- PTTEPI Operating Company SDN. BHD. (CPOC), Malaysia 	PTTEP
(13) Ms. Jaroonsri Wankertphon - Vice President, Managerial Account Department, Finance and Accounting Group	48	M.Sc.(Financial Accounting), Thammasart University	64,005 shares (0.00161%)	None	2013-Present	<ul style="list-style-type: none"> Vice President, Managerial Account Department 	PTTEP
					2010-2013	<ul style="list-style-type: none"> Vice President, Corporate Accounting Department 	PTTEP
					2008-2010	<ul style="list-style-type: none"> Manager, Corporate Accounting Department 	PTTEP
					2007-2008	<ul style="list-style-type: none"> Manager, Project Accounting Department 	PTTEP

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(14) Ms. Chanamas Sasnanand - Vice President, Finance Department, Finance and Accounting Group	44	M.Sc. (Business Administration), University of South Carolina	13,312 shares (0.00034%)	None	2010-Present	● Vice President, Finance Department	PTTEP
					2010	● Acting Manager, Finance Department	PTTEP
					2007-2010	● Assistance Manager, Investor Relations	PTTEP

3. Corporate Secretary

Name/Position	Age (year)	Education/Training	% of Shareholding	Family Relationship among Management	Working experiences in the past five years		
					Period	Position	Function/Company/ Type of Business
(1) Ms. Pranot Tirasai - Senior Vice President, Corporate Secretary Office	55	LL.B (Laws) Thammasart University	109,422 shares (0.00276%)	None	2013 - Present	● Senior Vice President, Corporate Secretary Office	PTTEP
					2010–2013	● Senior Vice President, Legal Division	PTTEP
					2000–2010	● Vice President, Legal Department	PTTEP
(2) Mr. Theerasak Tanchaoenlarp Senior Vice President, Legal Division	55	LL.B (Laws) Thammasart University	265,963 shares (0.0067%)	None	2013-Present	● Senior Vice President, Legal Division	PTTEP
					2011 – 2013	● Senior Vice President, Corporate Secretary Office	PTTEP
					2000 - 2011	● Vice President, Corporate Secretary Office	PTTEP

3.1 Roles and Responsibilities of Corporate Secretary

The Corporate Secretary must perform roles with fiduciary duties by having responsibility, and duties of care and loyalty, in accordance to Section 89/15 and 89/16 of the Securities and Exchange Act (Volume 4) B.E. 2551 which came into effect on August 31, 2008. The Corporate Secretary must also strictly comply with relevant laws and regulations, along with the Company's objectives and Article of Association (AoA) as well as resolutions from the Board's and shareholders' meetings. Responsibilities of Corporate Secretary required by law are as follows:

- (1) Preparing and safeguarding the Company's documents, namely,
 - directors registry
 - agenda, minutes of the Board meetings, and Annual Reports
 - notice and minutes of the Shareholders' meetings
- (2) Safeguarding the Conflicts of Interests Report submitted by of the directors and management as well as sending a copy of the report to Chairman of the Board and the Audit Committee within seven working days after receiving the report to be in compliance with Section 89/14
- (3) Performing other duties as required by the Capital Market Supervisory Board.

Moreover, the Corporate Secretary is responsible for the following duties as required by to the Board of the company. These duties are as follows:

- Overseeing and advising the Board to ensure that the Directors perform roles in compliance with relevant applicable laws, rules and regulations as well as the Company's objectives, AoA, resolutions from the Board and shareholders
- Organizing meetings of the Board's, sub-committees', and shareholders
- Arranging orientation for and providing advices to new directors
- Recommending necessary and appropriate training programs to directors
- Monitoring the Company's business operations of each function to ensure alignment with directions set by the Board and shareholders and within the conditions set forth by external regulatory bodies overseeing listed companies
- Governing of subsidiaries, including preparing and safeguarding of their important documents
- Promoting and educating the directors, management, and employees about the Good Corporate Governance and Business Ethic of the PTTEP Group, which is regularly being revised to be in compliance with related laws and in line with international practices of leading organizations

- Ensuring all shareholders of the Company are being treated fairly, ethically and lawfully as well as promoting good relationship with minority shareholders
- Acting as a Case Coordinator, which is responsible for managing reports submitted through the Case Management System of the company performing other duties as appointed by the Company.

Attachment 2: Directors of Subsidiaries and Associated Companies

1. Subsidiary:

As of 31 December 2013, there were 58 subsidiaries.

No.	Name		Subsidiaries													
			PTTEPI	PTTEPS	PTTEP Services	Orange	PTTEPO	PTTEP MEA	PTTEPAG	PTTEP OM	PTTEPH	ATL	PTTEP KV	PTTEP SV	PTTEP HV	PTTEP HL
1.	Mr. Asdakorn	Limpiti	/				/									
2.	Mr. Prapat	Soponpongpiat	/									/				
3.	Mr.Vinit	Harnsamuit		/												
4.	Mr. Kittisak	Hiranyaprathip		/												
5.	Mr. Kitinan	Manlekha			/											
6.	Mrs.Yupawadee	Valayapetre			/											
7.	Mr. Pairoj	Rangponsumrit				/										
8.	Mr. Yongyos	Krongphanich				/					/					
9.	Mr. Korakote	Pojanasomboon				/										
10.	Mr. Shinjiro	Naito				/										
11.	Mr. Minoru	Fukuda				/										
12.	Mrs. Suchitra	Suwansinpan					/				/					
13.	Mr. Owas	Chinoroje						/	/							
14.	Mr. Preecha	Peomwattanachai						/						/		
15.	Mr.Phongsthom	Thavisin							/							
16.	Mr. Wanchai	Mahasuwannachai								/						/
17.	Mr. Terapol	Phoonsiri								/						
18.	Mr. Kanok	Intharawijitr										/				
19.	Mr. Piya	Wichichanya											/	/		
20.	Mr.Surachai	Tanasomboonkit											/		/	
21.	Mr. Somporn	Vongvuthipornchai													/	
22.	Mr. Komson	Tachapanich														/

Remarks

1. / : Director

X : Chairman

No.	Name	Subsidiaries													
		PTTEP IR	PTTEP SA	PTTEP IH	PTTEP ID	PTTEP AI	PTTEP NZ	PTTEP SVPC	JV Marine	JV Shore Base	PTTEP NL	PTTEPR	PTTEP SMD	PTTEP SS	PTTEP SD
1.	Mr. Waranon Laprabang	/			/				/						
2.	Mr. Khajohn Bhasavanija	/													
3.	Mr. Somchai Manopinives		/											/	/
4.	Mr. Kanok Intharawijitr		/												
5.	Mrs. Suchitra Suwansinpan			/											
6.	Mr. Anun Chonchawalit			/							/	/			
7.	Mr. Titi Thongjen				/								/		
8.	Ms. Pornthip Uyakul					/	/								
9.	Mr. Owas Chinoroje					/									
10.	Mr. Preecha Peomwattanachai						/								
11.	Mr. Surachai Tanasomboonkit							/							
12.	Mr. Korakote Pojanasomboon								/	/					
13.	Mr. Pairoj Rangponsumrit									/					
14.	Mr. Theerasak Tancharoenlarp										/				
15.	Mrs. Chanamas Sasnanand											/			
16.	Mr. Nawee Anantraksakul												/	/	
17.	Mrs. Thanyapom Vangvasu												/		
18.	Ms. Jaroonsri Wankertphon														/

Remarks

1. / : Director

X : Chairman

No.	Name	Subsidiaries													
		PTTEP ML	PTTEP SM	PTTEP FH	PTTEP HK	PTTEP NC	PTTEP NH	PTTEP BI	PTTEP CA	PTTEP CIF	COVE	CEEAL	CEMROL	CEMROFL	CEKL
1.	Mr. Titi Thongjen	/	/												
2.	Mr. Wanchai Mahasuwannachai	/	/												
3.	Mr. Somporn Vongvuthipornchai			/											
4.	Mr. Asdakorn Limpiti			/											
5.	Mr. Phongsthom Thavisin			/											
6.	Mr. Yongyos Krongphanich				/										
7.	Mrs. Chanamas Sasnanand				/										
8.	Mr. Yothin Tongpenyai					/			/	/					
9.	Ms. Elenora Jongsma					/	/	/							
10.	Orangefield (Netherlands) B.V.					/	/	/							
11.	Mr. Theerasak Tancharoenlarp						/								
12.	Mr. Waranon Laprabang							/							
13.	Mrs. Thanyaporn Vangvasu								/						
14.	Ms. Penchun Jarikasem									/					
15.	Mr. Anun Chonchawalit										/				/
16.	Mr. Direk Wangudomsuk										/	/	/	/	/
17.	Mr. Michael Nolan										/				
18.	Ms. Eleni TheodorouArgyrou											/	/	/	

Remarks

1. / : Director

X : Chairman

No.	Director	Subsidiaries															
		CMTL	CMEL	PTTEP AU	PTTEP AP	PTTEP AO	PTTEP AIF	PTTEP AB	PTTEP AA	PTTEP AT	PTTEP AAF	PTTEP AAP	PTTEP AAT	PTTEP AAO	PTTEP AAA	PTTEP AAS	PTTEP BL
1.	Mr. Anun Chonchawalit	/	/														
2.	Mr. Direk Wangudomsuk	/	/														
3.	Mr. Somporn Vongvuthipornchai			x	x	x		x	x	x	x	x	x	x	x	x	
4.	Mr. Chalemkiat Tongtaow			/	/	/	/	/	/	/	/	/	/	/	/	/	
5.	Mr. Theerasak Tanchaenlarp			/	/	/	/	/	/	/	/	/	/	/	/	/	
6.	Mr. Ken Fitzpatrick			/	/	/	/	/	/	/	/	/	/	/	/	/	
7.	Ms. Penchun Jarikasem						x										
8.	Mr. Ricardo Salomão																/

Remarks

1. / : Director

X : Chairman

2. Associated Companies:

As of 31 December 2013, there were 19 associated companies

No.	Name (only Director, management and employee of PTTEP Group)		Associated Companies												
			Energy Complex	PTT ICT	B 8/32 Partners	MGTC	CPOC	Mungalalu	Troughton Island	Erawan FSO 2 Bahamas	PTT FLNG	LAL	NST Supply Base	UAQ	Natuna 2
1.	Mr. Asdakorn	Limpiti	/								/				
2.	Mrs. Pranot	Tirasai	/												
3.	Mr. Yongyos	Krongphanich			/										
4.	Ms. Penchun	Jarikasem	/	/											
5.	Mr. Thiti	Mekavichai	/												
6.	Mr. Kanok	Intharawijitr				/									
7.	Ms. Natruedee	Khositaphai				/*									
8.	Mr. Andy	Jacob						/	/						
9.	Mr. Gavin	Ryan						/	/						
10.	Mr. Alex	Wood						/	/						
11.	Mr. Arthur	Hamilton						/	/						
12.	Mr. Phongsthom	Thavisin								/					
13.	Mr. Yothin	Tongpenyai									/				
14.	Mr. Chaiwat	Sorntirux									/				
15.	Mr. Pairoj	Rangponsumrit					/								
16.	Mr. Kanit	Sangwongwanit					/								
17.	Mr. Korakote	Pojanasomboon			/					/			/		
18.	Mr. Anun	Chonchawalit												/	
19.	Mr. Prapat	Soponpongpiat												/	
20.	Mr. Titi	Thongjen													/

* Alternate Director

Remarks

1. / : Director

X : Chairman

2. The other 6 associated companies have no director from PTTEP which are:

(1) TPC and Asia Pacific Marine Service are governed through shareholders' meetings.

(2) HV JOC and HL JOC are governed by Management Committee (MC), of which PTTEP's representative is Mr. Prapat Soponpongpiat as Member, with Mr. Surachai Tanasomboonkit as Alternate Member.

(3) GBRs is governed by MC, of which PTTEP's representative is Mr. Prapat Soponpongpiat as Member, with Mr. Owat Chinoroje as Alternate Member.

(4) KKD Oil Sands (Formerly, SCP) is governed by MC, of which PTTEP's representatives are Mr. Asdakorn Limpiti, Mr. Phongsthom Thavisin and Mr. Yothin Tongpenyai as Member.

Attachment 3: Details of Head of Internal Audit Department and Head of Compliance Department

Name	Position	Education	Training	Work Experience
Ms. Chaveeporn Chamsang	Vice President, Internal Audit Department	<ul style="list-style-type: none"> Bachelor of Business Administration (Banking and Finance), Chulalongkorn University 	<ul style="list-style-type: none"> Basic Compliance and Ethics Academies, Society of Corporate Compliance and Ethics Risk Management and Fraud Investigation Master class, UNI Strategic Anti-corruption: the Practical Guide, Thai Institute of Directors (IOD) Forensic Accounting, Accounting Alumni, Chulalongkorn University Internal Audit Conference, The Institute of Internal Auditors, Australia Due Diligence for M&A Master class, Asia Business Forum The IIA Internal Audit Conference, The Institute of Internal Auditors, USA 2007 Asian Conference on Internal Audit, The Institute of Internal Auditors, China Construction Project Cost Management and Control, Asia Business Forum Construction Project Risk Management, Asia Business Forum Risk Management in Drilling Activities, Asia Business Forum Strategising Approaches for Operational Risk, Marcus Evans (Thailand) Ltd. Internal Audit Asia Conference, Asia Business Forum 	<ul style="list-style-type: none"> 16 April 2005 – 15 June 2012: Senior Internal Auditor, PTTEP 16 June 2012 – 30 September 2013: Vice President, Compliance Department, PTTEP 1 October 2013 – Present: Vice President, Internal Audit Department, PTTEP

Name	Position	Education	Training	Work Experience
Mr. Verasak Manchuwong	Vice President, Compliance Department	<ul style="list-style-type: none"> ● B.A. (Accounting), Thammasat University 	<ul style="list-style-type: none"> ● Advance Auditing for In-charge Auditor, MIS Training Institute ● Assessing Risk : A better way to audit, Accountant Association ● Best Practice & Benchmarking of Internal Audit, Asia Business Forum ● Fraud Investigation, MIS Training Institute ● Strategies & Audit Best Practice, MIS Training Institute ● The IIA Internal Audit, The Institute of Internal Auditor ● Risk-Based Internal Audit, MIS Training Institute ● 2009 Fraud Risk Management, MIS Training Institute ● Chief Audit Executive Summit, MIS Training Institute ● Super Strategies The Audit Best Practices, MIS Training Institute ● Fraud and Corruption, MIS Training Institute ● SCCE's 12th Annual Compliance & Ethics Institute, Society of Corporate Compliance and Ethics 	<ul style="list-style-type: none"> ● 1 January 2003 – 30 September 2013: Vice President, Internal Audit Department, PTTEP ● 1 October 2013 – Present: Vice President, Compliance Department, PTTEP

**Attachment 4: Supplemental Information on
Petroleum Exploration and Production Activities (FAS 69)**

(A) PTTEP and Its Subsidiaries' Petroleum Reserves Report as of December 31, 2013

The total proved reserves of PTTEP and its subsidiaries as of 31 December 2013 are shown in the attached table. The proved reserves are reviewed annually by Company's earth scientists and reservoir engineers to ensure rigorous professional standards. The proved reserves are reported on a gross basis, which includes the Company's net working interest and related host country's interest.

No reserve quantities have been recorded for the hydrocarbon discoveries in the Vietnam B & 48/95 Project and the Vietnam 52/97 Project since no Gas Sales Agreement (GSA) has been established.

The total proved reserves (Consolidated Companies) as of 31 December 2013 of PTTEP and its subsidiaries were 250 Million Stock Tank Barrels (MMSTB) for crude and condensate¹, and 3,877 Billion Standard Cubic Feet (BSCF) for gas. The total proved reserves (Consolidated Companies) in term of oil equivalent are 846 Million Barrels (MMBOE), of which approximately 54 percent of the total proved reserves is proved developed reserves. Proved reserves of crude and condensate are approximately 30% while, for gas, are 70% of the total proved reserves in terms of oil equivalent.

The total production in 2013 (Consolidated Companies) was 120 MMBOE (39 MMSTB of crude and condensate¹, and 507 BSCF of gas) or the production rate of approximately 329,413 Barrels of Oil Equivalent per Day (BOED). The increase was approximately 16,120 BOED or 5.15% higher than that of last year. The production increase was attributed to the start of production of the PTTEP Australasia, the acquisition of Hess Corporation's interests in the Natuna Sea A Project in December, which is currently producing, and the increase in production of the Vietnam 16-1 Project.

¹Included the proved reserves and production of LPG and Bitumen

	Proved Reserves of Crude and Condensate ^{(1) (2)}			Proved Reserves of Natural Gas ⁽¹⁾			Proved Reserves of Crude, Condensate and Natural Gas ^{(1) (2)}		
	(Million Barrels)			(Billion Cubic Feet)			Barrel of Oil Equivalent		
	Domestic	Foreign	Total	Domestic ⁽²⁾	Foreign	Total	Domestic	Foreign	Total
Company's share of reserves of consolidated companies									
As of 31 December 2011	131	144	275	2,542	1,987	4,529	541	428	969
1) Revision of previous estimates	12	1	13	120	(18)	102	33	(5)	28
2) Improved recovery	7	-	7	11	-	11	9	-	9
3) Extensions and discoveries	2	2	4	35	2	37	7	3	10
4) Purchases/Sales of Petroleum in Place	-	-	-	-	-	-	-	-	-
5) Production	(27)	(9)	(36)	(378)	(119)	(497)	(89)	(26)	(115)
Total consolidation companies									
As of 31 December 2012	125	138	263	2,330	1,852	4,182	501	400	901
Company's share of reserves of consolidated companies									
As of 31 December 2012	125	138	263	2,330	1,852	4,182	501	400	901
1) Revision of previous estimates	7	8	15	13	14	27	14	10	24

	Proved Reserves of Crude and Condensate ^{(1) (2)}			Proved Reserves of Natural Gas ⁽¹⁾			Proved Reserves of Crude, Condensate and Natural Gas ^{(1) (2)}		
	(Million Barrels)			(Billion Cubic Feet)			Barrel of Oil Equivalent (Million Barrels)		
	Domestic	Foreign	Total	Domestic ⁽²⁾	Foreign	Total	Domestic	Foreign	Total
2) Improved recovery	4	-	4	25	-	25	8	-	8
3) Extensions and discoveries	5	2	7	84	5	89	19	3	22
4) Purchases/Sales of Petroleum in Place	-	-	-	-	61	61	-	11	11
5) Production	(29)	(10)	(39)	(387)	(120)	(507)	(92)	(28)	(120)
Total consolidation companies									
As of 31 December 2013	112	138	250	2,065	1,812	3,877	450	396	846

(1) The proved reserves are reported on a gross basis which includes the company's net working interest and the related host country's interest.

(2) Included the proved reserves and production of LPG and Bitumen.

(B) Capitalized costs relating to oil and gas producing activities

Capitalized costs represent cumulative expenditures for proved and unproved properties, and support equipment and facilities used in oil and gas exploration and production operations together with related accumulated depreciation, depletion, amortization and impairment.

Proved properties include exploration & development wells, transportation pipeline, and related equipment and producing facilities associated with proved reserves project. Unproved properties represent amounts associated with non-proved reserve project. Support equipment and facilities include warehouse, field offices, vehicles and movable assets used in oil and gas producing activities.

The net capitalized costs represent the undepreciated value for these assets.

(Unit: Million US Dollar)	2013	2012
Proved properties	20,532	17,220
Unproved properties	3,172	3,180
Decommissioning costs	1,065	1,032
Support equipment and facilities	<u>185</u>	<u>170</u>
Gross capitalized costs	24,954	21,602
Accumulated depreciation, depletion, amortization and impairment	<u>(9,207)</u>	<u>(7,548)</u>
Net capitalized costs	<u>15,747</u>	<u>14,054</u>

(C) Costs Incurred in oil and gas property acquisition, exploration, and development activities

Costs incurred in oil and gas property acquisition, exploration and development activities represent amounts both capitalized and charged to expense during the year.

Property acquisition costs include costs to purchase proved and unproved properties.

Exploration costs include the costs of geological and geophysical work, carrying and retaining undeveloped properties, and drilling and equipping exploratory wells.

Development costs include costs associated with drilling and equipping development wells, improved recovery systems, facilities for extraction, treating, gathering and storage, producing facilities for existing developed reserves, and costs associated with transportation pipeline.

(Unit: Million US Dollar)	2013			2012		
	Domestic	Foreign	Total	Domestic	Foreign	Total
Acquisition of properties						
- Proved	484	344	828	188	-	188
- Unproved	-	-	-	-	2,039	2,039
Exploration costs ⁽¹⁾	236	239	475	182	321	503
Development costs	<u>1,146</u>	<u>1,324</u>	<u>2,470</u>	<u>979</u>	<u>1,352</u>	<u>2,331</u>
Total	<u>1,866</u>	<u>1,907</u>	<u>3,773</u>	<u>1,349</u>	<u>3,712</u>	<u>5,061</u>

(1) Exploration costs include transferring of exploration well costs to development well costs for future production.

(D) Results of operations for producing activities

Results of operations from oil and gas producing activities for the year 2013 and 2012 are shown in the following table.

Operating costs include lifting costs incurred to operate and maintain productive wells and related equipment. Exploration expenses consist of geological and geophysical costs, and dry hole costs.

General administrative expenses are expenses directly related to oil and gas producing activities.

Depreciation, depletion and amortization expenses relate to capitalized costs incurred in acquisition, exploration and development activities, transportation pipeline, including amortized decommissioning costs.

Other (income) expenses include pipeline transportation income and foreign exchange gains and losses directly related to oil and gas producing activities.

Income tax expenses are based on the results of operations from petroleum producing activities.

General corporate overhead and finance costs are excluded from the results of operations for petroleum producing activities.

(Unit: Million US Dollar)	2013			2012		
	Domestic	Foreign	Total	Domestic	Foreign	Total
Gross revenues :						
Sales – Related parties	5,324	820	6,144	4,787	545	5,332
Sales – Third parties	257	1,087	1,344	425	933	1,358
Total Sales	5,581	1,907	7,488	5,212	1,478	6,690
Expenses :						
Operating expenses	431	556	987	372	333	705
Exploration expenses	36	136	172	60	153	213
General administrative expenses	77	96	173	76	99	175
Petroleum royalties and remuneration	699	118	817	670	118	788
Depreciation, depletion and amortization	1,301	319	1,620	1,040	323	1,363
Loss from Montara Incident	-	-	-	-	1	1
Other (income)/ expenses	6	(37)	(31)	(26)	(128)	(154)
Total expenses	2,550	1,188	3,738	2,192	899	3,091
Results before income taxes	3,031	719	3,750	3,020	579	3,599
Income tax expenses	1,159	282	1,441	1,136	322	1,458
Net results of operations	<u>1,872</u>	<u>437</u>	<u>2,309</u>	<u>1,884</u>	<u>257</u>	<u>2,141</u>

(E) Standardized Measure of Discounted Future Net Cash Flows (SMDCF) Relating to Proved Oil and Gas Reserves

The standardized measure of discounted future net cash flows related to the above proved oil and gas reserves, is computed by applying 12-month average prices* (with consideration of price changes only to the extent provided by contractual arrangements), to the estimated future production of year-end proved oil and gas reserves remaining less estimated future expenditures (based on year-end costs) to be incurred in developing and production the proved reserves.

Future income taxes are calculated by applying the appropriate year-end statutory tax rates to the future pre-tax net cash flows and reduced by applicable tax deductions or tax credits.

Net Cash flows are discounted using a rate of 10% per year to reflect the estimated timing of the future cash flows.

Discounted future cash flow estimates like those shown below are not intended to represent estimates of the fair value of oil and gas properties. Estimates of fair value should also consider probable and possible reserves which may become proved reserves in the future, anticipated future oil and gas prices, interest rates, changes in development and production costs and risks associated with future production. Because of these and other considerations, any of fair value is necessarily subjective and imprecise.

* Twelve-month average prices are calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month.

(Unit: Million US Dollar)	Domestic		Foreign		Total	
	2013	2012	2013	2012	2013	2012
Future cash inflows	19,426	24,056	23,439	23,258	42,865	47,314
Future production costs	(2,782)	(2,990)	(6,671)	(6,323)	(9,453)	(9,313)
Future development costs	(5,163)	(5,333)	(2,636)	(2,825)	(7,799)	(8,158)
Future income tax expenses	<u>(3,333)</u>	<u>(4,777)</u>	<u>(2,388)</u>	<u>(2,732)</u>	<u>(5,721)</u>	<u>(7,509)</u>
Future net cash flows	8,148	10,956	11,744	11,378	19,892	22,334
10% annual discount	<u>(2,095)</u>	<u>(2,883)</u>	<u>(4,740)</u>	<u>(5,014)</u>	<u>(6,835)</u>	<u>(7,897)</u>
Standardized measure of discounted future net cash flows (SMDCF)	<u>6,053</u>	<u>8,073</u>	<u>7,004</u>	<u>6,364</u>	<u>13,057</u>	<u>14,437</u>

Changes in Standardized Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves

(Million US\$)	2013	2012
Present value at beginning of year	14,437	12,799
Sales and transfers of oil and gas produced, net of production costs	(5,180)	(5,331)
Development costs incurred during the period	2,257	2,509
Net changes in prices and production costs	(2,364)	4,628
Net changes in development costs	(1,303)	(948)
Extensions, discoveries and improved recovery	932	643
Revisions of previous quantity estimates	697	878
Purchases / sales of petroleum in place	258	-
Accretions of discount	1,067	(378)
Net changes in income taxes	<u>1,956</u>	<u>(363)</u>
Present value at the year end	<u>13,057</u>	<u>14,437</u>

(F) Other information

Productive Oil/Condensate* and Gas Wells

The numbers of productive wells at 31 December 2013 are as follows:

	Oil/Condensate*		Gas	
	Gross	Net	Gross	Net
Thailand	863	447	1,067	402
Foreign				
Southeast Asia	20	6	102	44
Australia	4	3	-	-
Middle East and Others	22	9	12	12
Total	<u>909</u>	<u>465</u>	<u>1,181</u>	<u>458</u>

Drilling in Progress of Oil/Condensate* and Gas Wells

*includes Bitumen Wells

The numbers of wells in progress at 31 December 2013 are as follows:

	Gross	Net
Exploratory		
Thailand	2	1.4
Foreign		
Middle East and Others	2	0.2
Total	4	1.6
	Gross	Net
<u>Development</u>		
Thailand	25	15.6
Foreign		
Southeast Asia	8	6.1
Middle East and Others	1	0.9
Total	34	22.6

Net Oil/Condensate* and Gas Wells Drilled Annually in 2013

	Net Productive wells drilled	Net dry well drilled
<u>Exploratory</u>		
Thailand	36.3	7.9
Foreign		
Southeast Asia	3.5	0.5
Australia	-	0.3
Middle East and Others	7.2	3.6
Total	47	12.3
<u>Development</u>		
Thailand	161.4	1.9
Foreign		
Southeast Asia	19.3	-
Middle East and Others	21.4	-
Total	202.1	1.9

Gross wells include the total number of wells in which the company has an interest excluding utility wells.

Net wells are the sum of the Company's fractional interests in gross wells.

* include Bitumen Wells

Quarterly Information in 2013 and 2012 for the consolidated financial statements are as follows:

	(Unit: US Dollars)			
<u>Year 2013</u>	<u>4thQ</u>	<u>3rdQ</u>	<u>2ndQ</u>	<u>1stQ</u>
Revenues				
Sales	1,816,244,897	1,776,487,811	1,781,405,147	1,797,758,169
Revenue from pipeline transportation	37,212,847	37,267,755	38,552,033	37,641,884
Other income				
Gain on foreign exchange	-	4,003,865	-	41,584,264
Interest income	7,054,380	5,642,364	8,065,016	12,303,333
Gain on financial derivatives	-	-	11,292,979	1,386,592
Other income	44,049,806	17,257,284	11,753,485	16,202,162
Total Revenues	1,904,561,930	1,840,659,079	1,851,068,660	1,906,876,404
Expenses				
Operating expenses	226,440,686	215,117,451	200,628,467	185,190,875
Exploration expenses	56,740,786	48,387,325	29,969,883	36,921,675
Administrative expenses	143,246,410	69,987,695	56,624,625	63,430,806
Petroleum royalties and remuneration	202,384,841	199,176,958	203,851,715	211,327,022
Depreciation, depletion and amortization	460,170,810	410,311,195	376,448,407	390,469,550
Other expenses				
Loss on foreign exchange	65,088,426	-	71,430,893	-
Loss on financial derivatives	9,488,063	8,631,630	-	-
Management's remuneration	1,497,165	1,468,264	1,709,515	1,510,184
Finance costs	61,774,202	42,804,873	47,953,612	48,232,161
Total Expenses	1,226,831,389	995,885,391	988,617,117	937,082,273
Share of gain from associates	986,765	2,197,555	1,376,333	1,596,581
Profit before income taxes	678,717,306	846,971,243	863,827,876	971,390,712
Income tax expenses	(440,453,411)	(280,658,597)	(503,008,879)	(291,144,718)
Profit for the year	238,263,895	566,312,646	360,818,997	680,245,994
Earnings per share				
Basic earnings per share	0.06	0.14	0.09	0.17
Diluted earnings per share	0.06	0.14	0.09	0.17

(Unit: US Dollars)

<u>Year 2012</u>	<u>4thQ</u>	<u>3rdQ</u>	<u>2ndQ</u>	<u>1stQ</u>
Revenues				
Sales	1,842,194,870	1,755,375,712	1,567,268,704	1,524,716,295
Revenue from pipeline transportation	37,136,388	37,634,815	34,611,046	41,301,845
Other income				
Gain on foreign exchange	-	-	-	33,765,218
Interest income	5,639,087	1,488,943	5,309,389	3,436,905
Gain on financial derivatives	13,975,901	-	-	558,394
Other income	55,092,242	25,826,293	60,280,820	23,357,339
Total Revenues	1,954,038,488	1,820,325,763	1,667,469,959	1,627,135,996
Expenses				
Operating expenses	218,118,999	177,560,342	152,769,963	157,204,284
Exploration expenses	68,688,308	44,909,221	57,671,959	41,766,650
Administrative expenses	109,281,667	78,484,807	64,171,259	60,285,634
Petroleum royalties and remuneration	214,158,772	207,679,661	186,063,918	180,316,373
Depreciation, depletion and amortization	359,082,670	371,846,010	318,342,409	324,564,814
Other expenses				
Loss on foreign exchange	1,844,204	12,439,600	43,445,718	-
Loss from Montara incident	537,982	-	-	-
Loss on financial derivatives	-	19,239,630	7,552,025	-
Management's remuneration	1,377,158	1,171,880	979,782	1,185,282
Impairment loss on assets	95,000,072	-	109,167,123	-
Finance costs	59,478,572	54,140,501	41,435,113	31,955,829
Total Expenses	1,127,568,404	967,471,652	981,599,269	797,278,866
Share of gain from associates	501,519	1,300,056	1,336,563	1,518,560
Profit before income taxes	826,971,603	854,154,167	687,207,253	831,375,690
Income tax expenses	(378,455,141)	(296,472,224)	(436,701,445)	(242,560,532)
Profit for the year	448,516,462	557,681,943	250,505,808	588,815,158
Earnings per share				
Basic earnings per share	0.13	0.17	0.08	0.18
Diluted earnings per share	0.13	0.17	0.08	0.18

Five-year petroleum sales volume and unit price summary

	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>
Net sales of petroleum (BOED)	292,629	275,923	265,047	264,575	233,756
Average petroleum unit prices					
Average unit prices of crude oil and condensate (USD per BBL)	100.15	103.27	102.23	73.77	58.03
Average unit prices of natural gas (USD per MMBTU)	7.92	7.59	6.00	5.52	5.17
Average unit prices of petroleum (USD per BOE)	65.58	64.86	55.49	44.83	39.53
Lifting cost (USD per BOE)	4.88	4.28	4.35	3.75	3.16