## 2. Management Discussion and Analysis of Operating Results for the First Quarter of 2012

#### 2.1 PTTEP Performance

Global economy in the first quarter of 2012 has continued volatility from 2011. The major factors are the slowdown of economy in European countries, especially the public debt issues in PIIGS which might cause more severe problems in economic situation and financial stability in European countries, and China's economic growth, which has been reduced gradually. However, the economy in U.S turns to be improved from the growth of industrial production sector and the higher rate of employment which reflects the confidence of economic recovery.

In 2011, Thai economy expanded only 0.1 percent. The major factor was the impact from the flooding incident which caused economic shrinkage during the end of the year. In 2012, the Office of the National Economic and Social Development Board (NESDB) forecasts that the Thai economy will expand approximately 5.5 to 6.5 percent, which driven by domestic demand and recovery in the manufacturing sector. This includes an investment for rehabilitation of business infrastructure and industry that have been damaged by the flooding. It's resulting to increasing of natural gas consumption in first 2 months in the first quarter of 2012. The average of natural gas consumption per month is higher 12% compare to quarter 4 of 2011 and tends to be increase continuously to support economic growth.

As the world economy and the Thai economy are very fragile and highly uncertain. PTTEP continues to closely monitor the economics and accordingly revise its action plan and investment to be consistent with the strategic directions. PTTEP also continues to increase efficiency and develop capabilities for sustainable growth. The results can be summarized as follows.

**Exploration and Appraisal:** PTTEP continues exploration activities in both domestic and international areas in order to assess the potential of fields and the amount of petroleum reserves added. In the first quarter of year 2012, the company has exploration activities in several projects.

**PTTEP Australasia project**: The project is preparing for 3D seismic and drilled appraisal wells of Maple-2 in the second quarter of 2012 to assess the potential of the reserves and resources of Cash–Maple field in FLNG project, which is located in the Timor Sea, Australia, in addition to the Cash-2 well which discovered natural gas at the end of 2011. The project is currently under study and preliminary engineering design (Pre-FEED) to analyze the commercial potential for the development of this field.

**Oman 44 Project:** The well Shams-17 was drilled to the last depth and finished the Wireline Logging and Well Completion to test flow rate of petroleum (Well Testing) in April 2012.

**Myanmar M3 and M11 Project:** For Myanmar M3 project, the government of Myanmar agreed to extend 1 year of the exploration period for the drilling of exploration wells and appraisal wells to prove the commercial potential. PTTEP has conducted the 3D seismic survey and currently processing the data. Currently, the company is in the process of acquiring the drilling rigs and preparing for drilling appraisal wells in the fourth quarter as planned.

For Myanmar M11 deep water project, the 3D seismic survey has been completed and the data is processing. Currently, the company acquires rigs and prepares for drilling appraisal wells as the fourth quarter planned.

**Indonesia Semai II Project:** The project is studying in Geology to assess the petroleum potential and determine the location of the second exploration well, which is located in the shallow water area, in accordance with the obligation with the Indonesian government. The drilling is expected to commenced in the third quarter of 2012.

Algeria Hassi Bir Rekaiz Project: The result of Rhourde Terfaia-1 (RTF-1), the first drilled exploration wells, found the petroleum reservoir rocks. The flow rate of oil is approximately 1,000 barrels per day and flow rate of natural gas approximately 0.3 million cubic feet per day. The project plans to drill additional exploration wells to confirm the petroleum potential.

**Canada Oil Sands KKD Project:** The Winter Evaluation Program of Year 2011- 2012 was completed with 156 appraisal wells. Moreover, the project measured the 3D and 4D seismic surveys in the Leismer, Thornbury and Hangingstone to evaluate the production of Leismer and assess the production potential of Thornbury and Hangingstone.

**Development:** PTTEP has accelerated the development of various projects both in Thailand and International to start up production as planned.

**Bongkot Project:** PTTEP has completed the construction and has begun the production and the testing of natural gas and condensate delivery since March 2012. The company has currently produced and delivered natural gas to PTT Public Company Limited (PTT) at the rate of approximately 50 - 70 million standard cubic feet per day (MMSCFD) and condensate at the rate of approximately 3,000 - 4,000 barrels per day.

The company expects the gas production rate to increase to 320 MMSCFD which is aligned with the Daily Contract Quantity in Gas Sales Agreement with PTT within the second quarter of 2012.

**PTTEP Australasia Project, Montara field:** Development of Montara field is progressing as planned. The drilling of the production well is on process, and is expected to begin production in the fourth quarter of 2012.

Regarding the claim that was submitted by the Government of Indonesia for compensation due to oil leaks from the Montara incident, PTTEP is continuously collaborating with the Indonesian government. The company is still based on the evidence and the impact (if any) to use scientific principles.

**Myanmar Zawtika Project:** On January 5, 2012, PTTEP International Limited (PTTEPI) has signed a joint venture agreement with Myanmar Oil and Gas Enterprise (MOGE). MOGE will hold 20 percent participating interest in the Myanmar Zawtika Project. This is accordance with the Production Sharing Contract and additional agreements between PTTEPI and MOGE, which MOGE can participate in the project after the approval of the project. PTTEPI will be hold 80 percent participating interest and is still an operator in this project.

The constructions of Wellhead platform, offshore and 300 km onshore pipeline is progressing and expected to begin production in 2013.

Algeria 433a & 416b Project: The project is currently under the design process of detailed engineering for processing and pipeline. For the construction of living quarter and facilities, the technical and commercial evaluation of the contracts have been approved. In addition, the drilling of the development well has started.

**Production:** PTTEP continuously put effort to maintain the production level and increase from new projects.

Canada Oil Sands KKD Project: The average production of Leismer area in the first quarter of 2012 was approximately 16,450 barrels per day and the average production rate of bitumen reached 5 million barrels in March. The project was approved a construction of Well Pad 5 which is expected to start production in mid 2013. The Well Pad 6 is still in the process of approval for the construction. It is anticipated that construction will begin in 2014. Moreover, the project is studying the installation of the fourth Steam Generator to increase the production rate to 22,000 barrels per day and has already drawn up plans to expand capacity (Leismer Expansion), which aims to increase production to 40,000 barrels per day in 2015. The Corner will be able to start the FEED in the third quarter of 2012 before the EPC process in the mid of 2013 and expected to begin production in 2016.

**Portfolio Management:** PTTEP has operated continuously in the areas of Portfolio Management, which aims for appropriated investment in value added to the project and risk management.

**Myanmar M7 Project:** PTTEP International Limited (subsidiary of PTTEP) has terminated the exploration and returned the area of Myanmar M7 Project, after the implementation of the commitments has completed which valid from February 1, 2012.

Possible cash offer for Cove Energy PLC. In February 24, 2012, PTTEP has announced the terms of a possible cash offer to acquire all the issued and to be issued share capital of Cove Energy Plc. (Cove). Cove is listed on the Alternative Investment Market of the London Stock Exchange and its primary asset is an 8.5% interest in Mozambique Rovuma Offshore Area 1 (the "Rovuma Project"). The Rovuma Project is a world class gas discovery and is estimated to have resources of up to 30 trillion cubic feet ("TCF").

In April 24, 2012, the company has noted the announcement by Shell Exploration and Production (XL) B.V. ("Shell") of its firm intention to make an offer for Cove at a price of 220 pence in cash for each Cove share, on and subject to the terms and conditions set out in that announcement. PTTEP is currently considering its options and will make a further announcement as and when appropriate.

#### 2.2 Results of Operations

Since 1 January 2011, PTTEP has complied with Thai Financial Reporting Standards (TFRS) in conformity with International Financial Reporting Standards (IFRS). Moreover, the Company has adopted Thai Financial Reporting Standard No.21 (revised 2009) "The Effects of Changes in Foreign Exchange Rates", which has been published but will not become effective until 2013, and which also requires the Company to determine its functional currency. The Company has also completed early adoption of International Accounting Standard (IAS) No. 39 "Financial Instruments: Recognition and Measurement".

The Company has determined the USD to be its functional currency. 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.

Detailed discussion of financial results by quarter are as follows:

# 2.2.1. Results of Operations - Quarterly Comparison

Earnings summary	4 <sup>th</sup> Quarter	1 <sup>st</sup> Quarter	1 <sup>st</sup> Quarter
(Unit : Millions of USD, excepting USD per share amounts)	2011	2012	2011
Total Revenues	1,582	1,627	1,310
Total Expenses	(775)	(797)	(712)
Operating Income	807	830	598
Gain(Loss) from the investments in associates	1	2	1
Income before income taxes	808	832	599
Income Taxes	(319)	(243)	(240)
Net income	489	589	359
Diluted earnings per share	0.15	0.18	0.11
Income from normal operation	487	538	343
Gain(Loss) from non-recurring items	2	51	16
Net income	489	589	359

4 <sup>th</sup> Quarter	1 <sup>st</sup> Quarter	1 <sup>st</sup> Quarter
2011	2012	2011
49,064	50,448	40,011
(24,043)	(24,692)	(21,722)
25,021	25,756	18,289
38	47	20
25,059	25,803	18,309
(9,909)	(7,515)	(7,330)
15,150	18,288	10,979
4.56	5.51	3.31
	2011 49,064 (24,043) 25,021 38 25,059 (9,909) 15,150	2011 2012 49,064 50,448 (24,043) (24,692) 25,021 25,756 38 47 25,059 25,803 (9,909) (7,515) 15,150 18,288

# First Quarter of 2012 compared with First Quarter of 2011

For the results of operations (Unreviewed) in the first quarter of 2012, PTTEP and subsidiaries' net profit amounted to USD 589 million (equivalent to 18,288 million baht), or USD 0.18 per share-diluted (equivalent to 5.51 baht per share-diluted), an increase of USD 230 million or 64% against the first quarter of 2011, which was USD 359 million (equivalent to 10,979 million baht), or USD 0.11 per share-diluted (equivalent to 3.31 baht per share-diluted). The returns on shareholders' equity for the first quarter of 2012 were 36%.

However, PTTEP and subsidiaries' net profit amounted to USD 589 million for the first quarter of 2012 comprised of the recurring net profit for this period, which amounted to USD 538 million, and the gain from non-recurring items, which amounted to USD 51 million.

For the results of recurring operations in the first quarter of 2012, PTTEP and subsidiaries' recurring net profit was USD 538 million, an increase of USD 195 million or 57% against the same period last year, which was USD 343 million. The returns from normal operation on shareholders' equity for the first quarter of 2011 were 33%.

For the first quarter of 2012, the total revenue was USD 1,627 million (equivalent to 50,448 million baht), an increase of USD 317 million or 24% against the same period last year which was USD 1,310 million (equivalent to 40,011 million baht). The increase was due to the sales of petroleum increase of USD 320 million, resulting from the following reasons:

- (1) The higher average petroleum sales price for the first quarter of 2012, which rose to USD 64.79 per barrel of oil equivalent (BOE) brought by the higher world market prices against the same period last year which was USD 49.36 per BOE; however,
- (2) There was a lower sales volume in the first quarter of 2012, which declined slightly to 253,411 barrels of oil equivalent per day (BOED) against the same period last year which was 271,292 BOED. This sales volume decreased as a result of;
  - The Arthit North project: The sales volume of natural gas and condensate decreased due to stopping production in November 2011.
  - The Arthit project: The sales volume of natural gas and condensate decreased in line with the new daily contract quantity; however,
  - The Vietnam 16-1 project: Crude oil sales volume of the Vietnam 16-1 project increased because production started in the third quarter of 2011.
  - The S1 project: Crude oil sales volume of the S1 project increased because of higher production volume produced from new wells and higher beam pump activities.

PTTEP and subsidiaries' revenue from pipeline transportation from proportionate revenue in Moattama Gas Transportation Company (MGTC) and Taninthayi Pipeline Company (TPC) increased.

In the first quarter of 2012, PTTEP and subsidiaries had other revenues of USD 23 million, an increase of USD 10 million against the first quarter of 2011, which was USD 13 million, resulting from the recognition of the transfer of interest in the Arthit North project in this quarter.

For the first quarter of 2012, PTTEP and its subsidiaries recognized a foreign exchange gain of USD 34 million (equivalent to 1,064 million baht); while, in last year first quarter there was gain of USD 63 million (equivalent to 1,906 million baht) which is non-recurring item.

PTTEP and subsidiaries incurred expenses amounting to USD 797 million (equivalent to 24,692 million baht) in the first quarter of 2012, an increase of USD 85 million against USD 712 million (equivalent to 21,722 million baht) for the same period last year. This increase was caused by the net effect of the following:

- (1) Increased operating expenses amounting to USD 38 million, mainly from the Canada Oil Sands KKD project in line with higher production activities.
- (2) Increased petroleum royalties occurred amounting to USD 37 million resulting from increased sales revenue.
- (3) Depreciation, depletion and amortization expenses escalated, amounting to USD 26 million, mainly from an increase in the number of completed assets of S1 and Contract 4 projects and from the Vietnam 16-1 project as the project started production in the third quarter of 2011; however,
- (4) Decreased exploration expenses amounting to USD 21 million, primarily due to lower exploratory well write-off costs of USD 25 million. The exploratory well write-off costs of the period was derived from the Cambodia B and Contract 3, while, there were higher exploratory well write-off costs in the same period last year principally from the Myanmar project (Block M7) and the Bongkot project. However, exploration expenses increased amounting to USD 4 million from the Myanmar M3 and M11 project.

In the first quarter of 2012, PTTEP and subsidiaries incurred higher income tax expenses compared with those of the first quarter of 2011; totaling USD 3 million,

mainly due to an increase of petroleum income tax and corporate income tax in overseas, and a decrease of income tax affecting from functional currency which is non-recurring item.

For the first quarter of 2012, PTTEP and subsidiaries' recognized a gain from non-recurring items of USD 51 million, an increase of USD 35 million, against that of a gain from non-recurring items of the same period last year of USD 16 million, stemming from the following:

- (1) Decreased income tax expenses affected by functional currency of USD 70 million, mainly due to lower deferred income tax liabilities because of an increase in net assets after they were translated into USD on 31 March 2012, compared with net assets after were translated into USD on 31 December 2011, given the Baht appreciation against the USD. The increase of net assets resulted in an increase of depreciation expenses in USD and a decrease of income tax expenses in the future, accordingly.
- (2) Decreased foreign exchange gain of USD 29 million which was mainly because in the first quarter of 2012 PTTEP and subsidiaries recognized gain from foreign exchange USD 34 million mainly resulting from a loan in USD currency from PTTEP Canada Limited; whereas, the gain from foreign exchange USD 63 million of the last year same quarter stemming from net liabilities in Thai Baht.

#### First Quarter of 2012 compared with Fourth Quarter of 2011

For the results of operations (Unreviewed) in the first quarter of 2012, PTTEP and subsidiaries' net profit amounted to USD 589 million (equivalent to 18,288 million baht), or USD 0.18 per share-diluted (equivalent to 5.51 baht per share-diluted), an increase of USD 100 million or 20% from the previous quarter's net profit of USD 489 million (equivalent to 15,150 million baht), or USD 0.12 per share-diluted (equivalent to 3.45 baht per share-diluted). Return on shareholder's equity for the first quarter of 2012 was 36%.

However, PTTEP and subsidiaries' net profit amounted to USD 589 million for the first quarter of 2012 comprising the recurring net profit for this period, which amounted to USD 538 million, and the gain from non-recurring items which amounted to USD 51 million.

For the results of recurring operations in the first quarter of 2012, PTTEP and subsidiaries' recurring net profit was USD 538 million, an increase of USD 51 million or

10% from the fourth quarter of 2011' net profit of USD 487 million. The returns from normal operation on shareholders' equity for the first quarter of 2012 were 33%.

For the first quarter of 2012, the total revenue of PTTEP and subsidiaries was USD 1,626 million (equivalent to 50,448 million baht), an increase of USD 44 million or 3% from the fourth quarter of 2011's total of USD 1,582 million (equivalent to 49,064 million baht), which was chiefly due to higher sales of petroleum, totaling USD 84 million, resulting from;

- (1) The sales volume increased in this quarter to 253,411 BOED compared with the fourth quarter of 2011's total sales volume of 250,848 BOED. This increase was the result primarily of:
  - The S1 project: Crude oil sales volume of the S1 project increased because of a higher production volume produced from new wells and higher beam pump activities.
  - The Bongkot project: The sales volume of natural gas increased because resumed PTT's nominations after the floods in the fourth quarter of 2011.
  - The MTJDA-B17 project: The sales volume of condensate increased due to no production shutdown in this quarter, while there were the floods and a shutdown of 8 days due to maintenance in the fourth quarter of 2011; however,
  - The Arthit North: A sales volume of natural gas and condensate decreased in this quarter as they ceased production since November 2011.
  - The Vietnam 16-1 project: A lower sales volume of crude oil from the Vietnam 16-1 project in this quarter was the result of a lower sales loading when compared to the fourth quarter of 2011.
- (2) The higher average petroleum sales price this quarter, which went up to USD 64.79 per BOE compared with the fourth quarter of 2011's price of USD 61.26 per BOE.

PTTEP and subsidiaries' revenue from pipeline transportation from proportionate revenue in Moattama Gas Transportation Company (MGTC) and Taninthayi Pipeline Company (TPC) increased.

In the first quarter of 2012, PTTEP and its subsidiaries had other revenues of USD 23 million, a decrease of USD 31 million against the fourth quarter of 2011, which was USD 54 million. The decrease was mainly because in the first quarter of 2012, other revenues was mainly from the transfer of interest in Arthit North project; while, in the fourth quarter of 2011, other revenues were from the transfer of interest in many overseas projects - Myanmar Zawtika, New Zealand Great South, Indonesia South Mandar, Indonesia South Sageri and Indonesia Sadang projects

For the first quarter of 2012, PTTEP and its subsidiaries recognized a foreign exchange gain of USD 34 million (equivalent to 1,064 million baht), a decrease of USD 16 million compared with the fourth quarter of 2011's gain of USD 50 million (equivalent to 1,541 million baht) which is non-recurring item.

PTTEP and subsidiaries incurred expenses of USD 797 million (equivalent to 24,692 million baht) in the first quarter of 2012, an increase of USD 22 million from the fourth quarter of 2011, which was USD 775 million (equivalent to 24,043 million baht). This increase stemmed from the following:

- (1) Depreciation and amortization expenses increased USD 56 million mainly because the PTTEP Australasia project has additional decommissioning costs for Jabiru and Challis fields of USD 43 million which is non-recurring item. Moreover, depreciation and amortization expenses increased from an increase in the number of completed assets of S1 and an increased production volume of the MTJDA-B17 project; however,
- (2) Decreased operating expenses amounting to USD 29 million mainly from the Arthit North project as it ceased production in November 2011.

For the first quarter of 2012, PTTEP and subsidiaries incurred lower income tax expenses, totaling USD 76 million comparing to the fourth quarter of 2011, because lower income taxes were affected by functional currency which is non-recurring items.

For the first quarter of 2012, PTTEP and subsidiaries' recognized a gain from non-recurring items of USD 51 million. An increased gain of USD 49 million, against that of a gain from non-recurring items of the fourth quarter of 2011 of USD 2 million, stemmed from the following:

(1) Decreased income tax expenses affected by functional currency in the first quarter of 2012 of USD 114 million, mainly due to lower deferred income tax liabilities because of an increase in net assets after they were translated into USD on 31 March 2012 compared with net assets after were translated into USD on 31 December

2011, given the Baht appreciation against the USD. The increase of net assets resulted in an increase of depreciation expenses in USD and a decrease of income tax expenses in the future, accordingly.

However, in the fourth quarter of 2011, there were higher deferred income tax liabilities because of a decrease in net assets after they were translated into USD on 31 December 2011 compared with net assets after were translated into USD on 30 September 2011, 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 income tax expenses in the future, accordingly.

- (2) Increased decommissioning costs for Jabiru and Challis fields of USD 41 million
- (3) Decreased foreign exchange gain of USD 16 million which was mainly due to gain from foreign exchange of a loan in USD currency from PTTEP Canada Limited.

# 2.2.2. Financial position

	Unit: Millions of USD		Unit: Millions of Baht	
	Mar 31,	Dec 31,	Mar 31,	Dec 31,
	2012	2011	2012	2011
Total Assets	14,971	14,131	461,742	447,842
Current Assets	3,088	2,737	95,231	86,764
Non-current Assets	11,883	11,394	366,511	361,078
<b>Total Liabilities</b>	8,359	7,819	257,807	247,818
Current Liabilities	3,655	3,139	112,728	99,504
Non-current Liabilities	4,704	4,680	145,079	148,314
Shareholders' Equity	6,612	6,312	203,935	200,024
Total Liabilities and Shareholders' Equity	14,971	14,131	461,742	447,842

As of March 31, 2012, PTTEP and subsidiaries commanded total assets of USD 14,971 million (equivalent to 461,742 million baht), an increase of USD 840 million higher than the total on hand at the end of 2011 at which point total assets were USD 14,131 million (equivalent to 447,842 million baht). This increase was mainly due to (1) an increase in cash and

cash equivalent of USD 412 million, mostly from the net effect of cash inflow from operations and cash outflow for investment in exploration and production assets (2) an increase of USD 372 million in exploration and production assets of the PTTEP Australasia, Myanmar Zawtika and Canada Oil Sands KKD projects.

Most current assets as of March 31, 2012 were in cash and cash equivalents, parent company accounts receivable, trade accounts receivable, and materials and supplies. A large proportion of the non-current assets were (1) assets used in joint-venture exploration and production, presented under Property, Plant, and Equipment; (2) intangible assets; and (3) deferred income taxes. PTTEP and subsidiaries Current Ratio as of March 31, 2012, was 0.84.

PTTEP and subsidiaries had total liabilities of USD 8,359 million (equivalent to 257,807 million baht), an increase of USD 540 million higher than the total at the end of 2011, when total liabilities were USD 7,819 million (equivalent to 247,818 million baht), principally due to an increase of current liabilities of USD 192 million, primarily from an increase of dividends payable of USD 301 million, an increase of tax payable of USD 245 million.

PTTEP maintains the company's Short-term Financing Program ("PF") which involves the company's issuance of Bills of Exchange (B/Es) via Public Offering to institutional and high net-worth investors. B/Es are to be issued with a total revolving credit of up to Baht 50,000 million which was approved by the Resolution of the Board of Directors' meeting in February 2009 and in November 2010. As of March 31, 2012, there is no outstanding B/Es.

On February 13, 2012, PTTEP signed a loan agreement with Krung Thai Bank Public Company Limited. The total loan amount is Baht 20,000 million and is repayable within ten years of the first draw down. The proceeds from the loan agreement will be utilized for general corporate purposes. The Board of Directors' meeting in the year 2010 and 2011 approved the Company's entering into loan agreements, whose approved amount remaining was Baht 68,250 million. On March 30, 2012, PTTEP drew down Baht 10,000 million. The total outstanding loan as of March 31, 2012 is Baht 10,000 million.

On March 29, 2012, PTTEP Canada International Finance Limited (PTTEP CIF) signed a loan agreement with three financial Institutions comprising Bank of Tokyo-Mitsubishi UFJ (Canada), Mizuho Corporate Bank, Ltd. and Sumitomo Mitsui Banking Corporation of Canada. The loan agreement is fully guaranteed by PTTEP with a five-year tenor. The proceeds from the loan agreement will be utilized for debt refinancing, capital expenditure and/or general corporate purposes. The Board of Directors' meeting in the year 2011 approved the Company's entering into loan agreements, whose approved amount remaining was Baht 48,250 million.

For the period 3 months ending on March 31, 2012, PTTEP and subsidiaries had a net cash flow from operations of USD 1,157 million, chiefly due to the higher sales revenue resulting from the higher average petroleum sales price during this period.

PTTEP and subsidiaries had a net cash flow used in investment activities of USD 720 million, mainly resulting from the higher investment in oil and gas properties for exploration and production from the PTTEP Australasia, Myanmar Zawtika and Canada Oil Sands KKD projects.

PTTEP and subsidiaries had a net cash flow used in financing activities of USD 25 million, mainly enabled by interest paid of USD 33 million.

As of March 31, 2012, PTTEP and subsidiaries had cash and cash equivalents of USD 1,763 million, increased from the end of 2011 at which point cash and cash equivalents were USD 1,351 million.

#### 2.3 Impact on Operating Results

In the first quarter of 2012, the oil price has increased, mainly due to the unrest in the Middle East and North America, especially the nuclear situation in Iran, resulting to uncertainty of the supply from the region, and the improvement of the U.S. economy. On the other hand, the major factor which negatively affected the oil price is the slowdown of global economy both in Europe and China. The average Dubai oil price in the first quarter of 2012 was USD 115.9 per barrel, which is higher than the previous quarter of USD 104.9 per barrel by approximately 10%. The rising oil prices will positively impact operations in petroleum production and make the exploration and petroleum industry more competitive.

As the global economy and oil price heavily volatile, PTTEP has continuously monitored the changing of economic situation and energy demand and moved in response to the challenging business environment as follows:

Responding to the increase in energy demand In the first quarter, The PTTEP production has increased by 4 percent compared to the fourth quarter in 2011 which produced 289,713 barrels per day and has reviewed the supply plan and improved production in order to support the rising energy demand. PTTEP has been cooperating with the related government agencies to collectively outline the optimal supply plan and forecast future energy demand from both domestic and neighboring countries, in both short term and 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 constantly seeking the investment opportunities in order to increase the reserve added, with the purpose of meeting the nation's demand.

Improving the efficiency and cost optimization PTTEP regards efficiency improvement and cost optimization as a key component for long term value creation and sustainable growth. PTTEP continues its focus on Operational Excellence (OE) in order to excel in operations and able to compete in the increasingly competitive environment

From the increasing trend of the cost of petroleum exploration and production industry, in order to maintain the optimal operating cost and maintain the level of return from, PTTEP continuously operates in the area of cost optimization, for instance, the supply chain plus project and the Zero Unplanned Shutdown program.

Safety, Security, Health and Environment (SSHE) and Sustainable Development (SD). PTTEP has the goal of becoming the Loss Time Injury free organization by 2013 through the promotion of the implementation and continuous follow-up in SSHE and SD in order for the business to operates securely and efficiently.

In addition, PTTEP recognizes the role in supporting global energy demand in parallel with responsibility in sustainable development of petroleum resources and environment. In every operations and plan, the environmental aspects and risks shall be typically identified and

develop to ensure the lowest effect to the environment. PTTEP has started up various projects to reduce GHG Emission such as the use of ozone depleting substances by HCFCs at Bongkot and S1, Flare Gas Utilization in Bongkot Offshore Project (FGRU) which can be decreased to amount of gas to be flared into the atmosphere by 6.5 MMSCF per day. Moreover, GHG Emissions Accounting and Reporting was implemented at Bongkot, Arthit, S1 and PTTEP 1 to assess against ISO 14064-1 standard in which finding and corrective actions. PTTEP also plans to expand this project to international assets.

Furthermore, there are many initiatives of the environmental projects such as the opening of the visitor knowledge center and nature trail, Dong Phaya Yen - Khao Yai. It is a part of the project called 'Ruam Jai Pak Rak Mor Ra Dok Thai Rak Mor Ra Dok Lok', which PTTEP has continuously organized since 2011 to honor his Majesty the King as the 'The Father of Thai Heritage Conservation' and continue commitment to the conservation of natural resources and environment for the occasion of his 84th Birthday Anniversary.

Managing Portfolio and Reviewing Investment PTTEP has conducted an impact analysis of investment on a regular basis in order to keep pace with the changing social, economic and political factors to support a consideration and decision making in investment and ensure the value added to the organization. PTTEP has also reviewed its focused countries by prioritize the countries according to an opportunity and appropriateness in investment by analyzing various factors including petroleum potential, geological factors, government's fiscal regimes, political and business risk, and competitive advantages.

Managing Risks on oil price volatility PTTEP continuously conducts oil price hedging programs (Derivative on Oil Price Hedged) for the petroleum products from the PTTEP group, using the Brent crude oil price as a reference, as well as closely monitoring the changing economy and events that may impacted the oil price.

Capability Development PTTEP has speedily developed the organizational capability by focusing on the potential of people, technology and process to be prepared to align with the direction of the business growth in different countries around the world such as the capabilities urgently required including the deepwater drilling as well as the long term capability development and leadership development program, in order to align with the global growth direction. Moreover, PTTEP constantly improves its process, for instance, the new "Enterprise Resource Planning (ERP)" project which will be an efficient means of resources management.