



Executive Summary

Since the beginning of the year, PTTEP's business has successfully grown under the "EXPAND" strategy with the focus in Southeast Asia ("Coming Home") and the Middle East with strategic partners ("Strategic Alliance"). In the later part of the year, PTTEP plans to focus more on the "EXECUTE" strategy to ensure smooth transition of operations of the newly acquired assets. These include; the assets from the acquisition of Murphy's business in Malaysia that was completed in July 2019; G1/61 Project (Erawan field) and G2/61 Project (Bongkot field) in Gulf of Thailand that were awarded last year, in which the preliminary Asset Transfer Agreement was signed with the current concessionaire to conduct site survey and plan for production platform in order to ensure production continuity after the expiry of current concessions in 2022 and 2023. Also, the company is in the process of planning transition on the assets from the acquisition of Partex which main investment is in Middle East, Oman and the United Arab Emirates (UAE). The transaction is expected to be completed by the end of this year.

Apart from the transition of operations, the acceleration of exploration activities is also important for long-term reserves addition. PTTEP is now preparing for an appraisal well to confirm upside potential after the significant gas discovery of its first exploration well in SK410B Project in June 2019, along with the study for options on field development plan. PTTEP also plans for extensive exploration activities in 2020-2021 to evaluate overall petroleum potential of other exploration projects in Malaysia and further evaluate the development plans.

Following the announcement of the International Maritime Organization (IMO) to limit Sulphur content in all marine fuels from year 2020 onwards, PTTEP's gas price may be affected from the lower price of High Sulphur Fuel Oil (HSFO). However, the impact is expected to be minor because PTTEP's gas price formula is partially linked to HSFO with reference to the average historical price ranging from the past 6 to 24 months. As a result, the gas price will not be immediately affected. In addition, PTTEP has entered into hedging instruments to reduce the impact from HSFO fluctuation. Moreover, PTTEP expects the impact to materially decrease from 2022 onwards, after the Production Sharing Contracts, with the gas price referencing to Dubai crude price, of G1/61 Project and G2/61 Project become effective.

In terms of sustainable development, PTTEP was selected as a member of Dow Jones Sustainability Index (DJSI) in the Oil and Gas Upstream & Integrated Industry for the 6th consecutive year and was recognized as the Industry Leader in this industry for the 2nd time.

For Q3/2019, PTTEP reported net income of 358 MMUSD, a decrease of 17% from 433 MMUSD in the previous quarter was mainly driven by the lower average selling price that moved in line with global oil prices and the slightly higher unit cost at 32 USD per Barrel of Oil Equivalent (BOE) as a result of higher exploration expenses from exploration wells written off in Myanmar. However, PTTEP's financial structure remains strong reflecting the operation cashflow for the nine-months period of 2,407 MMUSD with EBITDA margin over 70%. In terms of financial position, as at Q3/2019, PTTEP has cash and short-term investment of 2,093 MMUSD with the debt-to-equity ratio at 0.18.

Table of key financial results

	Q2 2019	Q3 2019	Q3 2018	% Inc. (Dec.) QoQ	% Inc. (Dec.) YoY	9M 2019	9M 2018	% Inc. (Dec.) YTD
(Unit: Million US Dollar)								
Total Revenue	1,573	1,593	1,398	1	14	4,572	3,960	15
Sales Revenue	1,469	1,494	1,338	2	12	4,291	3,792	13
EBITDA	1,087	1,054	992	(3)	6	3,166	2,836	12
Profit(loss) for the period	433	358	315	(17)	14	1,185	851	39
Basic earnings(loss) per share (Unit: US Dollar)	0.10	0.09	0.07	(10)	29	0.29	0.20	45
Profit(loss) from normal operation	389	303	292	(22)	4	1,066	932	14
Profit(loss) from non-recurring items	44	55	23	25	>100	119	(81)	>100

 **Economic Overview in the third quarter of 2019****Crude Oil Prices**

Dubai crude oil price in Q3/2019 decreased from the previous quarter to an average at 61.3 USD per barrel (Source: Platts). This was mainly pressured by the concern on global economic recession as global economic figures, especially the US, China and Europe, continuously show a sign of slowdown especially manufacturing sector and import-export sector. Many countries, such as Germany, the United Kingdom, Singapore, have announced negative GDP growth figures. This current economic condition creates more downside risk for oil demand, and consequently impact on oil price. However, there are several positive factors on the supply side including the supply disruption from geopolitical tensions in the Middle East after the incident of drone attack on Saudi Arabia's oil facilities on 14 September which took out 5% of global supply in short period. Besides, US shale oil production has recently shown a sign of slowdown, as oil companies became more financially disciplined and thus less aggressive on drilling activities due to the concern on global economic outlook. Meanwhile, OPEC and other non-OPEC countries (altogether, named OPEC+) has cooperatively cut production with the target of 1.2 million barrels per day. All these factors together create tighter supply outlook.

Liquefied Natural Gas (LNG)

For LNG Market in Q3/2019, the average Asian spot price decreased from Q2/2019 to 4.69 USD per MMBTU, mainly driven by the decrease in oil price. However, the LNG market remained oversupply due to incremental volumes from new projects sanctioned in the past 5 years. Thus, it is expected that this will increase the supply in the market by 45 MTPA from last year, primarily from LNG projects in US and Russia. Moreover, high LNG stocks in Northeast Asia might also have an impact on LNG price.

Thailand's Energy Demand

Thailand's energy demand for the first 7 months of 2019 was reported at 2.20 MMBOED, an increase of 0.8% compared to the same period last year (Source: EPPO, The Ministry of Energy) mainly due to an increase in government-led investment on infrastructure offsetting by manufacturing sector. Overall, energy usage from oil, natural gas and lignite increased while usage of coal and hydro/imported electricity decreased.

Exchange Rates (Thai Baht against US Dollar)

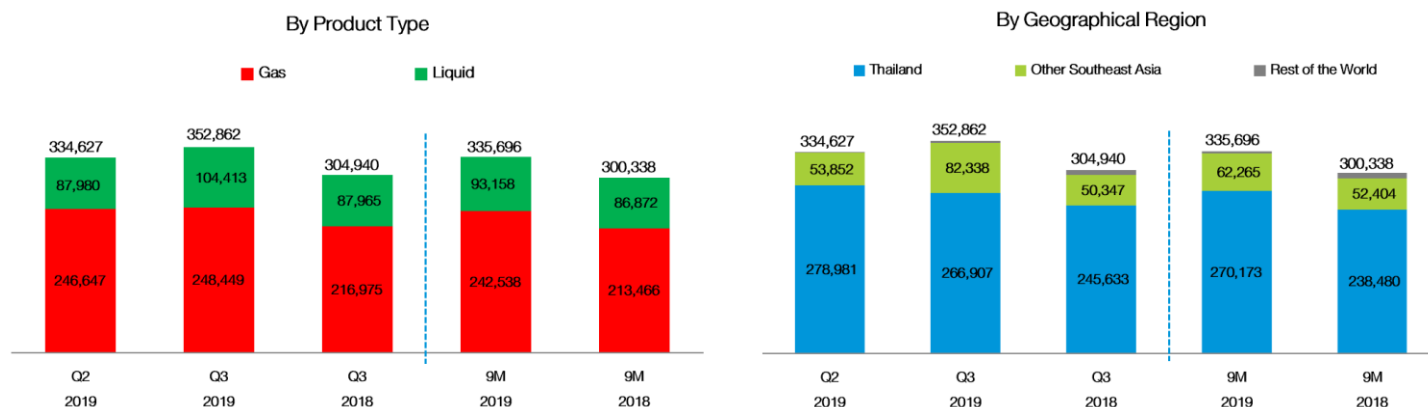
In Q3/2019, Thai Baht (THB) slightly fluctuated when compared with previous quarter. THB temporarily depreciated following the Bank of Thailand (BOT) interest rate cut by 0.25% after moved strengthen in the latter part of the quarter and closed 30.59 at end of Q3/2019 reflecting mere 0.5% appreciation compared with 30.74 at the end of Q2/2019. The key bullish factors for THB appreciation were from the global financial market volatility and slowing economic growth as well as pressure on US Dollar (USD) caused by on-going trade tensions between the U.S. and China. Consequently, fund flows were seen moving to more safe-haven countries including Thailand. Market viewed Thailand as a country with continuous surplus in its current account balance as well as high foreign currency reserve amongst other countries in the region.

In term of PTTEP's financial performance, PTTEP's functional currency is USD whereas the tax filing currency is Thai Baht (THB), thus the movements in USD/THB exchange rate has impacts on PTTEP's financial performance. However, in April 2019, there were amendments on the related tax laws that allow tax filing to be in the company's functional currency, and after Revenue Department's approval, this would reduce foreign exchange fluctuation impact in financial statements. PTTEP received approval to change the currency for tax filing under Petroleum Income Tax Act and had recognized its effect since Q2/2019. However, for other companies in PTTEP's Group, tax filings continue to be in THB until receiving further approval from Revenue Department; as a result, the impact of foreign exchange volatility on financial statements remains but in a reduced magnitude.

Financial Performance

Average Sales Volume and Selling Price

Unit: Barrels of Oil Equivalent per Day



Average selling price and Dubai crude oil price (Unit : US Dollar)	Q2 2019	Q3 2019	Q3 2018	% Inc. (Dec.) QoQ	% Inc. (Dec.) YoY	9M 2019	9M 2018	% Inc. (Dec.) YTD
Average selling price (/BOE)	48.26	46.03	47.67	(5)	(3)	46.83	46.25	1
Liquid price (/BOE)	65.25	58.77	69.92	(10)	(16)	60.82	67.85	(10)
Gas price (/MMBTU)	7.03	6.78	6.44	(4)	5	6.91	6.24	11
Average Dubai crude oil price (/BBL)	67.55	61.26	74.22	(9)	(17)	64.02	70.10	(9)

For the Third quarter of 2019 compared with Second quarter of 2019

In Q3/2019, the average sales volume of PTTEP and its subsidiaries (the “Group”) increased to 352,862 BOED when compared with Q2/2019 of 334,627 BOED. The increase was primarily from Malaysia Project due to the acquisition of Murphy Oil Corporation (Murphy). The average selling price in Q3/2019 decreased to 46.03 USD/BOE (Q2/2019: 48.26 USD/BOE).

For the Third quarter of 2019 compared with Third quarter of 2018

When compared the average sales volume for Q3/2019 to Q3/2018 of 304,940 BOED, the average sales volume increased primarily from Malaysia Project due to the acquisition of Murphy Oil Corporation (Murphy) and Bongkot Project. The average selling price decreased to 46.03 USD/BOE (Q3/2018: 47.67 USD/BOE).

For the nine-month period ended September 2019 compared with 2018

The average sales volume for the nine-month period ended September 2019, increased to 335,696 BOED when compared with the same period of 2018 (for the nine-month period ended September 2018 of 300,338 BOED). The increase was primarily from Bongkot Project due to the acquisition of additional participating interests and Malaysia Project due to the acquisition of Murphy Oil Corporation (Murphy). The average selling price increased to 46.83 USD/BOE (for the nine-month period ended September 2018: 46.25 USD/BOE)

Overall Operating Results

For the Third quarter of 2019 compared with Second quarter of 2019

In Q3/2019, the Group had a net profit of 358 MMUSD, a decrease of 75 MMUSD or 17% from a net profit in Q2/2019 of 433 MMUSD. The net profit consists of profit from normal operation of 303 MMUSD and profit from non-recurring items of 55 MMUSD.

The profit from normal operation in Q3/2019 was 303 MMUSD, a decrease of 86 MMUSD from a profit in Q2/2019 of 389 MMUSD. The reason was primarily due to a decrease in average selling price despite an increase in average sales volume. In addition, total expenses increased mainly from an increase in exploration expenses due to an increase in exploration wells written-off, as well as an increase in operating expenses and depreciation, depletion and amortization expenses due to an increase in average sales volume.

With the consideration of the profit from non-recurring items of Q3/2019, the Group reported a profit of 55 MMUSD, an increase of 11 MMUSD when compared with Q2/2019 which reported a profit of 44 MMUSD. The reason was primarily due to the recognition of gain on financial derivatives of 22 MMUSD in Q3/2019, while the Group recognised loss on financial derivatives of 8 MMUSD in Q2/2019 mainly from forward contract. However, the Group recognised an increase of income taxes expenses relating to changes in foreign exchange rate of 13 MMUSD due to the slight appreciation of Thai Baht against US Dollar at 0.15 Baht per USD in Q3/2019, while the appreciation was 1.07 Baht per USD in Q2/2019 even though there was a reversal of income taxes benefits balance relating to functional currency for the Company amounting to 60 MMUSD in Q2/2019, in accordance with the announcement of Petroleum Income Tax Act (No.9) B.E. 2562 in April 2019.

For the Third quarter of 2019 compared with the Third quarter of 2018

When compared a net profit for Q3/2019 with the same period last year which reported a net profit of 315 MMUSD, the Group had an increase in net profit by 43 MMUSD or 14%.

The profit from normal operation in Q3/2019 was 303 MMUSD, an increase of 11 MMUSD when compared with a profit of 292 MMUSD in Q3/2018. The reason was primarily due to an increase in sales revenue of 156 MMUSD from an increase in average sales volume. However, the Group recognised an increase in exploration expenses of 40 MMUSD due to the written-off of three exploration wells, an increase in income tax expenses of 29 MMUSD due to the increase of sales revenue, and an increase in administrative expenses of 25 MMUSD, mainly due to an increase in employee related expenses.

With the consideration of the profit from non-recurring items of Q3/2019, the Group reported a profit of 55 MMUSD, an increase of 32 MMUSD when compared with Q3/2018 of 23 MMUSD. The reason was primarily due to the recognition of gain on financial derivatives of 22 MMUSD in Q3/2019, while the Group recognized loss from such transaction of 7 MMUSD in Q3/2018, mainly due to an oil price hedging. Additionally, in Q3/2019, the Group did not recognize loss on assets divestment (Montara Field) of 37 MMUSD and recognized gain on foreign currency exchange rate of 20 MMUSD, while the Group recognized loss on foreign currency exchange rate of 6 MMUSD in Q3/2018. However, there was an increase in income tax expenses relating to changes in foreign exchange rate of 60 MMUSD in Q3/2018 due to a lower of an appreciation of Thai Baht against US Dollar in Q3/2019 when compared to Q3/2018 (Q3/2019: appreciation of 0.15 Baht per USD; Q3/2018 appreciation of 0.76 Baht per USD).

For the nine-month period ended September 2019 compared with 2018

For the nine-month period ended September 2019, the Group had a net profit of 1,185 MMUSD, an increase of 334 MMUSD or 39% when compared with the nine-month period ended September 2018 of 851 MMUSD. The net profit for the nine-month period ended September 2019 can be separated as the profit from normal operation of 1,066 MMUSD and the profit from non-recurring items of 119 MMUSD.

The profit from normal operation for the nine-month period ended September 2019 was 1,066 MMUSD, an increase of 134 MMUSD when compared with the nine-month period ended September 2018 of 932 MMUSD. The reason was primarily due to an increase in sales revenue of 499 MMUSD from increases in both average sales volume and selling price, while income taxes expenses and petroleum royalties increased 190 MMUSD due to an increase in sales revenue. Depreciation, depletion and amortization expenses increased 84 MMUSD due to the acquisition of additional participating interests in the Bongkot Project, as well as, an increase in administrative expenses of 66 MMUSD, mainly due to an increase in professional fees, consulting fees and the recognition of the additional compensation for the employee being laid off by the employer after serving 20 years or more in accordance with the new Labor Protection Act which was effective in May 5th, 2019. Besides, exploration expenses increased 63 MMUSD due to exploration wells written-off.

With the consideration of the profit from non-recurring items for the nine-month period ended September 2019 of 119 MMUSD, an increase of 200 MMUSD when compared with the loss of 81 MMUSD for the nine-month period ended September 2018. The reason was primarily due to the higher of an appreciation of Thai Baht against US Dollar during the nine-month period ended September 2019 at 1.86 Baht per USD compared with an appreciation during the nine-month period ended September 2018 at 0.27 Baht per USD, resulting in the recognition of gain on foreign currency exchange rate for the nine-month period ended September 2019 of 79 MMUSD, while there was a recognition of loss on such transaction for the nine-month period ended September 2018 of 11 MMUSD. The decrease in income tax expenses relating to changes in foreign exchange rate of 142 MMUSD was offset by the reversal of income tax benefits balance relating to functional currency for the Company amounting to 60 MMUSD, such reversal was in accordance with the announcement of Petroleum Income Tax Act (No.9) B.E. 2562 in April 2019. Besides, the Group did not recognized loss on assets divestment (Montara Field) during the nine-month period ended September 2019, while there was loss recognition of 37 MMUSD during the same period in 2018.

Operating Results by Segments

Net Profit (loss)	Q2 2019	Q3 2019	Q3 2018	% Inc. (Dec.) QoQ	% Inc. (Dec.) YoY	9M 2019	9M 2018	% Inc. (Dec.) YTD
(Unit: Million US Dollar)								
Exploration and production	311	292	205	(6)	42	947	725	31
Thailand	285	298	266	5	12	892	770	16
Overseas	26	(6)	(61)	>(100)	90	55	(45)	>100
- Other Southeast Asia	24	4	14	(83)	(71)	64	41	56
- Australia	(3)	(7)	(60)	>(100)	88	(13)	(62)	79
- America	(3)	(3)	(17)	-	82	(9)	(22)	59
- Africa	13	4	2	(69)	100	22	(2)	>100
- Others	(5)	(4)	-	20	(100)	(9)	-	(100)
Pipeline transportation	80	72	82	(10)	(12)	229	224	2
Head office and others	42	(6)	28	>(100)	>(100)	9	(98)	>100
Total	433	358	315	(17)	14	1,185	851	39

For the Third quarter of 2019 compared with the Second quarter of 2019

For Q3/2019, the Group reported a net profit of 358 MMUSD, a decrease of 75 MMUSD or 17% when compared with Q2/2019 of 433 MMUSD, primarily due to a decrease of Head Office and Others segment of 48 MMUSD and Exploration and Production segment in Other Southeast Asia of 20 MMUSD.

Exploration and Production segment

- Other Southeast Asia

For Q3/2019, Other Southeast Asia segment reported a net profit of 4 MMUSD, a decrease of 20 MMUSD or 83% when compared with a net profit of 24 MMUSD in Q2/2018. The decrease was primarily from an increase in exploration expenses due to exploration wells written-off.

Head Office and Others segment

For Q3/2019, Head Office and Others segment reported a net loss of 6 MMUSD, a decrease of 48 MMUSD or more than 100% when compared with a net profit of 42 MMUSD in Q2/2018, primarily due to an increase in income tax expenses from an appreciation of Thai Baht against US Dollar in Q3/2019 at 0.15 Baht per USD which is lower than an appreciation at 1.07 Baht per USD in Q2/2019.

For the Third quarter of 2019 compared with the Third quarter of 2018

For Q3/2019, the Group reported a net profit of 358 MMUSD, an increase of 43 MMUSD or 14% when compared with Q3/2018 of 315 MMUSD, primarily due to an increase of Exploration and Production segment in Australia and Thailand of 53 MMUSD and 32 MMUSD respectively, while there was a decrease of 34 MMUSD in Head Office and Others segment.

Exploration and Production segment

- Australia

In Q3/2019, Australia segment reported a net loss of 7 MMUSD, a decrease of 53 MMUSD or 88% from a net loss of 60 MMUSD in Q3/2018, primarily due to a recognition of loss on assets divestment (Montara Field) in Q3/2018.

- Thailand

In Q3/2019, Thailand segment reported a net profit of 298 MMUSD, an increase of 32 MMUSD or 12% from a net profit of 266 MMUSD in Q3/2018. The increase was primarily due to an increase in sales revenue mainly from an increase in average sales volume, while income taxes expenses relating to changes in foreign exchange rate increased from lower of an appreciation of Thai Baht against US Dollar in Q3/2019 at 0.15 Baht per USD compared to an appreciation at 0.76 Baht per USD in Q3/2018.

Head Office and Others segment

For Q3/2019, the Head Office and Others segment reported a net loss of 6 MMUSD, a decrease of 34 MMUSD or more than 100% from a net profit of 28 MMUSD in Q3/2018, primarily due to the recognition of loss on foreign currency exchange rate in Q3/2019, while it recognized gain on foreign currency exchange rate in Q3/2018. Also, there was an increase in administrative expenses in Q3/2018.

For the nine-month period ended September 2019 compared with 2018

For the nine-month period ended September 2019, the Group reported a net profit of 1,185 MMUSD, an increase of 334 MMUSD or 39% when compared with the nine-month period ended September 2018 of 851 MMUSD, primarily due to an increase of Exploration and Production segment in Thailand and Australia of 122 MMUSD and 49 MMUSD, respectively, as well as, an increase of 107 MMUSD from Head Office and Other segment.

Exploration and Production segment

- **Thailand**

For the nine-month period ended September 2019, Thailand segment reported a net profit of 892 MMUSD, an increase of 122 MMUSD or 31% from net profit of 770 MMUSD for the nine-month period ended September 2018. The increase was primarily due to an increase in sales revenue mainly from increases in both average sales volume and selling price, while there was an increase in depreciation, depletion and amortization expenses mainly due to the acquisition of additional participating interests in the Bongkot Project, as well as, income taxes expenses and petroleum royalties increased resulting from the increase in sales revenue.

- **Australia**

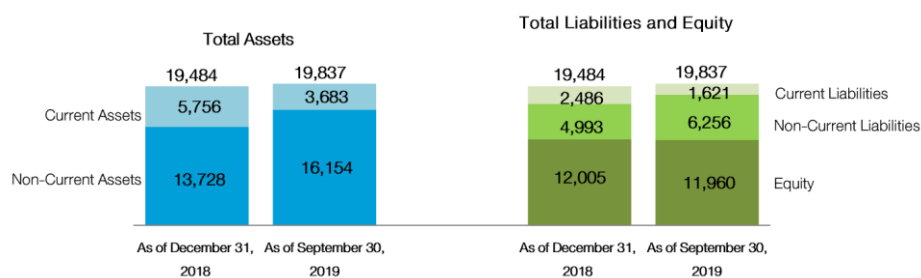
For the nine-month period ended September 2019, Australia segment reported a net loss of 13 MMUSD, a decrease of 49 MMUSD or 79% from a net loss of 62 MMUSD for the nine-month period ended September 2018, primarily due to no recognition of loss on assets divestment (Montara Field) during the nine-month period ended September 2019.

Head Office and Others segment

For the nine-month period ended September 2019, Head Office and Others segment reported a net profit of 9 MMUSD, an increase of 107 MMUSD or more than 100% when compared with the nine-month period ended September 2018 which reported a net loss of 98 MMUSD. The increase was primarily from a decrease of income taxes expenses due to higher appreciation of Thai Baht against US Dollar for the nine-month period ended September 2019 at 1.86 Baht per USD compared with an appreciation at 0.27 Baht per USD during the nine-month period ended September 2018, while administrative expenses increased from professional fees, consulting fees and recognition of the additional compensation for the employee being laid off by the employer after serving 20 years or more in accordance with the new Labor Protection Act which was effective in May 5th, 2019.

Financial Position

Unit: Million US Dollar



Assets

As at September 30, 2019, the Group had total assets in the amount of 19,837 MMUSD, an increase of 353 MMUSD from the total assets as at December 31, 2018 of 19,484 MMUSD, primarily due to;

- (1) Current assets, which were primarily comprised of cash and cash equivalents, account receivable – parent company, short-term investments and investments in trading securities, decreased 2,073 MMUSD mainly due to a decrease of cash and cash equivalents, short-term investments and other accounts receivable of 1,437 MMUSD, 471 MMUSD and 354 MMUSD respectively.
- (2) Non-current assets, which were primarily comprised of exploration and production assets in joint venture projects being recognized as part of the property, plant and equipment, exploration and evaluation assets and goodwill, increased 2,426 MMUSD mainly due to an increase of assets being recognized as part of property, plant and equipment including exploration and evaluation assets of 1,270 MMUSD and goodwill of 493 MMUSD, primarily due to the acquisition of Murphy Oil Corporation (Murphy), as well as the increase of deferred tax assets 457 MMUSD.

Liabilities

As at September 30, 2019, the Group had total liabilities of 7,877 MMUSD, an increase of 398 MMUSD from total liabilities as at December 31, 2018 of 7,479 MMUSD, primarily due to;

- (1) Current liabilities, which were primarily comprised of income tax payable, accrued expenses, short-term provision and other current liabilities, decreased 865 MMUSD mainly from a decrease of deferred considerations acquired through business acquisition and current portion of long-term financial liabilities from the debenture redemption of 466 MMUSD and 389 MMUSD, respectively.
- (2) Non-current liabilities, which were primarily comprised of provision for decommissioning costs, debentures and deferred tax liabilities, increased 1,263 MMUSD mainly from an increase of debentures 511 MMUSD, an increase of provision for decommissioning costs of 344 MMUSD mainly due to the acquisition of Murphy Oil Corporation (Murphy) and the present value adjustment to the liabilities, resulting in the accretion expense recognition. In addition, deferred tax liabilities increased 227 MMUSD.

Capital Structure

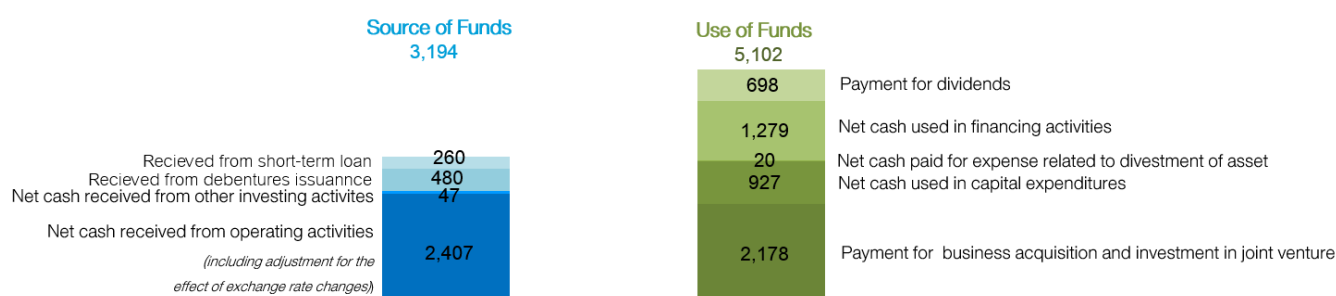
As at September 30, 2019, the capital structure comprised of equity in the amount of 11,961 MMUSD and total liabilities of 7,877 MMUSD, including the interest-bearing debts of 2,179 MMUSD with a weighted average cost of debt of 5.04% and the average maturity of 8.36 years. All interest-bearing debts are fixed interest and denominated in US Dollar currency.

In Q2/2019, the Group fully redeemed at maturity its unsecured and unsubordinated debentures for the total amount of 13,200 MMTHB; of which, 5,000 MMTHB and 8,200 MMTHB were redeemed in May and June, respectively. In addition, PTTEP Treasury Center Company Limited, a wholly-owned subsidiary of PTTEP and the designated treasury center within the PTTEP Group, completed the issuance of Senior Guaranteed Debentures for the total amount of 15,000 MMTHB carrying a coupon of 2.26% p.a. with the tenor of 3 years, and fully guaranteed by PTTEP. Moreover, the Group fully redeemed the subordinated capital debentures for the total amount of 500 MMUSD in June and paid dividend for the second half of 2018 amount of 409 MMUSD which was paid in April.

In Q3/2019, the Company paid dividend for the first half of 2019 amount of 289 MMUSD which was paid in August.

Cash Flows

Unit: Million US Dollar



For nine months in 2019

As at September 30, 2019, the Group had cash and cash equivalents, including short-term investment in the form of bank fixed deposit with a maturity of more than three months, but within twelve months of 2,093 MMUSD, a decrease of 1,908 MMUSD from cash and cash equivalents including short-term investment as at December 31, 2018 of 4,001 MMUSD.

Sources of funds in the amount of 3,194 MMUSD primarily came from Net cash received from operating activities as a result of the positive net cash flows from sales revenues, offset with cash payments for expenditures and income taxes expenses and cash received from financing activities derived from issuances of Senior Guaranteed Debentures.

Uses of funds in the amount of 5,102 MMUSD primarily came from Net cash paid for additional investment activities for exploration and production assets, primarily for business acquisition and investment in joint venture including additional investment for exploration and production assets, primarily for investment in the S1 Project and the Zawtika Project. The Net cash paid for financing activities were mainly from the redemption of the subordinated capital debentures and the repayment of unsecured and unsubordinated debentures, as well as the payment of dividend for the second half of 2018 and for the first half of 2019.

Key Financial Ratios

	Q2 2019	Q3 2019	Q3 2018	9M 2019	9M 2018
Profitability Ratio (%)					
EBITDA to revenue from sales	72.31	69.15	72.55	72.24	73.28
Return on equity	11.97	12.26	9.92	12.26	9.92
Net profit margin	23.69	23.64	21.71	23.64	21.71
Leverage Ratio (Times)					
Debt to equity	0.17	0.18	0.17	0.18	0.17
Debt to EBITDA	0.52	0.49	0.66	0.49	0.66

Remark:

- EBITDA to revenue from sales = Profit before deduction of interest, tax and depreciation to revenue from sales including revenue from pipeline transportation
- Return on equity = Net profit for the past 12 months to average equity
- Net profit margin = Net profit to total revenue (for the past 12 months)
- Debt to equity = Interest Bearing Debt to equity
- Debt to EBITDA = Average Interest Bearing Debt to profit before deduction of interest, tax and depreciation for the past 12 months



Operational Highlights



Thailand and Southeast Asia



Middle East



America



Australia



Africa

As of Q3/2019, PTTEP has over 40 projects with domestic and international operations in 12 countries. The followings are key project highlights.

Projects in Thailand

The majority of PTTEP's projects in Thailand are in the **production phase**, locating in the Gulf of Thailand and onshore. The average sales volume from the projects in Thailand for this quarter is approximately 267,000 BOED, accounting for 76% of PTTEP's total sales volume. The key activities of the main producing projects are as follows. The **Bongkot Project**, **Contract 4 Project** and **Arthit Project** maintained the production volume as planned. The **S1 Project** have continuously drilled additional production wells with the plan to maintain production levels at around 30,000 BPD for the next 3 years. For this quarter, the project has the average sales volume of approximately 30,000 BPD. **G1/61 Project** (Erawan field) and **G2/61 Project** (Bongkot field) are currently in the Transition of Operations process. PTTEP has signed the preliminary Facility Access Agreements with the current concessionaires. The projects started to conduct the site survey and plan for production platform installation to ensure smooth production during transition period.

Projects in Southeast Asia

PTTEP's projects in this region are located in the Republic of the Union of Myanmar (Myanmar), Malaysia, the Socialist Republic of Vietnam (Vietnam) and the Republic of Indonesia (Indonesia). For Q3/2019, PTTEP successfully completed the acquisition of Murphy's business in Malaysia which resulted in the increase in average sales volume from the projects in this region to approximately 82,000 BOED, which accounted for 23% of PTTEP's total sales volume.

- Projects Myanmar

The key **producing project** in Myanmar is the **Zawtika Project** which is located in the Gulf of Moattama. The project is in the process of drilling its first exploration well in the western area to ensure production continuity in the future. Currently, the project is also awaiting approval for Field Development Plan of Phase 1D from the Government of Myanmar. In Q3/2019, the project has the average natural gas sales volume of 290 MMSCFD (approximately 46,000 BOED). For the **exploration phase**, key projects are highlighted as follows. The **Myanmar M3 Project** is awaiting approval for the Field Development Plan from the Government of Myanmar. The **Myanmar MD-7 Project** is the process of preparing for its first exploration well to be drilled in Q1/2020. The **Myanmar M11 Project**, has completed the drilling of one exploration well with no commercial reserves found and was written off in the quarter. The **Myanmar MOGE 3 Project**, after evaluating results of the two wells drilled in Q2, no commercial reserves were found and the wells were also written off in the quarter.

- Projects in Malaysia

The **producing projects** in Malaysia include the **Block K Project**, consists of Kikeh, Siakap North-Petai (SNP) and Gumusut-Kakap (GK) fields which are producing oil fields located in the deep water of offshore Sabah. In this quarter, the Kikeh Subsea Gas Lift – Phase 1 Project, which is an Improved Oil Recovery (IOR) project for the Kikeh subsea production system to optimize the reserves recovery, was successfully started-up on schedule in July. The project has average production volume in Q3/2019 for crude oil of 24,000 BPD. The **Sarawak SK309 and Sarawak SK311 Project**, oil and gas producing fields, located in the shallow water of offshore Sarawak, has successfully achieved first gas from the 2 infill gas development wells drilled in the first half of 2019. The project has average production volume in Q3/2019 for crude oil and condensate of 23,800 BPD and natural gas of 240 MMSCFD (approximately 43,200 BOED).

The *Development Project* in Malaysia is **Block H Project**, located in the deep water of offshore Sabah. The project is under development with the first gas expected in Q3/2020 and ramping up to the full capacity of 270 MMSCFD. The subsea infrastructure is under construction and planned to be completed by Q2/2020. The Petronas Floating LNG host facility that will receive gas from Block H Project is currently being constructed and remains on schedule for February 2020 sail-away.

The *Exploration Projects* in Malaysia has highlights as follows. The **Sarawak SK410B Project**, completed the drilling of its first exploration well and encountered 252 meters of net gas pay, indicating multi-TCF gas discovery. The project is currently preparing for additional drilling of an appraisal well to confirm upside potential in 2020 along with studying for options on field development plan. The **Sarawak SK314A** is in process of requesting extension of exploration period to further evaluate the petroleum potential. The **Sarawak SK417 Project**, the **Sarawak SK438 Project**, the **Sarawak SK405B**, the **PM407 Project** and the **PM 415 Project** are currently evaluating the petroleum potential and plan for exploration and appraisal drilling in 2020-2021.

- Projects in Vietnam

The key *Producing Project* is **Vietnam 16-1 Project**, located offshore in the southeastern part. The project is currently drilling an additional production well to maintain production plateau. In Q3/2019, the project has the average sales volume for crude oil and natural gas of approximately 15,000 BPD and 8 MMSCFD (approximately 1,800 BOED) respectively. For the *Exploration Project*, the **Vietnam B & 48/95 Project** and the **Vietnam 52/97 Project**, located offshore, are currently in the negotiation process on commercial terms in order to push forward the Final Investment Decision (FID) with the first production target at the end of 2023 and ramping up capacity to 490 MMSCFD

Projects in the Middle East

PTTEP projects under *exploration phase* in this region are located in the north-west of Abu Dhabi, United Arab Emirates. The **Abu Dhabi Offshore 1 Project** and **Abu Dhabi Offshore 2 Project**, signed the concession agreements in January 2019, is currently evaluating the petroleum potential for future exploration.

Projects in the Americas

PTTEP projects in this region are located in Canada, the Federative Republic of Brazil (Brazil) and United Mexican States (Mexico). All projects are in the *exploration phase*.

The **Mariana Oil Sands Project**, located in Alberta, Canada, is currently under the evaluation for appropriate development plan.

The projects in Brazil includes the **Barreirinhas AP1 Project** located in the Barreirinhas Basin, offshore of the northeast of Brazil, and the **Brazil BM-ES-23 Project** located offshore in the Espirito Santo basin, east of Brazil. Both projects are currently evaluating the petroleum potential.

The projects in Mexico includes the **Mexico block 12 (2.4) Project** located in the Mexican Ridges, western Gulf of Mexico and the **Mexico block 29 (2.4) Project**, located in the Campeche, southern Gulf of Mexico. The projects received the exploration plan approval from the National Hydrocarbons Commission in Mexico and are currently evaluating the petroleum potential for further process according to the approved plan.

Projects in Australia

PTTEP has **PTTEP Australasia Project**, which is located in the Commonwealth of Australia (Australia), comprising of 8 permits.

The divestment of the **Montara field** was completed on 28 September 2018. The operatorship transfer was completed and approved by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).

The **Cash Maple Field** is in the *exploration phase*. The field is under the evaluation for appropriate development plan and is seeking partner to manage the project's risk. The **AC/P54 in Orchid Field**, completed the drilling of the exploration well in Q1/2019 with the successful results. The well encountered gas and condensate with the net pay thickness around 34 meters, which the result will be further incorporated in development planning of Cash-Maple field.

Projects in Africa

PTTEP projects in this region are located in the People's Democratic Republic of Algeria (Algeria) and the Republic of Mozambique (Mozambique).

The **Algeria 433a and 416b Project**, which is in the *production phase*, is located onshore in the eastern part of Algeria. In Q3/2019, the project has average production volumes of approximately 18,000 BPD.

The **Algeria Hassi Bir Rekaiz Project**, which is in the *development phase*, is located onshore in the eastern part of Algeria. The project has started development on Phase 1 following the conclusion with partners and its approved development plan by government. The development activities have commenced since March 2019 with the expected first oil production for the initial phase around 10,000-13,000 barrels per day (BPD) in 2021 and the second phase production capacity ramping up to around 50,000-60,000 BPD in 2025.

The **Mozambique Area 1 Project**, which is in the *development phase*, is a large LNG project located in offshore Mozambique. Key project highlights in Q3/2019, after its FID announcement in June, include the Notice to Proceed (NTP) which have been issued for both EPCI Offshore Installation and EPC Onshore Construction Contract. The Resettlement Village was officially established with the community in the resettlement phase 1 relocated from the construction area. The acquisition transaction between Anardarko Petroleum Corporation and Occidental Petroleum Corporation was completed, together with the completion of the acquisition of African assets, including Mozambique Area 1 project between Occidental Petroleum Corporation and TOTAL S.A. TOTAL S.A has officially become the operator of the project. Currently, the project financing process is ongoing, with the plan for first Cargo by 2024.



Company Strategy

Portfolio Management

PTTEP has made great strides in the “EXPAND” strategy with major success in both exploration and M&A since the beginning of the year. With the acquisition of Murphy Oil Corporation’s business in Malaysia and Partex Holding B.V., PTTEP aims to focus more on the “EXECUTE” strategy to ensure smooth transitions of operations. The key highlights for this quarter are as follow;

(1) EXPAND: Strategy to focus growth in strategic investment areas and diversify into energy related businesses for long-term sustainability

- **Coming-Home Strategy:** PTTEP made further investments in Thailand with the acquisition of 39% stake in APICO LLC to help drive further development of the Sinphuhorm Project and support electricity generation in Northeast Thailand. Moreover, the Company remains committed to expand business opportunities including the Gas Value Chain business in Myanmar in the form of Gas-to-Power.
- **Strategic Alliance Strategy:** PTTEP aims to capture investment opportunity in other petroleum prolific areas with strategic alliances by mainly focusing on the Middle-East.
- **Sustainable Development Strategy:** PTTEP continues to invest in businesses focusing on technology and innovation as well as R&D capability and studies to support core E&P business and future investment opportunity related to the energy industry.

(2) EXECUTE: Strategy to increase sales volume of legacy assets and maintain competitive advantage

- **Executing the transitions of Bongkot & Erawan and newly acquired assets** (from Murphy Malaysia and Partex) : PTTEP is actively engaging all stakeholders to ensure smooth operations during handovers.
- **Accelerating activities in exploration projects located in Myanmar and Malaysia:** Following on the landmark gas discovery in the Sarawak SK410B Project, PTTEP is now preparing for additional drilling campaign, along with accelerating studies on the field development plan for future reserves additions.
- **Creating more value from existing assets:** PTTEP is applying advanced technology to our operations in the S1 asset, such as pilot testing Enhanced Oil Recovery (EOR) technology, continuing our hydraulic fracturing campaign and conducting Electromagnetic Survey to monitor water flood results. In addition, the Company is also utilizing Advanced Seismic Imaging via the new Dedicated Processing Center (DPC).
- **Maintaining cost competitiveness:** the Digital Center of Excellence (DCOE) has been established with the purpose of applying advanced technology in the likes of Artificial Intelligence (AI) and Machine Learning (ML) to reduce costs and enhance efficiencies through digital transformation.
- **Driving the development of key international projects:** The Company is fully coordinated in the advancement of major assets like the Mozambique Area 1 project and Algeria Hassi Bir Rekaiz project.

Capital Management

PTTEP focuses on ensuring effective financial management by maintaining a robust capital structure. As of the end of Q3/2019, the Company maintained a strong liquidity position with cash on hand at approximately USD 2.1 billion, after the payment of Murphy’s acquisition. The debt-to-equity ratio is 0.18x which is in line with the Company financial policies of 0.50x and also provides adequate liquidity to fund capital expenditure to maintain production level, push forward development projects, and carry out exploration activities as well as to support new investment opportunities according to Company’s strategy.

Sustainable Development

PTTEP's Sustainable Development is aligned with global indices and UN principles. This resulted in the Company being selected as a member of Dow Jones Sustainability Index (DJSI) in the Oil and Gas Upstream & Integrated Industry for the sixth consecutive year and recognized as the Industry Leader in this Industry for the second time since 2016. In addition, the Company has also been selected as a member of the Global Sustainability Index "FTSE4Good Index Series" for the fourth consecutive year. Key activities in the third quarter of 2019 covering business, society, and environment, are as follows:

Business PTTEP promotes R&D (Research and Development), new technology and innovation in order to improve efficiency and support our core business. The Company has specified 5 groups of high priority technology programs which comprise of Advanced Exploration, Enhanced Oil Recovery (EOR), Unlock High CO₂ Reserve, Condensate Treatment, and Decommissioning. During the third quarter of 2019, the key projects in progress are as follows:

- **Technology for petroleum exploration and production enhancement i.e.**
 - Electromagnetic for subsurface fluid movement monitoring: the field testing is now in progress in Sirikit oil field.
 - Adsorbent development for CO₂ removal in natural gas: the prototype design is now in progress.
 - Advanced filter development for condensate treatment: the lab-scale testing of the advanced filter and the construction of the testing facility is now in progress.
- **Technology for green practices i.e.**
 - CO₂ conversion to high valued product to reduce GHG emission: the prototype design is now in progress.
 - In-line pipe surface sampling tool for subsea pipeline decommissioning: the sampling tool development for pilot testing is now in progress.
- **PTTEP Technology and Innovation Center (PTIC):** PTTEP has commenced the construction project of the PTTEP Technology and Innovation Center (PTIC) in the Eastern Economic Corridor of Innovation (EECI) area. The project is now under the contractor bidding process for the PTIC design phase and the site preparation for construction is now in progress.

Social In 2019, PTTEP's social development strategy focuses on Stakeholder Value Creation by carrying out CSR projects for Basic Needs. PTTEP also has plan to transform the projects to the implementation of CSV (Creating Shared Value) and Social Enterprise project. In this quarter, PTTEP is preparing to co-invest with PTTOR to open Café Amazon for Chance at Navy SEAL Base in Sattahip. Besides the employment of veteran's family, the profit from business operation will be spent on support the Sea Turtle Conservation Center.

Safety, Security, Health and Environment PTTEP has an environmental management system which encompasses a project's entire life cycle, and is a subset of PTTEP's Safety, Security, Health and Environment Management System (SSHE MS). In the third quarter of 2019 PTTEP had a Lost Time Injury Frequency (LTIF) score of 0.09 and a Total Recordable Incident Rate (TRIR) score of 0.54. The Company's performance on both safety indicators is in line with the average of the members in the International Association of Oil and Gas Producers (IOGP). Moreover, PTTEP aims to become a Low Carbon Footprint organization, and has revised a target to reduce its greenhouse gas (GHG) emissions by a minimum 25% by the year 2030 versus its 2012 base year. The projects of reusing and recovery of excess gases and flare gases, energy efficiency improvement and reducing methane leakages have been continuously implemented to achieve the target.



Future Business Outlook

Energy Outlook

The Dubai crude oil prices for 2019 is expected to move within the range of 60 - 65 USD per barrel on average, reflecting the expectation of higher US crude supply from the increased pipeline capacity in 2H/2019 that will compensate the lower crude production by OPEC+ countries who has extended the production cut until March 2020. Also, the response by Iran on the US sanctions might tighten the global crude supply.

On the crude demand perspective, even though the trade war between US and China has shown the sign of improvement with the next negotiation being held in November 2019, the new trade tensions of US and EU has emerged. The economic recession is still a concern reflecting the worsening global economic indices, especially in Europe. In addition, if no-deal Brexit occurs in Q4/2019, it could possibly lead to further recessions. Moreover, the IMO2020 regulations that limit the Sulphur content in marine fuels, may impact the demand for high-sulphur crude such as Dubai crude starting from the end of 2019.

In the near term, the key factors to monitor are the US trade war tensions with China and Europe, the geopolitical tensions in the Middle East that could lead to the hike in crude prices in the short-term, the economic stimulus package to stabilize the economy in USA, Europe and China.

LNG Market

As of 2019, The oversupply situation of Global LNG market is expected to prolong towards 2022-2023 with total capacity of existing and upcoming LNG projects growing by 14% from 2018 to 361 MTPA, while demand side is anticipated to stabilize at 353 MTPA. Average Asian Spot LNG price is expected to move within the range of 4.9 - 6.2 USD/MMBTU. However, the global LNG price remains fluctuated caused by number of factors. The bearish factors include increasing LNG supply from new projects sanctioned during 2013-2015 and many projects are planned to FID during 2019-2020, mainly from US. On the other hand, bullish factors include higher LNG demand in Asian Market especially from China and India, supply disruption from existing LNG projects, coupled with national energy policy from various countries and oil price movement also have an impact to LNG price as well.

Thai Economy and Foreign Exchange Outlook

The Bank of Thailand expects a lower-than-expected GDP growth rate for 2019 at 2.8%, mainly due to continuous export growth contraction following the demand slowdown of trading partner economies from intensified trade tension. There are also bearish sentiments in domestic demand as tourism and private consumption remain somewhat sluggish coupled with the impact from natural disasters, despite support from the Government fiscal stimulus measures.

Outlook for THB movement against USD is expected to continue similar appreciation trend due to THB's characterized by investors as a safe haven currency resulted from Thailand's current account surplus and high level of FX reserves representing its ability to absorb global economy slowdown. Nonetheless, there are key watch-out agenda that could impact THB movement including BOT's fiscal policy, domestic economic outlook, possible further interest rate cut by FED and uncertainty on Brexit.

PTTEP adopted natural hedge as principle to manage foreign exchange (FX) risk by matching USD and USD-linked revenues from petroleum products with major USD expenses. The remaining FX risk exposures in non-USD are alleviated by appropriate financial hedging instruments such as forward and cross currency swap. For the implication of the exchange rate fluctuation on income tax, the impact will be reduced from the amendment of relevant tax laws. Moreover, the interest rate volatility would not impact Company's financial performance as all of Company's interest-bearing debt is in fixed-rate.

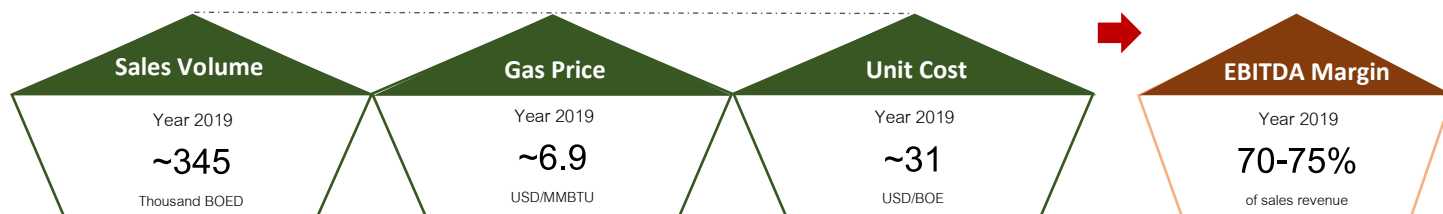
Other important factors that affect the Company's operations

IMO 2020 Regulations. the International Maritime Organization (IMO) agreed to limit Sulphur content in all marine fuels to 0.5% (from current 3.5%) effective on January 1, 2020 onwards. As the result, demand of High Sulphur Fuel Oil (HSFO) is expected to significantly decrease and will likely lead to lower HSFO's price. According to PTTEP's gas sale agreement especially in the Gulf of Thailand, HSFO is one of the factors accounted in the gas pricing formula which will lead to a risk of lower gas price. However, the company expects minor impact since PTTEP's gas price formula is partly linked to fuel oil and referred to an average historical price of past 6 to 24 months. As a result, the gas price will not immediately affect by IMO2020. It is expected that if the spread of HSFO decrease by 10 USD per barrel, the gas price will decrease by approximately 0.2 USD/MMBTU. Besides PTTEP has entered into hedging instrument to reduce the fluctuation of HSFO price. From 2022 onwards, PTTEP expects the impacts to materially decrease due to the gas selling price of G1/61 (Erawan) and G2/61 (Bongkot) under the new production sharing contracts is linked to Dubai crude price.

Enactment of the Revenue Code Amendment Act (No. 50) B.E. 2562 and the Petroleum Income Tax Amendment (No. 9) B.E. 2562 in April 2019, which will allow tax filing to be in company's functional currency that can be a currency other than Thai Baht. This will subsequently reduce the impact of foreign exchange volatility on financial statements and will become effective from the first day of accounting period in 2019 once approved by the Revenue Department. In Q2/2019, PTTEP received approval to change the currency for tax filing under Petroleum Income Tax and had recognized its effect in Q2/2019. However, for other companies in PTTEP's Group, tax filings continue to be in Thai Baht; as a result, the impact of foreign exchange volatility on financial statements remain but in a reduced magnitude.

PTTEP's performance outlook for 2019

PTTEP's performance depends on three major factors including Sales volumes, Gas price and Unit cost with the guidance summary as follows;



Note: 1. Included the acquisition of Murphy's assets in Malaysia which was completed in July 2019, excluded the acquisition of Partex
 2. Based on an average Dubai price assumption of 63 USD/BBL for 2019

Sales volume:

PTTEP estimates sales volume for the full-year 2019 of approximately 345 KBOED. The increase in target sales volume was mainly from the acquisition of Murphy's assets in Malaysia which was completed in July 2019.

Sales price:

- PTTEP's liquid prices will fluctuate relative with global crude prices.
- PTTEP's gas prices formula are partly linked to oil prices with reference to the average historical price ranging the past 6 to 24 months. Average gas price for the full-year 2019 is estimated at approximately 6.9 USD/MMBTU, reflecting the upturn in oil price environment.
- Outstanding volume of oil price hedging as of Q3/2019 is approximately 4 million barrels; the Company, however, consistently monitors crude oil price movements and has the flexibility to adjust the hedging plan as appropriate.

Unit Cost:

For the full-year 2019, PTTEP endeavors to uphold its competitive unit cost at around 31 USD/BOE respectively, in line with planned investment and activities.