



## Executive Summary

With rapidly changing and disruption of industry landscape, PTTEP has transformed its organization through preparation of staff readiness and adoption of new appropriate technology and innovation in order to be agile and enhance competitive advantages. To sustainably expand growth, the Company prioritizes its strategic investment areas with high expertise and low-risk including Thailand and South East Asia. The key evidence of commitments is the bidding submission for expiring Bongkot and Erawan concessions that PTTEP has solely submitted for Bongkot, while for Erawan the Company is partnering with Mubadala Petroleum (Thailand) Ltd. who is experienced and potential partner for future investments. The bidding results are scheduled to be announced within the end of this year. In addition, other evidences include the completion of Montara divestment which is in maturity phase with high cost operation; the acceleration of Pre-development projects such as Mozambique Rovuma Offshore Area 1 that is expected to complete FID within 1H2019. In the meanwhile, the Company endeavors to accelerate its exploration activities and capture merger and acquisition (M&A) opportunities in South East Asia and the Middle-East.

For Q3/2018, PTTEP reported net income of 315 MMUSD with more than 100% higher comparing to the previous quarter, mainly driven by tax saving owing to the appreciated Thai Baht in relative to the US Dollar during the quarter. The recurring net income was reported at 292 MMUSD, supported by higher average selling price (ASP) that rose to 47.67 USD per barrel of oil equivalent (BOE) and increased sales volume to 304,940 barrel of oil equivalent per day (BOED) with main contribution from additional participating interest from Bongkot acquisition. However, the Company expects to maintain target sales volume at approximately 310,000 BOED. The company's unit cost as of Q3/2018 increased to 33 USD per BOE as a result of higher royalty expenses aligning with greater ASP and higher DD&A expenses due to additional asset recognition from Bongkot acquisition and S1 Project. Nevertheless, the Company aims to maintain unit cost at approximately 31 USD per BOE throughout the year of 2018.

Additionally, PTTEP's financial structure remains strong and ready to accommodate new investment opportunities reflected by positive cash flow generated from operation of 2,264 MMUSD with healthy EBITDA margin at 73%. At the end of Q3/2018, the Company maintained its robust financial position, with total assets amounting to 19,210 MMUSD, of which 3,804 MMUSD was cash and short-term investments; while total liabilities were reported at 7,433 MMUSD in which interest-bearing debt accounted for 1,947 MMUSD; and total shareholders' equity ended at 11,777 MMUSD.

### Table of key financial results

	Q2 2018	Q3 2018	Q3 2017	% Inc. (Dec.) QoQ	% Inc. (Dec.) YoY	9M 2018	9M 2017	% Inc. (Dec.) YTD
(Unit: Million US Dollar)								
Total Revenue	1,347	1,398	1,134	4	23	3,960	3,252	22
Sales Revenue	1,293	1,338	1,064	3	26	3,792	3,079	23
EBITDA	965	992	777	3	28	2,836	2,238	27
Profit(loss) for the period	113	315	(264)	>100	>100	851	305	>100
Basic earnings(loss) per share (Unit: US Dollar)	0.03	0.07	(0.07)	>100	>100	0.20	0.06	>100
Profit(loss) from normal operation	336	292	218	(13)	34	932	596	56
Profit(loss) from non-recurring items	(223)	23	(482)	>100	>100	(81)	(291)	72



## Economic Overview in the third quarter of 2018

### *Crude Oil Prices*

For Q3/2018, Dubai crude price continued to rally from the previous quarter with the average of this quarter at 74.22 USD per barrel (Source: Platts). The rally was supported by lower global crude supply due to: the US sanction on Iran nuclear deal, that impacted Iranian crude production and export, is potentially critical than expected since Chinese and Indian companies who are major importers apparently signaled to reduce or terminate loading of Iranian crude oil, leading the expectation of lower global crude supply by approximately 2 million barrel per day (BPD); the massive fall in Venezuela's crude production as the result of the prolonged economic recession; and the constant US crude production resulted from the bottleneck of pipelines that limited crude transportation capacity from Permian basin, US biggest shale oil production's region to the export terminal, leading the US crude production to be at 11 million BPD. Besides, OPEC spare capacity was recently at 1.5 million BPD which seemingly insufficient to support global demand. As consequences, the mentioned bullish factors boost market expectations on the global crude supply that may become tightening against higher demand from a sign of global economic recovery.

However, the risk of global economy slowdown were key factor that put pressure on crude demand outlook. For instance, concerns that emerging countries with huge USD debt obligations namely Turkey, Argentina and Indonesia can become at risk due to rising US interest rates and possible worsening tensions on US and China trade war; could impact the growth of global economy, hence global crude demand.

### *Liquefied Natural Gas (LNG) Prices*

The average Asian Spot Price for Q3/2018 was at 9.3 USD/MMBTU (Source: Platts) increased from 8.8 USD/MMBTU of the previous quarter, mainly driven by higher global LNG demand during hotter than usual summer and higher global oil prices.

### *Thailand's Energy Demand*

Thailand's energy demand from January to August of 2018 was reported at 2.17 million BOED, an increase of 1.6% relative to the same period of the previous year (Source: EPPO, The Ministry of Energy), driven by Thailand's economic expansion. Crude oil and conventional sources of natural gas continued to be the primary source of the domestic energy supply. However, due to changes in electricity consumption behavior following technological advances, solar power and LNG imports are gradually being adopted as alternative sources of energy supply.

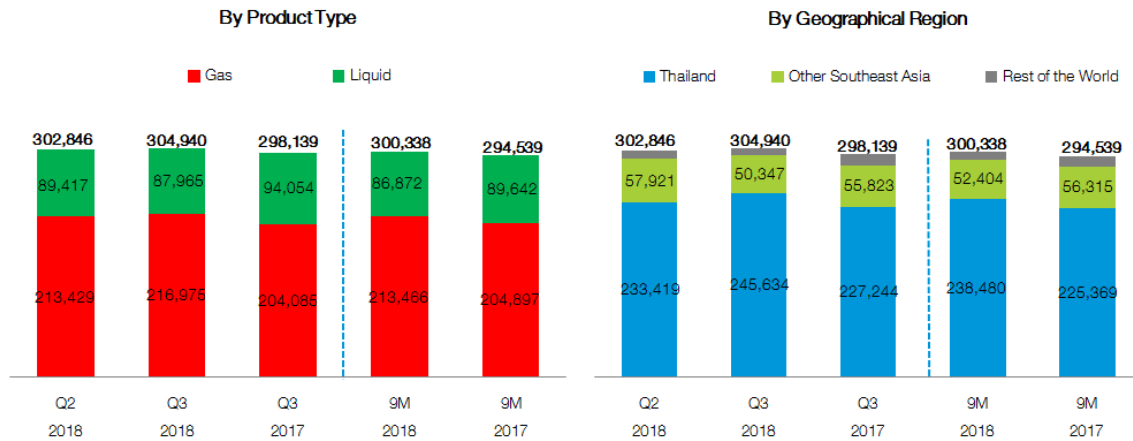
### *Exchange Rates (Thai Baht against US Dollar)*

PTTEP's functional currency is US Dollar (USD) whereas the tax filing currency is Thai Baht (THB), thus THB:USD exchange rate is another factor affecting the Company's financial performance. For Q3/2018, THB continued to fluctuate within narrower range and became strengthening since mid of August 2018 as the Bank of Thailand announced policy rate hike to maintain gap between Thai and US policy rates. In addition, Thai economy has continuously signaled positive performance especially from current account surplus, solid progress of Eastern Economic Corridor (EEC) investment plan, political stability, a clear road map to national election in 2019 as well as the foreign fund inflows to both debt and equity markets. However, the appreciation of THB against USD was aligned with major South East Asian currencies except Philippine Peso (PHP) and Indonesia Rupiah (IDR) that suffered from current account deficit. At the end of Q3/2018, the THB:USD exchange rate closed at 32.41 THB/USD, strengthened from 33.17 THB/USD of the previous quarter, leading to foreign exchange-related tax saving to PTTEP.

**Financial Performance**

*Average Sales Volume*

Unit: Barrels of Oil Equivalent per Day



Average selling price and Dubai crude oil price (Unit : US Dollar)	Q2 2018	Q3 2018	Q3 2017	% Inc. (Dec.) QoQ	% Inc. (Dec.) YoY	9M 2018	9M 2017	% Inc. (Dec.) YTD
Average selling price (BOE)	46.94	47.67	38.78	2	23	46.25	38.29	21
Average Dubai crude oil price (BBL)	72.07	74.22	50.43	3	47	70.10	51.06	37

**For Third quarter of 2018 compared with Second quarter of 2018**

In Q3/2018, the average sales volume of PTTEP and its subsidiaries (the “Group”) increased to 304,940 BOED when compared with Q2/2018 of 302,846 BOED. The increase was primarily from the acquisition of additional participating interests of the Bongkot Project. The average selling price in Q3/2018 increased to 47.67 USD/BOE (Q2/2018: 46.94 USD/BOE).

**For Third quarter of 2018 compared with Third quarter of 2017**

When compared the average sales volume for Q3/2018 to Q3/2017 of 298,139 BOED, the average sales volume increased primarily from the acquisition of additional participating interests of the Bongkot Project, and the Contract 4 Project due to higher nomination from buyer. The average selling price increased to 47.67 USD/BOE (Q3/2017: 38.78 USD/BOE).

**For the nine-month period ended September 2018 compared with 2017**

The average sales volume for the nine-month period ended September 2018, increased to 300,338 BOED when compared with the same period of 2017 (for the nine-month period ended September 2017 of 294,539 BOED). The increase was primarily from the Contract 4 Project due to higher nomination from buyer, the MTJDA Project due to higher nomination from Malaysian buyer, and the acquisition of additional participating interests of the Bongkot Project. The average selling price increased to 46.25 USD/BOE (for the nine-month period ended September 2017: 38.29 USD/BOE)

## Overall Operating Results

### For Third quarter of 2018 compared with Second quarter of 2018

In Q3/2018, the Group had a net profit of 315 MMUSD, an increase of 202 MMUSD or more than 100% when compared with a net profit of 113 MMUSD in Q2/2018. The net profit of Q3/2018 can be separated as the profit from normal operation of 292 MMUSD and profit from non-recurring items of 23 MMUSD.

The profit from normal operation in Q3/2018 was 292 MMUSD, a decrease of 44 MMUSD when compared with a profit of 336 MMUSD in Q2/2018. The reason was primarily due to an increase in depreciation, depletion and amortization expenses of 36 MMUSD mainly from the acquisition of additional participating interests of the Bongkot Project, while a decrease from the MTJDA Project primarily due to an increase in the petroleum reserves in Q2/2018.

With the consideration of the profit from non-recurring items of Q3/2018, the Group reported a profit of 23 MMUSD, an increase of 246 MMUSD when compared with Q2/2018 which reported a loss of 223 MMUSD. The reason was primarily due to an appreciation of Thai Baht against US Dollar in Q3/2018 at 0.76 Baht per USD, while there was a depreciation of Thai Baht against US Dollar in Q2/2018 at 1.94 Baht per USD, resulting in a decrease of 282 MMUSD in income tax expense relating to changes in foreign exchange rate and loss on foreign exchange. Conversely, there was loss on the Montara Field divestment of 37 MMUSD.

### For Third quarter of 2018 compared with Third quarter of 2017

When compared a net profit for Q3/2018 with the same period last year which reported a net loss of 264 MMUSD, the Group had an increase of 579 MMUSD or more than 100%.

The profit from normal operation in Q3/2018 was 292 MMUSD, an increase of 74 MMUSD when compared with a profit of 218 MMUSD in Q3/2017. The reason was primarily due to an increase in sales revenue of 274 MMUSD from an increase in average selling price, while depreciation, depletion and amortization expenses increased by 83 MMUSD mainly from the acquisition of additional participating interests of the Bongkot Project, as well as an increase in income tax expenses of 63 MMUSD and an increase in petroleum royalties and remuneration of 32 MMUSD due to an increase in domestic sales revenue.

By considering the profit from non-recurring items of Q3/2018, the Group reported a profit of 23 MMUSD, an increase of 505 MMUSD when compared with Q3/2017 which reported a loss of 482 MMUSD. The reason was primarily due to the recognition of impairment loss on assets of the Mariana Oil Sand Project of 558 MMUSD during Q3/2017, while the Group recognized loss on the Montara Field divestment of 37 MMUSD during Q3/2018.

### For the nine-month period ended September 2017 compared with 2016

For the nine-month period ended September 2018, the Group had a net profit of 851 MMUSD, an increase of 546 MMUSD or more than 100% when compared with the nine-month period ended September 2017 of 305 MMUSD. The net profit for the nine-month period ended September 2018 can be separated as the profit from normal operation of 932 MMUSD and loss from non-recurring items of 81 MMUSD.

The profit from normal operation for the nine-month period ended September 2018 was 932 MMUSD, an increase of 336 MMUSD when compared with the profit for the nine-month period ended September 2017 of 596 MMUSD. The reason was primarily due to an increase in sales revenue of 713 MMUSD from an increase in average selling price, while depreciation, depletion and amortization expenses increased by 150 MMUSD mainly from the acquisition of additional participating interests of the Bongkot Project, as well as an increase in development wells and wellhead platforms in the Contract 4 and S1 projects, an increase in income tax expenses of 119 MMUSD, mainly due to an increase in petroleum profit from an increase in sales revenues, and an increase in petroleum royalties and remuneration of 70 MMUSD due to an increase in domestic sales revenue.

By considering the loss from non-recurring items for the nine-month period ended September 2018 of 81 MMUSD, a decrease of 210 MMUSD when compared with the nine-month period ended September 2017 which reported a loss of 291 MMUSD. The reason was primarily due to the recognition of impairment loss on assets of the Mariana Oil Sand Project of 558 MMUSD during the nine-month period ended September 2017, while there were increases in income tax expenses relating to changes in foreign exchange rate and loss on foreign exchange of 252 MMUSD inclusively due to an appreciation of Thai Baht against US Dollar for the nine-month period ended September 2018 at only 0.27 Baht per USD compared with an appreciation of Thai Baht against US Dollar for the nine-month period ended September 2017 at 2.46 Baht per USD. In addition, the Group had an increase in loss on financial instruments of 58 MMUSD mainly from oil price hedging, and recognized loss on the Montara Field divestment of 37 MMUSD.

### Operating Results by Segments

Net Profit (loss)	Q2 2018	Q3 2018	Q3 2017	% Inc. (Dec.) QoQ	% Inc. (Dec.) YoY	9M 2018	9M 2017	% Inc. (Dec.) YTD
(Unit: Million US Dollar)								
Exploration and production	219	205	(350)	(6)	>100	725	3	>100
Thailand	209	266	211	27	26	770	562	37
Overseas	10	(61)	(561)	>(100)	89	(45)	(559)	92
- Other Southeast Asia	22	14	16	(36)	(13)	41	44	(7)
- Australia	(2)	(60)	(21)	>(100)	>(100)	(62)	(38)	(63)
- America	(4)	(17)	(559)	>(100)	97	(22)	(561)	96
- Africa	(6)	2	3	>100	(33)	(2)	(4)	50
Pipeline transportation	78	82	69	5	19	224	175	28
Head office and others	(184)	28	17	>100	65	(98)	127	>(100)
<b>Total</b>	<b>113</b>	<b>315</b>	<b>(264)</b>	<b>&gt;100</b>	<b>&gt;100</b>	<b>851</b>	<b>305</b>	<b>&gt;100</b>

### For Third quarter of 2018 compared with Second quarter of 2018

For Q3/2018, the Group reported net profit of 315 MMUSD, an increase of 202 MMUSD or more than 100% when compared with Q2/2018 of 113 MMUSD, primarily due to an increase of Head office and others segment of 212 MMUSD and Exploration and production segment in Thailand of 57 MMUSD, while there was a decrease of Australia segment of 58 MMUSD.

#### Head office and others segment

For Q3/2018, the Head office and others segment reported net profit of 28 MMUSD, an increase of 212 MMUSD or more than 100% when compared with net loss of 184 MMUSD in Q2/2018, primarily due to an appreciation of Thai Baht against US Dollar in Q3/2018 at 0.76 Baht per USD while there was a depreciation of Thai Baht against US Dollar in Q2/2018 at 1.94 Baht per USD, resulting in a decrease in income tax expenses and a recognition of gain on foreign exchange.

#### Exploration and production segment

- Thailand

Thailand segment reported net profit of 266 MMUSD, an increase of 57 MMUSD or 27% when compared with net profit of 209 MMUSD in Q2/2018. The increase was primarily due to a decrease in income tax expenses due to an appreciation of Thai Baht against US Dollar, as well as an increase in sales revenue from an increase in average sales volume mainly due to the acquisition of additional participating interests of the Bongkot Project. However, there was an increase in depreciation, depletion and amortization expenses.

- Australia

In Q3/2018, Australia segment reported net loss of 60 MMUSD, an increase of 58 MMUSD or more than 100% from net loss of 2 MMUSD in Q2/2018, primarily due to the loss on the Montara Field divestment.

### For Third quarter of 2018 compared with Third quarter of 2017

For Q3/2018, the Group reported net profit of 315 MMUSD, an increase of 579 MMUSD or more than 100% when compared with net loss of 264 MMUSD in Q3/2017, primarily due to an increase of Exploration and production segment in America of 542 MMUSD and in Thailand 55 MMUSD, while there was a decrease of 39 MMUSD in Australia segment.

#### Exploration and production segment

- **America**

In Q3/2018, America segment reported net loss of 17 MMUSD, a decrease of 542 MMUSD or 97% from net loss of 559 MMUSD in Q3/2017, primarily due to the recognition of impairment loss on assets of the Mariana Oil Sand Project of 558 MMUSD during Q3/2017.

- **Thailand**

In Q3/2018, Thailand segment reported a net profit of 266 MMUSD, an increase of 55 MMUSD or 26% from net profit of 211 MMUSD in Q3/2017. The increase was primarily due to an increase in sales revenue mainly from an increase in average selling price, while there was an increase in depreciation, depletion and amortization expenses mainly due to the acquisition of additional participating interests of the Bongkot Project.

- **Australia**

In Q3/2018, Australia segment reported net loss of 60 MMUSD, an increase of 39 MMUSD or more than 100% from net loss of 21 MMUSD in Q3/2017, primarily due to the loss on the Montara field divestment, while there was a decrease in depreciation, depletion and amortization expenses mainly due to an increase in petroleum reserves in Q4/2017.

### For the nine-month period ended September 2018 compared with the 2017

For the nine-month period ended September 2018, the Group reported a net profit of 851 MMUSD, an increase of 546 MMUSD or more than 100% when compared with the nine-month period ended September 2017 of 305 MMUSD, primarily due to an increase of Exploration and production segment in America and Thailand of 539 MMUSD and 208 MMUSD, respectively. However, there was a decrease of 225 MMUSD from Head office and other segment.

#### Exploration and production segment

- **America**

For the nine-month period ended September 2018, America segment reported net loss of 22 MMUSD, a decrease of 539 MMUSD or 96% from net loss of 561 MMUSD for the nine-month period ended September 2017, primarily due to the recognition of impairment loss on assets of the Mariana Oil Sand Project of 558 MMUSD in 2017.

- **Thailand**

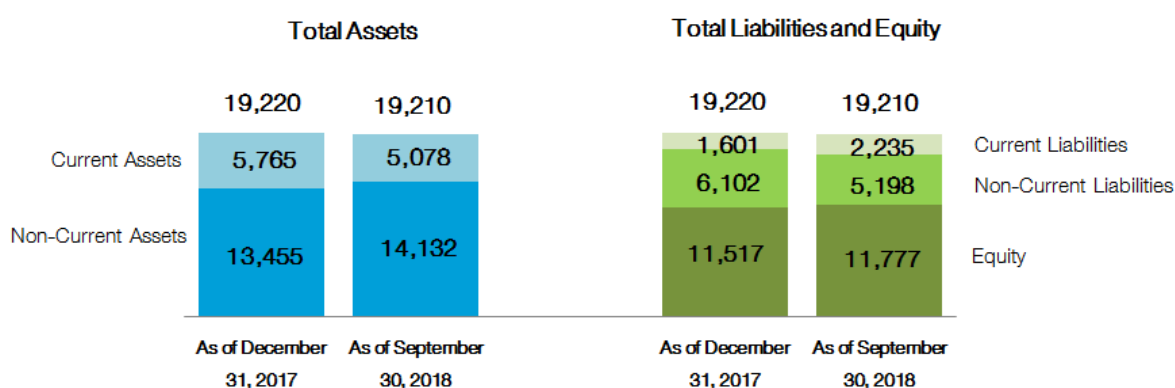
For the nine-month period ended September 2018, Thailand segment reported a net profit of 770 MMUSD, an increase of 208 MMUSD or 37% from net profit of 562 MMUSD for the nine-month period ended September 2017. The increase was primarily due to an increase in sales revenue mainly from an increase in average selling price, while there was an increase in depreciation, depletion and amortization expenses mainly due to the acquisition of additional participating interests of the Bongkot Project and an increase in development wells and wellhead platforms in the Contract 4 and the S1 Projects, as well as, an increase in income tax expenses.

**Head office and others segment**

For the nine-month period ended September 2018, the Head office and others segment reported net loss of 98 MMUSD, a decrease of 225 MMUSD or more than 100% when compared with net profit of 127 MMUSD for the nine-month period ended September 2017, primarily due to an increase in income tax expenses and a recognition of loss on foreign exchange which resulted from the effect of an appreciation of Thai Baht against US Dollar for the nine-month period ended September 2018 at only 0.27 Baht per USD compared with an appreciation of Thai Baht against US Dollar for the nine-month period ended September 2017 at 2.46 Baht per USD, as well as, the recognition of a loss on financial instruments mainly from oil price hedging.

*Financial Position*

*Unit: Million US Dollar*



**Assets**

As at September 30, 2018, the Group had total assets in the amount of 19,210 MMUSD, a decrease of 10 MMUSD from the total assets as of December 31, 2017 of 19,220 MMUSD, primarily due to;

(1) Current assets, which were primarily comprised of cash and cash equivalents, short-term investments and account receivable – parent company, reduction of 687 MMUSD mainly due to a decrease of 664 MMUSD in cash and cash equivalents including short-term investments.

(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, an increase of 677 MMUSD was mainly due to an increase in the property, plant and equipment, and goodwill of 609 MMUSD, primarily due to the acquisition of additional participating interests of the Bongkot Project.

**Liabilities**

As at September 30, 2018, the Group had total liabilities of 7,433 MMUSD, a decrease of 270 MMUSD from total liabilities as at December 31, 2017 of 7,703 MMUSD, primarily due to;

(1) Current liabilities, which were primarily comprised of deferred and contingent consideration acquired through business acquisition, income tax payable, accrued expenses and current portion of long term financial liabilities, increased of 634 MMUSD mainly due to an increase in deferred and contingent consideration acquired through business acquisition of 512 MMUSD, primarily due to the acquisition of additional participating interests of the Bongkot Project.

(2) Non-current liabilities, which were primarily comprised of provision for decommissioning costs, debentures and deferred tax liabilities, decreased of 904 MMUSD mainly due to settlement of long-term loans of 575 MMUSD and a reclassification of some portion of debentures due within one year to current liabilities of 404 MMUSD.

### Capital Structure

As at September 30, 2018, the capital structure comprised of shareholders' equity in the amount of 11,777 MMUSD and total liabilities of 7,433 MMUSD, including the interest-bearing debts of 1,947 MMUSD with a weighted average cost of debt of 5.32% and the average maturity of 8.91 years. All interest-bearing debts are fixed interest and denominated in US Dollar currency.

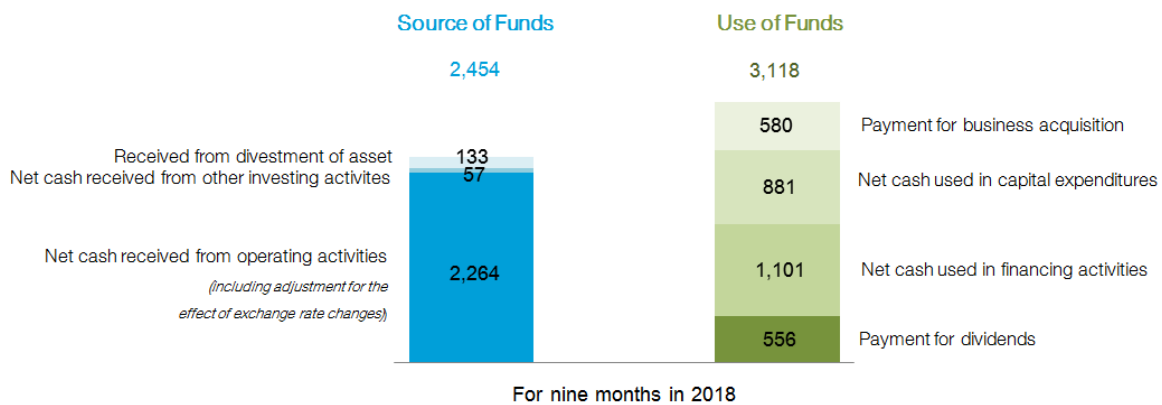
In Q1/2018, the Group redeemed the unsecured and unsubordinated debentures on the maturity date for 2,500 MMTHB.

In Q2/2018, the Group paid the unsecured and unsubordinated loans before the payment schedule for 575 MMUSD.

In Q3/2018, the Group redeemed the unsecured and unsubordinated debentures on the maturity date for 323 MMUSD

### Cash Flows

*Unit: Million US Dollar*



As at September 30, 2018, 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 3,804 MMUSD, a decrease of 664 MMUSD from cash and cash equivalents including short-term investment as at December 31, 2017 of 4,468 MMUSD.

**Sources of funds** in the amount of 2,454 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 tax expenses.

**Uses of funds** in the amount of 3,118 MMUSD primarily came from **Net cash used in additional investment activities** for exploration and production assets, primarily for investment in the Zawtika and the S1 Projects and the acquisition of additional participating interests of the Bongkot Project and **Net cash used in financing activities** which were mainly for the payment of loans and debentures, and the payment of dividend for the second half of 2017 and the first half of 2018.



## Key Financial Ratios

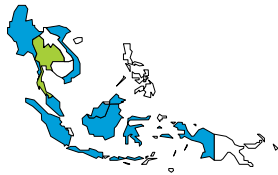
	Q2 2018	Q3 2018	Q3 2017	9M 2018	9M 2017
<b>Profitability Ratio (%)</b>					
EBITDA to revenue from sales	73.20	72.55	71.37	73.28	71.39
Return on equity	4.80	9.91	2.55	9.91	2.55
Net profit margin	11.23	21.71	6.69	21.71	6.69
<b>Leverage Ratio (Times)</b>					
Debt to equity	0.19	0.17	0.26	0.17	0.26
Debt to EBITDA	0.74	0.66	0.98	0.66	0.98

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 shareholders' equity
Net profit margin	=	Net profit to total revenue (for the past 12 months)
Debt to equity	=	Interest Bearing Debt to shareholders' 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



America



Australia



Africa

As of Q3/2018, PTTEP's domestic and international operations altogether sum to 40 projects in 11 countries, with key project highlights as follows;

### Projects in Thailand

PTTEP currently has 16 projects in Thailand, the majority of which are in the *production phase*, which had average sales volume for this quarter of 245,634 BOED, accounting for 80% of PTTEP's total sales volume. These projects are located in both the Gulf of Thailand and onshore; including the **Bongkot Project**; the project achieved the production level as planned. PTTEP has submitted bid proposals for Bongkot (as sole operator) and Erawan expiring concessions. The bidding result is expected within the end of 2018. The **S1 Project** has continuously drilled additional production wells to increase future production levels. Apart from production projects, **Ubon Field of the Contract 4 Project** is in the process of pre-development with expected first production of oil and natural gas by 2022 at planned capacity of 25,000 BPD and 50 MMSCFD (approximately 8,300 BOED), respectively.

### Projects in Southeast Asia

PTTEP has 15 projects in this region which are located in the Republic of the Union of Myanmar (Myanmar), the Socialist Republic of Vietnam (Vietnam), Malaysia and the Republic of Indonesia (Indonesia). Sales volume for Q3/2018 from this region amounted to 50,347 BOED, representing 17% of PTTEP's total sales volume.

The highlights of key projects in the *production phase* are as follows. The **Zawtika Project**, located in the Gulf of Moattama, Myanmar, has completed production drilling from 2 out of 4 production platforms in Phase 1C aiming to maintain output level. For Q3/2018, natural gas sales averaged 296 MMSCFD (approximately 47,329 BOED) which slightly lower than planned due to monsoon floods and the use of hydropower, instead of natural gas, to generate electricity. However, it is anticipated that the average production volume will reach the level as planned for Year 2018. The **Vietnam 16-1 Project**, located offshore in the southeast of Vietnam, is currently drilling additional production wells to maintain production plateau. For Q3/2018, crude oil and natural gas sales averaged 15,816 BPD and 8 MMSCFD (approximately 1,734 BOED) respectively.

The *exploration phase* projects in this region are mainly located in onshore and offshore of Myanmar. The major highlights include the **Myanmar M3 Project**, is in the process of commercial framework discussion with the Government of Myanmar and expects to propose the Field Development Plan to the Government of Myanmar within Q4/2018. The **Myanmar MD-7 Project**, is under preparation of exploration drilling plan. The **Myanmar M11 Project**, is under preparation of exploration drilling plan and is seeking partner to manage the project's risk. The **Myanmar MOGE 3 Project**, is under drilling preparation of an exploration well and expected to start the drilling within Q4/2018. The **Sarawak SK410B Project** in Malaysia, is currently assessing the fields' resource potential and under preparation of exploration drilling campaign. The **Sarawak SK417** and **Sarawak SK438 projects**, which have signed the Production Sharing Contract on 30 March 2018, are now under preparation of exploration activities. The **Vietnam B & 48/95 Project** and the **Vietnam 52/97 Project** are located offshore of Vietnam. The projects have been granted approval for the Field Development Plan and are currently in the negotiation process on commercial terms in order to push forward the Final Investment Decision (FID) targeting first production by the end of 2022 with ramping up capacity to 490 MMSCFD.

### Projects in the Americas

PTTEP has 5 projects in this region 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 under the consideration of the project development plan to suit with current circumstance.

PTTEP has 2 projects in Brazil. The **Barreirinhas AP1 Project** is located in the Barreirinhas Basin, offshore to the northeast of Brazil, and the **Brazil BM-ES-23 Project**, located offshore in the Espirito Santo basin, east of Brazil, are currently studying the petroleum potential for future development plan.

PTTEP has 2 projects in Mexico: 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 are now under preparation of exploration plan with submission timeline to the Mexico National Commission Hydrocarbon within Q4/2018

### Projects in Australia

PTTEP has 1 project in this region, **PTTEP Australasia Project**, which is located in the Commonwealth of Australia (Australia), comprising of 10 permits.

The **Montara Field** which is in the *production phase* with average sales volume for Q3/2018 of 7,252 BPD.

The **Cash Maple Field** is in the *exploration phase*. The project has completed the Pre-FEED study and is under the evaluation of appropriated development plan. The **AC/P54 Field**, is under preparation of exploration drilling plan.

### Projects in Africa

PTTEP has 3 projects in this region, 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* and is located onshore in the eastern part of Algeria, has average production volumes for Q3/2018 at 17,428 BPD.

The **Algeria Hassi Bir Rekaiz Project** is located onshore in the eastern part of Algeria. The project's development plan has been approved by the Algerian government in April 2018. The project's development plan is divided into 2 phases. The first phase capacity of around 10,000-13,000 BPD is expected to start production within 2020 with a plan for the second phase production capacity ramping up to around 50,000-60,000 BPD in 2024.

The **Mozambique Rovuma Offshore Area 1 Project**, which is in the *exploration phase*, is a large LNG project located in offshore Mozambique, the project has made a significant progress during Q3/2018 including the site preparation activities to support onshore LNG liquefaction plant construction, the completion of contractor selection for offshore installation. The project is now under negotiation on construction agreement of onshore LNG liquefaction plant and the finalization and signing of other long term LNG Sale and Purchase Agreements (SPAs) with potential buyers. In parallel, the project is negotiating for project finance with financial institutions in order to support the Final Investment Decision (FID) in the 1H2019, with planned first phase of production at 12 MTPA starting in 2023.



## Company Strategy

The Company has continued to operate under the **3R strategy**, “**RESET REFOCUS RENEW**” in order to cope with changes in the industry landscape as well as to enhance our competitive advantages and sustainable growth.

**RESET:** The Company prepared the readiness via organization transformation while adopting appropriate technology and innovation in order to be agile amid rapid changes in the industry landscape, although the competitiveness of operating cost remains our focus.

**REFOCUS:** The Company endeavors to enhance production and petroleum reserves by aligning its investment strategy with the change of industry horizon through the followings;

- Rationalization of investment portfolio in non-core areas proven with the completion of Montara Field divestment on 28 September 2018. However, the operatorship transfer is awaiting for approval from National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) which is expected to be within next year
- Accelerations of Final Investment Decision (FID) of pre-development projects including the Mozambique Rovuma Offshore Area 1 Project, the Algeria Hassi Bir Rekaiz Project, the Vietnam B & 48/95 Project and the Vietnam 52/97 Project as well as the Contract 4 Project (Ubon Field)
- Prioritization of investment in strategic area with expertise and experiences (“Coming-Home Strategy”) through the submission of bid proposals for expiring Bongkot and Erawan concessions. For Bongkot, PTTEP has solely submitted the bidding while partnering with Mubadala Petroleum (Thailand) Ltd., who currently operates in the Gulf of Thailand and is potential partner for future investments, for Erawan (with PTTEP interest of 60% and Mubadala interest of 40%). In addition, the Company has accelerated its exploration activities in Thailand, Myanmar and Malaysia to strengthen long term petroleum reserves.
- Capture new investment opportunity in other petroleum prolific areas with strategic alliances by mainly focusing on the Middle-East where considered as low cost barrel region.

**RENEW:** The Company has transformed its organization to overcome new business challenges and prepare for new business opportunities and other potential businesses. For instance, the Company is under the study to expand business investment in existing markets to the Gas-to-Power business in Myanmar. In this quarter, the Company has established a new subsidiary named “AI and Robotics Ventures Company Limited” (ARV) in order to support future investments in Artificially Intelligence (AI) and Robotics which could enhance operational efficiency, safety and environmental impact from exploration and production activities.

### *Capital Management*

PTTEP focuses on ensuring effective financial management by maintaining a robust capital structure. As of the end of Q3/2018, the Company maintained a strong liquidity position with cash on hand of approximately USD 3.8 billion and debt-to-equity ratio of less than 0.2x, which is in line with the Company financial policies and also provides adequate liquidity in order to fund capital expenditure to maintain production, develop future projects in the pipeline, and carry out exploration activities as well as to support new investment opportunities through Merger and Acquisitions (M&A).

The Company is in preparation stage for a pilot transaction of cross-border payment via Blockchain which could enhance the efficiency of PTTEP’s cross-border remittance for our partners and service providers with faster and lower cost operation.

### Cost Management

The Company emphasizes cost control through the SPEND SMART to Business Sustainability campaign with the theme “Think Smart, Work Smart for Better Efficiency” focusing on efficient cost management and productivity gains such as the reduction of drilling days and cost optimization of wellhead platform design, contract renegotiations on current and future equipment rental and services, and logistical optimization through reducing number of supply boats as well as optimizing inventory management.

The Company believes that the cost management initiatives will allow its 2018 unit cost to be as per target of around 31 USD/BOE. However, unit cost in this quarter was escalated to 33 USD/BOE due to the increase of royalty payments aligning with higher ASP, coupled with higher DD&A expenses as a result of more completed assets recognition essentially from the S1 project.

### Sustainable Development

PTTEP’s Sustainable Development is aligned with global principles and the United Nation’s Sustainable Development Goals (SDGs) as reflected through the recognition as a member of Dow Jones Sustainability Indices (DJSI) in the DJSI World Oil and Gas Upstream & Integrated Industry for the fifth consecutive year. Activities in Q3/2018 covers three areas: business, social, and environment, as follows;

**Business** PTTEP allocates approximately 3% of net income each year as a budget for research and technology development. In the third quarter of this year, the key projects in progress are as follows:

- **Increase Exploration Success** i.e. Electromagnetic for subsurface fluid movement monitoring, the signing of Memorandum of Understanding (MoU) with Petroliam Nasional Berhad (PETRONAS) for Technology Development Collaboration to enhance petroleum exploration and production efficiency
- **Green Practice** i.e. CO<sub>2</sub> utilization.
- **Petroleum Related Technology** i.e. Autonomous Underwater Vehicle (AUV) and In-pipe Inspection Robot

**Social** PTTEP is committed to carrying out its business operations in a socially responsible manner, and still maintains its focus on four development areas: environment, fundamental needs, education, and culture. The key activities undertaken in Q3/2018 included: the expansion of marine conservation network in Songkhla province; the study of living organisms; the use of shipwrecks, H.T.M.S. Prab & H.T.M.S. Sattakutas, as alternative diving sites and the arrangement of mooring buoy maintenance activities in Surat Thani province; Training welder at Yankin Skill Training Center under the Technical Capability and Development Project in Myanmar.

**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 Q3/2018, PTTEP had a Lost Time Injury Frequency (LTIF) score of 0.10 and a Total Recordable Incident Rate (TRIR) score of 0.82. The Company’s performance on both safety indicators is comparable to 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 set a goal to reduce its GHG emissions by a minimum 25% comparing with its 2012 base year figure by 2030. As of Q3/2018, PTTEP has already achieved 4.6% reduction of GHG emissions target comparing to 2012.

## Future Business Outlook

### *Oil Price Outlook*

For Q4/2018, PTTEP expects Dubai crude prices remain volatile by moving in range between 75-90 USD/BBL. The key bullish drivers include Iranian crude supply shortage after US sanction imposed on nuclear deal, coupled with the US financial sanctions on Venezuela causing the payment difficulty to foreign serviced providers for the oil port repairs leading lower crude exports. In addition, the bottleneck of US pipelines that limits crude transportation capacity is likely to curb US crude production throughout this year. Despite higher crude production from OPEC countries e.g. Saudi Arabia, Iraq and Libya and Non-OPEC countries such as Russia, the global crude supply remains uncertain. However, bearish factors that can pressure on global crude demand are the economic recession in number of countries coupled with tension from US and China trade war that subsequently provokes risks on market confidence and pressure global economic growth.

Likewise, there are other key drivers that catalyze global crude price volatility including the alliance of supporter for US sanction imposed on Iran that will fully undertake on this November 2018 as well as the consensus on compliance rate among OPEC and Non-OPEC's crude production.

### *LNG Market*

For Q3/2018, the global LNG market seemingly remains oversupply with additional capacity from US and Australia LNG projects injected to the market. Even though the LNG market is in supply glut situation, the global LNG price is expected to improve driven by robust Chinese LNG demand in coming winter season and is also in line with higher oil price outlook. Thus, in the fourth quarter of 2018, average Asian Spot LNG price is estimated to be in range between 7.6-10.3 USD/MMBTU (Source: PTT Prism, Wood Mackenzie, and FGE).

However, the global LNG price could fluctuate depending on other key drivers including unexpected LNG supply disruption and delay, higher than expected LNG demand especially in China and India as well as national energy policy that could be gas demand catalyst whereas additional LNG capacity still puts pressure. Nonetheless, the market foresees that LNG demand-supply tend to rebalance after 2022.

### *Thai Economy and Foreign Exchange Outlook*

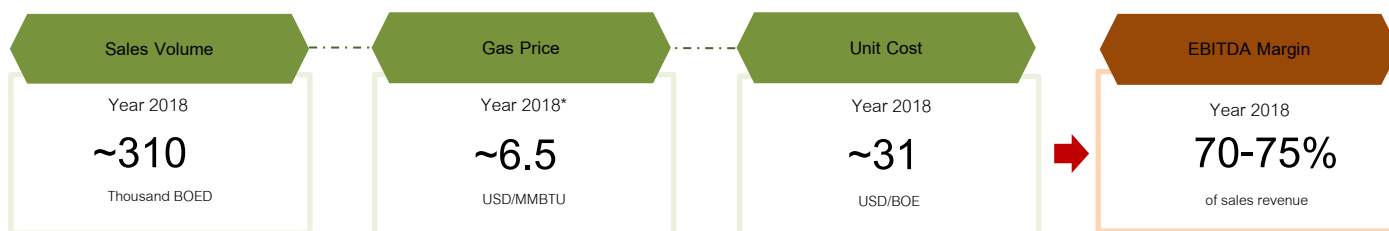
The Bank of Thailand (BOT) expects the economy to continually expand at 4.5% in 2018, driven mainly by Thailand economic growth from the export and tourism reflecting the improved global economic situations. Despite limited growth in agricultural and industrial sector, the key drivers supporting Thai economic growth until next year are government spending in major infrastructure projects, low inflation rate and a clear road map to national election in 2019.

The THB:USD exchange rate continues to fluctuate although it likely strengthens towards the end of 2018 as the result of external factors e.g. US-China trade war that could impact to Thai export sector, movement of major currency and fund flows in the region. Nevertheless, there are internal factors to closely monitor including political stability as well as chance of interest rate hike by BOT to maintain gap between Thai and US policy rate.

PTTEP's financial performance will be affected by THB:USD exchange rate fluctuations mainly through income tax. The effect arises since the Company's functional currency is the US Dollar whereas the tax filing currency is the Thai Baht. However, the implication of this difference would not create impact to the Company's cash flows. Moreover, an increasing interest rate outlook would not impact to the Company's financial performance as its current interest-bearing debts are in fixed-rated.

*PTTEP's performance outlook for 2018*

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



\*based on average Dubai price assumption of 72 USD/BBL for 2018

**Sales volume:**

PTTEP focuses on maintaining the production level with the estimated sales volume for full-year 2018 of around 310,000 BOED. The sales volumes outlook supports by sales volume contributed from additional participating interest in the Bongkot acquisition.

**Sales price:**

- PTTEP's liquid prices are mainly relative to global crude prices.
- PTTEP's gas prices are linked, via a pricing formula with 6-12 months lag-time, to referenced global oil prices indices.

Average gas price for full-year 2018 are approximately estimated at 6.5 USD/MMBTU reflecting the upward oil price outlook. (Based on average Dubai price assumption for full-year 2018 of 72 USD/BBL)

**Unit Cost:**

PTTEP expects the unit cost will be around 31 USD/BOE for the full-year 2018.