Management Discussion and Analysis (MD&A) for the first quarter of 2021



Executive Summary

In the first quarter of 2021, crude oil price had increased to the 60 USD/barrel level from growing confidence on demand recovery as that lockdowns and international travel restrictions are expected to be relaxed given more vaccines are being administered globally and economic stimulus measures are being launched in many countries. Recovery in crude oil demand is expected in Q2/2021 and speed up further in Q3/2021, while crude oil supply would still be under control by OPEC+ who has maintained strong commitment towards its compliance and production cut agreement. Nevertheless, oil prices remain under pressure from concerns over COVID-19 new variants outbreak and the delay in vaccine roll out that may force countries to re-implement lockdown measures.

PTTEP continues to operate under the EXPAND – EXECUTE strategy with achievements in Q1/2021 including the successful appraisal drilling result in Sarawak SK410B that indicated a larger gas reservoir than previously estimate confirming company's largest discovery; and new petroleum discoveries in Sarawak SK417 and Sarawak SK405B projects located in offshore Sarawak, Malaysia with plans for additional well drilling to further evaluate upside potential. For the Block H Project, we, together with joint venter partners, had announced the first gas production for delivering to PETRONAS Floating Liquefied Natural Gas-2 (PFLNG2). The production will ramp up to 270 MMSCFD as targeted. With regards to the recently announced acquisition of 20% interest in Block 61 in Sultanate of Oman, the conditions precedent to Completion prescribed in the Sale and Purchase Agreement (SPA) was completed. Additional sales volume from this newly acquired asset will be recognized since 23 March 2021. These achievements as aforementioned will not only provide the immediate revenue stream, production, and reserves, but also strengthen PTTEP's position in Southeast Asia and the Middle East, paving a strong path for future expansion in these regions.

In terms of operations transition for G1/61 Project (Erawan field), there is no clarity on site access for wellhead platforms and sealines installation at this stage as the negotiation between the current concessionaire and the government has yet to come to an agreement. This has started to affect our plan for gas production under the new PSC. The impact is currently being evaluated with remediation plan to compensate potential volume shortfall from other projects. We continuously and closely coordinate with the government to find minimal impact solution, putting the first priority on Thailand's energy security. For G2/61 Project (Bongkot field), we have good progress in transition as planned.

In Q1/2021, PTTEP reported net income of 376 MMUSD, increased from 81 MMUSD reported in the previous quarter. This is mainly driven by higher selling prices following rising trend of global crude oil prices. Moreover, PTTEP was able to reduce unit cost from 31.09 USD/barrel of oil equivalent (BOE) to 27.96 USD/BOE. Besides, in this quarter, there was a recognition of extraordinary net income, Gain from a bargain purchase, arising from the acquisition of Oman Block 61 project partially offset with loss from oil price hedging. PTTEP, therefore, reported cash flow from operations of 803 MMUSD with the EBITDA margin at 74%. As of Q1/2021, PTTEP reported total assets of 23,302 MMUSD, of which 1,795 MMUSD was cash and short-term investments, while total liabilities were reported at 11,151 MMUSD, of which 3,895 MMUSD was interest-bearing debt. Total shareholders' equity ended at 12,151 MMUSD with debt-to-equity ratio at 0.32, reflecting strong and healthy financial structure.

Table of key financial results

(Unit: Million US Dollar)	Q 4 2020	Q 1 2021	Q 1 2020	% Inc.(Dec.) QoQ	% Inc. YoY
T o ta I R e v e n u e	1,348	1,779	1,771	32	0
Sales Revenue	1,292	1,391	1,482	8	(6)
E B IT D A	829	1,041	1,082	26	(4)
Profit(loss) for the period	8 1	376	275	364	37
Basic earnings(loss) per share (Unit: US Dollar)	0.02	0.09	0.07	374	35
Profit(loss) from normal operation	168	282	290	68	(3)
Profit(loss) from non-recurring items	(87)	94	(15)	208	>100

* Exclude partial write-off of exploration and evaluation assets of the exploration project in Brazil



Economic Overview in the first quarter of 2021

Crude Oil Price

Dubai crude price in Q1/2021 increased to an average of 60.2 USD per barrel, higher than Q4/2020 average of 44.6 USD per barrel. The key factor was higher market expectation on demand recovery from travel reopening, after more COVID-19 vaccines have been authorized and administered globally, including Great Britain, U.S., and the EU.

Apart from economic stimulus packages launched by many countries' governments, another positive factor came from strong OPEC+ compliance which result in global crude oil demand and supply rebalance. OPEC+ had reached the agreement to cut the output by 7.2 million barrels per day for January 2021, and as the demand impact from new wave of COVID-19 is foreseeable, Saudi Arabia decided to voluntarily cut an additional 1 million barrels per day from February to April 2021, giving the total cut amount by OPEC+ and Saudi Arabia for at 8.125, 8.05, and 7.9 million barrels per day from February to April 2021 respectively. In the first quarter, the shale oil supply from U.S. producers just slightly increased, despite the rising crude oil price, due to their policies on strict financial disciplines, priority was given to debt repayment and returns to investors instead of re-investment. In addition, the freezing weather during February 2021 had caused shut down to several oil production sites in Texas which led to temporary supply shortage.

On the demand side, unusually freezing winter worldwide gave rise to crude demand. However, the crude oil price was still under pressure, from rising cases of COVID-19 new waves, as well as the delays in vaccine roll out to public especially in Europe, which caused the countries to re-implement the COVID-19 containment measures, hence, dampen crude oil consumption.

Liquefied Natural Gas (LNG)

For LNG Market in Q1/2021, the average Asian Spot LNG price rose to 9.96 USD per MMBTU. The price increased sharply to peak at 32.5 USD per MMBTU in mid of January due to several factors; unusually cold winter in Japan, Korea and China (a five-decade low) leading to surge in LNG demand, continuing congestion of the Panama Canal which is main transportation route since late 2020 to January 2021, and the concerns on unplanned shut down at Wheatstone and Gorgon LNG in Australia, topped with outage at liquefaction plants in the U.S. Gulf Coast due to the Polar Vortex. However, the Asian spot price dropped significantly from late January onwards, as a result of warmer weather across north Asia and higher spot LNG supply. Continuing on to February and March, the price further dropped after resumption of U.S. Gulf Coast liquefaction plants, Wheatstone and Gorgon LNG projects, so that the spot LNG price closed at 7.04 USD per MMBTU at the end of Q1/2021.

Thailand's Energy Demand

Thailand's energy demand for January 2021 was reported at 1.90 million BOED, a decrease of 10% relative to the same period of the previous year (Source: EPPO, The Ministry of Energy), largely due to economic slowdown from the second wave of COVID-19 affecting various business sectors particularly the industrial, transportation and tourism, as well as other economic activities which were temporarily suspended. Overall, the domestic energy consumption declined, as can be seen from a decrease in natural gas and oil usage, while hydroelectric power, electricity import and coal increased.

Exchange Rates (Thai Baht against US Dollar)

In Q1/2021, THB against USD depreciated sharply from below 30.00 to close at 31.34. Thai Baht weakness was attributed to the slowerthan-expected tourism recovery, which in part hinges on the progress of domestic Covid-19 vaccine import and distribution. Thailand's current account also continued to be in deficit in the first quarter since it turned negative in Q4/2020. A resurgent USD also put pressure on the THB as a series of US fiscal stimulus measures were passed in Q1. In addition, profit repatriation and dividend payment of foreign companies also supported USD upside.

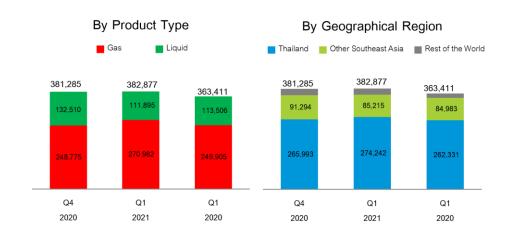
Management Discussion and Analysis (MD&A) for the first quarter of 2021



Financ

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)	Q4 2020	Q1 2021	Q1 2020	% Inc. (Dec.) QoQ	% Inc. (Dec.) YoY
Average selling price (/BOE)	36.85	40.38	44.81	10	(10)
Liquid price (/BOE)	42.61	56.59	52.75	33	7
Gas price (/MMBTU)	5.63	5.61	6.87	(0)	(18)
Average Dubai crude oil price (/BBL)	44.64	60.21	50.41	35	19

For the First quarter of 2021 compared with the Fourth quarter of 2020

In Q1/2021, the average sales volume of PTTEP and its subsidiaries (the "Group") increased to 382,877 BOED when compare with Q4/2020 of 381,285 BOED primarily from Bongkot Project due to the higher gas nomination from buyer and from the acquisition of Oman Block 61 Project in Q1/2021, offset with a decrease of average sales volume per day from Malaysia Project from decrease in crude sale although there is fist gas production of Malaysia Block H Project this quarter. The average selling price in Q1/2021 increased to 40.38 USD/BOE (Q4/2020: 36.85 USD/BOE).

For the First quarter of 2021 compared with the First quarter of 2020

When compared the average sales volume for Q1/2021 to Q1/2020 of 363,411 BOED, the average sales volume increased primarily from Bongkot Project and Contract 4 Project due to higher gas nomination from buyer together with an increase of crude oil sales for PDO Block 6 Project despite decreased of the average selling price to 40.38 USD/BOE (Q1/2020: 44.81 USD/BOE). Management Discussion and Analysis (MD&A) for the first quarter of 2021



Overall Operating Results

For the First quarter of 2021 compared with the Fourth quarter of 2020

In Q1/2021, the Group had net profit of 376 MMUSD, an increase of 295 MMUSD or 364% from a net profit in Q4/2020 of 81 MMUSD. The increase was primarily from an increase in sales revenue of 99 MMUSD and a recognition of gain from a bargain purchase of Oman Block 61 Project amounting to 350 MMUSD, together with a decrease in operating expenses of 60 MMUSD which were offset with increases in exploration expenses and income tax expenses of 122 MMUSD and 113 MMUSD, respectively. The net profit for Q1/2021 of 376 MMUSD can be separated as following.

The profit from normal operation in Q1/2021 was 282 MMUSD, an increase of 114 MMUSD compared with a profit in Q4/2020 of 168 MMUSD. The reason was primarily from an increase in sales revenue of 99 MMUSD from higher average selling price despite of a decrease in sales volume from lower number of days in Q1/2021 while the average sales volume slightly increased. In addition, a decrease in operating expenses of 60 MMUSD was primarily from lower crude sales volume from Malaysia Project and lower maintenance activities from Bongkot Project and S1 Project. However, there was increase in income tax expenses of 94 MMUSD as a result of an increase in net profit.

The profit from non-recurring items in Q1/2021 was 94 MMUSD, a change of 181 MMUSD compared with a loss in Q4/2020 of 87 MMUSD. The reason was primarily from a recognition of gain from a bargain purchase of Oman Block 61 Project amounting to 350 MMUSD while exploration expenses increased by 145 MMUSD from partial write-off of exploration and evaluation assets of the exploration project in Brazil.

For the First quarter of 2021 compared with the First quarter of 2020

When compared with the same period last year which reported a net profit of 275 MMUSD, the Group had an increase in net profit of 101 MMUSD or 37%. The increase was primarily from a recognition of gain from a bargain purchase of Oman Block 61 Project amounting to 350 MMUSD, together with a decrease in income tax expenses of 260 MMUSD. These were offset with a decrease in sales revenue of 91 MMUSD, a recognition of loss on financial instruments of 98 MMUSD (Q1/2020: recognized gain of 222 MMUSD) and an increase in exploration expenses of 110 MMUSD. The net profit for Q1/2021 of 376 MMUSD can be separated as following.

The profit from normal operation in Q1/2021 was 282 MMUSD, a decrease of 8 MMUSD when compared with a profit in Q1/2020 of 290 MMUSD. The reason was primarily from a decrease in sales revenue of 91 MMUSD from lower average selling price despite of an increase in average sales volume. However, income tax expenses decreased by 44 MMUSD as a result of lower taxable income and exploration expenses decreased by 35 MMUSD primarily due to the fact that there was exploration well written-off of Zawtika Project in Q1/2020.

The profit from non-recurring items in Q1/2021 was 94 MMUSD, a change of 109 MMUSD compared with a loss in Q1/2020 of 15 MMUSD. The reason was primarily from a recognition of gain from a bargain purchase of Oman Block 61 Project amounting to 350 MMUSD. In addition, there was a decrease in income tax expenses relating to foreign exchange rate of 216 MMUSD due to the change of income tax calculation currency from Thai baht to USD during 2020 which resulted in no such income tax expense in Q1/2021 while there were income tax expenses in Q1/2020 due to the depreciation of Thai baht against USD at 2.52 THB/USD. However, there was a recognition of loss on financial instruments of 98 MMUSD, primarily from oil price hedging instruments due to an upward trend of forward oil price while recognized gain of 222 MMUSD in Q1/2020, primarily from oil price hedging instruments and foreign exchange forward contracts due to a downward trend of forward oil price and the depreciation of Thai baht against USD, respectively. Moreover, there was an increase in exploration expenses from partial write-off of exploration and evaluation assets of the exploration project in Brazil amounting to 145 MMUSD.

Management Discussion and Analysis (MD&A) for the first quarter of 2021



Net Profit (loss) (Unit: Million US Dollar)	Q4 2020	Q1 2021	Q1 2020	% Inc. (Dec.) QoQ	% Inc. (Dec.) YoY
Exploration and production	215	539	257	>100	
Southeast Asia	207	324	269	57	20
- Thailand	204	270	245	32	10
- Other Southeast Asia	3	54	24	>100	>100
Middle East	(0.4)	351	(4)	>100	>100
Australia	(16)	(1)	(1)	94	0
America	(5)	(146)	(3)	>(100)	>(100)
Africa	32	7	(5)	(78)	>100
Others	(3)	4	1	>100	>100
Head office and others	(134)	(163)	18	(22)	>(100)
Total	81	376	275	>100	37

For the First quarter of 2021 compared with the Fourth quarter of 2020

For the Q1/2021, the Group reported a net profit of 376 MMUSD, an increase of 295 MMUSD or more than 100% when compared with a net profit of 81 MMUSD in Q4/2020, primarily from an increase of Exploration and Production segment in Middle East of 351 MMUSD and Southeast Asia (Thailand increased of 66 MMUSD and Other Southeast Asia increased of 51 MMUSD), while there was a decrease in America of 141 MMUSD.

Exploration and Production segment

Middle East

In Q1/2021, Middle East reported a net profit of 351 MMUSD, an increase of 351 MMUSD or more than 100% when compared with a net loss of 0.4 MMUSD in Q4/2020, primarily from a recognition of gain from a bargain purchase of Oman Block 61 Project.

- Southeast Asia
 - Thailand

In Q1/2021, Thailand reported a net profit of 270 MMUSD, an increase of 66 MMUSD or 32% when compared with a net profit of 204 MMUSD in Q4/2020, primarily from an increase of sales revenue due to increase in both average selling price and average sales volume, as well as a decrease of operating expenses primarily from a decrease of maintenance cost. However, income tax expenses increased as a result of an increase of net profit.

Other Southeast Asia

In Q1/2021, Other Southeast Asia reported a net profit of 54 MMUSD, an increase of 51 MMUSD or more than 100% compared with a net profit of 3 MMUSD in Q4/2020, primarily from recognition of impairment loss on assets from Yetagun Project in Q4/2020 (Q1/2021: no loss recognized).

America

In Q1/2021, America reported a net loss of 146 MMUSD, an increase of 141 MMUSD or more than 100% when compared with a net loss of 5 MMUSD in Q4/2020, primarily from an increase of exploration expenses from partial write-off of exploration and evaluation assets of the exploration project in Brazil.

Management Discussion and Analysis (MD&A) for the first quarter of 2021



For the First quarter of 2021 compare with the First quarter of 2020

For the Q1/2021, the Group reported a net profit of 376 MMUSD, an increase of 101 MMUSD or 37% compare with a net profit of 275 MMUSD in Q1/2020, primarily from an increase of Exploration and Production segment in Middle East of 355 MMUSD and Southeast Asia (Thailand increased of 25 MMUSD and Other Southeast Asia increased of 30 MMUSD), while there was a decrease in America of 143 MMUSD and decrease in Head Office and Others segment of 181 MMUSD.

Exploration and Production segment

Middle East

In Q1/2021, Middle East reported a net profit of 351 MMUSD, an increase of 355 MMUSD or more than 100% when compared with a net loss of 4 MMUSD in Q1/2020, primarily from a recognition of profit from a bargain purchase of Oman Block 61 Project.

- Southeast Asia
 - Thailand

In Q1/2021, Thailand reported a net profit of 270 MMUSD, an increase of 25 MMUSD or 10% when compared with a net profit of 245 MMUSD in Q1/2020, primarily from a recognition of gain from exchange rate (Q1/2020: recognition of loss from exchange rate), as well as a decrease of operating expenses primarily from a decrease of maintenance cost and a decrease of income tax expenses relating to changes in foreign exchange rate due to the change of income tax calculation currency from Thai baht to USD during 2020 which resulted in no such income tax expenses recognized in Q1/2021 while there were income tax expenses in Q1/2020 due to the depreciation of Thai baht against USD at 2.52 THB/USD, offset with a decrease of sales revenue due to lower average selling price despite of an increase in average sales volume

- Other Southeast Asia

In Q1/2021, Other Southeast Asia reported a net profit of 54 MMUSD, an increase of 30 MMUSD or more than 100% compared with a net profit of 24 MMUSD in Q1/2020, primarily from a decrease of income tax expenses relating to changes in foreign exchange rate due to the change of income tax calculation currency from Thai baht to USD during 2020 which resulted in Q1/2021, there was no such recognition of income tax expenses, while in Q1/2020, there was a recognition of income tax expenses due to the depreciation of Thai baht against USD at 2.52 THB/USD, as well as a decrease of exploration expenses due to there was the exploration wells written-off of Zawtika Project in Q1/2020. However, sales revenue decreased due to a decrease in both of average selling price and average sales volume.

America

In Q1/2021, America reported a net loss of 146 MMUSD, an increase of 143 MMUSD or more than 100% when compared with a net loss of 3 MMUSD in Q1/2020, primarily from an increase of exploration expenses from partial write-off of exploration and evaluation assets of the exploration project in Brazil.

Head Office and Others segment

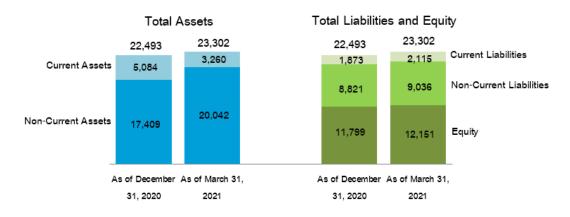
In Q1/2021, Head office and other segment reported a net loss of 163 MMUSD, a decrease of 181 MMUSD or more than 100% compared with a net profit of 18 MMUSD in Q1/2020, primarily from a recognition of loss on financial instruments mainly from oil price hedging instruments, while recognized gain in Q1/2020. The decreased in net profit was offset with lower income tax expenses relating to changes in foreign exchange rate due to the change of income tax calculation currency from Thai baht to USD during 2020 which resulted in no such income tax expense recognized in Q1/2021 while there were income tax expenses in Q1/2020 due to the depreciation of Thai baht against USD at 2.52 THB/USD.

Management Discussion and Analysis (MD&A) for the first quarter of 2021



Financial Position

Unit: Million US Dollar



Assets

As at March 31, 2021, the Group had total assets amount of 23,302 MMUSD, an increase of 809 MMUSD from total assets as at December 31, 2020 of 22,493 MMUSD, primarily due to;

(1) 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, goodwill and deferred tax assets, increased 2,633 MMUSD mainly due to an increase of property, plant and equipment from acquisition of Oman Block 61 Project in Q1/2021.

While

(2) Current assets, which were primarily comprised of cash and cash equivalents, short-term investments, trade and other receivables and inventories, decreased of 1,824 MMUSD mainly from a decrease in cash and cash equivalents of 2,009 MMUSD offset with an increase in other current assets of 101 MMUSD from acquisition of Oman Block 61 Project in Q1/2021.

Liabilities

As at March 31, 2021, the Group had total liabilities of 11,151 MMUSD, an increase of 457 MMUSD from total liabilities as at December 31, 2020 of 10,694 MMUSD, primarily due to;

- (1) Current liabilities, which were primarily comprise of trade and other payables and income tax payable, increase of 242 MMUSD mainly due to an increase of income tax payable of 178 MMUSD including an increase of financial derivative liabilities of 80 MMUSD mainly from oil price hedging instruments.
- (2) Non-current liabilities, which were primarily comprised of provision for decommission costs, debentures and deferred tax liabilities, increased of 215 MMUSD mainly due to an increase of deferred tax liabilities of 95 MMUSD and an increase of provision for remuneration for the renewal of petroleum production of 73 MMUSD.

Equity

As at March 31, 2021, the Group had equity of 12,151 MMUSD, an increase of 352 MMUSD from equity as at December 31, 2020 of 11,799 MMUSD, primarily due to the net profit for the period.

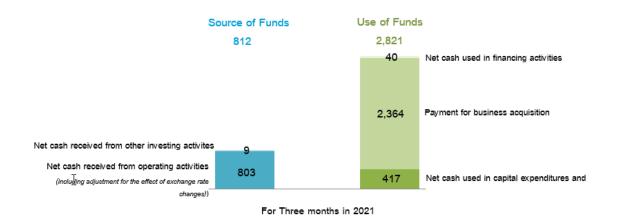
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Capital Structure

PTTEP ensure efficiency of its financial management by focusing on building financial discipline and maintaining a strong financial structure. At the end of Q1/2021, the Company maintained cash on hand approximately of 1.7 billion USD after the completion of acquiring 20% participating interest in Oman Block 61 Project, Sultanate of Oman. In addition, the Company maintains its debt to equity ratio of 0.32, which is within the Company's financial policies and also had adequate liquidity to fund the capital expenditure to maintain production levels, develop existing projects and carry out exploration activities in accordance with investment plan in consistent with the Company's strategy.

Cash Flows

Unit: Million US Dollar



As at March 31, 2021, the Group had cash and cash equivalents¹ of 1,695 MMUSD, a decrease of 2,009 MMUSD compared with December 31, 2020 of 3,704 MMUSD.

Source of funds amount of 812 MMUSD primarily came from Net cash received from operating activities as a result of positive net cash flow from sales revenues, offset with cash payment for expenses and income tax expenses and Net cash received from investing activities derived from receiving repayment of long-term loan to related parties.

Uses of funds amount of 2,821 MMUSD primarily from the Payment for business acquisition and additional capital expenditure, from acquisition of Oman Block 61 Project in Q1/2021 and additional investments in exploration and production assets mainly for S1 and Mozambique Area 1 Project, as well as **Net cash used in financing activities**, primarily from repayment of lease liabilities and interest payment during Q1/2021.

¹ Exclude short-term investment in the form of bank fixed deposit with a maturity of more than three months but within twelve months of 100 MMUSD as

at March 31, 2021 and December 31, 2021.



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Key Financial Ratios

	Q4	Q1	Q1
Profitability Ratio (%)	2020	2021	2020
EBITDA to revenue from sales	63.26	73.73	71.85
Return on equity	6.09	6.92	12.32
Net profit margin	13.43	15.04	21.40
Leverage Ratio (Times)			
Debt to equity	0.33	0.32	0.29
Debt to EBITDA	1.05	1.04	0.60

* Exclude partial write-off of exploration and evaluation assets of the exploration project in Brazil

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

Management Discussion and Analysis (MD&A) for the first quarter of 2021



Operational Highlights

At of Q1/2021, PTTEP has over 40 projects with domestic and international operations in 15 countries. The following are key project highlights.

Projects in Southeast Asia

PTTEP's primary operational base is in Southeast Asia, with projects located in Thailand, the Republic of the Union of Myanmar (Myanmar), the Federation of Malaya (Malaysia), the Socialist Republic of Vietnam (Vietnam), and the Republic of Indonesia (Indonesia). In Q1/2021, the average sales volume from projects in Thailand is 274,200 BOED, accounting for 72% of total sales volume. Average sales volume from other countries in this region is 85,200 BOED, which accounted for 22% of total sales volume.

- Projects in Thailand

The majority of PTTEP's projects in Thailand, located in the Gulf of Thailand and onshore, are in the *production phase*. Key activities of the main producing projects are as follows. The S1 Project was emphasized on the development and execution plan to maximize crude production as per 2021 target. Additionally, 10 years strategy road map is under preparation to ensure all focused strategic areas will be set up in the long term after PPE approval until 14 Mar 2031. The Bongkot Project, Arthit Project and Contract 4 Project was able to deliver production volumes as nominated from the buyer. G2/61 Project (Bongkot field) was on track for its preparation per transition plan. G1/61 Project (Erawan field), has been preparing all transitional works with its highest efforts including construction of facilities, staff recruitment, Gas Sales Agreement, and related procurement activities aiming for successful transition and gas production as per commitment, even without clarity of Site Access at this stage.

- Projects in Myanmar

The key *producing project* in Myanmar is the Zawtika Project located in the Gulf of Moattama in Myanmar. According to the turbulence situation in Myanmar as of current, some activities are delayed and process under difficulty; however, there is minimum impact to our current operation and no impact to sales and production as per obligation. PTTEP has implemented the Business Continuity Management (BCM) plan to ensure uninterrupted supply of petroleum and closely monitored the situation. The Yetagun Project has temporarily shutdown on 1 April 2021 due to insufficient natural gas for the minimum production. There is no significant impact to PTTEP's operation. The Yadana Project in 2021, the Project has plan to drill 2 production wells in Yadana and Badamya Fields. The drilling of the first well in Yadana Fieds has already completed and the second well is in progress, which is expected to be completed in Q2/2021, in order to maintain production volumes, as well as the sales volumes according to the Sales and Purchase Agreement. For Exploration Projects, The Myanmar M3 Project, the project is waiting for an approval of Field Development Plan (FDP) and PSC Supplementary, which are expected to be approved by Myanmar Government in Q2/2021. For Domestic Gas to Power project, after the approval of Notice to Proceed in December 2020, PTTEP has commenced pre-development works, including basic engineering study, JDA negotiation with GPSC & Local Partner and M3 & M9 GSA negotiation, in preparation for PPA negotiation. However, since Coup d'état in February, the project has been facing delay including near shore GSI & GTI survey, onshore topographic survey. The situation is being closely monitored to assess risks as well as to prepare for proper operations.

- Projects in Malaysia

The *producing projects* in Malaysia include the **Block K Project**, an oil producing field consisting of Kikeh, Siakap North-Petai (SNP) and Gumusut-Kakap (GK) fields which are located in the deep water of offshore Sabah. The main projects are the infill development of SNP and GK in Q2/2021. The **Sarawak SK309 and SK311 Project** are oil and gas producing fields located in the shallow water of offshore Sarawak. The Pemanis Topsides will be installed in June 2021, with first gas expected in July, including the infill oil development to



increase production from the existing facilities. Block H Project, located in the deep-water of offshore Sabah, has started the production since February 2021 which will gradually increase the production volume to 270 MMSCFD as plan.

Exploration Projects in Malaysia are highlighted as follows. The Sarawak SK410B Project completed the Lang Lebah-2 appraisal well in January. The Project discovered a reservoir of natural gas which is larger than the initial estimation. Field development is being studied to reflect larger gas discovery volume and expect to reach Final Investment Decision (FID) in 2022. The Sarawak SK417 Project completed Dokong-1 exploration well in January 2021. The Project discovered a reservoir of natural gas and will continue drilling an addition exploration well in 2021. The Sarawak SK405B Project completed Sirung-1 exploration well in March 2021. The Project discovered a reservoir of oil and natural gas and will continue study on additional appraisal program and development plan of Sirung field as the next step. The Sarawak SK438 Project is drilling an exploration well, Kulintang-1. The drilling is expected to complete in April this year. The Sarawak SK314A project is performing 3D seismic reprocessing expected to complete in 2021. Its results will be used to plan for 2 exploration wells in 2022. The PM407 Project is in the progress of study for petroleum potential evaluation. Moreover, 3D seismic reprocessing is being carried out. Both studies will be completed within Q3/2021 and used for selection of two exploration wells drilled in 2022-2023 drilling campaign. The PM415 Project is being evaluated remaining petroleum potential after drilling exploration wells JELAWAI-1&1ST1 and BEBARU-1.

- Projects in Vietnam

The key *Producing Project* is the Vietnam 16-1 Project, located offshore in the southeastern region. The project has planned to start the campaign to drill 4 development wells in 2021. Now under procurement for Equipment and Services, expected to start drilling the 1st well in Q3/2021. For *Exploration Projects*, 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). The projects have production capacity approximately 490 MMSCFD.

Projects in the Middle East

PTTEP's project highlights in this region are located in Sultanate of Oman (Oman) and United Arab Emirates (UAE).

Projects under *production phase* in this region include the PDO (Block 6) Project which is the largest potential onshore oil producing asset in Oman. The Mukhaizna (Block 53) Project is a large producing onshore oil field located in southern Oman. In Q1/2021, both projects continue to curb production per OPEC+ agreement to support price. Oman Block 61 Project, PTTEP has successfully acquired 20% of BP Exploration (Epsilon) Limited (BP)'s interest in Block 61 Sultanate of Oman (Oman Block 61) on 1 February 2021, and the conditions precedent to Completion prescribed in aforementioned agreement have already been fulfilled on 23 March 2021. For *Exploration Projects*, Oman Onshore block 12 Project is in the process of 3D seismic reprocessing (original 3D), including 3D seismic acquisition to support prospect ranking evaluation of exploration wells in which the drilling campaign has been postponed to carry out in 2022-2023.

In UAE, projects under *exploration phase* are located offshore in the northwest of Abu Dhabi. The Abu Dhabi Offshore 1 Project is currently being evaluated for petroleum potential for future exploration. The Abu Dhabi Offshore 2 Project is currently being preparation for exploration well which to be drilled in Q3/2021. The Abu Dhabi Offshore 3 Project with Eni Abu Dhabi, has signed the Concession Agreement with Abu Dhabi National Oil Company (ADNOC) in December 2020. The project is currently preparing the Appraisal plan of Pre-existing discovery which to be submitted to ADNOC for consideration



Projects in the Americas

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

The Mariana Oil Sands Project is located in Alberta, Canada. The project is currently under evaluation for an appropriate plan.

Projects in Brazil include the **Barreirinhas AP1 Project** located in the Barreirinhas Basin, offshore of the northeastern region of Brazil, is waiting for exploration wells drilling permit from the government. The **Brazil BM-ES-23 Project** located offshore in the Espirito Santo basin, east of Brazil, is currently evaluating the petroleum potential for further development.

Projects in Mexico include the Mexico block 12 (2.4) Project located in the Mexican Ridges, Western Gulf of Mexico. Currently geophysical survey has been performed for petroleum potential evaluation and also being prepared for drilling one exploration well in Q3/2021. The Mexico block 29 (2.4) Project, located in the Campeche, has completed drilling of 2 exploration wells in 2020 with successful result. The appraisal plan and exploration plan were approved by the Mexican regulators (CNH) on 25 March 2021. Currently the project has been preparing for exploration well and appraisal drilling in Q2/201 and Q3/2021, for further project development planning.

Projects in Australia

PTTEP's projects in this region include only the PTTEP Australasia Project, which is located in the Commonwealth of Australia (Australia) and consists of 7 permits.

The Cash Maple Field and Orchid Field, which are in exploration phase, is currently in progress to define proper direction of the project in order to increase the opportunity for development.

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*, are located onshore in the eastern part of Algeria. In Q1/2021, the project had average production of 18,407 barrels per day (BPD) to comply with OPEC+ production agreement.

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 the development on Phase 1 following the conclusion from an approved development plan by the government in Q1/2019. The project is currently under construction and drilling production wells with expected first oil production for the initial phase of around 10,000-13,000 barrels per day (BPD) in 2021. In the second phase, production capacity is planned to ramp up to around 50,000-60,000 BPD in 2025. In addition, PTTEP has entered into the Asset Sale and Purchase Agreement (ASPA) for the participating interest of 24.5% in the project from CNOOC, the current partner of the project, at the transaction value of CNOOC's proportion of development cost until approval received and officially announced by Algerian government, which expect to be completed in 2021. After the completion of the transaction, PTTEP's stake in the project will increase from 24.5% to 49%. The main joint venture partner is SONATRACH, the national state-owned oil company of Algeria, with the participating interest of 51%.

The Mozambique Area 1 Project, which is in the development phase, is a large LNG project located in offshore Mozambique. In 2021, the Project has commenced foundation work for steel erection, Temporary Beach Landing, Dredging for shallow water pipeline and security infrastructures. Project finance closing is confirmed on 24 March. The first debt drawdown achieved end of March. However, with the security incident in Palma in April, operator has evacuated all project's staff and contractors from Afungi site and handed the project site to be under care of the Government of Mozambique. The Force Majeure has been declared by the operator for safety reason. The situation at site is being investigated and monitored under Project Taskforce team.



Strategies under Sustainable Development Framework

PTTEP adheres to the Sustainable Development policy according to global practices and UN principles. Operating under the concept FROM "WE" to "WORLD" in order to become the sustainable organization that takes conscious consideration of all stakeholders' interests, maintains energy security, delivers value and fosters sustainability for the wider society.

To be in line with the vision to become the "Energy Partner of Choice", PTTEP has established our sustainable development framework which comprises of three main components namely: High Performance Organization (HPO); Governance, Risk Management and Compliance (GRC); and Stakeholder Value Creation (SVC). Key highlights in this quarter are as follows:

High Performance Organization (HPO) PTTEP is still focusing on EXECUTE and EXPAND strategies. Amidst the current COVID-19 pandemic and the challenges many industries including oil and gas are facing, the company has revisited and sharpened our execution plan in order to adapt to the changing situation with the strong endeavor to maintain the company's competitive advantage, explore business opportunities in focus areas as well as to foster sustainable growth. The afore-mentioned plans can be highlighted as follows:

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

O Create additional value from existing assets with an emphasis on increasing production from key projects including accelerating the development of major overseas projects particularly the Mozambique Area 1 Project in Mozambique, the Hassi Bir Rekaiz Project in Algeria and Integrated Domestic Gas to Power Project in Myanmar which is an integrated energy project from upstream exploration to power generation creating additional value to the company. Furthermore, for Block H project in Malaysia, the gas production from Rotan and Buluh fields had been commenced since February 6, 2021, delivering to PETRONAS Floating Liquefied Natural Gas-2 (PFLNG-2) facility. The production will eventually ramp up to a target rate of 270 million standard cubic feet per day (MMSCFD).

In addition, the company successfully completed three exploration/appraisal wells located offshore Sarawak in Malaysia. The first is "Lang Lebah-2" appraisal well, in SK410B project resulting in the new record for PTTEP's largest gas discovery which will increase reserves for the company's long term sustainable growth. The second is "Dokong-1" exploration well, Sarawak SK417 project. This high-quality gas discovery presents future synergy development and production opportunity as a cluster development with the previously discovered adjacent Sarawak 401B project. The third is "Sirung-1" wildcat exploration well, SK405B project which has successfully made a new discovery of oil and with the plan to conduct appraisal well in 2022.

- O **Continuously maintain competitive unit costs** by using digital technology and increasing work effectiveness to strengthen PTTEP's core business amid the increasingly volatile environment of the industry.
- O Constantly collaborate with Thai government and the authorities to access G1/61 project to prepare and ensure continuity of natural gas production to serve energy demand of the country. In addition, effectively execute the transitions for G2/61 project and newly acquired asset.
- O **Transform to the New Normal** by implementing Transformation projects and redesigning human resources management within the company, consist of various initiatives to accelerate digital transformation aimed at improving long term efficiency, changing the organization's mindset towards "One Team One Goal", improving internal capabilities and work processes, introducing new ways of working in a post COVID-19 world, for instance.



- (2) EXPAND: Strategy to focus growth in strategic investment areas and diversify into energy related businesses for long-term sustainability
 - O **Coming-Home Strategy:** The key strategic areas for expansion are Thailand and South East Asia. Moreover, PTTEP is also expanding business opportunities in the Gas Value Chain business in Myanmar in the form of Gas to Power project.
 - O Strategic Alliance Strategy: PTTEP aims to capture an investment opportunity in other petroleum prolific areas with strategic alliances by mainly focusing on the Middle East where we have a foothold. In the first quarter, the company had expanded our investment by acquiring 20% participating interest in Block 61 in Sultanate of Oman, from BP Exploration (Epsilon) Limited, which is the onshore gas projects with large reserves, low unit costs, and partnering with leading oil and gas company. The investment is strategically aligned with PTTEP's direction to increase its gas portfolio to balance the risks from oil price fluctuation to the business overall and also supports PTTEP's strategy towards integrated investment along gas value chain.
 - O New Business Investment Strategy for Sustainability: PTTEP targets to invest in businesses focusing on technology and innovation as well as R&D capability enhancement to support existing core E&P business, future investment opportunity related to renewables, e.g. solar and wind and the A.I. and Robotics Ventures (ARV) business scale-up, through our subsidiary, with business opportunities in the use of robots and artificial intelligence to increase productivity, lower costs and improve operations safety. The products and services of ARV are Subsea Inspection Repair and Maintenance, One-stop service for Smart Farming and Smart Forestry, Drone inspection, and Healthtech. ARV has developed technologies along with public relations to the targeted customers including petroleum-related companies, and agricultural companies. This is to drive continuous expansion of the customer base.
 - O LNG Strategy: PTTEP is committed to drive LNG value chain with a focus on investments in the upstream and liquefaction plants while developing in-house LNG capabilities. In Q1/2021, PTTEP has submitted a request for LNG Shipper License to the Energy Regulatory Commission, through PTT Global LNG Company Limited, which is a joint venture between PTT Public Company Limited and PTTEP Business Center Company Limited. This is to be ready for the LNG liberalization in Thailand and expand our business beyond gas exploration and production. The approval is expected by the end of Q2/2021.

PTTEP places great importance on effective financial management by focusing on building financial discipline and maintaining a robust capital structure. As at the end of Q1/2021, the Company maintained a strong liquidity position with cash on hand of approximately USD 1,795 MMUSD. The debt-to-equity ratio is 0.32x which is in line with the Company's financial policy. The cost of capital was maintained at 3.44%, with no debt service obligation in 2021. PTTEP is, therefore, confident that its solid financial position and liquidity will enable the Company to withstand such oil price fluctuation and global economic slowdown.

Moreover, PTTEP encourages Research and Development (R&D), technological applications and innovation to increase efficiency and lower unit cost of exploration and production activities. The objectives of R&D include unlocking high CO2 reserve, removing contaminants in condensate, enhancing oil recovery, reducing environmental impact, reducing decommissioning cost and improving operation and maintenance efficiency. As of Q1/2021, there are 42 projects under research and development in which 10 projects are under field trial phase. In the area of infrastructure to support technology research and development, the company is constructing the PTTEP Technology and Innovation Center. (PTIC) in the Eastern Economic Corridor of Innovation area (EECi), which will be completed by 2021. PTTEP has an environmental management system which is a subset of PTTEP's Safety, Security, Health and Environment Management System (SSHE MS). In the last quarter of 2020, PTTEP had Lost Time Injury Frequency (LTIF) of 0.12 and a Total Recordable Incident Rate (TRIR) of 0.85. The Company's recent performance on both safety indicators (LTIF and TRIR) are among the First Quartile of the International Association of Oil and Gas Producers (IOGP) average.



In Q1/2021, PTTEP received Best Initiative in Innovation for the Pilot Recycled Drill Cuttings Road Project from the Asset ESG Corporate Awards 2020, organized by the Asset magazine, a leading financial publication in Asia.

<u>Governance</u>, <u>Risk Management and Compliance (GRC)</u> PTTEP is committed to conducting its business with transparency and effectiveness by adhering to the good corporate governance principles, maintaining robust risk management and internal control system as well as strictly conforming to applicable laws and regulations to assure stable and sustainable growth of the company. The main progress are as follows:

- Established 2021 GRC Roadmap according to GRC Strategies Smart Assurance and GRC in Common Sense categorized in 3 areas i.e. Process &Technology, People, and Society which aims to effectively integrate assurance processes, cultivate GRC in employee mindset to be aware, accept and implement GRC, as well as prepare for becoming a GRC role model among Thai Listed Companies.
- Conducting an Internal Maturity Assessment for Malaysia to prepare for a Company-wide GRC Maturity Level assessment program.
- Enhancing Risk Management System to support more comprehensive risk identification.
- Continue studying on possibility to align and integrate assurance activities to reduce process redundancy and manage information on single platform for more efficiency.
- Continue building GRC culture through communication campaign such as promotional materials in the format of VDO Clips, sharing ideas related to GRC, and organizing online training and e-learning.
- Cooperating with the Sustainable Development and Knowledge Management team to conduct Stakeholders Engagement Survey and take the results to develop improvement plan for becoming a GRC role model among Thai Listed Companies.

In Q1/2021, PTTEP was honored to receive the awards from international institutions such as the 4 awards from Asset ESG Corporate Awards 2020 (by The Asset) and the 2 awards from 16th ASIAN ESG Award 2019 – The Best of Asia (by Corporate Governance Asia); Asia's Icon on Corporate Governance and Asian Corporate Director Recognition Award. The award represents PTTEP's concrete performance and strong commitment to conduct business with effectiveness, transparency, accountability, and concerning to all stakeholders.

<u>Stakeholder Value Creation (SVC)</u> PTTEP concern for natural resource conservation, environmental restoration as well as community and social development. Our strategies and main progress in Q1/2021 of SVC are as follows:

- Greenhouse Gas Reduction Strategy: To mitigate global warming and climate change, PTTEP aims to become a Low Carbon Footprint organization and aims to reduce its greenhouse gas emissions intensity by at least 25% by 2030, compared to the 2012 base year. As of the end of Q1/2021, the Company reduced greenhouse gas emissions intensity by 13% through continuously project implementation including flare gases recovering and utilization, energy & process efficiency improvement and reducing methane leakage from production processes.
- Circular Model for E&P Strategy: PTTEP's work processes were redesigned and resources were reused and recycled. The target is to reuse at least 50% of main structures which are retained at appropriate, safe, and efficient conditions by 2030. In Q1/2021, PTTEP is developing Reuse Guideline for Existing Facilities. Our onshore operations have been applied 100% with Mobile Production Facility Reuse. For the resource efficiency maximization, the Company also conducted the study on the use of rocks and soils generated from our drilling activities (drill cuttings) as alternative material for road construction and maintenance. Currently, PTTEP has planned the additional pilot stage for 1.2 kilometers road pavement at the Rapid Scale-up Center (RASC). Additionally, in Q1/2021, our hazardous waste to landfill is reported at zero in line with our long-term target for zero waste to landfill by 2030.

PTT Exploration and Production Public Company Limited Management Discussion and Analysis (MD&A) for the first guarter of 2021



Ocean for Life Strategy: PTTEP, whose operations are mostly offshore, aims to be a leader in conserving restoring and monitoring natural resources and marine ecosystems to support economic growth and quality of life of nearshore communities, with the target to achieve Net Positive Impact of Ocean Biodiversity and Ecosystem Services (Ocean BES) value in domestic offshore operations by 2025 and all offshore operations by 2030, compared to the 2019 base year. The Company also set the target to Increase 50% of community income for focused communities and achieve 16,000 conservation networks by 2030, compared to the baseline data before PTTEP project implementation. In Q1/2021, PTTEP completed site testing of 3 green buoys to monitor ocean health and biodiversity at Koh Man Nai, Rayong province. PTTEP also conducted the second-time sampling around our operation area in the Gulf of Thailand for the Baseline Study of Microplastics project with Kasetsart University. Additionally, in 2021, the Company also has a plan to establish 6 Aquatic Animal Hatchery Learning Centers in Surat Thani, Prachuap Khiri Khan, Chumphon, Phetchaburi, Samut Songkhram and Rayong provinces.

Furthermore, PTTEP also supports the SVC strategy by carrying out research and development (R&D) projects such as the Greenhouse Gas (GHG) reduction by converting Carbon Dioxide to high valued products, converting flare gas to Carbon Nanotube, the waste reduction by converting the produced sand to high value products, and the green buoy for underwater condition monitoring project. These projects are currently under development.

In Q1/2020, PTTEP received ESG Corporate Platinum based on the outstanding performance in Environmental, Social, and Governance (ESG) from the Asset ESG Corporate Awards 2020, organized by the Asset magazine.

Management Discussion and Analysis (MD&A) for the first quarter of 2021



Future Business Outlook

Oil Price Outlook

Despite a flat crude oil demand in Q1/2021 due to COVID-19 new wave in Europe and the outbreak of COVID-19 variants, oil demand is expected to continue its recovery starting from Q2/2021 onwards, from increasing COVID-19 vaccine doses administered globally. Especially in Q3/2021, oil demand is anticipated to rocket upon the reopen of international aviation and land transportation, while demand from petrochemical sector is also expected to increase. Easing COVID-19 containment measures by the governments around the world will likely cause the oil demand to gradually recover to 98 million barrels per day by the end of 2021.

On a supply side, as a result of OPEC+ meeting on April 1, the OPEC+ members agreed to gradually reduce production cuts, while Saudi Arabia also decided to gradually phase out its 1 million barrels per day voluntary cuts from May to July 2021. The daily oil supply in July will be 2.15 million per day higher, compared to February. However, output levels can still be adjusted at each monthly OPEC+ meeting corresponding to the latest situation. At the same time, U.S. shale oil production will just slowly increase to 11.6 million barrels per day by 2021 year-end, compare to 11.2 million barrels per day at beginning of the year, according to lower investment plans.

Based on above-mentioned demand and supply situations, the Dubai crude price is expected to move around 60-70 USD per barrel in 2021, largely depend on market sentiments. The key factors to be monitored are COVID-19 situations, containment measures in several countries, vaccination progress, economic stimulus, which will all impact the demand recovery, coupled with oil supply management of major oil producing countries (OPEC, Russia and the United States), as well as U.S. sanction policy to Iran and Venezuela.

LNG Market

The oversupply situation of Global LNG market is expected to prolong throughout 2021, with a total production capacity of existing and upcoming LNG projects growing by 26 MTPA (approximately 7%) from 2020 to 391 MTPA by the end of 2021, while demand for LNG is anticipated to grow to 377 million tons. (Source: FGE as of January 2021). LNG price is expected to be lower as demand subsides after winter in Q1/2021, while supplies rise from existing and new projects. The LNG spot price tends to increase during the late this year when winter is approaching. The 2021 Asian Spot LNG price forecasts range between 6.3 - 7.6 USD/MMBTU (Source: Woodmac, FGE)

Thai Economy and Foreign Exchange Outlook

The Bank of Thailand expects 2021 growth to be uneven across economic sectors, with the overall expected growth rate at 3%, down from the previous 3.2% projection made in December 2020. Tourism industry recovery which had seen delayed recovery due to the new wave of Covid-19 outbreak, efficacy and distribution of COVID-19 vaccine, and continued fiscal economic stimulus policies from the government continue to be key factors that influence Thailand's growth in 2021. In addition, expansion of Thai trading partners' economies should also support the Thai economy through increased recovery of merchandise exports.

THB for the remainder of 2021 is expected to continue to be volatile, moving in line with Thailand's general recovery expectations, mainly from tourism sector. Bank of Thailand's Monetary Policy Committee views that the continuity and policy coordination among government bodies would be critical to support the economic recovery going forward. As tourism is expected to recover during the year albeit with some delay and government fiscal support expected to be sustained, the THB is also expected to gain relative to current depreciated levels.

PTTEP has adopted the natural hedge method to manage FX risks by matching USD and USD-linked revenues from petroleum products with major USD expenses. Remaining FX risk exposures from non-USD revenues and expenses are managed by utilizing financial hedging instruments such as forwards and cross currency swaps. Moreover, interest rate volatility does not materially impact the Company's financial performance as 82% of total interest- bearing debt is fixed rate.

Management Discussion and Analysis (MD&A) for the first quarter of 2021



Other important factors that affect the Company's operations

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 and relevant regulations in June 2020, which allow tax filing to be done in US Dollar, which is the company's functional currency for the fiscal year starting from 2020. PTTEP group had already recognized the financial impacts of s uch changes in Q2/2020 and Q3/2020, and there will be no impact from THB/USD fluctuation to the company's financial performance starting from Q4/2020 onward.

PTTEP's performance outlook for the second quarter and for the year 2021

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



Note: 1. The sales volume includes the sales volume from ADNOC Gas Processing (AGP)

2. The assumption is based on average Dubai price in 2020 of 55.5 USD/Barrel

3. Including Oman Block 61 performance which PTTEP has acquired 20% interest, with Completion Date on March 23, 2021.

Sales volume:

PTTEP expects the average sales volume for the Q2/2021 and for the full year of 2021 to be approximately 416,000 and 405,000 barrels of oil equivalent per day, respectively. The higher sales volume in 2021, compared to the previous year was mainly from additional sales volume from the start-up of Malaysia Sabah H and Algeria Hassi Bir Rekaiz projects, including the acquisition of 20% interest in Oman Block 61 project, which the transaction was completed on March 23, 2021.

Sales price:

- PTTEP's liquid prices will fluctuate according to global crude prices.
- PTTEP's gas price formulas are partially linked to oil prices with reference to average historical prices ranging from the past 6 to 24 months. The average gas price for Q2/2021 and the full year of 2021 are estimated at approximately 5.8 USD/MMBTU and 5.6 USD/MMBTU respectively, lower than the previous year, reflecting the lag time adjustment of gas price in accordance with a slump in global crude price last year.
- Outstanding volume of oil price hedging at the end of Q1/2021 was approximately 16 million barrels; the Company has consistently monitored crude oil price movements and has the flexibility to adjust its hedging plan as appropriate.

Unit Cost:

For Q2/2021 and the full year of 2021, PTTEP expects to be able to maintain unit cost at around 28-29 USD/BOE, lower from the previous year from effective cost management, coupled with the commercial production start-up of Malaysia Sabah H project and the acquisition of Oman Block 61, of which the unit costs for these two projects are quite low.