# Annual Report 2020

(56-1 One Report)

PTTEP




PTTEP

# From our first day,

PTTEP, as a national petroleum exploration and production company, has strived to learn, practice, accumulate experience and be able to provide a sustainable petroleum supply to Thailand and the countries we operate in. Today, we have expanded operations to 15 countries across the globe with our continued commitment to contribute to the sustainable development of society under the vision of “Energy Partner of Choice”.









# Contents


**Financial Highlights** 4

**Message from Chairman and Chief Executive Officer** 6

**Our Business** 10
Structure and Business Operations 11
Risk Management 71
Driving Business for Sustainability 84
Management Discussion and Analysis of Operating Results 90
General Information and Other Significant Information 114

**Corporate Governance** 136
Corporate Governance 137
Management Structure 162
Corporate Governance Performance 189
Internal Controls and Connected Transactions 222

**Financial Statements** 252
Financial Statements 253

**Attachments** 260
Attachment 1 261
Information of the Board of Directors, Management, Controlling Persons and Corporate Secretary
Attachment 2 326
Directors of Subsidiaries and Associated Companies
Attachment 3 333
Details of Head of the Internal Audit Division and Head of the Compliance Function
Attachment 4 337
Asset Revaluation
Attachment 5 338
Good Corporate Governance and Business Ethics
Attachment 6 339
Audit Committee Report




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# From
# We to World

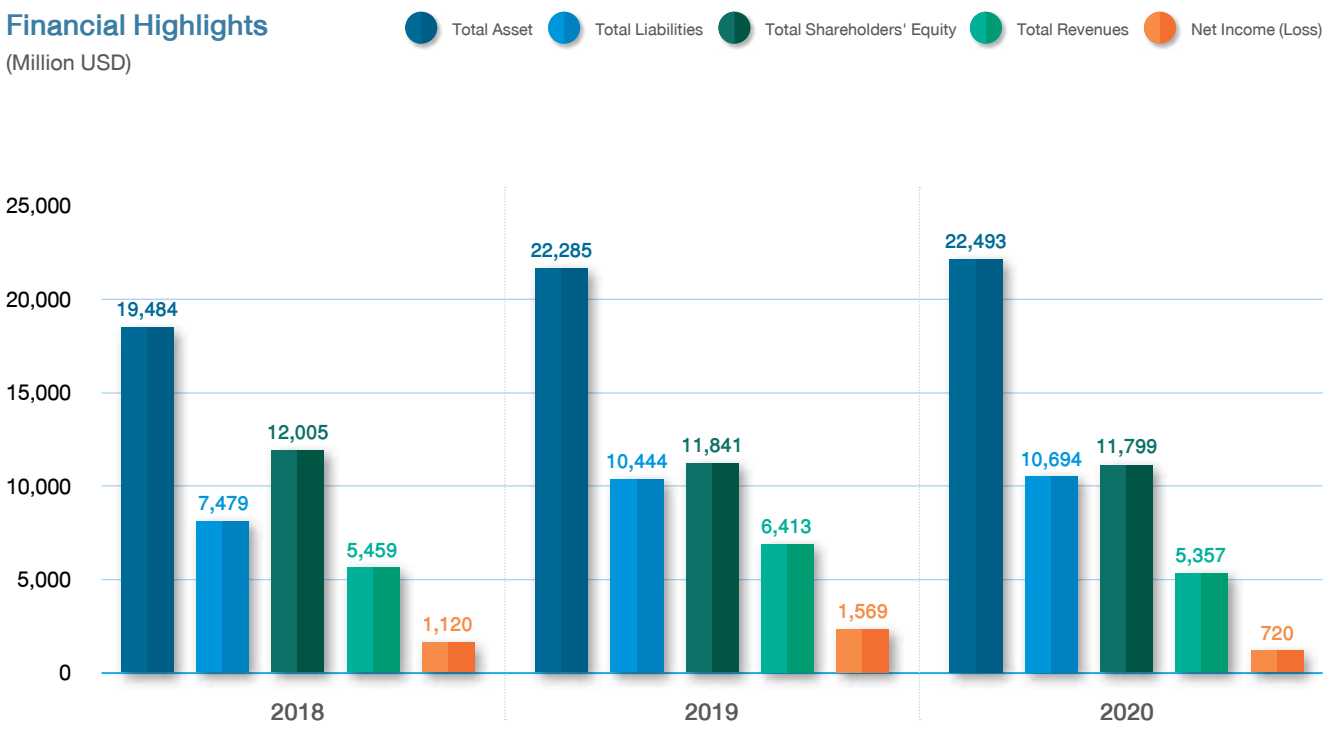
PTTEP has established a Sustainable Development Framework as a way of working. The framework comprises 3 main components of High Performance Organization, Governance, Risk Management and Compliance, and Stakeholder Value Creation. We believe that through performance excellence in these three areas, together with a conscious consideration of all stakeholders' interests will lead to a sustainable society.



# Financial Highlights

## Financial Highlights

(Million USD)




### Net Cash From Operating Activities*

| | |
|---|---|
| 2018 | 3,276 |
| 2019 | 3,540 |
| 2020 | 2,799 |

### Net Cash Used in Investing Activities

| | |
|---|---|
| 2018 | (2,019) |
| 2019 | (3,964) |
| 2020 | (1,172) |

### Net Cash Used in Financing Activities

| | |
|---|---|
| 2018 | (1,724) |
| 2019 | (554) |
| 2020 | (846) |

### Cash and Cash Equivalent at the Beginning of the Period**

| | |
|---|---|
| 2018 | 4,468 |
| 2019 | 4,001 |
| 2020 | 3,023 |

### Cash and Cash Equivalent at the End of the Period**

| | |
|---|---|
| 2018 | 4,001 |
| 2019 | 3,023 |
| 2020 | 3,804 |

(Million USD)

* Including effect of exchange rate changes

** Including short term investment

| | 2018 | 2019 | 2020 |
|---|---|---|---|
| Dividend per Share (THB) | 5.00 | 6.00 | **4.25*** |
| Dividend Yield (%)** | 4.41 | 4.82 | **4.33** |

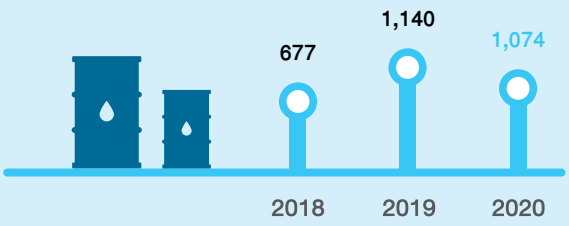
* The total dividend of 2020 will be THB 4.25 per share including the interim dividend at the rate of THB 1.50 per share and the second half-year operations dividend at the rate of THB 2.75 per share. Payment of the interim dividend and the second half-year operations dividend will be proposed in the 2021 General Shareholder's Meeting on April 8, 2021 for acknowledgement and approval, respectively.

** Calculated from PTTEP's closing share price on period end

| | 2018 | 2019 | 2020 |
|---|---|---|---|
| **Financial Ratios** | | | |
| EBITDA to Revenue from Sales (%) | 73 | 71 | **68** |
| Debt to Equity (times) | 0.16 | 0.29 | **0.33** |
| Return on Equity (%) | 10 | 13 | **6** |
| Return on Assets (%) | 4 | 8 | **3** |
| Return on Capital Employed (ROCE) | 8.58 | 11.35 | **5.37** |

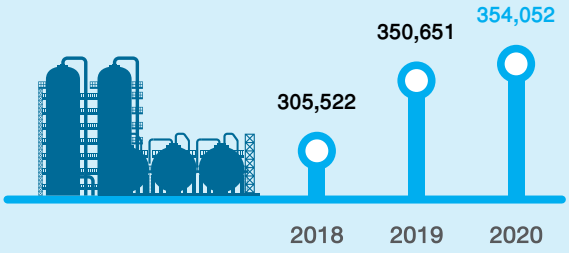
## Petroleum Proved Reserves

(MMBOE)



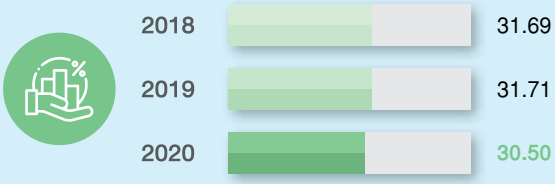

## Petroleum and Natural Gas Sales Volume

(BOED)



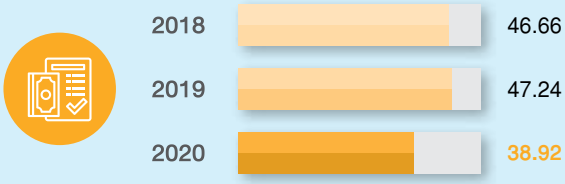

## Unit Cost

(USD per BOE)

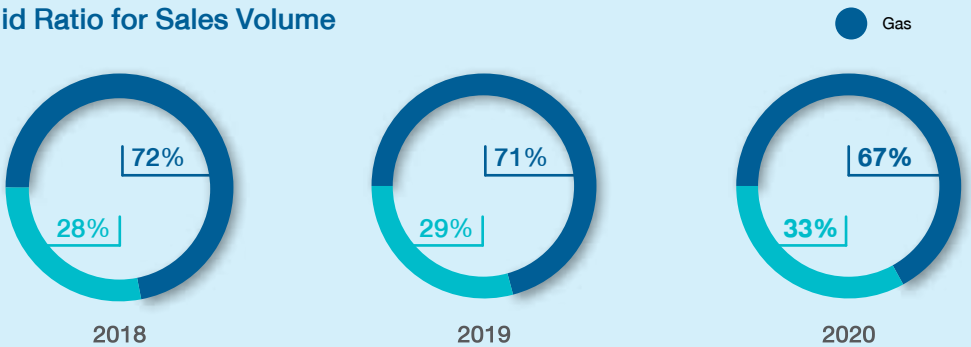



## Average Sales Price

(USD per BOE)




## Gas and Liquid Ratio for Sales Volume



# Message from Chairman and Chief Executive Officer



**Mr. Prajya Phinyawat**
Chairman

## Dear Shareholders,

2020 marked the 35th anniversary of PTT Exploration and Production Public Company Limited (PTTEP), which was established in 1985 by the Royal Thai government to lead and materialize Thailand's petroleum exploration and production for long-term national energy security. Starting off as a joint venture partner of global oil companies, PTTEP has accumulated knowledge and experience and become a fully-fledged E&P operator in Thailand and overseas. The investment portfolio has expanded to cover more than 40 projects in 15 countries.

In 2020, the world faced significant challenges due to the novel coronavirus (COVID-19). The disease not only affected public health and safety, but also impacted economies around the world following lockdown measures introduced in many countries that significantly impacted oil demand. Coupled with the OPEC+ nations inability to agree on production levels for 2020 which caused oil prices to slump, causing impacts to the global oil and gas industry.

Amid those uncontrollable factors, PTTEP emphasized preparations for both present and future challenges. We adhered to the Execute and Expand strategy in enhancing competitiveness and promoting stable and sustainable growth. Plans for development and production were adjusted while unit cost was maintained at a competitive level. These efficiencies contributed to us achieving 2020 targets as shown below.



Mr. Phongsthorn Thavisin
Chief Executive Officer

## Execute for Stability and Competitiveness

PTTEP placed importance on the Execute strategy, focusing on increasing sales volume of legacy assets and maintaining competitive unit costs. Digital technology was deployed to increase work effectiveness and organizational transformation was implemented to transform to the New Normal. Internal capabilities and work process were improved during the COVID-19 outbreak through a Work from Home policy and ensuring the maintaining of KPIs to accomplish targeted operational efficiency.

In 2020, PTTEP registered record average petroleum sales at 354,052 barrels of oil equivalent per day (BOED), compared to 350,651 BOED in 2019, thanks to Malaysia Asset's higher sales volume and the realization of Partex Holding B.V.'s full-year sales revenue after the acquisition in late 2019.

Aside from this, PTTEP placed a great emphasis on increasing production from key projects while also accelerating the development of major overseas projects particularly the Mozambique Area 1 Project in Mozambique and the Hassi Bir Rekaiz Project in Algeria to ensure timely production start-ups.

On exploration, focus was placed on development plans for Sarawak SK 410B, part of Lang Lebah field in Malaysia which is PTTEP's largest gas discovery, to confirm petroleum potential and push for final investment decision (FID) in 2022.

Meanwhile, PTTEP proceeded with the transition of operations for G1/61 (Erawan Project) from the current operator and G2/61 (Bongkot Project), to ensure smooth operations and ability to fulfill the government's gas production and delivery conditions.

## Expand for Long-term Growth and Sustainability

PTTEP's expansion remained fixed on strategic areas – Thailand and the rest of Southeast Asia and the Middle East. Through strategic alliances, in 2020 PTTEP won the exploration and production bids for Block 12 in the Sultanate of Oman and Offshore Block 3 in the United Arab Emirates. PTTEP also commenced discussions to acquire a 20% participating interest in Block 61 in Oman, as part of the goal to maintain the proved reserves to production ratio at 7 years.

In the year, PTTEP received exclusive rights to develop the Integrated Domestic Gas to Power Project in Myanmar and targets a Final Investment Decision (FID) in 2022.

Investment in technology was executed through AI and Robotics Ventures Company Limited (ARV). Two joint ventures were established: ATI Technologies Company Limited to provide a smart farming service platform; and ZeaQuest Company Limited to provide subsea pipeline maintenance service for oil and offshore renewable energy companies. The PTTEP-ARV-VISTEC R&D Collaboration Center (RDCC) was established. PTTEP also inaugurated the Drone Testing Area at the Eastern Economic Corridor of Innovation (EECI) Project in Wang Chan Valley, Rayong Province.

## Financial Performance in 2020

PTTEP reported USD 720 million in net profits in 2020, a decrease by USD 849 million or 54% from USD 1,569 million in 2019 due to a slump in oil prices. Sales revenue was dented despite higher average sales volume. PTTEP booked USD 91 million in impairment losses for Mariana Oil Sands Project and Yetagun Project, compared to no loss recognized in 2019.

In 2020, the recurring net profit was USD 781 million, a decrease of USD 664 million from USD 1,445 million in 2019, due to a decrease in sales revenue from lower average selling price. Additionally, depreciation, depletion and amortization and operating expenses increased by USD 60 million and USD 44 million, respectively, according to full year recognition of Malaysia Project and Partex Group after their acquisition in the second half of 2019.

However, as of December 31, 2020, PTTEP's financial status remained solid with total assets of USD 22,493 million and USD 10,694 million in total liabilities. The debt to equity ratio stood at 0.33. Liquidity remained high with USD 3,804 million cash on hand, sufficient for investment and operational expenses as well as for any strategic business opportunity that may arise.

## Sustainable Organization

PTTEP shaped the Sustainable Development Framework based on global practices and the United Nations' principles, as the foundation for long-term and sustainable development under the concept From We to World. We believe that excellent performance together with conscious consideration of all stakeholders' interests will enable us to maintain energy security and to deliver economic, social

and environmental sustainability. The framework comprises three main components namely: High Performance Organization (HPO); Governance, Risk Management and Compliance (GRC); and Stakeholder Value Creation (SVC). PTTEP emphasizes 3 strategies in creating long-term value: Greenhouse Gas Reduction, to mitigate global warming and climate change impacts under the goal to become a Low Carbon Footprint organization and to reduce greenhouse gas emissions intensity by at least 25% by 2030; Circular Model for E&P through work processes redesigned to increase reuse and recycling of resources, with a goal to reuse at least 50% of main structures by 2030; and Ocean for Life, as a company whose operations are mostly offshore, we are dedicated to take the lead in conserving, restoring and monitoring natural resources and marine ecosystem to support local economic growth and the quality of life of nearshore communities. Our objectives are to enrich marine biodiversity and improve the local economy for communities dependent on marine resources.

Having the Sustainable Development Framework at the heart of operations, PTTEP in 2020 was selected as a member of FTSE4Good Index Series for the 5$^{th}$ consecutive year and Dow Jones Sustainability Indices (DJSI) in the DJSI World Oil and Gas Upstream & Integrated Industry for the 7$^{th}$ consecutive year. PTTEP was included in the Stock Exchange of Thailand's Thailand Sustainability Investment Index (THSI) for the fifth consecutive year.

PTTEP was named “Best Innovative Company” at SET Awards 2020, thanks to Nautilus, the world’s first subsea maintenance and repair robot. The robot also won the ADIPEC 2020 “Breakthrough Technological Project of the Year” award.

On governance, PTTEP bagged awards at the national and regional level. In the Thai Institute of Directors (IOD)’s survey of corporate governance of Thai listed companies in 2020, PTTEP ranked “Excellent” with five symbols of recognitions which was the highest level. PTTEP won the NACC Integrity Awards from the National Anti-Corruption Commission (NACC) for the third time, and won two awards from the 2019 ASEAN Corporate Governance Scorecard Awards.

On behalf of the Board of Directors, the Management and all employees, we would like to thank shareholders and all stakeholders for their continuous trust and support. Please rest assured that PTTEP remains determined and committed to maintaining energy security, as well as creating long-term sustainable values for all stakeholders.



# Our Business

# 1. Structure and Business Operations

## 1.1 Policy and Business Operation Overview

### 1.1.1 Vision, Mission, Objective and Strategy

PTTEP is Thailand's leading E&P company with the mission to sustainably explore, secure resources and produce domestically and around the globe. The Company operates under the philosophy and concept of sustainable development, generating continuous business growth with an emphasis on the integrated natural gas business. This includes investment in cleaner energy and technology-related businesses, maintaining a competitive edge in the petroleum exploration and production business through operational efficiency enhancement and continuous innovation development, as well as creating value for shareholders and stakeholders through good operating performance and being responsible for the community, society and environment. The statement of PTTEP's Vision, Mission, Objective and Strategy are defined as below:

**Vision:** Energy Partner of Choice through Competitive Performance and Innovation for Long-term Value Creation

**Mission:** PTTEP operates globally to provide reliable energy supply and sustainable value to all stakeholders.

**Objective:** To create a balance between strong performance and business sustainability especially under the currently challenging and volatile business environment, PTTEP has set the aspiration goals for 2030 as follows:

- Continuously reduce unit cost to be at the Industry Top Quartile
- Sustain 5% average production growth (CAGR)
- Maintain the reserves to production ratio (R/P) of 7 years
- Drive the LNG value chain through investments in upstream and liquefaction
- Achieve 20% contribution to Net Income from new businesses such as the Power business and AI and Robotics business
- Transform to the New Normal through the transformation projects that consist of various initiatives to accelerate digital transformation aimed at improving long-term work efficiency towards the concept of "One Team, One Goal"

**Strategy:** To attain the above, PTTEP has formulated the Sustainable Development Framework which comprises 3 main components, namely: High Performance Organization (HPO); Governance, Risk Management and Compliance (GRC); and Stakeholder Value Creation (SVC).

**High Performance Organization (HPO)**

PTTEP continues to focus on utilizing the Execute and Expand strategies. Nevertheless, the Company has sharpened its execution plan in order to adapt to the changing situation, enhance the Company's competitive advantage and promote sustainable growth. Details of the strategies: (1) Execute and (2) Expand are as follows:

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

- Create additional value from existing assets with an emphasis on increasing production from key projects while also accelerating the development of major overseas projects, such as the Mozambique Area 1 Project and the Hassi Bir Rekaiz Project to ensure timely production start-ups.

- 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.
- Effectively execute the transitions for G1/61 and G2/61 and newly acquired assets.
- Transform to the New Normal by implementing transformation projects and redesigning human resources within the Company. The new transformation projects 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": Strategy to focus on growth in strategic investment areas and diversify into energy related businesses for long-term sustainability**

- Coming-Home Strategy: PTTEP focuses on investments in Thailand and South East Asia where the Company targets as strategic investment areas. Moreover, PTTEP also looks to expand business opportunities, such as pursuing Gas Value Chain business in Myanmar in the form of Gas to Power.
- Strategic Alliance Strategy: PTTEP aims to capture investment opportunity in other petroleum prolific areas with strategic alliances by mainly focusing on the Middle East.
- New Business Investment Strategy for Sustainability: PTTEP targets to invest in businesses focusing on technology and innovation as well as R&D capability to support core E&P business, future investment opportunity related to the energy industry, e.g. solar and wind and to scale up the AI and Robotics Ventures (ARV).
- LNG Strategy: Drive LNG value chain to focus on the upstream and liquefaction plants while developing LNG capabilities.

**Governance, Risk Management and Compliance (GRC)**

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. The Company established 2 GRC strategies, namely, "Smart Assurance" and "GRC in Common Sense" which the former of which aims to effectively and concisely integrate assurance processes, while the latter focuses on cultivating GRC in employees' and related stakeholders mindset to be aware, accept and implement GRC in daily operation and key decision making. PTTEP also aims to extend and share the GRC practices to the wider community and society.

For more details of the Governance, Risk Management and Compliance (GRC), please visit the Sustainability Report 2020 and the PTTEP website at https://www.pttep.com/en/Sustainabledevelopment.aspx.

**Stakeholder Value Creation (SVC)**

PTTEP conducts its operations while striving to promote natural resource conservation, environmental restoration as well as community and social development. The 3 strategies under SVC are as follows:

- **Greenhouse Gas Reduction Strategy:** PTTEP commits to operating responsibility to mitigate possible impacts from global warming and climate change through improving the production process and initiating new technology development projects.
- **Circular Model for E&P Strategy:** PTTEP's work processes are redesigned and resources are reused and recycled.
- **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.

For more details of the Stakeholder Value Creation (SVC), please visit the Sustainability Report 2020 and the PTTEP website at https://www.pttep.com/en/Sustainabledevelopment.aspx.

**Procedure to Set the Company's Vision and Mission**

PTTEP Board of Directors (Board) reviews and approves the vision and mission of the Company annually, being accompanied generally by the management, through a systematic planning process. The process is started by updating the current business environment and the E&P industry trend, and their implications on the Company regarding opportunities and risks. In addition, the Company's investment portfolio is reviewed and assessed on returns and risks to identify the vision, mission, and short-term and long-term strategic directions. These allow the Company to achieve sustainable growth as well as be able to cope with business changes. The management will then develop the Company's work plan, budget, and Key Performance Indicators (KPIs), based on the given strategic directions and policies, to be presented to the Board for approval prior to implementation.

After the Board approves the vision, mission, and corporate strategy, the management will cascade down the approved strategic directions and corporate targets to promote a better understanding among all of the Company's employees. In principle, this will subsequently lead to sub-work plan development and implementation which are in line with the corporate target, work plan, and core values to achieve the Company's goals at the end. However, the Board also regularly supervises and monitors management's implementation of stated strategic plans in accordance with business directions and strategies. The management is responsible for reporting its performance in comparison to the strategic plans to the Board of Directors for acknowledgement on a quarterly basis.

### 1.1.2 Development and Significant Changes in 2020

In 2020, PTTEP adjusted its plan under the "Execute & Expand" strategy as a result of the volatile circumstances resulting from the coronavirus disease (COVID-19) epidemic, in order to enhance the Company's competitive advantage and sustainable growth. The Company will focus on strengthening its Exploration and Production core business by effectively managing its cost and maintaining 5% average production growth (CAGR), maintaining petroleum reserves to production ratio at 7 years, driving forward the LNG value chain as well as diversifying into new businesses. The new business would include power business that will be extended from our existing gas business and expansion of AI & Robotics Ventures (ARV) in 4 core areas: subsea, agricultural, medical and drone inspection. This was done by establishing two joint ventures, namely ATI Technologies Co., Ltd. for Smart Farming, in collaboration with Thaicom Public Company Limited and ZeaQuest Co., Ltd. for subsea inspection, repair

services and maintenance (Subsea IRM) business, in collaboration with Mermaid Maritime Public Company Limited. These collaborations will be used to expand marketing channels and expand ARV business. For example, the Company has scheduled the release of a smart farming drone "Jao AiANG" in Q1/2021. In addition, the Company has transformed itself to the New Normal, through transformation projects that consisted of various initiatives to accelerate digital transformation aimed at long-term work efficiency towards our concept of "One Team, One Goal". For the G1/61 Project (Erawan Field) and G2/61 Project (Bongkot Field) operation transition, we have made good progress and have commenced the preparation phase, which includes planning for exploration drilling, construction of a production platform and gas pipelines in order to ensure gas production in accordance with the contracts. However, for the Erawan Field, we are still negotiating with the current concessionaire on the site access for wellhead platforms and equipment installation. In 2020, there were significant developments from the implementation of our strategic plan as follows:

**South East Asia**

In July 2020, the Company submitted a request to terminate and return 77.5% of the exploration block of Myanmar MOGE 3 Project after fulfilling the obligations under the Product Sharing Contract. The termination will be effective after receiving official approval from the Government of the Republic of the Union of Myanmar.

In September 2020, the Company drilled an appraisal well called "Lang Lebah-2" in Malaysia: Sarawak SK 410B Project, following exploration success in 2019, which is expected to be completed in January 2021. The preliminary results of the development of this project will be summarized and will start with the Front End Engineering Design (FEED) in 2021.

In Q3/2020, after the Company completed subsea infrastructure construction and installation in Malaysia: Block H Project in Q2/2020. During the final stage of commissioning prior to the original first gas target in late Q3/2020, there was a failure of a subsea component. No hydrocarbon was released to the environment during this event. The remediation plan is well in progress to achieve first gas at the earliest opportunity in 2021.

In October 2020, the Company submitted the block relinquishment notification letter to MOGE for Myanmar MD-7 Project since the project completed the drilling of an exploration well in March 2020 with no commercial reserves found. Currently, the project is in its relinquishment process. The termination will be effective after receiving the official approval from the Government of the Republic of the Union of Myanmar.

In December 2020, the Company received an exclusive right to develop the Integrated Domestic Gas to Power Project in Myanmar and signed the Notice to Proceed with the Ministry of Electricity and Energy (MOEE). It is an integrated energy project from Exploration and Production to a gas-fired power plant in Myanmar. At the initial stage, PTTEP plans to feed the natural gas from the Zawtika Project and Myanmar M3 Project to supply the new power plant with a capacity of 600 Megawatts for domestic consumption. The generated power will be sold to the Electric Power Generation Enterprise ("EPGE"), a state-owned enterprise under MOEE, over a 20-year term with 5-year extension from the Commercial Operation Date (COD). The Company expects to make a Final Investment Decision (FID) regarding the Integrated Gas to Power Project in 2022.

**Middle East**

In February 2020, the Company and Total E&P Oman Block 12 B.V., a wholly-owned subsidiary of Total S.A., signed Exploration and Production Sharing Agreement (EPSA) with Oman's Ministry of Oil and Gas (MOG) for the exploration

and production rights of Block 12, located onshore in the central part of the Sultanate of Oman, with the participation interest for PTTEP MENA Limited at 20% and Total E&P Oman Block 12 B.V. (the Operator) at 80%.

In Q3/2020, the Company acquired an additional 24.5% stake in the Algeria Hassi Bir Rekaiz Project, Algeria from CNOOC. As a result, PTTEP's stake in the project will increase to 49%, with SONATRACH, Algeria's national oil company, being the main investor with a participating interest of 51%. The project is expected to start production in 2021 with approximately 10,000-13,000 barrels per day.

In December 2020, the Company and Eni Abu Dhabi B.V., a wholly-owned subsidiary of Eni S.p.A. were selected as the successful bidders from the 2019 Abu Dhabi's Block Bid Round for exploration and production rights of Offshore Block 3 which is located in the north-west of Abu Dhabi, United Arab Emirates. The consortium has signed a Concession Agreement with the Abu Dhabi National Oil Company (ADNOC), with the participation interest for PTTEP MENA Limited at 30% and Eni Abu Dhabi B.V. (the Operator) at 70%.

**Africa**

In July 2020, the Company and its partners signed senior debt financing agreements in Mozambique Area 1 Project, in the amount of USD 14.9 billion, to advance the first two-train LNG development, after the final investment decision was made in June 2019. The Company has 8.5 percent of the participating interest in this project.

**Australasia**

In March 2020, the Company requested the termination and return of 100% of the exploration blocks of AC/RL5 Project to the Government of the Commonwealth of Australia after fulfillment of the requirements of the production sharing contract. The termination was effective from June 15, 2020.

## 1.2 Nature of Business Operation

### 1.2.1 Revenue Structure

PTTEP and its subsidiaries' revenues are mainly from sales of petroleum products of which its price is marked to the world fuel price in US Dollar. Thus, PTTEP and its subsidiaries' revenue structure of 2018-2020 are presented in US Dollar in order to reflect the Company's revenue structure for the petroleum exploration and production projects in the production phase of PTTEP and its subsidiaries as of December 31, 2020 as the following projects: Bongkot, Contract 4, Arthit, S1, MTJDA, B8/32 & 9A, Contract 3, Sinphuhorm, L53/43 & L54/43, G4/43, E5, PTTEP1, G4/48, L22/43, Zawtika, Yadana, Vietnam 16-1, Natuna Sea A, Yetagun, Algeria 433a & 416b, Vietnam 9-2, Malaysia Project, PDO (Block 6), Mukhaizna (Block 53), Dunga and Potiguar projects.

In addition, PTTEP and its subsidiaries recorded revenues proportionately from gas pipeline transportation which are Moattama Gas Transportation Company (MGTC), Taninthayi Pipeline Company LLC (TPC) and Andaman Transportation Limited (ATL).

## Revenue structure of PTTEP and our subsidiaries during 2018-2020

| Product | Operated by | % of shares held by the Company | 2018 | | 2019 | | 2020 | |
|---|---|---|---|---|---|---|---|---|
| | | | Revenue (Million US Dollar) | % | Revenue (Million US Dollar) | % | Revenue (Million US Dollar) | % |
| Sales | | | | | | | | |
| Crude oil | PTTEP | - | 186.21 | 3.41 | 186.00 | 2.89 | 118.59 | 2.20 |
| | PTTEPI | 100 | 53.74 | 0.98 | 57.99 | 0.90 | 31.62 | 0.59 |
| | PTTEPS | 100 | 469.42 | 8.59 | 493.93 | 7.69 | 314.93 | 5.83 |
| | Orange | 53.9496 | 81.38 | 1.49 | 84.97 | 1.32 | 47.86 | 0.89 |
| | B8/32 Partners | 25.0009 | 36.49 | 0.67 | 39.38 | 0.61 | 22.18 | 0.41 |
| | PTTEP HV | 100 | 26.07 | 0.48 | 26.73 | 0.42 | 15.92 | 0.29 |
| | PTTEP AP | 100 | 143.80 | 2.63 | - | - | - | - |
| | PTTEP HL | 100 | 123.07 | 2.25 | 107.84 | 1.68 | 58.23 | 1.08 |
| | Natuna | 50 | 2.32 | 0.04 | 2.73 | 0.04 | 2.84 | 0.05 |
| | PTTEP AG | 100 | 55.93 | 1.02 | 66.79 | 1.04 | 43.28 | 0.80 |
| | PTTEP SBO | 100 | - | - | 163.24 | 2.54 | 203.90 | 3.78 |
| | PTTEP SKO | 100 | - | - | 114.90 | 1.79 | 128.96 | 2.39 |
| | POC | 100 | - | - | 47.28 | 0.73 | 199.27 | 3.69 |
| | PKC | 100 | - | - | 5.67 | 0.09 | 26.04 | 0.48 |
| | PBL | 100 | - | - | 0.40 | 0.01 | 1.38 | 0.03 |
| Natural gas | PTTEP | - | 1,869.72 | 34.20 | 2,332.17 | 36.30 | 2,039.58 | 37.78 |
| | PTTEPI | 100 | 907.14 | 16.59 | 1,038.44 | 16.16 | 876.10 | 16.23 |
| | PTTEPS | 100 | 42.79 | 0.78 | 41.22 | 0.64 | 31.53 | 0.58 |
| | Orange | 53.9496 | 20.70 | 0.38 | 21.38 | 0.33 | 12.89 | 0.24 |

| Product | Operated by | % of shares held by the Company | 2018 | | 2019 | | 2020 | |
|---|---|---|---|---|---|---|---|---|
| | | | Revenue (Million US Dollar) | % | Revenue (Million US Dollar) | % | Revenue (Million US Dollar) | % |
| Natural gas | B8/32 Partners | 25.0009 | 9.59 | 0.18 | 9.91 | 0.15 | 5.98 | 0.11 |
| | PTTEP HV | 100 | 1.61 | 0.03 | 1.82 | 0.03 | 1.78 | 0.03 |
| | PTTEP HL | 100 | 0.91 | 0.02 | 1.16 | 0.02 | 1.22 | 0.02 |
| | Natuna | 50 | 75.60 | 1.38 | 64.26 | 1.00 | 45.38 | 0.84 |
| | PTTEP SP | 100 | 161.07 | 2.95 | 183.30 | 2.85 | 154.94 | 2.87 |
| | PTTEP SBO | 100 | - | - | 0.05 | 0.00 | 0.19 | - |
| | PTTEP SKO | 100 | - | - | 72.07 | 1.12 | 83.01 | 1.54 |
| | PKC | 100 | - | - | 0.001 | 0.00 | - | - |
| LPG | PTTEP | - | 7.94 | 0.14 | 8.12 | 0.13 | 8.95 | 0.17 |
| | PTTEPS | 100 | 23.82 | 0.44 | 24.37 | 0.38 | 26.85 | 0.50 |
| | PGC | 100 | - | - | 8.75 | 0.14 | 22.59 | 0.42 |
| Condensate | PTTEP | - | 768.63 | 14.06 | 712.95 | 11.10 | 429.53 | 7.96 |
| | PTTEPI | 100 | 66.70 | 1.22 | 60.19 | 0.94 | 41.04 | 0.76 |
| | PTTEPS | 100 | 0.94 | 0.02 | 0.89 | 0.01 | 0.59 | 0.01 |
| | PTTEP SP | 100 | 67.22 | 1.23 | 59.61 | 0.93 | 31.04 | 0.57 |
| | PTTEP SKO | 100 | - | - | 5.10 | 0.08 | 5.79 | 0.11 |
| Naphtha | PGC | 100 | - | - | 2.81 | 0.04 | 9.19 | 0.17 |
| **Total sales** | | | **5,202.81** | **95.17** | **6,046.42** | **94.10** | **5,043.17** | **93.42** |
| Revenue from pipeline transportation | | | | | | | | |
| Pipeline transportation | MGTC | 25.5 | 61.93 | 1.14 | 67.59 | 1.05 | 52.33 | 0.97 |
| | TPC | 19.3178 | 7.23 | 0.13 | 5.29 | 0.08 | 2.38 | 0.04 |
| | ATL | 80 | 38.40 | 0.70 | 43.52 | 0.68 | 37.64 | 0.70 |
| **Total revenue from pipeline transportation** | | | **107.56** | **1.97** | **116.40** | **1.81** | **92.35** | **1.71** |

| Product | Operated by | % of shares held by the Company | 2018 | | 2019 | | 2020 | |
|---|---|---|---|---|---|---|---|---|
| | | | Revenue (Million US Dollar) | % | Revenue (Million US Dollar) | % | Revenue (Million US Dollar) | % |
| Other income | | | | | | | | |
| Gain on foreign exchange rates | | | - | - | 108.60 | 1.69 | 26.06 | 0.48 |
| Gain on remeasuring of financial instruments | | | 13.97 | 0.26 | - | - | 99.33 | 1.84 |
| Gain on debt modification | | | - | - | - | - | 22.31 | 0.41 |
| Interest income | | | 83.35 | 1.52 | 86.23 | 1.34 | 36.73 | 0.68 |
| Other income | | | 50.79 | 0.93 | 55.39 | 0.87 | 37.01 | 0.69 |
| Total other income | | | 148.11 | 2.71 | 250.22 | 3.90 | 221.44 | 4.10 |
| Total revenues | | | 5,458.48 | 99.85 | 6,413.04 | 99.81 | 5,356.96 | 99.23 |
| Share of profit of associates and joint ventures | | | 7.93 | 0.15 | 12.35 | 0.19 | 41.64 | 0.77 |
| Grand total after inclusion of share of profit of associates and joint ventures | | | 5,466.41 | 100.00 | 6,425.39 | 100.00 | 5,398.60 | 100.00 |

For 2020, total revenues for PTTEP and its subsidiaries was USD 5,399 million (equivalent to THB 168,725 million), a decrease of USD 1,026 million or 16% when compared with the revenues in 2019 which was USD 6,425 million (equivalent to THB 199,202 million). The decrease was primarily from a decrease in sales revenue of USD 1,003 million due to lower average selling price despite of an increase in average sales volume. The increase in average sales volume was mainly from Malaysia Project and Partex Group due to full-year recognition after business acquisition in the second half of 2019, offset with a decrease from Contract 4 Project and Bongkot Project due to lower gas nomination from the buyer.

### 1.2.2 Products and Services

#### 1.2.2.1 Petroleum

Petroleum is defined as a naturally occurring hydrocarbon mixture, including crude oil, natural gas, condensate, related products, and other hydrocarbon products which are free in nature.

Crude oil is the portion of petroleum remains in liquid atmospheric pressure and temperature and obtained from oil wells and separation process, yet to be refined or purified.

Natural gas is hydrocarbon in gas or vapor phase at atmospheric temperature and pressure, commonly having methane as its major constituent.

Condensate is a low-density liquid hydrocarbon. It is condensed from hydrocarbon gas. Condensation occurs when gas is produced at the surface where temperature and pressure are lower than those in the reservoir.

Natural Gas Liquids (NGL) are components of natural gas that are separated from the gas state in the form of liquids. This separation occurs in a field facility or a gas processing plant. There are several types of natural gas liquids including Liquefied Petroleum Gas (LPG), which is obtained from crude oil refinery or natural gas separation process, and primarily consisting of butane and propane.

Crude oil, condensate, and NGL are measured in barrel, while natural gas is measured in cubic foot at the standard conditions (One atmosphere or atm at 60 degrees Fahrenheit). All petroleum products can be converted to barrel of oil equivalent (BOE) based on their heat contents. One cubic foot of natural gas has a heating value of approximately 1,000 British thermal units (BTU), whereas one barrel of crude oil has a heating value of approximately 6,000,000 BTU.

#### 1.2.2.2 Midstream

**1) PTT Global LNG Company Limited (PTT GL)**

PTTEP and PTT have jointly established PTT GL on June 23, 2017 to carry out business related to Liquefied Natural Gas (LNG) value chain with equal shareholding at 50%. PTTEP is seeking investment opportunities in LNG as natural gas has seen the highest consumption growth, being the cleanest form of energy among fossil fuels, with an abundance of reserves globally.

As of December 31, 2020, PTT GL had one investment project, a 10% share in PETRONAS LNG 9 Sdn. Bhd. (a subsidiary of PETRONAS). The Company operates an LNG liquefaction plant in Malaysia with 3.6 million tons per annum capacity (31.2 million barrels of oil equivalent).

**2) Oman LNG (OLNG)**

PTTEP by PTTEP Oman E&P Corporation (POC) formerly Partex Oman Corporation has a 2.0% stake in Oman LNG LLC (“OLNG”) which owns two 3.4 million tons per annum capacity liquefaction trains located near Sur,

Oman. A third liquefaction train by a separate company Qalhat LNG ("QLNG") in which OLNG is a joint investor, has an additional capacity of 3.6 million tons per annum. The three trains have a combined nameplate capacity of 10.4 million tons per annum. The LNG produced is sold into South Korea and Japan markets by existing long-term contracts (SPAs), due to be expired by end of 2024.

The partners in OLNG are: the Government of Oman (51.0%), Shell (30.0%), Total (5.5%), Mitsubishi Corporation (2.8%), Mitsui & Co (2.8%), POC (2%), Korea Gas Corporation ("KOGAS") (1.2%), Samsung (1.0%), Hyundai (1.0%), Daewoo International (1.0%), Itochu (0.9%) and SK Innovation (0.8%).

For QLNG, the partners are the Government of Oman (46.8%), Gas Natural Fenosa (7.4%), Mitsubishi Corporation (3.0%), Itochu (3.0%), Osaka Gas (3.0%) and OLNG at 36.8% which makes POC indirectly holds 0.736% in QLNG.

**3) ADNOC Gas Processing (AGP)**

PTTEP by PTTEP Gas Corporation (PGC) formerly Partex Gas Corporation owns 2% of ADNOC Gas Processing ("AGP") with ADNOC, the national oil company of United Arab Emirates, owning a 68% stake and Shell and Total each holding 15%.

AGP, formerly known as GASCO prior to 2017, is an operating company engaged in processing associated and non-associated natural gas from UAE's onshore and offshore fields. Gas is supplied to AGP via pipelines from ADNOC's upstream entities; ADNOC Onshore (formerly ADCO), ADNOC Offshore (formerly ADMA) and other non-associated gas fields.

Associated gas supplied from ADNOC Onshore's oil fields is processed in Asab 0/3, Bab and Bu Hasa gas processing facilities. The AGP Joint Venture partners are entitled to the respective share of C3+, i.e. LPG (propane, butane) and paraffinic naphtha production from this associated gas until the concession ends in 2028.

### 1.2.2.3 Gas Transportation Pipeline

PTTEP Offshore Investment Company Limited (PTTEPO), a wholly-owned subsidiary of PTTEP, has major investments in other companies, such as a 80% holding in Andaman Transportation Limited (ATL), 25.5% in Moattama Gas Transportation Company (MGTC), and 19.31784% in Taninthayi Pipeline Company (TPC). The objective of the Company is to invest in gas pipeline transportation of Zawtika, Yadana and Yetagun projects connected at the border between the Republic of the Union of Myanmar and Thailand.

### 1.2.2.4 Jetty and Warehouse Services

Petroleum Development Support Base was established to provide jetty and warehouse services to support PTTEP Group's offshore exploration and production activities both in Thailand and overseas, such as Bongkot Project, Arthit Project, B6/27 Project, G1/61 Project, Myanmar M3 Project and Zawtika Project which are located in the Republic of the Union of Myanmar as well as those projects of other oil and gas operating companies, such as PTT Public Company Limited, Chevron Thailand Exploration and Production Limited, Carigali-PTTEPI Operating Company Sdn. Bhd., MP G11 (Thailand) Limited and Mubadala Petroleum (Thailand) Limited. Currently, our Support Base operates at two branches in the provinces of Songkhla and Ranong.

1) *Petroleum Development Support Base (Songkhla Branch)* provides marine jetty berthing and warehousing services. It is owned and operated by PTTEP International Limited (PTTEPI), a subsidiary of PTTEP. The jetty is equipped with 380 meters of wharf which is capable of simultaneously berthing 6 supply vessels with a size of more than 500 gross tons each. The jetty is also equipped with storage facilities and operated with a high standard of material-handling equipment. The Support Base also operates under an international management system which focuses on safety and security while taking into account the issues of occupational health and the environment. It strictly follows the International Ship and Port Facilities Security Code (ISPS Code) which has been approved by the Marine Safety and Environment Bureau of the Marine Department. The jetty is therefore recognized as one of the country's leading shore-based facilities for petroleum exploration and production activities. The 74-rai warehousing service facility is divided into four sections, namely the storage warehouse; open yard; free zone storage warehouse; and free zone yard for optimal storage of materials and equipment. This facility is also used for certain goods that have been granted tax and duty benefits in its duty-free areas.

2) *Petroleum Development Support Base (Ranong Branch)* provides marine jetty berthing and warehousing services. It is also owned and operated by PTTEPI. However, the jetty service is operated through Ranong's multi-purpose port, which is owned by the Port Authority of Thailand. The jetty has a 150-meter wharf that is capable of simultaneously berthing 2 supply vessels with a size of more than 500 gross tons each. The Support Base is also fully equipped with storage facilities and standard material-handling equipment. The 25-rai warehousing service facility is divided into four sections, namely the storage warehouse; open yard; free zone storage warehouse; and free zone yard for optimal storage of materials and equipment. As well, this facility is used for certain goods that have been granted tax and duty benefits in its duty-free areas.

To ensure that the services provided at both Support Base branches meet international standards and top safety levels, performance audits are continually conducted at both sites, emphasizing safety, security, occupational health and the environment. Both are also operated by and equipped with high security systems, such as parameter and high mast lights, barbed-wire fencing, a CCTV system, and 24-hour security guards. PTTEP is also aware of its responsibilities to society and the environment, especially the local communities surrounding the Support Bases. The Company's efforts in this regard have resulted in several international accreditations including the International Environment Control Program (ISO 14001 certification), and the Occupational Health and Safety Management System (ISO 45001 certification). The Company has also prepared for an Emergency Response Plan under the ISO 22301 standard to handle unexpected and emergency cases as well as to rehearse and exercise our response plans. This ensures that our Support Bases are capable of responding to emergency situations with the latest technologies and methods for continuity of the operation.

#### 1.2.2.5 Information Technology and Communication Services

PTT ICT Solutions Company Limited (PTT ICT), an affiliate of which 20% shares is owned by PTTEP, has signed an agreement with PTTEP to provide the Company with all information technology and communication services according to the resolution of PTTEP's Board of Directors Meeting No. 10/2549/254 on September 29, 2006. The agreement includes infrastructure design and implementation services, consultancy services, procurement services, and outsourcing services to support the Company's needs in information technology and communication, based on the PTT Group's ICT Policy Strategy for driving and increasing synergy within the group.

PTT ICT has re-registered its name with the Department of Business Development, Ministry of Commerce, to "PTT Digital Solutions Company Limited" since June 22, 2017. The current service contract is valid for five years, starting from January 1, 2016 onwards.

#### 1.2.2.6 Property Leasing

PTT and PTTEP have jointly established, constructed, and managed the Energy Complex Investment Project under Energy Complex Company Limited. The complex is considered to be the energy business center of the country, also comprising the Ministry of Energy, subsidiaries and associated companies of the PTT Group, as well as some private energy companies.

#### 1.2.2.7 Manpower Services

PTTEP Services Limited (PTTEP Services) was established in accordance with the resolution of PTTEP Board of Directors Meeting No. 12/2546/216. With its primary business objective to supply manpower to support PTTEP Group's operational activities, the company ensures that PTTEP is sufficiently staffed for both domestic and international expansion. To fulfill this objective, PTTEP Services has recruited and hired various types of staff, such as specialists, engineers, operators, technicians, etc., both Thai and non-Thai, to serve PTTEP since July 1, 2004. The Company has continuously developed and improved its compensation, welfare and benefits to ensure its staff are provided with fair compensation and good welfare and benefit programs that make them feel motivated. This has also helped to improve the Company's competitiveness in the market.

To enhance staff's capability to effectively support PTTEP operations, PTTEP Services has provided several training and development programs based on PTTEP's business requirements. The programs focus on compulsory Safety, Security, Health and Environment (SSHE) training, Functional Training as well as Soft Skill Training in areas of innovation and interpersonal skills. In addition, the Company has provided basic training, including English digital and information technology courses to help the staff perform their job effectively.

PTTEP Services' business has continuously grown and expanded. Apart from supplying manpower for PTTEP, the Company has also provided manpower for Carigali PTTEPI Operating Company Sdn. Bhd. (CPOC), a PTTEP joint venture company in Malaysia.

#### 1.2.2.8 AI and Robotics Technology

AI and Robotics Ventures Company Limited (ARV) was incorporated on September 21, 2018 as a wholly-owned entity of EP-Tech Ventures Holding Company Limited, a subsidiary of PTTEP. ARV is a business building arm of PTTEP mandated to continuously innovate, develop and scale new ventures to S-Curves using artificial intelligence (AI) and robotics technologies. ARV believes in open-innovation and strategic partnerships and aspires to be the partner of choice as an integrated AI & robotics solutions provider. By using state-of-the-art technologies, ARV is committed to delivering enhanced efficiency, safety, and sustainable growth for its clients in businesses covering air, land, and sea application.

ARV is currently developing 4 ventures: (1) End-to-end subsea asset inspection repair and maintenance services (2) Agricultural/Green asset management and analytics platform (3) Unmanned Aerial Vehicle (UAV) asset inspection services and resource management platform (4) Healthcare Technologies platform; driving industry 4.0 transformation for Thailand and Southeast Asian economies.

### 1.2.3 Permission to Operate, Concession or Business Promotion

PTTEP operates petroleum exploration and production business in the Kingdom of Thailand and abroad. The Company's investments in foreign countries must comply with all applicable laws and regulations of those invested countries, such as (1) Production Sharing Contract (2) Concession or (3) Services Agreement. Within the Kingdom of Thailand, the Company must comply with the Petroleum Act B.E. 2514 and its amendments which set out the rights to explore, exploit and produce petroleum under concession regime, production sharing contract regime and services agreement regime. Key points in the petroleum business are as follows:

#### 1.2.3.1 Demarcation of Petroleum Exploration and Production Areas

The Department of Mineral Fuels, the Ministry of Energy, as the government authority under petroleum law, is responsible for demarcating each petroleum exploration and production areas (Block) and inviting oil companies to submit their applications requesting for awarding concession, production sharing contract or services agreement. In considering any awards, the Petroleum Committee has duty to render consultation to the Minister. The Minister with the approval of the Cabinet has the authority to sign the concession, production sharing contract or services agreement to award the right to explore, exploit and produce petroleum. Qualification of each applicant will be considered by the State to award the right to explore, exploit and produce petroleum which includes without limitation to adequacy of the investment funds to be brought in and used in the exploration activities, transfer of knowledge and technology, employment of the Thai nationals, and the utmost benefits of the State.

#### 1.2.3.2 Characteristic of Joint Venturer

A petroleum concession, a production sharing contract or a services contract may be awarded to a single concessionaire/contractor or multiple concessionaires/contractors. Since the risk of the petroleum exploration and production business is relatively high in its nature, it is common for concessionaires or contractors to form a joint venture in order to diversify such business risk. In a joint venture, a company will be designated as the "operator" to conduct the exploration and production operations on behalf of its partner(s) and commonly under the supervision of a management committee or an operating committee which is composed of representatives of all parties. Other non-operator companies will participate in making of operational decisions including technical, work program and budget. The operator will cash call all parties to finance the project. Generally, whether any particular oil company will become a project operator depends largely on its investment conditions, readiness, and business strategy in that project.

#### 1.2.3.3 Nature of Operations and Investment Decisions

Before an oil company decides to invest in a petroleum exploration in the Kingdom of Thailand or abroad, it has to consider the chance of having a successful exploration as well as other investment risk factors. A thorough study on the information available is conducted to determine whether the area has high petroleum potential and whether the project is commercially feasible. The success ratio of exploration wells in neighboring areas as well as other risk factors in the invested countries must also be considered. If the project is commercially feasible, the Company will apply for a right to explore, exploit and produce petroleum or, if such right is already awarded, "farm-in" to the existing petroleum concession.

After the oil company is awarded a right to explore, exploit and produce petroleum, an exploration program will be conducted, normally taking 2-3 years. If the petroleum reserves are found, the oil company will compare the amount of investment funds required for the development phase and the expected sales value of the petroleum based on the commercialized petroleum reserves. If the study indicates that the reserves are worth investing in as generally, this means that the petroleum field is considered to have commercial viability; a further investment onto development phase is therefore justified. The operator shall then apply for an approval of petroleum production and simultaneously may start its production activity. The operator is still able to explore the rest of the existing areas if it is within the time frame of the exploration period as mentioned in the concession, the production sharing contract or the services contract. At this stage, the operator must have a certain degree of confidence about the investment. However, as the investment expenditure required for such development phase is very high; the operator must normally be able to identify buyers of the petroleum in advance, whereas a long-term sales agreement for the petroleum to be produced shall be signed. Currently, PTT Public Company Limited ("PTT") is the biggest petroleum buyer in Thailand. The principal elements of the sales agreement for petroleum generally include determination method of the sales price and quantity of the petroleum to be delivered. Sales of natural gas from domestic areas is made at the wellhead, while sales of natural gas from foreign areas is made at the Thai borders. PTT is currently responsible for installation of most of the gas pipelines for the production amount as specified in the gas sales agreement. Sales of crude oil is made at the buyer's refinery, while sales of condensate is made at the Floating Storage Unit (FSU) near the wellhead.

#### 1.2.3.4 Description of Laws Relating to the Business

Operation of petroleum business in Thailand is governed by two major enactments, namely, the Petroleum Act B.E. 2514 and the Petroleum Income Tax Act B.E. 2514 and its amendments. The concessionaire and contractor must be a limited company or a juristic person which has the same status as a limited company, established under the laws of Thailand or foreign laws. Several major features of these laws are as follows:

1) Concession

1.1) The concessionaire(s) and the co-venturer(s) shall pay the royalty which is normally in cash. The Minister may authorize such royalty payment in kind of petroleum with the prior notice of not less than 6 months. The royalty can be used as credit against income tax (THAILAND I) or deducted as expenses (THAILAND III).

1.2) Petroleum income tax is prescribed at a rate not lower than 50% and not higher than 60% of the net profit from the petroleum operation.

1.3) Interest paid cannot be deducted as expenses for income tax purposes.

1.4) Each concessionaire could be awarded concessions with no limitation in terms of number of blocks.

THAILAND I for the petroleum concessions awarded by the Ministry of Industry[1] from B.E. 2514 to B.E. 2532 and those onshore petroleum concessions issued before B.E. 2525

THAILAND II[2] for the onshore petroleum concessions awarded by the Ministry of Industry from B.E. 2525 to B.E. 2532

THAILAND III for the petroleum concessions awarded by the Ministry of Industry from B.E. 2533

**Details of the Terms: THAILAND I, II, and III**

| Term | THAILAND I | THAILAND II | THAILAND III |
|---|---|---|---|
| Royalty Rates | 12.5% of income from sales or disposal of petroleum which may be treated as tax credit | 12.5% of income from sales or disposal of petroleum which may be treated as tax credit | progressive rate at sliding scale of 5-15%, deemed to be expenses which could be deducted in tax calculation |
| Petroleum Income Tax | 50% of net profit from petroleum business operation | 50% of net profit from petroleum business operation | 50% of net profit from petroleum business operation |
| Special Benefits | - | annual benefits and annual production bonus | special remunerator benefit which could be deducted in tax calculation |
| Exploration Period | 8 years with 4-year extension | 8 years with 4-year extension | 6 years with 3-year extension |
| Production Period | not exceeding 30 years from exploration's expiration date, with extension not exceeding 10 years | not exceeding 30 years from exploration's expiration date, with extension not exceeding 10 years | not exceeding 20 years from exploration's expiration date, with extension not exceeding 10 years |
| Concession Areas | not exceeding 10,000 sq. km. per exploration block, up to 5 exploration blocks | not exceeding 10,000 sq. km. per exploration block, up to 5 exploration blocks | not exceeding 4,000 sq. km. per exploration block, up to 5 exploration blocks[3] |

2) Production Sharing Contract

2.1) All petroleum operation expenditure shall be responsible by the contractor whereas the contractor shall be recovered such expenditure by deducting from the production. The expenditure that can be deducted shall be the actual expenditure according to the work program and budget approved by the Director General of the Department of Mineral Fuels, the Ministry of Energy, but shall not exceed 50% of the overall production.

2.2) The contractor shall pay the royalty to the State at the rate of 10% of the overall production.

2.3) The remaining production after deducting the royalty and the recoverable expenditure shall be shared to the contractor, but not exceeding 50%.

[1] Currently, the Ministry of Energy

[2] Under Section 36 of the Petroleum Act (No. 4) B.E. 2532, all petroleum concessionaires under THAILAND II have applied to be subject to the criteria under THAILAND III.

[3] Under Section 28 of the Petroleum Act (No. 6) B.E. 2550, effective on October 18, 2007, there is currently no limitation in terms of number of blocks.

2.4) Petroleum income tax is prescribed at a rate not lower than 20% of the net profit from petroleum operation.

3) Services Contract

3.1) Services contract can be either the hiring for exploration and production contract, the hiring for exploration contract or the hiring for production contract.

3.2) The contractor shall be paid by the State according to the terms and conditions of each services contract.

3.3) All petroleum operation expenditure shall be responsible by the contractor.

3.4) Payment shall be made to the contractor after deducting the royalty.

At present, PTTEP has obtained the rights to explore, exploit and produce petroleum in Thailand under concession and production sharing contract regime.

### 1.2.4 Market and Competition

PTTEP has invested in both domestic and overseas projects, including the Republic of Indonesia, the Republic of the Union of Myanmar, the Socialist Republic of Vietnam, Malaysia, the Commonwealth of Australia, Canada, the United Mexican States, the People's Democratic Republic of Algeria, the Republic of Mozambique, the Federative Republic of Brazil, the Republic of Kazakhstan, the Republic of Angola, the United Arab Emirates, and the Sultanate of Oman. The target markets are both domestic and overseas where we have invested in. The Company's petroleum products include natural gas, crude oil, condensate, naphtha and LPG.

In 2020, total sales by the Company and our subsidiaries averaged 354,052 barrels of oil equivalent per day (BOED). The total sales ratio of natural gas to liquid was 67% : 33% by volume and 64% : 36% by value, as shown below.

| Product | Volume | Value (million USD) |
|---|---|---|
| Natural Gas | 537,574 MMSCF or 86.49 MMBOE | 3,252.60 |
| Condensate | 12.79 MMBBL | 507.99 |
| Naphtha | 85,034 metric tons or 0.72 MMBOE | 31.78 |
| Crude Oil | 29.03 MMBBL | 1,215.00 |
| LPG | 66,571 metric tons or 0.55 MMBOE | 35.79 |

#### 1.2.4.1 Marketing Characteristics

PTTEP sells our outputs from domestic and regional projects [i.e. the Republic of the Union of Myanmar and the Malaysia-Thailand Joint Authority (MTJA)] primarily to the Thai market through PTT Plc. (PTT), the major buyer and processor of all the products. PTT then turns the processed products to the country's power sector, petrochemical industry sector, transportation sector, industry sector, and household sector.

Marketing of petroleum products varies with their characteristics and field location which in turn differentiate the market and sales price structures.

1) Natural Gas

Due to capital-intensive investment in developing oil and gas exploration business, gas sales agreements (GSAs) must be agreed or signed between the buyer and seller before any major investment is made. GSAs are typically a long-term contract, ranging from 15 to 30 years. Prices, volumes, and points of sale are stipulated for each of the contracts. Currently, the designated transfer points for all domestically sold gas are at the Central Processing Platform (CPP), from which the buyer will invest in the transmission system to the CPP. The delivery point of the gas sold from the Republic of the Union of Myanmar to Thailand is however at the Myanmar-Thai border. In this case, the seller is responsible for investment in the transmission pipelines from the CPP to the border. Gas prices are usually linked to fuel oil prices and several key economic indices as well as to reflect the investment costs and be competitive comparing with fuel oil for the GSA period.

Sales volumes are based on the assessed reserves on the negotiation date. GSAs stipulate obligations between buyer and seller for a committed volume. If the buyer does not take the volume of gas as committed to in the GSA, it must pay for the committed volume whether the gas is taken or not (Take-or-Pay). As a consequence, the buyer is entitled to take delivery of free of charge in subsequent years (Make-up Gas). On the other hand, should the seller fail to deliver as nominated by the buyer, the buyer is entitled to the agreed discount price of the undelivered volumes as stipulated in the agreement (Shortfall).

2) Condensate and Crude Oil

Condensate and crude oil prices are determined by their properties and benchmarked with crude oil prices of those predominantly sold in the region. Contracts are either short-term or long-term, and some are sold in spot markets.

3) Naphtha

Naphtha produced from ADNOC Gas Processing Project (AGP), the largest gas processing complex located onshore of Abu Dhabi, UAE, is sold by Abu Dhabi National Oil Company (ADNOC) which represents as Marketing Agent. Selling price followed official selling price in the region and naphtha is sold under short-term contract.

4) LPG

LPG produced from S1 Project is sold to PTT under a long-term contract with the price in line with the government's policy and announcements by the Joint Committee on Energy Policy Administration. Moreover, LPG produced from ADNOC Gas Processing Project (AGP), the largest gas processing complex located onshore of Abu Dhabi, UAE, is sold under short-term contract the selling price of which refer to official selling price in the region.

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

- Zawtika, Yadana and Yetagun projects in the Republic of the Union of Myanmar: Approximately 75% of the produced natural gas from Zawtika and Yadana projects is primarily sold to Thailand through PTT, while the remaining 25% is sold to the Republic of the Union of Myanmar which mainly use for its domestic power generation and small volume to industrial sector. Nearly all of the condensate from Yetagun Project in 2020 is sold in the regional spot markets

due to the revamping of domestic refinery. All the gas output from Yetagun Project is currently sold to PTT for the consumption in Thailand.

- Vietnam 9-2 and Vietnam 16-1 projects in the Socialist Republic of Vietnam: All of the oil output produced from both Vietnam 9-2 and Vietnam 16-1 projects are sold through auction in the regional short term and spot markets which major buyers are Binh Son Refining and Petrochemical Company Limited (BSR), a refinery in the Socialist Republic of Vietnam, for the consumption in the Socialist Republic of Vietnam and Trading Company. While the produced gas from both projects is sold to Vietnam Oil and Gas Group, a state enterprise, for the consumption in the Socialist Republic of Vietnam.

- Algeria 433a & 416b Project in the People's Democratic Republic of Algeria: The Bir Seba Field has been commenced the production with its first commercial sales of crude oil since December 2015. The crude oil is sold through auction under short-term contract which major buyer is the European's refineries.

- Potiguar Project in Brazil: A producing oil field in Brazil with production volume in 2020 around 200 barrels per day. The crude oil is sold under short-term contract to domestic refinery.

- Dunga Project in the Republic of Kazakhstan: A producing oil field located onshore west of the Republic of Kazakhstan, is operated and sold by Total. The crude oil is sold under short-term contract to both domestic and export markets.

- Sabah K Project and the SK309 & SK311 Project (Sarawak) in Malaysia: Crude oil and condensate from SK309 & SK311 Project, together with crude oil produced from Kikeh, Siakap North-Petai (SNP) and Gumusut-Kakap (GK) from Sabah K Project are sold under long-term contract in Malaysia and short-term contract in spot markets. Natural gas produced from the SK309 & SK311 Project is sold under long-term contract to Petroliam Nasional Berhad (PETRONAS), the Malaysia national oil company, and used as gas supply to the Petronas LNG Complex in Bintulu.

For MTJDA Project in Malaysia-Thailand Joint Development Area, the produced natural gas is sold to PTT for the consumption in Thailand. Starting from April 2015, the gas has been sold to Malaysia according to the Gas Balancing Agreement between PTT and Petroliam Nasional Berhad (PETRONAS). The condensate output meanwhile has been marketed and sold by a Co-Marketing Agent of PTT and PETRONAS Trading Corporation Sdn. Bhd. (PETCO) through auction in the spot markets.

#### 1.2.4.2 Competition

Thailand's E&P industry is an oligopolistic due to the business' relatively high investment and advanced technology required. The growing demand especially for natural gas and the GSAs which are predominantly long-term contract coupled with Take-or-Pay clauses however have continued to attract new investments to the market.

Regarding the approximate domestic production in 2020, PTTEP's petroleum production accounts for 38% of the total domestic production in 2020, making the Company the leader among the domestic producers.

| Producers | % Domestic Production Volume |
|---|---|
| PTTEP | 38 |
| Chevron | 28 |
| MOECO | 9 |
| PETRONAS | 10 |
| Total | 7 |
| Others | 8 |

Source: Department of Mineral Fuels, Ministry of Energy (as of November 2020)

Currently, the shale gas revolution is driving a dramatic restructuring of the global natural gas markets. It creates new opportunities and incentives to move lower-cost natural gas to higher-value global markets via LNG exports. The global LNG demand growth is therefore expected to be stronger, resulting in an increase of its market share in the future. As in Q2/2020, LNG price dropped significantly to below 3 USD/MMBTU so the Energy Regulatory Commission (ERC) assigned PTT to import more spot LNG cargoes, resulting in lower Gulf of Thailand gas nomination from PTTEP. However, there was no impact on GSAs between PTT and PTTEP as the minimum gas offtake by PTT is obligated by Take-or-Pay condition.

### 1.2.5 Production

#### 1.2.5.1 Exploration and Production Stages and Technology

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

1) Exploration stage: This is the first step to identify the areas with reservoir potential. The main activities conducted in this stage include:

- Primary geological and geophysical surveys
- Seismic acquisition, processing and interpretation
- Exploration well drilling and testing

2) Appraisal/Delineation stage: This stage mainly involves with additional study to increase the certainty of estimated size and properties of the reservoirs. The main activities conducted in this stage include:

- Detailed study of petroleum geology and additional seismic survey
- Reservoir formation evaluation and conceptual development design
- Appraisal/Delineation well drilling and testing

3) Development stage: This is the last stage prior to the production. The main activities conducted in this stage include:

- Field development plan design and optimization
- Production facilities design, construction, and installation
- Development well drilling and completion

4) Production stage: This is the stage where petroleum and associated products are flowed through the pressure controlled equipment (wellhead) and processing facilities including measuring equipment to obtain the production rates of all of the productions. The main activities conducted during this stage include:

- Monitoring of production rate, proportion between produced gas, crude oil or condensate, and water, as well as pressure decline rate
- Forecasting of the future reservoir performance
- Well intervention work-over and facilities maintenance

PTTEP has been well equipped in terms of manpower, technology and equipment to operate the business efficiently according to the Company's target.

#### 1.2.5.2 Petroleum Reserves

Petroleum reserves can be divided into 2 categories, namely, Proved Reserves and Unproved Reserves according to the level of certainty.

1) Proved Reserves are those quantities of petroleum which, by analysis of geological and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under current economic conditions, operating methods, and government regulations.

Practically, Proved Reserves mean the petroleum in reservoirs which can be commercially produced based on supporting data gathered during the well testing process. In some cases, reserves may be classified as Proved Reserves essentially when the results from well logging and/or analyzing of the core and fluid samples can prove that the reservoirs and petroleum in the reservoirs are similar or comparable to those of the neighboring areas which have already been commercially produced or with the potential to be produced according to their well testing results. In addition, Proved Reserves must be able to be produced by using the existing production equipment or with the production equipment that have a firmed plan to install in the future.

2) Unproved Reserves are defined based on geoscience and/or engineering data similar to that used in the estimation of Proved Reserves but with technical or other uncertainties which preclude such reserves from being categorized as Proved. Unproved Reserves can be further categorized into Probable Reserves and Possible Reserves as follows:

- Probable Reserves are those additional quantities of petroleum obtained from an analysis of geoscience and/or engineering data similar to that used in the estimation of Proved Reserves but with less production possibility.
- Possible Reserves are those additional quantities of petroleum obtained from an analysis of geoscience and/or engineering data similar to that used in the estimation of Probable Reserves but with less production possibility than both Proved Reserves and Probable Reserves.

The Company's Proved Reserves are composed and reviewed annually by our earth scientists and reservoir engineers to ensure the industry's rigorous professional standards.

The Proved Reserves are reported on a gross basis which includes the Company's net working interest and related host country's interest. As of December 31, 2020, the total amount of Proved Reserves of PTTEP Group's projects[1] was 295 million stock-tank barrels (MMSTB) of crude oil and condensate[2], and 4,760 billion standard cubic feet (BSCF) of natural gas or 779 million barrels of oil equivalent (MMBOE). The total amount of Proved Reserves in terms of oil equivalent was therefore 1,074 MMBOE. Details of the Company's Proved Reserves are shown in the following table.

[1] Include APICO Joint Venture project

[2] Include NGL

PTT Exploration and Production Public Company Limited

Crude, Condensate and Natural Gas Proved Reserves[1]

As of December 31st, 2020

| | Crude and Condensate[2] (Million Barrels) | | | Natural Gas (Billion Standard Cubic Feet) | | | Barrel of Oil Equivalent (Million Barrel of Oil Equivalent) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Domestic | Foreign | Total | Domestic | Foreign | Total | Domestic | Foreign | Total |
| *Company's share of reserves of consolidated companies* | | | | | | | | | |
| Proved Reserves as of Dec 31st, 2019 | 123 | 187 | 310 | 2,704 | 2,377 | 5,081 | 564 | 574 | 1,138 |
| 1) Revision of previous estimates | 9 | 4 | 13 | 145 | 23 | 168 | 33 | 9 | 42 |
| 2) Improved recovery | 1 | 6 | 7 | 1 | 0 | 1 | 1 | 6 | 7 |
| 3) Extensions and discoveries | 6 | 6 | 12 | 165 | 2 | 167 | 33 | 6 | 39 |
| 4) Purchases/Sales of petroleum in place | - | - | - | - | - | - | - | - | - |
| 5) Production | (27) | (20) | (47) | (435) | (231) | (666) | (98) | (55) | (153) |
| Proved Reserves as of Dec 31st, 2020 | 112 | 183 | 295 | 2,580 | 2,171 | 4,751 | 533 | 540 | 1,073 |
| *Company's share of reserves of equity companies* | | | | | | | | | |
| Proved Reserves as of Dec 31st, 2019 | 0 | - | 0 | 16 | - | 16 | 2 | - | 2 |
| 1) Revision of previous estimates | - | - | - | - | - | - | 0 | - | 0 |
| 2) Improved recovery | - | - | - | - | - | - | - | - | - |
| 3) Extensions and discoveries | 0 | - | 0 | 2 | - | 2 | 1 | - | 1 |
| 4) Purchases/Sales of petroleum in place | - | - | - | - | - | - | - | - | - |
| 5) Production | (0) | - | (0) | (9) | - | (9) | (2) | - | (2) |
| Proved Reserves as of Dec 31st, 2020 | 0 | - | 0 | 9 | - | 9 | 1 | - | 1 |
| *Total Proved Reserves as of Dec 31st, 2020* | 112 | 183 | 295 | 2,589 | 2,171 | 4,760 | 534 | 540 | 1,074 |

[1] The Proved Reserves are reported on a gross basis which includes the Company's net working interest and the related host country's interest.

[2] Natural Gas Liquids (NGL) included.

Furthermore, in order to improve efficiency, check and balance of the reserves estimation, reporting and disclosure, the Company maintains a Reserves Committee which has the following roles and responsibilities:

- Review and endorse the Company's Annual Reserves
- Review and approve Major Changes of Reserves, and Reserves for Newly-Acquired Project
- Ensure that all activities that related to reserves estimation and disclosure of reserves information conform to regulatory and legal requirements as well as to corporate and international standards
- Approve Annual Reserves Audit Plan, appoint Reserves Auditor, as well as approve Reserves Audit Report to ensure compliance with Company's framework and continual process improvement

#### 1.2.5.3 Petroleum Production

In 2020, the total production of PTTEP Group[1] was 155 MMBOE, consisting of 47 MMSTB of crude oil and condensate[2] and 675 BSCF (108 MMBOE of natural gas). This was equivalent to a production rate of approximately 422,278 barrels of oil equivalent per day (BOED) which was approximately 8,638 BOED or 2% increase from the previous year. However, the total production of PTTEP Group is lower than target production at 5% CAGR (Compound Annual Growth Rate) due to global pandemic of coronavirus disease (COVID-19) and lower oil prices situations which create a great impact on many aspects including exploration and production operations, petroleum transportation, energy demands and market. As a result, the amount of petroleum production in 2020 is below 5 percent, the target of the growth rate per year.

#### 1.2.5.4 Environmental Impact Management

PTTEP emphasizes on the systematic management of environmental stewardship in our organization. It is to manage the resources & environment and concurrently develop the organization as well as focus on pollution prevention and environmental protection. With this management, it helps us reduce the impact on the environment, create value for the Company, stakeholders and environment.

Hence, PTTEP conducts the environmental impact assessment study prior to commencing new exploration and production projects. It is legally required to ensure that the environmental mitigation measures and monitoring programs have been put in place to minimize environmental impacts arising from operations for both domestic and international projects. Mitigation and monitoring of the above environmental programs are controlled and regulated by local government agencies. In Thailand, there are two main agencies, namely, the Department of Mineral Fuels (DMF) of the Ministry of Energy which plays a major role in regulating the activities of exploration and production companies, and the Office of Natural Resources and Environmental Policy and Planning (ONEP) of the Ministry of Natural Resources and Environment which issues directives and approvals of environmental impact assessments (EIA) report prior to the commencement of exploration, drilling, and production projects. PTTEP also submits the environmental compliance and monitoring reports to both main agencies to assure our environmental performance and compliance to the approved mitigation measures and monitoring programs.

The Company's environmental performance are disclosed in the Sustainability Report 2020 and the PTTEP website at https://www.pttep.com/en/Sustainabledevelopment.aspx.

[1] Include APICO Joint Venture Project

[2] Include NGL

#### 1.2.5.5 Performance over the Past Three Years

During 2018-2020, PTTEP has strictly complied with both Thai and International legislations, and other regulations and requirements concerning the area of Safety, Security, Health and Environment (SSHE). For example, PTTEP conducted the Environmental Impact Assessment according to the requirement/regulations of countries we are operating, submitted Safety, Security, Health and Environment performance reports to the Department of Mineral Fuels on a monthly and annual basis. Those were including the annual SSHE audits at operating sites by the Department of Mineral Fuels. The achievements of our environmental performance represent by the following national and international, awards and recognitions:

1) PTTEP has achieved a member status from the Dow Jones Sustainability Index (DJSI) World in Oil and Gas Upstream & Integrated Industry for the 7th consecutive year (2014-2020). PTTEP received higher Best-in-class ratings and top scores (100/100) ratings in multiple categories.

2) PTTEP was listed in the 2020 Thailand Sustainability Investment (THSI) from the Stock Exchange of Thailand for the 5th consecutive year as the listed company that has operated the business with sustainability with outstanding performance in the dimension of Environment, Social, Economic and Good Governance performance.

3) SSHE performance report as included in the Company's Sustainability Report has been assured by an independent third party since 2012 according to the Global Report Initiative (GRI) for the 8th consecutive year.

4) PTTEP has maintained the international standard ISO 14001 (ISO 14001:2015) recertified by SOCOTEC Certification (Thailand) Co., Ltd. under accreditation of the United Kingdom Accreditation Service (UKAS) since 2018. By adopting the ISO 14001 "One Common System" for all certified sites, the Company has improved the efficiency of our environmental management system by continuously upgrading the environmental practices in maintaining, developing, and reducing environmental impacts. PTTEP is the first company in E&P business in Thailand which certified this standard.

5) PTTEP received the 2020 Green Office award at the Excellence (G-Gold) Level. The event was held by the Department of Environmental Quality Promotion. PTTEP is the first company in the PTT Group and in the E&P sector that has received the highest award from this organization. In addition, the Company received the Green Procurement Certificate for PTTEP from the President of Thailand Environmental Institute.

6) PTTEP received LESS (Low Emissions Support Scheme) Award Letter of Recognition from Minister of Natural Resources and Environment. PTTEP received this award for the 4th consecutive year from The Thailand Greenhouse Gas Management Organization (TGO), for its various Greenhouse Gas Reduction projects at the Head Office, Songkhla Petroleum Development Base and Ranong Petroleum Development Base. The total amount of greenhouse gas emissions reduced since 2019-2020 was 340 kilograms of carbon dioxide equivalent.

7) PTTEP received Thailand Energy Awards 2019 in the category of energy conservation for transportation. This award underscores PTTEP's success on supply vessels logistics and transportation management which save more than 13.6 million litres of diesel fuel consumption per years during 2016-2019. The awards ceremony was organized by Department of Alternative Energy Development and Efficiency (DEDE), Ministry of Energy, at Bangkok International Trade & Exhibition Centre, Bangkok.

8) PTTEP received Best Practice Awards in ISO 14001 & OHSAS 18001 in 2019 presented by AJA REGISTRARS Co., Ltd. and SOCOTEC Group. PTTEP is one of the 21 companies that was voted by AJA's Auditors and Management from more than 900 AJA certificate holders in Thailand.

9) PTTEP was recognized as a constituent member of the FTSE4Good Index Series for the 5th consecutive year. FTSE Russell confirms that PTTEP has been independently assessed according to the FTSE4Good criteria and satisfied the requirements to become a constituent of the FTSE4Good Index Series. Created by the global index provider FTSE Russell, the FTSE4Good Index Series is designed to identify companies that demonstrate strong Environmental, Social and Governance (ESG) practices measured against international standards. PTTEP is regarded as one of the top 10 for both Environmental and Governance dimensions in Energy super sector.

10) PTTEP has disclosed our environmental management to the Carbon Disclosure Project (CDP) since 2007 and rated for Climate Change in "Leadership Level" for 7 consecutive years since 2014 and rated for Water in "Leadership Level" in 2017 and "Management Level" since 2018. This is to recognize our outstanding achievement in sustainable climate change and water management practices.

11) PTTEP in cooperation with PTT Group are in the process of developing the PTT Group Oil Spill Response Plan and Oil Spill Remediation Guideline. With this cooperation, the Oil Spill Response of PTT Group has been prepared to be aligned with the National Oil Spill Response Plan of Marine Department. This is to prepare for the effective emergency response that mitigated the potential consequences of a spill incident to people, environment, the Company assets and reputation and enable normal operations to be resumed efficiently.

In term of our environmental management and stewardship, the spill rate is also set up as one indicator for monitoring the effectiveness of our performance management. During 2018-2020, the spills accounted for 0.60, 0.63 and 0.08 tonnes per million tonnes of Production, respectively. Details of spill incident and mitigation actions are disclosed in the Sustainability Report 2020.

#### 1.2.5.6 Disputes or Lawsuits Regarding the Environment and Solutions

Details are disclosed in the "Legal Dispute" part.

#### 1.2.5.7 Safety, Security, Health and Environment Management

PTTEP develops, implements, and continuously improves our Safety, Security, Health and Environment (SSHE) Culture based on the long-term roadmap to achieve our ultimate goal, which is to prevent any accident that may result in injury, occupational illness, and any other work-related harm. In 2020, PTTEP's SSHE strategy focused on continuously improving the Company's SSHE Management System (SSHE MS) in both operational and process safety, and the strengthening of our SSHE culture. We aim to reach the highest level within our SSHE Culture Maturity Model, which is derived from the International Association of Oil & Gas Producers (IOGP), primarily by enhancing the accountability of our line management with regarding to their roles and responsibilities. Furthermore, we will be promoting SSHE leadership among our employees and contractors at all levels. More Importantly, PTTEP is still dedicated to carry through with strong efforts to improve and sustain the environment in all areas of our operations. Successful implementation of these SSHE requires full commitment from all PTTEP Group's personnel, from the highest executive officer to the operational staff and contractors.

In 2020, PTTEP's SSHE Key Performance Indicators of spill rate and Total Recordable Injury (TRIR) were better than those of the previous year while the Lost Time Injury Frequency Rate (LTIF) was increased a little bit, however, all should still be in the top quartile of IOGP's performance. This is a direct result of our SSHE risks management and control to be As Low As Reasonably Practicable (ALARP) and our ongoing incident prevention campaigns in operations.

PTTEP's emphasis and commitment to continuously improve SSHE implementation, so as to achieve our ultimate goal of being a "Target Zero" organization where employees and contractors can come to work and return home safely every day.

### 1.2.6 PTTEP and Our Subsidiaries' Assets

#### 1.2.6.1 Property, Plant and Equipment

**Oil and Gas Properties**

PTTEP and our subsidiaries' properties are mainly jointly controlled oil and gas properties in each project. These properties comprise land, buildings, construction, machine and equipment, transportation pipeline, capitalized exploratory and production drilling costs, decommissioning costs, which are estimated by engineers of the PTTEP Group and management's judgment, and acquisition costs of concession right, which shall incur when PTTEP and our subsidiaries acquire the concession right.

As of December 31, 2020, PTTEP and our subsidiaries' oil and gas properties are represented as share of the joint ventures' individual assets for each project as follows:

| PTTEP's joint ventures | Company's interest (%) |
|---|---|
| Bongkot | 66.6667 |
| Arthit | 80 |
| Contract 4 (B12/27) | 45 |
| Sinphuhorm (E5 North) | 20 |
| S1 | 25 |
| Contract 3 (B10, B11, B12 and B13) | 5 |
| E5 | 20 |
| Algeria Hassi Bir Rekaiz | 24.5 |
| **PTTEPI's joint ventures** | **Company's interest (%)** |
| Yadana | 25.5 |
| Yetagun | 19.31784 |
| PTTEP 1 | 100 |
| G4/43 | 21.375 |
| G9/43 | 100 |
| L22/43 | 100 |
| L53/43 & L54/43 | 100 |
| G4/48 | 5 |
| Bongkot (G12/48) | 66.6667 |
| Contract 4 (G7/50) | 60 |

| PTTEPI's joint ventures | Company's interest (%) |
|---|---|
| Arthit (G8/50) | 80 |
| Zawtika | 80 |
| Myanmar M3 | 80 |
| Myanmar M11 | 100 |
| MTJDA | 50 |
| **PTTEPO's joint venture** | **Company's interest (%)** |
| B8/32 & 9A[1] | 25.001 |
| **PTTEP SV's joint venture** | **Company's interest (%)** |
| Vietnam 52/97 | 7 |
| **PTTEP KV's joint venture** | **Company's interest (%)** |
| Vietnam B & 48/95 | 8.5 |
| **PTTEP HL's joint venture** | **Company's interest (%)** |
| Vietnam 16-1 | 28.5 |
| **PTTEP HV's joint venture** | **Company's interest (%)** |
| Vietnam 9-2 | 25 |
| **PTTEP AG's joint venture** | **Company's interest (%)** |
| Algeria 433a & 416b | 35 |
| **PTTEPS's joint venture** | **Company's interest (%)** |
| Sinphuhorm (EU-1) | 20 |
| B6/27 | 100 |
| S1 | 75 |
| **PTTEP SA's joint venture** | **Company's interest (%)** |
| Myanmar MD-7[2] | 50 |
| Myanmar MOGE 3[3] | 77.5 |
| **PTTEP CA's joint venture** | **Company's interest (%)** |
| Mariana Oil Sands | 100 |

[1] PTTEP Offshore Investment Company Limited (PTTEPO) has shareholding interest in Orange Energy Limited and B8/32 Partners Limited, which hold the project's concession.

[2] On October 14, 2020, PTTEP South Asia Limited (PTTEPSA), a subsidiary of the Group, submitted a request to terminate and return 50% of the exploration block of Myanmar MD-7 Project after fulfilling the obligations under the Product Sharing Contract earlier than termination exploration period identified per the contract (14 November 2021). The termination will be effective after receiving official approval from the Government of the Republic of the Union of Myanmar.

[3] On July 9, 2020, PTTEP SA submitted a request to terminate and return 77.5% of the exploration block of Myanmar MOGE 3 Project after fulfilling the obligations under the Product Sharing Contract. The termination will be effective after receiving official approval from the Government of the Republic of the Union of Myanmar.

| PTTEP AP's joint venture | Company's interest (%) |
|---|---|
| PTTEP Australasia | |
| • AC/RL7, AC/RL12 and AC/P54 | 100 |
| • AC/L3 | 100 |
| • AC/RL10 | 90 |
| • AC/RL4 (Tenacious) | 100 |
| • AC/RL6 (Audacious), AC/RL6 (exclusive of Audacious) | 100 |
| • AC/RL4 (exclusive of Tenacious) | 100 |
| • AC/RL5[4] | - |
| **PTTEP MZA1's joint venture** | **Company's interest (%)** |
| Mozambique Area 1 | 8.5 |
| **Natuna's joint venture** | **Company's interest (%)** |
| Natuna Sea A | 11.5 |
| **PTTEP BL's joint venture** | **Company's interest (%)** |
| Barreirinhas AP1 | 25 |
| Brazil BM-ES-23 | 20 |
| **PTTEP SP's joint venture** | **Company's interest (%)** |
| Contract 4 (B12/27) | 15 |
| Sinphuhorm (E5 North and EU-1) | 35 |
| **PTTEP HKO's joint venture** | **Company's interest (%)** |
| Sarawak SK 410B | 42.5 |
| Sarawak SK 417 | 80 |
| Sarawak SK 438 | 80 |
| Peninsular PM 407 | 55 |
| Peninsular PM 415 | 70 |
| **PTTEP MEP's joint venture** | **Company's interest (%)** |
| Mexico Block 12 (2.4) | 20 |
| Mexico Block 29 (2.4) | 16.67 |
| **PTTEP ED's joint venture** | **Company's interest (%)** |
| G1/61 | 60 |
| G2/61 | 100 |

[4] On March 13, 2020, PTTEP Australia Timor Sea Pty Ltd (PTTEP AT), a subsidiary of the Group, requested to terminate and return 100% of the exploration blocks of AC/RL5 Project to the Government of the Commonwealth of the Australia after fulfillment of the requirements of the concession. The termination is effective from June15, 2020.

| PTTEP MENA's joint venture | Company's interest (%) |
|---|---|
| Abu Dhabi Offshore 1 | 30 |
| Abu Dhabi Offshore 2 | 30 |
| Oman Onshore Block 12[5] | 20 |
| Abu Dhabi Offshore 3[6] | 30 |
| **PTTEP SBO's joint venture** | **Company's interest (%)** |
| Malaysia Block K | |
| • Kikeh | 56 |
| • SNP | 22.4 |
| • GK | 6.366 |
| Malaysia Block H | |
| • Rotan | 56 |
| • Others | 42 |
| **PTTEP SKO's joint venture** | **Company's interest (%)** |
| Sarawak SK 314A | 59.5 |
| Sarawak SK 405B | 59.5 |
| Sarawak SK 309 and SK 311 | |
| • East Patricia | 42 |
| • Others | 59.5 |
| **PGH's joint venture** | **Company's interest (%)** |
| Block 17/06 | 2.5 |
| Potiguar | 50 |
| Dunga | 20 |
| PDO (Block 6) | 2 |
| Mukhaizna (Block 53) | 1 |

[5] On February19, 2020, PTTEP MENA Limited (PTTEP MENA), a subsidiary of the Group, and co-venturer signed Exploration and Production Sharing Agreement (EPSA) with Oman's Ministry of Oil and Gas (MOG) for exploration and production rights of Block 12, located onshore central part of the Sultanate of Oman. PTTEP MENA holds 20% participation interests in this Block. The Sultan of Oman approved the EPSA on March 25, 2020.

[6] On December 21, 2020, PTTEP MENA and co-venturer signed Exploration Concession Agreement for exploration and production rights of Block Offshore 3, located offshore north-west of Abu Dhabi, United Arab Emirates. PTTEP MENA holds 30% participation interests in this Block during exploration phase. The exploration rights will be effective from January 1, 2021.

As of December 31, 2020, details of properties' net book value are as follows:

Unit: Million US Dollar

| Details of properties | Historical cost | Accumulated depreciation | Allowance for impairment of assets | Net book value |
|---|---|---|---|---|
| Oil and Gas Properties | 28,967.86 | (21,423.30) | (362.07) | 7,182.49 |
| Exploration and Evaluation Assets | 4,693.59 | - | (1,807.37) | 2,886.22 |
| Right-of-use Assets | 592.64 | (109.86) | - | 482.78 |
| Goodwill | 2,016.19 | - | (112.39) | 1,903.80 |
| Pipeline and Others | 1,311.43 | (540.52) | (5.66) | 765.25 |
| Assets under Construction | 2,020.25 | - | - | 2,020.25 |
| **Total** | **39,601.96** | **(22,073.68)** | **(2,287.49)** | **15,240.79** |

1.2.6.2 Investments

PTTEP has details of subsidiaries, associates, joint ventures and joint operations presented as follows:

| Company name | Registered country | Type of business | Participating interest (%) (including indirect holding) | |
|---|---|---|---|---|
| | | | Dec 31, 2020 | Dec 31, 2019 |
| Subsidiaries | | | | |
| 1. PTTEP International Limited (PTTEPI) | Thailand | Petroleum | 100 | 100 |
| 2. PTTEP Services Limited (PTTEP Services) | Thailand | Human resource support | 100 | 100 |
| 3. PTTEP Siam Limited (PTTEPS) | Thailand | Petroleum | 100 | 100 |
| 4. PTTEP Offshore Investment Company Limited (PTTEPO) | Cayman Islands | Petroleum | 100 | 100 |
| 5. PTTEP HK Holding Limited (PTTEP HK) | Hong Kong | Petroleum | 100 | 100 |
| 6. PTTEP Treasury Center Company Limited (PTTEP TC) | Thailand | Treasury center for the Group's business | 100 | 100 |
| 7. PTTEP Energy Holding (Thailand) Company Limited (PTTEP EH) | Thailand | Petroleum | 100 | 100 |
| 8. PTTEP Business Center Company Limited (PTTEP BC) | Thailand | Petroleum | 100 | 100 |
| 9. PTTEP Energy Development Company Limited (PTTEP ED) | Thailand | Petroleum | 100 | 100 |
| 10. EP-Tech Ventures Holding Company Limited (EP-Tech) | Thailand | Petroleum-related Technology | 100 | 100 |
| 11. AI and Robotics Ventures Company Limited (ARV) | Thailand | Technology | 100 | 100 |
| 12. PTTEP Southwest Vietnam Company Limited (PTTEP SV) | Cayman Islands | Petroleum | 100 | 100 |
| 13. PTTEP Kim Long Vietnam Company Limited (PTTEP KV) | Cayman Islands | Petroleum | 100 | 100 |
| 14. PTTEP Hoang-Long Company Limited (PTTEP HL) | Cayman Islands | Petroleum | 100 | 100 |
| 15. PTTEP Hoan-Vu Company Limited (PTTEP HV) | Cayman Islands | Petroleum | 100 | 100 |
| 16. PTTEP Algeria Company Limited (PTTEP AG) | Cayman Islands | Petroleum | 100 | 100 |
| 17. PTTEP Holding Company Limited (PTTEPH) | Cayman Islands | Petroleum | 100 | 100 |
| 18. PTTEP Indonesia Company Limited (PTTEP ID) | Cayman Islands | Petroleum | 100 | 100 |

| Company name | Registered country | Type of business | Participating interest (%) (including indirect holding) | |
|---|---|---|---|---|
| | | | Dec 31, 2020 | Dec 31, 2019 |
| Subsidiaries (Continued) | | | | |
| 19. PTTEP Africa Investment Limited (PTTEP AI) | Cayman Islands | Petroleum | 100 | 100 |
| 20. PTTEP Australia Pty Ltd (PTTEP AU) | Commonwealth of Australia | Petroleum | 100 | 100 |
| 21. PTTEP Australia Offshore Pty Ltd (PTTEP AO) | Commonwealth of Australia | Petroleum | 100 | 100 |
| 22. PTTEP South Asia Limited (PTTEP SA) | Cayman Islands | Petroleum | 100 | 100 |
| 23. PTTEP Semai II Limited (PTTEP SM)[1] | Cayman Islands | Petroleum | 100 | 100 |
| 24. PTTEP Australia Perth Pty Ltd (PTTEP AP) | Commonwealth of Australia | Petroleum | 100 | 100 |
| 25. PTTEP Australia Browse Basin Pty Ltd (PTTEP AB) | Commonwealth of Australia | Petroleum | 100 | 100 |
| 26. PTTEP Australia Timor Sea Pty Ltd (PTTEP AT) | Commonwealth of Australia | Petroleum | 100 | 100 |
| 27. PTTEP Australasia (Operations) Pty Ltd (PTTEP AAO) | Commonwealth of Australia | Petroleum | 100 | 100 |
| 28. PTTEP Australasia (Ashmore Cartier) Pty Ltd (PTTEP AAA) | Commonwealth of Australia | Petroleum | 100 | 100 |
| 29. PTTEP Australasia (Staff) Pty Ltd (PTTEP AAS) | Commonwealth of Australia | Petroleum | 100 | 100 |
| 30. PTTEP International Holding Company Limited (PTTEP IH) | Cayman Islands | Petroleum | 100 | 100 |
| 31. PTTEP Southwest Vietnam Pipeline Company Limited (PTTEP SVPC) | Cayman Islands | Gas pipeline transportation | 100 | 100 |
| 32. PTTEP FLNG Holding Company Limited (PTTEP FH)[2] | Hong Kong | Petroleum | 100 | 100 |
| 33. PTTEP Netherland Holding Limited (PTTEP NL) | Cayman Islands | Petroleum | 100 | 100 |
| 34. JV Marine Limited (JV Marine) | Cayman Islands | Petroleum | 100 | 100 |

[1] On July 10, 2020 the company approved for the registration for dissolution for PTTEP Semai II Limited (PTTEP SM), a subsidiary of the Group and is in the process of dissolution.

[2] On August 24, 2017, the Company approved for the registration for the dissolution of PTTEP FLNG Holding Company Limited (PTTEPFH) and is in the process of dissolution.

| Company name | Registered country | Type of business | Participating interest (%) (including indirect holding) | |
|---|---|---|---|---|
| | | | Dec 31, 2020 | Dec 31, 2019 |
| Subsidiaries (Continued) | | | | |
| 35.PTTEP South Mandar Limited (PTTEP SMD) | Cayman Islands | Petroleum | 100 | 100 |
| 36. PTTEP South Sageri Limited (PTTEP SS) | Cayman Islands | Petroleum | 100 | 100 |
| 37. PTTEP Sadang Limited (PTTEP SD) | Cayman Islands | Petroleum | 100 | 100 |
| 38. PTTEP Malunda Limited (PTTEP ML) | Cayman Islands | Petroleum | 100 | 100 |
| 39. PTTEP Netherlands Coöperatie U.A. (PTTEP NC) | Netherlands | Petroleum | 100 | 100 |
| 40. PTTEP Canada Limited (PTTEP CA) | Canada | Petroleum | 100 | 100 |
| 41. PTTEP Canada International Finance Limited (PTTEP CIF) | Canada | Investment funding for the Group's business | 100 | 100 |
| 42. Cove Energy Limited (Cove) | United Kingdom of Great Britain and Northern Ireland | Petroleum | 100 | 100 |
| 43. Cove Energy Mozambique Rovuma Onshore Limited (CEMROL)[3] | Republic of Cyprus | Petroleum | 100 | 100 |
| 44. Cove Energy East Africa Limited (CEEAL) | Republic of Cyprus | Petroleum | 100 | 100 |
| 45. PTTEP Mozambique Area 1 Limited (PTTEPMZA1) | Republic of Cyprus | Petroleum | 100 | 100 |
| 46. Cove Energy Kenya Limited (CEKL)[4] | Republic of Kenya | Petroleum | - | 100 |
| 47. PTTEP Netherlands Holding Coöperatie U.A. (PTTEP NH) | Netherlands | Petroleum | 100 | 100 |
| 48. PTTEP Brazil Investment B.V. (PTTEP BI) | Netherlands | Petroleum | 100 | 100 |
| 49. PTTEP Brazil Investments in Oil and Gas Exploration and Production Limitada (PTTEP BL) | Federative Republic of Brazil | Petroleum | 100 | 100 |
| 50. Sinphuhorm Holdings Limited (SHL) | Cayman Islands | Petroleum | 100 | 100 |

[3] On May 22,2017, the company approved for the registration for the dissolution of Cove Energy Mozambique Rovuma Onshore Limited (CEMROL) and is in the process of dissolution.

[4] Following the Company's approval to register for the dissolution of Cove Energy Kenya Limited (CEKL), a subsidiary of the Group, on May 22, 2017, CEKL received the approval for company dissolution from the registrar on May 27, 2020.

| Company name | Registered country | Type of business | Participating interest (%) (including indirect holding) | |
|---|---|---|---|---|
| | | | Dec 31, 2020 | Dec 31, 2019 |
| Subsidiaries (Continued) | | | | |
| 51. PTTEP SP Limited (PTTEP SP) | United Kingdom of Great Britain and Northern Ireland | Petroleum | 100 | 100 |
| 52. PTTEP G7 Limited (PTTEP G7) | Thailand | Petroleum | 100 | 100 |
| 53. PTTEP HK Offshore Limited (PTTEP HKO) | Hong Kong | Petroleum | 100 | 100 |
| 54. PTTEP MENA Limited (PTTEP MENA) | Hong Kong | Petroleum | 100 | 100 |
| 55. PTTEP Mexico E&P Limited, S. de R.L. de C.V. (PTTEP MEP) | Mexico | Petroleum | 100 | 100 |
| 56. PTTEP Sabah Oil Limited (PTTEP SBO) | Bahamas | Petroleum | 100 | 100 |
| 57. PTTEP Sarawak Oil Limited (PTTEP SKO) | Bahamas | Petroleum | 100 | 100 |
| 58. PTTEP Group Holding B.V. (PGH)[5] | Netherlands | Petroleum | 100 | 100 |
| 59. Partex Oil and Gas (Holdings) Corporation (POGHC)[6] | Cayman Islands | Petroleum | 100 | 100 |
| 60. PTTEP (Kazakhstan) Corporation (PKC)[7] | Cayman Islands | Petroleum | 100 | 100 |
| 61. PTTEP (Angola) Corporation (PANG)[8] | Cayman Islands | Petroleum | 100 | 100 |
| 62. Partex (Brazil) Corporation (PBC) | Cayman Islands | Petroleum | 100 | 100 |
| 63. PTTEP Gas Corporation (PGC)[9] | Republic of Panama | Petroleum | 100 | 100 |
| 64. Partex Services Corporation (PSC) | Republic of Panama | Human resource support | 100 | 100 |

[5] On 23 July 2020, Partex Holding B.V. (PHBV), a subsidiary of the Group, changed its name to PTTEP Group Holding B.V. (PGH).

[6] Partex Oil and Gas (Holdings) Corporation (POGHC), a subsidiary of the Group, was approved for the registration for dissolution from its shareholders since 26 October 2018 and is in process of dissolution.

[7] On August 24, 2020, Partex (Kazakhstan) Corporation (PKC), a subsidiary of the Group, changed its name to PTTEP (Kazakhstan) Corporation (PKC).

[8] On August 26, 2020, Partex (Angola) Corporation (PANG), a subsidiary of the Group, changed its name to PTTEP (Angola) Corporation (PANG).

[9] On September 3, 2020, Partex Gas Corporation (PGC), a subsidiary of the Group, changed its name to PTTEP Gas Corporation (PGC).

| Company name | Registered country | Type of business | Participating interest (%) (including indirect holding) | |
|---|---|---|---|---|
| | | | Dec 31, 2020 | Dec 31, 2019 |
| Subsidiaries (Continued) | | | | |
| 65. Participations and Explorations Corporation (PEC) | Republic of Panama | Petroleum | 100 | 100 |
| 66. PTTEP Oman E&P Corporation (POC)[10] | Republic of Panama | Petroleum | 100 | 100 |
| 67. Partex Services Portugal – Serviços para a Indústria Petrolífera, S.A. (PSP) | Portugal | Human resource support | 100 | 100 |
| 68. Partex Brasil Ltda. (PBL) | Federative Republic of Brazil | Petroleum | 100 | 100 |
| 69. Partex Brasil Operações Petrolíferas Ltda (PBO) | Federative Republic of Brazil | Human resource support | 100 | 100 |
| Associates[11] | | | | |
| 1. Energy Complex Company Limited (Energy Complex) | Thailand | Property rental services | 50 | 50 |
| 2. PTT Digital Solutions Company Limited (PTT Digital) | Thailand | Information technology and communication services | 20 | 20 |
| 3. PTTEP AP Group's Associates[12] | Commonwealth of Australia | Air base services | 50 | 50 |
| 4. PTT Global LNG Company Limited (PTT GL) | Thailand | Petroleum | 50 | 50 |
| 5. Leismer Aerodrome Limited (LAL) | Canada | Air transportation | 32 | 32 |
| 6. MoZ LNG1 Holding Company Ltd[13] | United Arab Emirates | Petroleum | 8.5 | - |

[10] On September 3, 2020, Partex (Oman) Corporation (POC), a subsidiary of the Group, changed its name to PTTEP Oman E&P Corporation (POC).

[11] All investments in associates have been assessed as immaterial to the Group. The Group has no contingent liabilities with participating interest in investment in associates.

[12] PTTEP AP's Group Associates are Mungalalu Truscott Airbase Pty Ltd and Troughton Island Pty Ltd.

[13] During the year 2020, the Group reviewed classification of investment to conform to the current situation. It affected to the investment reclassified as an investment in associate accounted for using the equity method.

| Company name | Registered country | Type of business | Participating interest (%) (including indirect holding) | |
|---|---|---|---|---|
| | | | Dec 31, 2020 | Dec 31, 2019 |
| **Joint Ventures**[14] | | | | |
| 1. Erawan 2 FSO Bahamas Ltd. (Erawan 2 FSO Bahamas)[15] | Bahamas | FSO rental services | 13.11 | 13.11 |
| 2. APICO LLC (APICO) | United States of America | Petroleum | 72.8215 | 72.8215 |
| 3. Oman LNG LLC (OLNG) | Sultanate of Oman | Petroleum | 2 | 2 |
| 4. ATI Technologies Company Limited (ATI) | Thailand | Technology | 50 | - |
| 5. ZeaQuest Co., Ltd. (ZeaQuest) | Thailand | Technology | 50 | - |
| **Joint Operations** | | | | |
| 1. Carigali - PTTEPI Operating Company Sdn. Bhd. (CPOC) | Malaysia | Petroleum | 50 | 50 |
| 2. Moattama Gas Transportation Company (MGTC) | Bermuda | Gas pipeline transportation | 25.5 | 25.5 |
| 3. Taninthayi Pipeline Company LLC (TPC) | Cayman Islands | Gas pipeline transportation | 19.3178 | 19.3178 |
| 4. Orange Energy Limited (Orange) | Thailand | Petroleum | 53.9496 | 53.9496 |
| 5. B8/32 Partners Limited (B8/32 Partners) | Thailand | Petroleum | 25.0009 | 25.0009 |
| 6. Hoang-Long Joint Operating Company | Socialist Republic of Vietnam | Petroleum | 28.5 | 28.5 |
| 7. Hoan-Vu Joint Operating Company | Socialist Republic of Vietnam | Petroleum | 25 | 25 |
| 8. Groupement Bir Seba (GBRS) | People's Democratic Republic of Algeria | Petroleum | 35 | 35 |
| 9. Andaman Transportation Limited (ATL) | Cayman Islands | Gas pipeline transportation | 80 | 80 |
| 10. Natuna 2 B.V. (Natuna) | Netherlands | Petroleum | 50 | 50 |
| 11. Petroleum Development Oman LLC (PDO) | Sultanate of Oman | Petroleum | 2 | 2 |

[14] All investments in joint ventures have been assessed as immaterial to the Group. The Group has no contingent liabilities with participating interest in investment in joint ventures.

[15] Erawan 2 FSO Bahamas hold 100% of shareholding interest in Asia Pacific Marine Services (EF) B.V.

| Company name | Registered country | Type of business | Participating interest (%) (including indirect holding) | |
|---|---|---|---|---|
| | | | Dec 31, 2020 | Dec 31, 2019 |
| Joint Operations (continued) | | | | |
| 12. Abu Dhabi Gas Industries Limited (AGP) | The United Arab Emirates | Petroleum | 2 | 2 |
| 13. Private Oil Holdings Oman Limited (POHOL) | United Kingdom of Great Britain and Northern Ireland | Petroleum | 5 | 5 |

#### 1.2.6.3 Net Book Value

As of December 31, 2020, PTTEP's net book value amounted to USD 11,799 million (equivalent to THB 354,411 million) or USD 2.97 per share (equivalent to THB 89.27 per share).

## 1.3 Shareholding Structure of PTTEP Group

### 1.3.1 Business Overview

PTTEP's core business is exploration and production of petroleum in Thailand and foreign countries. As of December 31, 2020, PTTEP Group had petroleum exploration and production projects in 15 countries with details as follows:

| No. | Project Name | Phase | Location | Participation Interest | Operator |
|---|---|---|---|---|---|
| Thailand | | | | | |
| 1 | Bongkot Project | Production | Gulf of Thailand | 66.6667% | PTTEP Group |
| 2 | S1 Project | Production | Upper Central | 100% | PTTEP Group |
| 3 | PTTEP 1 Project | Production | Central | 100% | PTTEP Group |
| 4 | B6/27 Project | Production | Gulf of Thailand | 100% | PTTEP Group |
| 5 | Arthit Project | Production | Gulf of Thailand | 80% | PTTEP Group |
| 6 | L22/43 Project | Production | Upper Central | 100% | PTTEP Group |
| 7 | L53/43 & L54/43 Project | Production | Central | 100% | PTTEP Group |
| 8 | E5 Project | Production | North East | 20% | ExxonMobil |
| 9 | Contract 3 Project | Production | Gulf of Thailand | 5% | Chevron |
| 10 | Contract 4 Project | Production | Gulf of Thailand | 60% | Chevron |
| 11 | G4/43 Project | Production | Gulf of Thailand | 21.375% | Chevron |
| 12 | Sinphuhorm Project | Production | North East | 55% | PTTEP Group |
| 13 | B8/32 & 9A Project | Production | Gulf of Thailand | 25.001% | Chevron |
| 14 | G4/48 Project | Production | Gulf of Thailand | 5% | Chevron |
| 15 | G1/61 Project | Exploration | Gulf of Thailand | 60% | PTTEP Group |

| No. | Project Name | Phase | Location | Participation Interest | Operator |
|---|---|---|---|---|---|
| 16 | G2/61 Project | Exploration | Gulf of Thailand | 100% | PTTEP Group |
| Overlapping Area | | | | | |
| 1 | MTJDA Project | Production | Thailand-Malaysia | 50% | CPOC |
| 2 | G9/43 Project | Exploration | Thailand-Cambodia | 100% | PTTEP Group |
| Overseas | | | | | |
| Myanmar | | | | | |
| 1 | Zawtika Project | Production | Gulf of Moattama | 80% | PTTEP Group |
| 2 | Yadana Project | Production | Gulf of Moattama | 25.5% | Total |
| 3 | Yetagun Project | Production | Gulf of Moattama | 19.31784% | Petronas |
| 4 | Myanmar M3 Project | Exploration | Gulf of Moattama | 80% | PTTEP Group |
| 5 | Myanmar M11 Project[1] | Exploration | Gulf of Moattama | 100% | PTTEP Group |
| 6 | Myanmar MD-7 Project[2] | Exploration | Andaman Sea | 50% | PTTEP Group |
| 7 | Myanmar MOGE 3 Project[3] | Exploration | Onshore | 77.5% | PTTEP Group |
| Malaysia | | | | | |
| 1 | Malaysia Project[4] | Exploration/ Development/ Production | Offshore | 6.4-80%[5] | PTTEP Group |
| Vietnam | | | | | |
| 1 | Vietnam 9-2 Project | Production | Offshore | 25% | HV JOC |
| 2 | Vietnam 16-1 Project | Production | Offshore | 28.5% | HL JOC |
| 3 | Vietnam B & 48/95 Project | Exploration | Offshore | 8.5% | PetroVietnam |
| 4 | Vietnam 52/97 Project | Exploration | Offshore | 7% | PetroVietnam |

[1] The project submitted the block relinquishment notification letter to MOGE in September 2019. Currently, the project is waiting for MOGE's approval on block termination.

[2] The project submitted the block relinquishment notification letter to MOGE in October 2020 after fulfilling the obligations under the Product Sharing Contract. The termination will be effective after receiving the official approval from the Government of the Republic of the Union of Myanmar.

[3] The project submitted the block relinquishment notification letter to MOGE in July 2020 by submitting a request to terminate and return 77.5% of the exploration block of Myanmar MOGE 3 Project after fulfilling the obligations under the Product Sharing Contract. The termination will be effective after receiving the official approval from the Government of the Republic of the Union of Myanmar.

[4] PTTEP has named investments of all projects in Malaysia under 'Malaysia Project'.

[5] Malaysia Project holds many petroleum blocks where PTTEP as Operator has various participation interest from 42-80%, except one area named Gumusut-Kakap (GK) in Sabah K Block where PTTEP is joint venture partner with participation interest of 6.4%, and Shell is the Operator.

| No. | Project Name | Phase | Location | Participation Interest | Operator |
|---|---|---|---|---|---|
| Indonesia | | | | | |
| 1 | Natuna Sea A Project | Production | Offshore | 11.5% | Premier Oil |
| Kazakhstan | | | | | |
| 1 | Dunga Project | Production | Onshore | 20% | Total |
| Oman | | | | | |
| 1 | PDO (Block 6) Project | Production | Onshore | 2% | Petroleum Development Oman |
| 2 | Mukhaizna (Block 53) Project | Production | Onshore | 1% | Occidental Petroleum |
| 3 | Oman Onshore Block 12 Project[6] | Exploration | Onshore | 20% | Total |
| United Arab Emirates | | | | | |
| 1 | Abu Dhabi Offshore 1 Project | Exploration | Offshore | 30% | Eni Abu Dhabi B.V. |
| 2 | Abu Dhabi Offshore 2 Project | Exploration | Offshore | 30% | Eni Abu Dhabi B.V. |
| 3 | Abu Dhabi Offshore 3 Project[7] | Exploration | Offshore | 30% | Eni Abu Dhabi B.V. |
| Algeria | | | | | |
| 1 | Algeria 433a & 416b Project | Production | Onshore | 35% | GBRS |
| 2 | Algeria Hassi Bir Rekaiz Project | Development | Onshore | 24.5%[8] | PTTEP Group |
| Mozambique | | | | | |
| 1 | Mozambique Area 1 Project | Development | Offshore | 8.5% | Total |
| Angola | | | | | |
| 1 | Block 17/06 Project | Exploration | Offshore | 2.5% | Total |
| Australia | | | | | |
| 1 | PTTEP Australasia Project[9] | Exploration | Offshore | 90-100%[10] | PTTEP Group |

[6] PTTEP and Total E&P Oman Block 12 B.V., a wholly-owned subsidiary of Total S.A. signed Exploration and Production Sharing Agreement (EPSA) with Oman's Ministry of Oil and Gas (MOG) for exploration and production rights of Block 12 on February 19, 2020.

[7] PTTEP was selected as the successful bidders for the exploration and production, named Offshore 3 and signed the Concession Agreement with Abu Dhabi National Oil Company (ADNOC) on December 21, 2020.

[8] In March 2020, the Company entered into an Asset Sale and Purchase Agreement to acquire an additional 24.5% investment in the project from CNOOC, a co-investor in the project. The acquisition will be completed when it has been officially confirmed and announced by the Algerian government. After the purchase, the company will have an increased participating interest from 24.5% to 49%, with SONATRACH, Algeria's national oil company, is the main investor with the participating interest of 51%.

[9] The project requested to terminate and return 100% of the exploration blocks of AC/RL5 project in Tenacious Field, which is a part of PTTEP Australasia Project, to the Government of the Commonwealth of the Australia in March 13, 2020, after fulfilling the obligations under the concession agreement. The termination was effective from June 15, 2020.

[10] PTTEP Australasia Project holds many petroleum blocks which have varying participation interests ranging from 90-100%.

| No. | Project Name | Phase | Location | Participation Interest | Operator |
|---|---|---|---|---|---|
| Canada | | | | | |
| 1 | Mariana Oil Sands Project | Exploration | Onshore | 100% | PTTEP Group |
| Brazil | | | | | |
| 1 | Potiguar Project | Production | Onshore | 50% | PTTEP Group |
| 2 | Barreirinhas AP1 Project | Exploration | Offshore | 25% | Shell Brasil |
| 3 | Brazil BM-ES-23 Project | Exploration | Offshore | 20% | Petrobras |
| Mexico | | | | | |
| 1 | Mexico Block 12 (2.4) Project | Exploration | Offshore | 20% | PC Carigali Mexico |
| 2 | Mexico Block 29 (2.4) Project | Exploration | Offshore | 16.67% | Repsol Exploración México |

**Principal Projects in Operation**

The following is a summary of project activities undertaken during 2020. Production and sales figures described hereunder are total production and sales figures for the respective projects.

1) **Project Activity Highlights in Thailand** Most PTTEP projects in Thailand are in the production phase, located both in the Gulf of Thailand and onshore. The following are highlights of key project activities in Thailand during 2020.

Bongkot Project

The Bongkot Project is located in the southern part of the Gulf of Thailand, consisting of Bongkot North and Bongkot South fields (Blocks B15, B16 and B17). The Company currently holds 66.6667% interest after the completion of additional stake of 22.2222% in Blocks B15, B16 and B17 from Shell Integrated Gas Thailand Pte. Limited (Shell) and Block G12/48 from Thai Energy Company Limited (a wholly-owned subsidiary of Shell) in June 2018. The Company is the operator. The project has been in production since 1993. All of the natural gas and condensate produced from the Bongkot field are sold to PTT, under a Take-or-Pay basis pursuant to long-term Gas Sales Agreements (GSA).

During the year 2020, the project continuously drilled production wells to maintain production volumes as planned. The Block G12/48, located adjacent to the east of Bongkot South field and is held and operated by the Company with 66.6667% working interest, was approved the production area and development plan by the Department of Mineral Fuels, Thailand, in March 2015, and started production since October 20, 2018 through Bongkot South field's Central Processing platform with the natural gas being sold to PTT under the field's sales contract. Overall, the average sales volume of the project in the year 2020 was 780 million standard cubic feet per day (MMSCFD) for natural gas [equivalent to approximately 125,500 barrels of oil equivalent per day (BOED)] and approximately 21,700 barrels per day (BPD) of condensates.

On December 13, 2018, as announced in the bidding result of the expiring concessions in 2022-2023 in the Gulf of Thailand, the Company was solely awarded the rights of petroleum exploration and production and as the operator of Block G2/61 (Bongkot field). Currently, the project is in the transition process to ensure production continuity starting in 2022 until the Production Sharing Contract ends. More information is provided in the G2/61 Project.

S1 Project

The S1 Project is the largest onshore oil field in Thailand, with the production area covering parts of Kamphaeng Phet, Sukhothai and Phitsanulok provinces. PTTEP Siam is the operator with 75% of interest and PTTEP is the joint partner at 25% of interest. On November 24, 2020, S1 project has been officially approved to extend the petroleum production period for another 10 years (March 15, 2021 to March 14, 2031).

The products from the S1 Project consist of crude oil, natural gas, and liquefied petroleum gas (LPG). Crude oil produced at S1 is sold to PTT which is transported via truck and rail to the refineries of Thai Oil Public Company Limited, Bangchak Corporation Public Company Limited (Bangchak) refineries, PTT Global Chemical Public Company Limited, and IRPC Public Company Limited. The produced gas from the project is sold to PTT, UAC Global Public Company Limited, and Thai Housewives Product for Climate Change Protection Cooperative Limited (TCCT) and the other part that undergoes to a gas plant to separate LPG will be sold to PTT.

During the year 2020, the project continuously drilled additional production wells with exploration drilling plan to maintain its production level. Environmental impact assessments were also undertaken in both the existing and new production areas. The average crude oil sales volume of the project in 2020 was approximately 29,100 BPD, while sales volume of natural gas averaged 7 MMSCFD (approximately 1,300 BOED), and average LPG sales volume was 180 metric tons per day (approximately 1,500 BOED).

PTTEP 1 Project

The PTTEP 1 Project is located in Suphan Buri and Nakhon Pathom provinces. PTTEP is the sole owner and operator. Crude oil produced at the project is sold to PTT and is transported via truck to the Bangchak refinery. During the year 2020, the average sales volume of the project for crude oil was approximately 140 BPD.

B6/27 Project

The B6/27 Project is located in the Gulf of Thailand, off the coast of Chumphon Province. PTTEP is the sole owner and operator. Currently, the project is in the preparation process for decommissioning. The concession contract will be expired in February 2023.

Arthit Project

The Arthit Project is located in the southern part of the Gulf of Thailand. The Company has 80% participating interest in the project. The project entered into long-term natural gas and condensate agreement with PTT on a Take-or-Pay basis.

During the year 2020, the project has successfully installed 2 wellhead platforms and gas pipelines, continued the construction of the wellhead platforms and pipeline for the installation in 2021 along with drilling activities in order to maintain production levels. The Block G8/50, located adjacent to the north of Arthit Project and is held and operated by the Company with 80% working interest, had produced through Arthit Project's Central Processing platform with the natural gas being sold to PTT under Arthit Project's sales contract. In March 2019, Block G8/50 ceased production. However, this does not affect the total sales volume of the Arthit Project. The average natural gas sales volume for the project in 2020

was approximately 220 MMSCFD (approximately 35,900 BOED) and average condensate sales volume was approximately 10,600 BPD.

L22/43 Project

The L22/43 Project is located in Phitsanulok and Pichit provinces. PTTEP is the sole owner and operator. In 2020, the project has temporarily shut down and plans to continue the production in mid-2021.

L53/43 and L54/43 Project

The L53/43 and L54/43 Project is located in Suphanburi, Kanchanaburi, Ayutthaya and Ang-Thong provinces. PTTEP is the sole owner and operator. Crude oil produced from the project is sold to PTT which is transported via truck to the Bangchak refinery.

During the year 2020, the L54/43 Project's average crude oil sales volume was approximately 1,000 BPD. The L53/43 Project has temporarily shut down since 2019.

E5 Project

The E5 Project is located in Khon Kaen Province. PTTEP holds 20% participating interest in the project with ExxonMobil as the operator with 80% participating interest. All of the natural gas produced by the E5 Project is sold to PTT on a take-or-pay basis pursuant to a long-term GSA. PTT then transports the gas via pipelines to EGAT's Nam Phong Power Plant.

In the year 2020, average natural gas sales volume for the project amounted to 8 MMSCFD (approximately 1,300 BOED).

Contract 3 Project

The Contract 3 Project is located in the Gulf of Thailand, off the coast of Surat Thani Province. The Company holds a 5% interest in the project with Chevron as the operator. All of the natural gas and condensate produced from the project is sold to PTT in according to long-term gas and condensate sales agreements, whilst the produced crude oil is under annual sales agreement and spot cargo with other purchasers.

In the year 2020, the project has carried out the last development drilling activities, as the concession of which will ends in 2022 and the project has decreased its production level consequently. The average sales volume of the project in 2020 was approximately 570 MMSCFD (approximately 92,800 BOED) for natural gas, approximately 17,500 BPD for crude oil and approximately 16,600 BPD for condensates.

Contract 4 Project

The Contract 4 Project and Block G7/50, is located in the Gulf of Thailand. The Company holds a 60% interest in the project, with Chevron as the operator. All of the natural gas and condensate produced from the project is sold to PTT under a long-term gas and condensate sales agreements.

In the year 2020, the project sold natural gas at an average rate of approximately 330 MMSCFD (approximately 54,100 BOED) and condensates at an average rate of approximately 13,400 BPD. The project continued to drill additional development wells aiming to maintain production plateau.

G4/43 Project

The G4/43 Project is located in the Gulf of Thailand. The Company holds a 21.375% interest in the project with Chevron as the operator. The project has mutual long-term GSA and crude oil sale agreements with the B8/32 & 9A Project.

In the year 2020, the project had no development drilling activities. The sales volume of crude oil and natural gas averaged approximately 4,100 BPD and 1 MMSCFD (equivalent to approximately 270 BOED) respectively.

Sinphuhorm Project (EU-1 and E5-North)

The Sinphuhorm Project is located in Udon Thani and Khon Kaen provinces. PTTEP SP is the operator which holds directly and indirectly 80.48% participating interest in Sinphuhorm Project after the acquisition of 33.8% and 39% stakes in APICO from Tatex and Coastal Energy in 2019, respectively. APICO has 35% participating interest in Sinphuhorm Project. The project has long-term gas sales agreement with PTT and the natural gas will be sent through the pipeline to EGAT's Nam Phong Power Plant.

In 2020, the project drilled additional production wells to maintain the yearly sales volume of the project averaged approximately 90 MMSCFD for natural gas (approximately 15,400 BOED) and approximately 280 BPD for condensates.

B8/32 & 9A Project

The B8/32 & 9A Project is located in the Gulf of Thailand, off the coast of Chumphon Province. The Company holds a 25% interest in the project with Chevron as the operator. The project currently has long-term GSAs with PTT and annual crude sales agreement with other purchasers for spot cargo.

During the year 2020, the project continued to carry out development drilling and waterflood operations in order to maintain the crude oil production levels. Sales volume averaged approximately 17,400 BPD for crude oil and ap proximately 50 MMSCFD for natural gas (approximately 8,900 BOED).

G4/48 Project

The G4/48 Project is located in the Gulf of Thailand, off the coast of Surat Thani Province. PTTEP holds 5% interest in the project with Chevron as the operator. The project has mutual long-term gas sales agreements and crude oil sale agreements for spot cargo with the Contract 3 Project.

In the year 2020, sales volume from the project averaged 6 MMSCFD for natural gas (equivalent to approximately 920 BOED) and approximately 460 BPD for crude oil.

G1/61 Project

The G1/61 Project is an exploration and production project, under Production Sharing Contract scheme (PSC). The project is located in the Gulf of Thailand where the existing concession, Block 10-13 (Erawan field), will expire in 2022, with Chevron as operator. From the results of Thailand Petroleum Bidding Round for the expired concessions in 2022-2023 in the Gulf of Thailand announced on December 13, 2018, PTTEP Energy Development Company Limited (PTTEP ED), a subsidiary of PTTEP, together with MP G2 (Thailand) Limited, a subsidiary of Mubadala Petroleum (Thailand) Holdings Limited, were awarded the right to explore and produce petroleum in G1/61 (Erawan field) with the holding interest of 60% and 40% respectively with PTTEP ED as the operator. The Production Sharing Contract (PSC) was later signed on February 25, 2019.

In 2020, the project continued its transitional efforts including Site Access negotiation, platform construction, staff recruitments, sales agreement negotiation and procurement activities in preparation for readiness for production and operations. PTTEP has been closely coordinating with the existing concessionaire and the Department of Mineral Fuels with determination to achieve successful transition and deliver our gas production commitment.

G2/61 Project

The G2/61 Project is an exploration and production project, under Production Sharing Contract scheme (PSC). The project is located in the Gulf of Thailand where the existing concession, Block 15, 16 and 17 (Bongkot field), will expire in 2022 and 2023, with PTTEP as the operator. From the results of Thailand Petroleum Bidding Round for the expired concessions in 2022-2023 in the Gulf of Thailand announced on December 13, 2018, PTTEP Energy Development Company Limited (PTTEPED), a subsidiary of PTTEP, was awarded the right to explore and produce petroleum with the holding interest of 100% of G2/61 (Bongkot field), and as the operator. The Production Sharing Contract (PSC) was later signed on February 25, 2019.

In 2020, the project continued transition workplan, proceed on site survey for new production platform construction, and installation planned in 2021 and 2022. As the impact from low oil price this year, exploration cost optimization has been carried out and will start drilling the exploration and production wells in 2021 to ensure gas production delivery at the minimum volume stated in the PSC of 200 MMSCFD in 2022 and 700 MMSCFD in 2023 continued as planned.

Projects Located In Overlapping Claims Areas

MTJDA Project

PTTEP has a 50% participating interest in the MTJDA Project with Carigali PTTEPI Operating Company Sdn. Bhd. (CPOC) as the operator. PTTEP, PC JDA Ltd. (a subsidiary of Petronas, Malaysia's Natural Oil Company) and the Malaysia-Thailand Joint Authority (MTJA) executed a GSA for the sales of the natural gas from the MTJDA Project to PTT and Malaysia. Whilst, crude oil and condensates produced from the project were sold through auction.

During the year 2020, the project has continuously drilled production wells to maintain production level and drilled the appraisal wells to further evaluate potentials supporting future development. The project has average sales volume approximately 270 MMSCFD (approximately 42,900 BOED) for natural gas and approximately 7,500 BPD for condensates.

G9/43 Project

The G9/43 Project is located in the Gulf of Thailand with PTTEP as a sole owner and operator. At present, all activities for this project have been suspended pending for the resolution of the boundary dispute between the governments of Thailand and Cambodia.

2) International Projects: PTTEP has overseas projects separated into the following regions.

2.1) Project Activity Highlights in other Southeast Asia Countries

PTTEP has projects in this region which are located in the Republic of the Union of Myanmar (Myanmar), the Federation of Malaysia (Malaysia), the Socialist Republic of Vietnam (Vietnam) and the Republic of Indonesia (Indonesia). The following section highlights the project activities.

**Zawtika Project**

The Zawtika Project is a gas project located in the Gulf of Moattama, Myanmar. The Company holds 80% participating interest and is the operator, with Myanma Oil and Gas Enterprise (MOGE) holding the remaining 20% interest. The gas produced from this project is sold to PTT, supplying Thai market under long-term GSA on a take-or-pay basis; and sold to MOGE for domestic consumption in Myanmar under the long-term sales contract. To transport natural gas from Zawtika Project to Thailand, the Company and the joint venture partners established a gas transportation company called Andaman Transportation Limited (ATL) to construct and operate an offshore and onshore pipeline from the project to the Thai border. The project commenced its gas sales in Myanmar in March 2014 and began delivering natural gas to PTT in August 2014.

In 2020, the project had been executing Phase 1D Field Development Plan by launching a call for tenders of the Company Furnished Material and Equipment (CFME) for the wellhead platforms and the Engineering design, Procurement, Construction and Installation (EPCI) for wellhead platforms, gas export pipelines and integrated systems in July 2020. The result of call for tenders will be completed in February 2021 with the project progress as planned. The average sales volume of natural gas for the project in 2020 was 320 MMSCFD (approximately 50,700 BOED).

**Yadana Project**

The Yadana Project is a large gas project located in the Gulf of Moattama, Myanmar. The Company holds a 25.5% interest with Total E&P Myanmar (TEPM) as the operator. Natural gas produced from the project is sold to PTT on a take-or-pay basis pursuant to long-term GSA, and a certain portion is sold to MOGE for domestic use in Myanmar. To transport natural gas from Yadana to Thailand, the Company and our joint venture partners established a gas transportation company, called Moattama Gas Transportation Company (MGTC), to construct and operate an offshore and onshore pipeline from the Yadana Project area to the Thai border. Consequently, PTT completed an onshore pipeline section from the Thai border to the EGAT power generation plant in Ratchaburi Province.

During the year 2020, the project had completed drilling 2 production wells in Yadana field and prepared for another 2 production wells in Yadana and Badamyar fields in 2021 to maintain production volume and ensure gas delivery as stated in the long-term sales agreement. Overall, in 2020, the project had average gas sales volume of 760 MMSCFD (approximately 93,700 BOED).

**Yetagun Project**

The Yetagun Project is a natural gas and condensates producing project located in the Gulf of Moattama, Myanmar. The Company holds a 19.31784% interest in the project with PC Myanmar (Hong Kong) Limited as the operator. All natural gas from the Yetagun Project is sold to PTT on a take-or-pay basis pursuant to long-term GSA. To transport natural gas from Yetagun Project to Thailand, the Company and the joint venture partners established a gas transportation company called Taninthayi Pipeline Company (TPC) to construct and operate an offshore pipeline and an onshore pipeline (parallel to the Yadana pipeline) from the project to the Thai border.

During the year 2020, the project completed the 3D seismic survey and interpreted those data with the plan to continue the Refinery Acid Gas Removal Unit (AGRU) Project and facilities modification to continuously maintain production plateau. The project's total sales volume averaged 60 MMSCFD (approximately 8,700 BOED) for natural gas and approximately 1,100 BPD for condensates.

Myanmar M3 Project

The Myanmar M3 Project is located in the Gulf of Moattama, Myanmar. The Company owns 80% participating interest in the project and is the operator. The project is awaiting for approval of Field Development Plan from the Government of Myanmar to commence negotiating a gas sale agreement and pre-development works, supporting the Gas to Power Project in Myanmar.

The Gas to Power Project is an integrated energy project from Exploration and Production, Gas Transportation System, and a gas-fired power plant in Myanmar. At the initial stage, PTTEP plans to feed the natural gas from Zawtika Project and Myanmar M3 Project to supply a new power plant with a capacity of 600 Megawatts for domestic consumption due to the high demand of electricity in the country. Currently, the project has received the approval of Notice to Proceed from the Government of Myanmar in December 2020 to enter the next step of negotiating a power purchase agreement and carry out pre-development works. The Final Investment Decision (FID) of the Integrated Gas to Power Project will be in 2022.

Myanmar M11 Project

The Myanmar M11 Project is located in the Gulf of Moattama, Myanmar. PTTEP is the sole owner and operator. The project submitted the block relinquishment notification letter to MOGE in September 2019. Currently, it's waiting for MOGE's approval on block termination.

Myanmar MD-7 Project

The MD-7 Project is located in deep water of the Gulf of Moattama, Myanmar. The Company has a 50% interest in the project and is the operator. The Total E&P Myanmar (TEPM) joined the consortium with 50% participating interest in 2017.

The Myanmar MD-7 Project completed the drilling of an exploration well in March 2020 with no commercial reserves found. The project submitted the block relinquishment notification letter to MOGE in October 2020 after fulfillment of the requirements under the Product Sharing Contract. Currently, the project is on relinquishment process, the termination will be effective after receiving the official approval from the Government of the Republic of the Union of Myanmar.

Myanmar MOGE 3 Project

The Myanmar MOGE 3 Project is an onshore project located in Myanmar. PTTEP holds a 77.5% interest and is the operator of this project. The project submitted the block relinquishment notification letter to MOGE in July 2020 after fulfillment of the requirements under the Product Sharing Contract. The termination will be effective after receiving the official approval from the Government of the Republic of the Union of Myanmar.

The Malaysia Project

On March 21, 2019, PTTEP HK Offshore Limited (a subsidiary of PTTEP) acquired 100% of Murphy Oil Corporation's (Murphy) business in Malaysia. The agreement was completed in July 2019. Subsequently, PTTEP has named investments of all projects in Malaysia under "Malaysia Project". Details are as follows:

***The Malaysia: Block K Project*** consists of Kikeh, Siakap North-Petai (SNP) and Gumusut-Kakap (GK) fields which are producing oil fields located in the deep water of offshore Sabah, Malaysia. The Company holds participating interest

of 56% and 22.4% in the Kikeh and SNP fields respectively and is the operator. The Company holds participating interest of 6.4% in the GK field with Shell as the operator.

In 2020, the project had average production volume for crude oil of approximately 27,800 and 25 MMSCFD for natural gas (approximately 4,600 BOED). The main projects for 2021 are the infill development of Siakap North-Petai and Gumusut-Kakap.

***The Malaysia: Sarawak SK 309 and 311 Project*** are oil and gas producing fields in the shallow water areas of offshore Sarawak, Malaysia. The Company holds a participating interest of 59.5% in all fields except the Patricia oil field, where the Company has a 42% participating interest, and operates all fields in the blocks.

In 2020, the projects had a total average crude and condensate production rate of approximately 20,200 BPD and gas rate of approximately 190 MMSCFD (approximately 33,800 BOED). The main projects for 2021 include the installation and start-up of the Pemanis gas facility and the infill oil development to increase production from the existing facilities.

***The Malaysia: Block H Project*** is made up of natural gas fields in development phase located in the deep water of offshore Sabah, Malaysia. PTTEP holds 56% interest in Rotan field and 42% interest in the remaining area.

The subsea infrastructure construction and installation was completed in Q2/2020. During the final stage of commissioning prior to the original first gas target in late Q3/2020, there was a failure of a subsea component. No hydrocarbon was released to the environment during this event. The remediation plan is well in progress to achieve first gas at the earliest opportunity in 2021, ramping up to the capacity of 270 MMSCFD.

***The Malaysia: Sarawak SK 410B Project*** is located in offshore Sarawak, Malaysia. PTTEP holds participating interest of 42.5% in the project and is the operator. Following exploration success in 2019, the project drilled an appraisal well so called “Lang Lebah-2” in September 2020 and expected to complete drilling operation in January 2021. At the same time, Pre-Front End Engineering Study was concluded with offshore production facility with pipeline transport gas to onshore gas treatment plant before sale gas to PETRONAS LNG Complex. The project will start the Front End Engineering Design (FEED) in 2021. The Final Investment Decision is expected to be in 2022.

***The Malaysia: Sarawak SK 314A Project*** is located in the shallow-water of offshore Sarawak, Malaysia. PTTEP holds participating interest of 59.5% in the project and is the operator. In the year 2020, the project was in the process of evaluating field’s resources potential and performing 3D seismic reprocessing in order to prepare for the drilling of 2 exploration wells in 2022 exploration campaign.

***The Malaysia: Sarawak SK 417 Project*** is located in the shallow-water of offshore Sarawak, Malaysia. PTTEP holds participating interest of 80% in the project and is the operator. In November 2020, the project drilled an exploration well “Dokong-1” with plan to complete in early January 2021. Moreover, the project will continue drilling an exploration well in 2021. With the new exploration strategy in 2020, the project has proposed 2-year exploration extension from 2021 to 2023 in order to plan the drilling of an additional exploration well in 2022.

***The Malaysia: Sarawak SK 438 Project*** is located in the shallow-water of offshore Sarawak, Malaysia. PTTEP holds participating interest of 80% in the project and is the operator. With the new exploration strategy in 2020, project has proposed 2-year exploration extension from 2021 to 2023 in order to drill 2 wells in 2021 and use well results to plan a final commitment well to be drilled in 2022.

***The Malaysia: Sarawak SK 405B Project*** is located in the shallow-water of offshore Sarawak, Malaysia. PTTEP holds participating interest of 59.5% in the project and is the operator. With the new exploration strategy in 2020, project has proposed and obtained endorsement on 1-year exploration extension from 2020 to 2021 in order to drill exploration well in 2021.

***The Malaysia: Peninsular PM 407 Project*** is located in the shallow water of offshore Peninsular, Malaysia. PTTEP holds participating interest of 55% and is the operator. In the year 2020, the project performed preliminary studies on petroleum potential and adjusted exploration strategy. The project plans to perform 3D seismic reprocessing in 2021 in order to finalize 2 exploration wells to be drilled in 2022.

***The Malaysia: Peninsular PM 415 Project*** is located in the shallow water of offshore Peninsular, Malaysia. PTTEP holds participating interest of 70% and is the operator. In the year 2020, 2 exploration wells, JELAWAI-1&ST1 and BEBARU-1, had been drilled during September to November. Currently, it is in the process of post-drill evaluation which is expected to be completed in January 2021. The study result will be used to evaluate both the petroleum potential and future exploration strategy in this area.

Vietnam 9-2 Project

The Vietnam 9-2 Project is located offshore southeast of Vietnam, and PTTEP has a 25% interest in the project with Hoan Vu Joint Operating Company as the operator. The crude oil produced from the project is sold to domestic refineries while the produced natural gas is sold to PetroVietnam Gas, a state-owned enterprise, for domestic consumption.

In 2020, the project was able to maintain production plateau as planned. The project had average sales volume for natural gas of 14 MMSCFD (approximately 2,900 BOED) and for crude oil of approximately 4,200 BPD.

Vietnam 16-1 Project

The Vietnam 16-1 Project is located offshore of Vietnam, with PTTEP holding a 28.5% interest, with Hoang-Long Joint Operating Company as the operator. Crude oil production of the project is sold to domestic refineries and exported to international market through a bidding process. Natural gas is sold to the Vietnam Oil and Gas Group, as a state-owned enterprise, for domestic consumption.

In 2020, the project drilled an appraisal well and started production in Q2/2020. The project is preparing the drilling of 4 additional development wells in order to maintain the production level in 2021. The sales volume from the project for 2020 averaged approximately 7 MMSCFD of natural gas (approximately 1,700 BOED) and 13,500 BPD of crude oil.

Vietnam B & 48/95 Project

The Vietnam B & 48/95 Project is located offshore of Vietnam. The Company holds 8.5% of participating interest in the project with PetroVietnam as the operator. The project was granted approval for the Field Development Plan and is currently in the negotiation process on commercial terms in order to push forward the Final Investment Decision (FID) with targeted first production by the end of 2024, and ramping up to 490 MMSCFD (including the production from Vietnam 52/97 Project).

Vietnam 52/97 Project

The Vietnam 52/97 Project is located offshore of Vietnam. The Company holds 7% of participating interest in the project with PetroVietnam as the operator. The project was granted approval for the Field Development Plan and is currently in the negotiation process on commercial terms in order to push forward the Final Investment Decision (FID) with targeted first production by the end of 2024 and ramping up to 490 MMSCFD (including the production from Vietnam B & 48/95 Project).

Natuna Sea A Project

The Natuna Sea A Project is located in the west of the Natuna Sea in Indonesia. In 2013, PTTEP Netherlands Holding Coöperatie U.A. (PTTEP NH), a subsidiary of PTTEP, jointly signed a share purchase agreement with Pertamina Hulu Energy, a subsidiary of Pertamina, on a 50:50 basis, to acquire subsidiaries of Hess Corporation holding 23% interest in the Natuna Sea A Project. As a result, PTTEP holds 11.5% interest in the project, with Premier Oil as the operator. The crude oil and condensate produced are sold through national oil company (Pertamina), while natural gas produced is sold in Singapore for domestic consumption.

In 2020, the average sales volume for natural gas was approximately 210 MMSCFD (approximately 35,900 BOED) and for oil was approximately 2,100 BPD. In 2021, the project plans to drill one infill well and one workover well in order to maintain gas potential and gas production rate.

2.2) **Project Activity Highlights in Central Asia**: PTTEP's project in this region is located in the Republic of Kazakhstan (Kazakhstan), with the key project highlights as follows:

Dunga Project

The Dunga Project is a producing oil field located onshore west of Kazakhstan. The Company holds 20% interest, with Total as the operator. In 2020, the project had average sales volume for crude oil of approximately 11,600 BPD and natural gas of 2 MMSCFD (approximately 320 BOED). Besides, the project is under the development of Dunga Phase 3 which will increase the production capacity to 17,000-18,000 BPD in 2022.

2.3) **Project Activity Highlights in the Middle East**: PTTEP's projects in this region are located in Sultanate Oman (Oman) and United Arab Emirates (UAE).

PDO (Block 6) Project

The PDO (Block 6) Project is the largest producing oil asset in Central Oman, covering an area of approximately one-third of the country. The Company holds 2% participating interest in this project, with Petroleum Development Oman (PDO) as the operator (Operating Consortium). In 2020, the project cut its production in compliance with OPEC+ agreement to support low oil price from weakening energy demand. The project had an average sales volume in 2020 for crude oil of approximately 552,200 BPD.

Mukhaizna (Block 53) Project

The Mukhaizna (Block 53) Project is a large producing onshore oil field located in southern Oman. The Company holds 1% participating interest in this project, with Occidental Petroleum as the operator. In 2020, the project cut

its production in compliance with OPEC+ agreement to support low oil price from weakening energy demand. The project had an average sales volume for crude oil of approximately 81,900 BPD.

Oman Onshore Block 12 Project

In February 2020, PTTEP wholly-owned subsidiary PTTEP MENA Limited, together with its partner, Total E&P Oman Block 12 B.V., signed an Exploration and Production Sharing Agreement (EPSA) for onshore Block 12 with the Ministry of Oil and Gas of the Sultanate of Oman. PTTEP MENA holds 20 percent participating interest and Total, the operator, holds the remaining 80 percent.

Block 12 is a large onshore exploration block with an average of around 10,000 square kilometers, located in central Oman. Currently, the project continues geological and geophysical studies and plans to drill an exploration well in 2021.

Abu Dhabi Offshore 1 Project

The Abu Dhabi Offshore 1 Project is located in the offshore north-west of Abu Dhabi, United Arab Emirates. The Company holds 30% participating interest in the project, with Eni Abu Dhabi B.V. as the operator. Currently, the project is in the subsurface evaluation process of the petroleum potential for future exploration.

Abu Dhabi Offshore 2 Project

The Abu Dhabi Offshore 2Project is located in the offshore north-west of Abu Dhabi, United Arab Emirates. The Company holds 30% participating interest in the project, with Eni Abu Dhabi B.V. as the operator.

Currently, the project is in the petroleum potential evaluation process for the first exploration well preparation, which is postponed from 2020 to 2021 due to COVID-19 situation.

Abu Dhabi Offshore 3 Project

The Abu Dhabi Offshore 3 Project is located in the offshore north-west of Abu Dhabi, United Arab Emirates. PTTEP MENA Limited, a wholly-owned subsidiary of PTTEP, and Eni Abu Dhabi B.V., a wholly-owned subsidiary of Eni was selected as the successful bidders from the Abu Dhabi's Licensing Round for exploration and production rights of Offshore 3 Block. The consortium signed Concession Agreement with the Abu Dhabi National Oil Company (ADNOC) on December 21, 2020, with the participation interest for PTTEP MENA Limited at 30% and Eni Abu Dhabi B.V. (the Operator) at 70%.

Block Offshore 3 covers a total area of 11,660 square kilometers and is the largest offshore exploration block among all of the area open for bidding in the UAE.

2.4) **Project Activity Highlights in Africa:** PTTEP's projects in this region are located in the People's Democratic Republic of Algeria (Algeria), the Republic of Mozambique (Mozambique) and the Republic of Angola (Angola), with the key project highlights as follows:

Algeria 433a & 416b Project

The Algeria 433a & 416b Project is located onshore in the eastern Algeria. The Company holds a 35% interest in the project, with Groupement Bir Seba (Joint Operating Company) as the operator. In 2020, OPEC+ announced

production quota cut due to low oil price situation. Consequently, the project's average sales volume for crude oil in 2020 was at approximately 2,800 BPD.

Algeria Hassi Bir Rekaiz Project

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

The project has started development on Phase 1 following the conclusion with partners and its approved development plan by ALNAFT (Agence Nationale pour la Valorisation des Ressources en Hydrocarbures -Regulating body of Hydrocarbon Exploration & Production). The development activities commenced in March 2019. First oil production for the initial phase of 10,000-13,000 barrels per day (BPD) is expected in 2021 with a plan for the second phase production capacity ramping up to around 50,000-60,000 BPD in 2025.

In addition, in March 2020, the Company entered into an Asset Sale and Purchase Agreement to acquire an additional 24.5% investment in the project from CNOOC, a co-investor in the project. The acquisition will be completed when it has been officially confirmed and announced by the Algerian government. After the purchase, the Company will have an increased participating interest from 24.5% to 49%, with SONATRACH, Algeria's national oil company, is the main investor with the participating interest of 51%

Mozambique Area 1 Project

The Mozambique Area 1 Project is a large natural gas project located offshore of Mozambique. The project is currently in Development Phase. The Company owns an 8.5% interest with Total S.A. as the operator.

In 2020, the Afungi site improvement consisting of Airstrip, staff camp, Palma-Afungi Highway and Temporary Beach Landing were completed as planned. Although the project had an impact from COVID-19 which caused the project to lockdown for 2 months, and resumed in June, the work was in progress as planned. In addition, the project has completed the process of the LNG ship-owners selection and is in the finalization process to execute Time Charter Party Agreements.

Moreover, the project has signed senior debt financing agreements under project finance arrangement, in the amount of USD 14.9 billion to advance the first two-train LNG development. Currently, the project is in the process of document preparation for 1$^{st}$ drawdown from Project for its first commercial cargo by 2024 as planned.

Block 17/06 Project

The Block 17/06 Project is located in the offshore west coast of Angola. The Company holds 2.5% interest in the project and Total E&P Oman Block 12 B.V. is the operator and This project is obtained from the acquisition of Partex Holding B.V. (Partex). The project is currently conducting Front End Engineering Design (FEED) for further developing Begonia oil field.

2.5) **Project Activity Highlights in Australasia**: PTTEP has one project in this region which is located in the Timor Sea, the Commonwealth of Australia (Australia) comprising of 7 concession permits with the following as key highlights:

PTTEP Australasia Project

- *Cash-Maple Field (AC/RL7), Orchid Field (AC/P54) and Oliver Field (AC/RL12)* All are gas fields, the main fields are Cash Maple and Orchid. Currently, both under way to define proper direction of the project in order to increase development opportunities. For Oliver field, the additional geological study is being carried out.

- *Tenacious Field (AC/RL4)* In 2020, Block AC/RL4 which is an oil field was renewed for short-term to complete the wells abandonment in 2023 prior to the block relinquishment.

- *Audacious Field (AC/RL6), Katandra Field (AC/RL10) and Challis (AC/L3)* In 2020, the project conducted additional geological studies of Audacious and Katandra fields. The project is under way considering the proper direction to manage these 3 oil fields.

2.6) **Project Activity Highlights in North and South America**: PTTEP's projects in this region are located in Canada, the Federative Republic of Brazil (Brazil) and United Mexican States (Mexico). The following are significant activities in this region:

Mariana Oil Sands Project

The Mariana Oil Sands Project is located in Alberta, Canada. The Company holds 100% participating interest and is the operator of the Thornbury, Hangingstone, and South Leismer fields. Currently, the project has a direction to surrender all mineral leases. Therefore, the well abandonment campaign and reclamation activities will be conducted in 2021.

Potiguar Project

The Potiguar Project is a producing oil field located onshore northeast of Brazil. The Company holds 50% participating interest and is the operator. The project had average sales volume for crude oil in 2020 of approximately 190 BPD.

Barreirinhas AP1 Project

The Barreirinhas AP1 Project is located in the Barreirinhas Basin, offshore to the east of Brazil. The Company holds participating interest of 25% in the project, with Shell Brasil Petroleo Ltda. as the operator. The project comprises 4 exploration blocks: BAR-M-215, BAR-M-217, BAR-M-252 and BAR-M-254. The project is waiting for exploration wells drilling permit from the government.

Brazil BM-ES-23 Project

The Brazil BM-ES-23 Project is located in the Espirito Santo Basin, offshore to the east of Brazil. The Company holds 20% stake in the project, with Petrobras as the operator. In 2020, Brazil government approved the project for partial relinquishment area and exploration phase extension to August 2021. The project is currently evaluating the petroleum potential for further development.

Mexico Block 12 (2.4) Project

The Mexico Block 12 (2.4) Project is located in the Mexican Ridges, western Gulf of Mexico. The Company holds 20% participating interest in the project, with Petronas as the operator. In 2019, the project received an exploration plan approval from the National Hydrocarbons Commission (CNH) in Mexico, with the 4-Year exploration period as stated in the agreement (starting from June 13, 2019 to June 12, 2023). The project is currently evaluating petroleum potential and preparing for an exploration well drilling in 2021.

Mexico Block 29 (2.4) Project

The Mexico Block 29 (2.4) Project is located in the Campeche, Southern Gulf of Mexico. The Company holds 16.67% participating interest in the project, with Repsol Exploration México, S.A. de C.V. as the operator. The project completed drilling of 2 exploration wells; Polok-1 and Chinwol-1 in May 2020, both exploration wells show promising high potential. The project is currently working on obtaining approval of the appraisal plan from the Mexican regulators and preparing appraisal process in 2021 as well as further development plans.

Projects Divestment and Relinquishment in 2020

AC/RL5 Project

AC/RL5 Project is a part of PTTEP Australasia Project. On March 13, 2020, PTTEP Australia Timor Sea Pty Ltd (PTTEP AT), a subsidiary of the Group, requested to terminate and return 100% of the exploration blocks of AC/RL5 Project in Tenacious Field to the Government of the Commonwealth of the Australia after fulfillment of the requirements of the concession agreement. The termination was effective from June 15, 2020.

### 1.3.2 Operational Policy of PTTEP Group

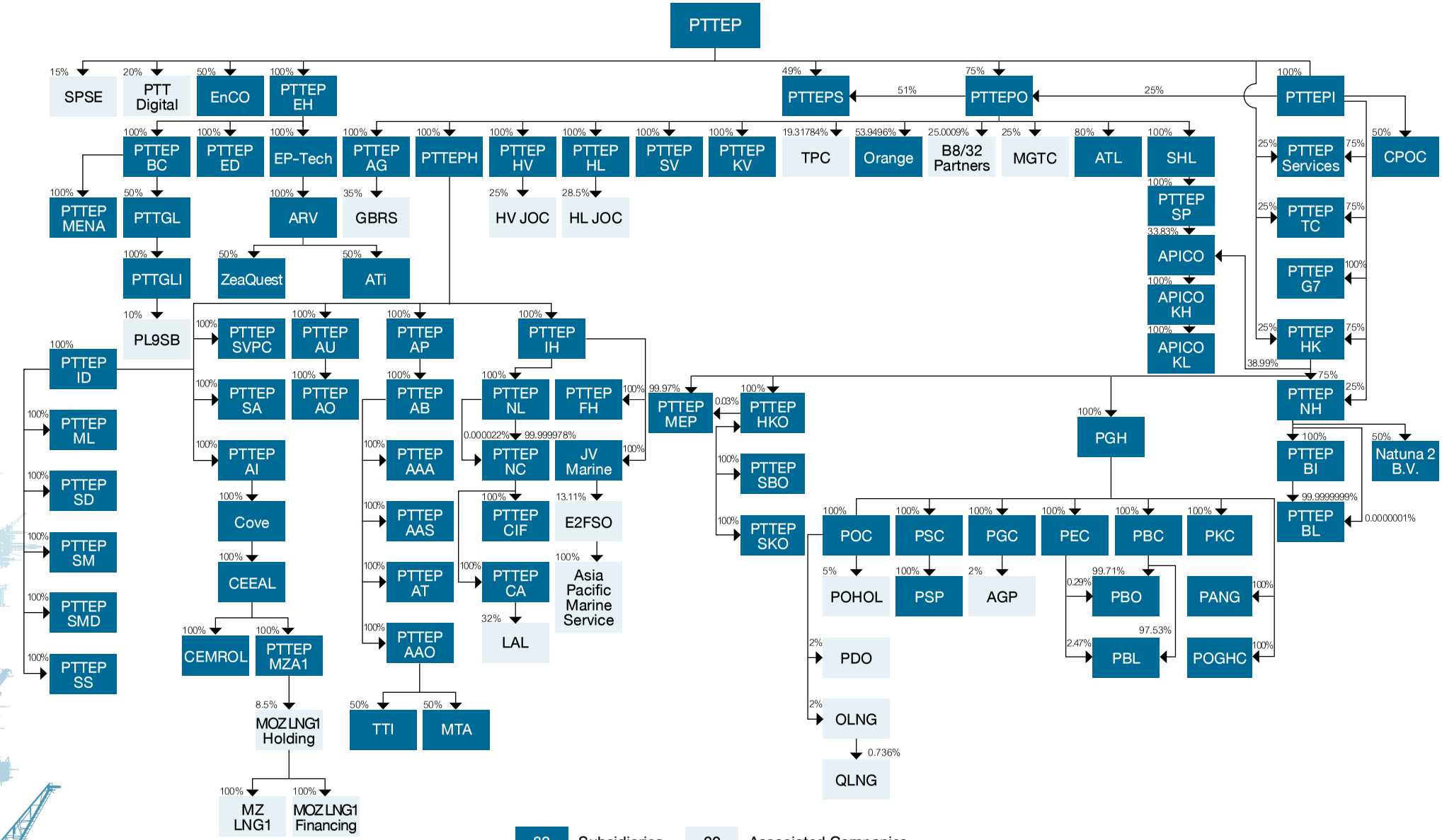
PTTEP has continuously expanded our E&P business, including in related businesses, domestically and internationally. The establishment of subsidiaries and/or associated companies in various regions is necessary for investment purposes, improving our operational efficiency, competing with other international oil companies, operational flexibility, and adjusting to global economic changes. Several factors, such as laws and regulations, financial structures, tax regimes, business and investment conditions, and risk management, should be taken into consideration in any decision to set up a subsidiary or an associated company.

It is our policy to manage PTTEP's subsidiaries in line with PTTEP's business direction and strategy. We designate PTTEP executives and staff to second into key positions of PTTEP's subsidiaries. The strategic direction and financial investment of PTTEP's subsidiaries is overseen by the Company. The boards of directors of the subsidiaries, especially the E&P related business e.g. ARV, have the business management decision authority to the paths to achieve the set targets and strategy. As for the associated companies, we nominate PTTEP representatives to serve as shareholders and/or members of the Board of Directors in accordance with the terms of investment, in order to take part in the decision making of the overall business strategy and policy of these companies. To manage both the subsidiaries and associated companies, we adhere to the Good Corporate Governance and Business Ethics of the PTTEP Group, in order to ensure effectiveness, transparency, fairness, and the attainment of our business goals.

With respect to the selection of directors of the Company's subsidiaries and associated companies, we designate PTTEP executives responsible for projects under each relevant subsidiary and associated company as directors of these entities to ensure that they are managed in line with the Company's business direction and strategy. We may also appoint a local director, if required by the domestic laws and regulations or investment conditions. The subsidiaries and associated companies meanwhile are obligated to report their performance to the Company on a quarterly basis in order to ensure their performance and effectiveness.

### 1.3.3 Shareholding Structure of PTTEP Group

As of December 31, 2020. PTTEP Invested in 102 legal entities, comprising 82 subsidiaries and 20 associated companies. The PTTEP Group Shareholding Structure is illustrated as below:




82 Subsidiaries 20 Associated Companies

Notification of the Securities and Exchange Commission Kor Chor. 17/2551 Determination of Definitions in Notifications relating to Issuance and Officer for Sale of Securities

### 1.3.4 Relationship with the Major Shareholder

The Company's petroleum exploration and production business is part of the business group of PTT Public Company Limited (PTT), our major shareholder, the national energy company which engages in a fully integrated petroleum and petrochemical businesses by strategically investing directly and indirectly through its group of companies, both in the upstream and downstream businesses.

Currently, PTT holds (both directly and indirectly) approximately 65.29% of PTTEP's registered and paid-up capital with PTTEP's petroleum exploration and production business, effectively making the PTT Group the only full-scale natural gas business operator in Thailand. As the major buyer of the Company's petroleum products, PTT, in turn, refines and processes the products and supplies them as energy and raw materials for the power, petrochemical, transportation sectors as well as other industries and households.

In 2020, PTTEP supplied crude oil, natural gas, LPG, and condensate to PTT. Conditions and price settings of all transactions between PTTEP and PTT follow the normal business practices at the arm's length basis conditions for non-related persons or operations. Details of connected transactions between PTTEP and PTT are disclosed in the "Connected Transactions" part.

### 1.3.5 Shareholders

#### 1.3.5.1 Major Shareholders*

As of August 14, 2020, top 10 shareholders of PTTEP were as follows:

| Rank | List of Major Shareholders | Number of Shares | % of Total Number of Shares |
|---|---|---|---|
| 1 | PTT PUBLIC COMPANY LIMITED[1] | 2,532,340,489 | 63.79 |
| 2 | THAI NVDR COMPANY LIMITED | 223,244,744 | 5.62 |
| 3 | SOCIAL SECURITY OFFICE | 79,274,677 | 2.00 |
| 4 | STATE STREET EUROPE LIMITED | 71,007,978 | 1.79 |
| 5 | SIAM MANAGEMENT HOLDING COMPANY LIMITED (A wholly-owned subsidiary of PTT - Indirect) | 59,520,000 | 1.50 |
| 6 | SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED | 58,101,822 | 1.46 |
| 7 | EGAT SAVING AND CREDIT COOPERATIVE LIMITED | 47,800,300 | 1.20 |
| 8 | THE BANK OF NEW YORK MELLON | 41,359,334 | 1.04 |
| 9 | GIC PRIVATE LIMITED | 17,277,423 | 0.44 |
| 10 | THE BANK OF NEW YORK (NOMINEES) LIMITED | 16,223,200 | 0.41 |
| | **Total number of shares held by major shareholders** | **3,146,149,967** | **79.25** |
| | **Total fully-paid capital as of August 14, 2020** | **3,969,985,400** | **100** |

Remark: [1]The Ministry of Finance, Thailand, is the major shareholder of PTT Public Company Limited.

#### 1.3.5.2 NVDR Holders**

| Rank | NVDR holders (as of August 14, 2020) | Number of NVDR issues | % of total outstanding shares in underlying stock |
|---|---|---|---|
| 1 | STATE STREET BANK AND TRUST COMPANY | 29,749,478 | 0.75 |
| 2 | STATE STREET EUROPE LIMITED | 23,441,762 | 0.59 |
| 3 | SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED | 23,049,097 | 0.58 |
| | **Total shares** | **76,240,337** | **1.92** |

Remark: Source: https://www.set.or.th/set/companyholder.do?symbol=PTTEP-R&language=en&country=US

*Update information can be accessed at https://www.pttep.com/en/Investorrelations/Shareholderinformation/Top10shareholders.aspx.

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

1.3.5.3 Major Shareholder with Significant Influence over PTTEP's Policies or Operations

PTT, a major shareholder of PTTEP, takes part in determining PTTEP's policy and operations under the Board's approval. As of December 31, 2020, 3 out of the Company's 15 directors were either directors or executives from PTT.

1.3.5.4 The Company Enters into Shareholders' Agreement with Effect to Security Offering and Issuance or Management Power of the Company

- None -

## 1.4 Capital Structure

As of December 31, 2020, PTTEP's capital structure consisted of USD 3,932 million in interest-bearing debt and USD 11,799 million in shareholders' equity, amounting to an interest-bearing-debt-to-shareholders' equity ratio of 0.33x. Details of the capital structure are as follows:

### 1.4.1 Securities

**Capital Stock**

As of December 31, 2020, PTTEP's registered and paid-up capital was THB 3,969,985,400, consisting of 3,969,985,400 ordinary shares at a par value of THB 1 per share.

**Debentures**

PTTEP has investment-grade credit ratings of Baa1, BBB+, and BBB+ from reputable international credit-rating agencies, namely, Moody's Investors Service ("Moody's"), Standard & Poor's Ratings Services ("Standard & Poor's"), and Fitch Ratings ("Fitch") respectively. In addition, the Company has also been given a rating of AAA, the highest credit rating, by TRIS Rating Co., Ltd. ("TRIS") which is a credit-rating agency in Thailand.

In 2020, the Group managed its capital structure in relation to the US dollar denominated debentures to ensure the highest efficiency per the following details:

- On January 10, 2020, PTTEP Treasury Center Company Limited (PTTEP TC) repurchased the remaining USD 31 million worth of its USD 500 million subordinated perpetual capital debentures which carry a coupon rate of 4.600 % per annum, at the redemption price in accordance with the terms, conditions and methods prescribed in the bond indenture. After the repurchase, PTTEP Group has no outstanding of USD subordinated perpetual capital debentures.
- On January 15, 2020, PTTEP Canada International Finance Limited (PTTEP CIF) repurchased USD 220 million worth of its USD 700 million senior unsecured and unsubordinated debentures, which bear a fixed coupon of 5.692% per annum and on February 25, 2020, PTTEP CIF repurchased the remaining USD 480 million at the redemption price in accordance with the terms, conditions and methods prescribed in the bond indenture.
- On January 15, 2020, PTTEP TC issued, offered and sold senior unsecured and unsubordinated debentures to offshore investors for a total amount of USD 350 million, The debentures bear a fixed coupon of 2.993% per annum, and payable semi-annually, mature on January 15, 2030.
- On June 10, 2020, PTTEP TC issued, offered and sold senior unsecured and unsubordinated debentures to offshore investors for a total amount of USD 500 million, The debentures bear a fixed coupon of 2.587% per annum, and payable semi-annually, mature on June 10, 2027. As of December 31, 2020, PTTEP had the following outstanding debentures:

1) Details of THB debentures (total outstanding amount: THB 26,400 million)

| Debt Security | Issued Date | Maturity Date | Tenor | Outstanding (Unit: THB Million) | Rate per annum | Credit Rating[1] |
|---|---|---|---|---|---|---|
| | | | | | | TRIS |
| THB debentures, unsecured, unsubordinated | June 6, 2014 | June 6, 2029 | 15 years | 11,400[2] | Fixed 4.82%, coupon payment: semi-annually | AAA |
| | June 19, 2019 | June 19, 2022 | 3 years | 15,000[3] | Fixed 2.26%, coupon payment: semi-annually | AAA |

[1] The debentures were last rated by TRIS on March 13, 2020 on the company, March 17, 2020 on PTTEP TC.

[2] In 2014, PTTEP entered into a CCS to swap THB 11,400 million for USD 349.05 million with an interest rate of 4.989% per annum.

[3] Issued by PTTEP TC, and fully guaranteed by PTTEP; and in 2019 PTTEP entered into a CCS to swap THB 15,000 million for USD 480 million with an interest rate of 2.79% per annum.

2) Details of USD debentures (total outstanding amount: USD 1,990 million)

| Debt Security | Issued Date | Maturity Date | Tenor | Outstanding (Unit: USD Million) | Rate per annum | Credit Rating[1] | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Moody's | Standard & Poor's | Fitch |
| USD debentures, unsecured, unsubordinated | June 12, 2012 | June 12, 2042 | 30 years | 490[2] | Fixed 6.350%, coupon payment: semi-annually | Baa1 | BBB+ | BBB+ |
| | December 6, 2019 | December 6, 2059 | 40 years | 650[3] | Fixed 3.903%, coupon payment: semi-annually | Baa1 | NA | BBB+ |
| | January 15, 2020 | January 15, 2030 | 10 years | 350[3] | Fixed 2.993%, coupon payment: semi-annually | Baa1 | NA | BBB+ |
| | June 10, 2020 | June 10, 2027 | 7 years | 500[3] | Fixed 2.587%, coupon payment: semi-annually | Baa1 | NA | BBB+ |

[1] The latest credit ratings were issued by Moody's on November 28, 2020, Standard & Poor's on April 14, 2020 and Fitch on May 13, 2020.

[2] Issued by PTTEP CIF, and fully guaranteed by PTTEP; and in 2013 repurchased in the amount of USD 10 million. As a result, the outstanding principal amount has been decreased from USD 500 million to USD 490 million.

[3] Issued by PTTEP TC, and fully guaranteed by PTTEP.

3) Details of THB Hybrid Bonds (total outstanding amount: THB 5,000 million)

| Debt Security | Issued Date | Maturity Date | Tenor | Outstanding (Unit : THB Million) | Rate per annum | Credit Rating[1] |
|---|---|---|---|---|---|---|
| | | | | | | TRIS |
| THB Hybrid Bonds, unsecured, unconvertible, callable, subordinated debentures with single redemption upon liquidation which PTTEP can defer the distribution at its sole discretion | June 15, 2012 | No maturity date<br>• payment upon liquidation or<br>• early redemption subject to terms & conditions | Perpetual | 5,000[2] | • Year 1-10: 5.85%<br>• Year 11-30: 6.10%<br>• Year 31-60: 6.85%<br>• Year 61 onwards: 7.85%,<br>• coupon payment: quarterly | AA |

[1] The latest credit rating was issued by TRIS on March 13, 2020.

[2] The accounting treatment of these hybrid bonds is such that they are recorded in shareholders' equity.

### 1.4.2 Number of Shares and the Effects of NVDR Issuance on Shareholders' Voting Rights

An NVDR or Non-Voting Depository Receipt is a trading instrument issued by the Thai NVDR Company Limited, a wholly owned subsidiary of the Stock Exchange of Thailand (SET). NVDRs are treated as listed securities (Automatic Listing) on the SET. The objective of NVDRs is to promote trading activities in the Thai stock market by removing obstacles such as foreign investment limits and other impediments faced by international institutional investors investing in listed securities on the SET. NVDR investors are entitled to receive all financial benefits, such as dividends, right issues, and warrants, as if they invest in common shares. The major difference between investing in NVDRs and ordinary shares is the lack of voting rights of the former. NVDR holders generally are not allowed to participate and vote in shareholders' meetings except only in the case where the company wishes to delist itself from the SET. In addition, although NVDRs are designed mainly to ease foreign investment barriers; the SET does not prohibit Thai investors from investing in the instrument.

As of August 14, 2020, as published on the official website of the SET, PTTEP had a total of 223,244,744 NVDRs outstanding, representing 5.62 % of the Company's total issued and paid-up capital of 3,969,985,400 shares.

## 1.5 Dividend Payment Policy

Under normal circumstances, according to the Company's policy, PTTEP's Board of Directors generally recommends to the shareholders an annual dividend payment of not less than 30% of the net income after tax. The Board of Directors, as appropriate, may also resolve to pay interim dividends and subsequently inform the shareholders accordingly in the next shareholders' meeting. For the Company's subsidiaries, the dividend policy is subject to cash flow, future investment plans, and other factors necessary for the continuity of their operations, and must be in compliance with related laws and regulations.

Meanwhile, the under terms and conditions of the Company's subordinated perpetual capital debentures No. 1/2555 of THB 5,000 million, issued in June 2012; if the Company defers an interest payment on these debentures or has outstanding deferred interest payments, the Company shall not declare or make any dividend payments.

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

| Year | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|
| Earnings per Share (THB) | 2.76 | 4.54 | 8.69 | 11.72 | 5.65 |
| Dividend per Share (THB) | 3.25 | 4.25 | 5.00 | 6.00 | 4.25 |
| Dividend Payout Ratio | 98% | 90% | 55% | 49% | 77% |

# 2. Risk Management

The petroleum exploration and production business is complex in both technical and operational aspects. This business also needs a high volume of investment for pursuit of new investment opportunities, exploration, project development and production activities. Nowadays, business operations are inevitably experiencing changes in the business environment and new risk factors that are increasingly promising, such as the global economic crisis which is derived from Coronavirus disease (COVID-19) pandemic, the conflicts in the managing of crude oil production of OPEC and Russia causing the plunge in oil price and volatility, the declining demand for fossil fuels, the disruptive technology and cybersecurity, as well as the rising of stakeholder expectations on the Companies' regulations compliance with social and environmental concerns. PTTEP places great importance on risk management and business continuity management to enhance the organization's capability to rapidly respond to dynamic changes and manage all aspects of risks prudently in order to create value for stakeholders in both short-term and long-term along with sustainable growth.

## 2.1 Risk Management Policy and Plan

### 2.1.1 Risk Governance

The Board of Directors and the management are committed to effective risk management in PTTEP as the changes in business environment are uncontrollable and may affect business operations. The Board of Directors approves Risk Governance Framework to define the oversight responsibilities and authorities on risk management that demonstrate strong coordination, collaboration and communication in managing risks effectively among the board level, the management and business unit level. In addition, the Board of Directors also approves the Risk Appetite Statement to be used as a framework for all PTTEP business operations and seeking for business opportunities with acceptable risks.

The Board of Directors appoints and delegates risk oversight authorities to Risk Management Committee (RMC). The Risk Management Committee approve the Enterprise Risk Management Policy and Framework as well as the Risk Metrics & Limits to define the boundary for PTTEP business activities to be operated and managed in accordance with Risk Appetite. The risk management unit is established to implement Enterprise Risk Management Policy and Framework company-wide and embed risk awareness and culture to PTTEP personnel in all business units in order to achieve effective risk management. The risk management results shall be periodically reported to the Management, Risk Management Committee and the Board of Directors in a timely manner to ensure that key risks and emerging risks are well managed and to prevent the arising of negative surprise, reduce potential losses, and minimize recurrence risks.

PTTEP establishes Risk Management Structure in accordance with Three Lines Model provided by The Institute of Internal Auditors (IIA) that promotes strong risk governance and effective risk management. The First Line Roles are all business units with duty to operate business activities together with managing of risks (Risk Owner). The risk owners work in conjunction with the Second Line Roles, which are risk management unit and other supporting functions (Subject Matter Expert - SME), e.g. compliance unit and Safety, Security, Health and Environment (SSHE) unit, on consultation for complementary expertise and assistance with managing risk. And last, the internal audit unit as the Third Line Roles, performs an independent audit to ensure risk management implementing effectively and efficiently and provides recommendations for continuous improvement.

### 2.1.2 Risk Management Policy and Plan

The Risk Management Committee approve Enterprise Risk Management Policy and Framework which emphasize on proactive risk management practices and strong risk management culture and provide systematic risk management process that are aligned with international standard ISO 31000. The committee, the management and employees at all levels have responsibility to manage risks and promote comprehensive risk management to contractors, suppliers and business partners to assure the achievement of vision, mission, strategy and business objectives.

In accordance with Enterprise Risk Management Policy and Framework, the risk management unit is responsible for overseeing the overall risk management and supporting the company-wide risk management both at the corporate level and operational level. The risk management strategy and plans have been formulated, aiming to integrate risk management into business activities and decision making which cover core business activities in PTTEP, such as strategic planning management, investment and divestment decision-making, capital project management, and operations and business process management including business continuity management. In addition, the necessary resources for managing risks are allocated in proportion to the level of risk and cost benefit consideration and the progress of risk mitigation plans are monitored together with the key risk indicators (KRIs) as an early warning tool in order to set up additional mitigation measures in a timely manner. Furthermore, the risk management results are also monitored and evaluated with key performance indicators for unidentified risk (Unidentified Risk KPI). The risk management unit shall escalate the significant risk with high impact to corporate level and report to the Management and Risk Management Committee on a regular basis.

In 2020, PTTEP developed the Web-based Risk Register System to enable risk owners to quickly identify and analyze risks and enhance risk information communication throughout the organization. This system also allows all relevant parties to promptly and conveniently monitor the risk management, anywhere and anytime.

### 2.1.3 Risk Culture

As PTTEP focuses on building a strong risk culture to strengthen the risk management in the organization and sustainable; therefore, the risk awareness is built up in all PTTEP personnel mindset together with competency development via trainings and promoting activities. The management at all levels commit and serve as leaders and role models, as well as promote implementation of risk management as a corporate culture. In addition, the management also support employees on regular review and improve risk management by applying lessons learned and knowledge management for continual improvement. The risk coordinators are assigned for each business unit and project to work in coordination between risk owners and risk management unit to drive the implementation of risk assessment and management throughout the organization.

## 2.2 Risk Factors for Business Operation

Business Operation Risks

### 2.2.1 Strategic & Portfolio Risks

#### 2.2.1.1 New Investment Risks

PTTEP continues to pursue an investment strategy that focuses on expanding investment in countries with the potential petroleum resources to maintain the reserves to production ratio of 7 years by seeking new opportunities

during this crisis with world-class strategic partners. The Company's primary focus areas are the "Core Areas" of Southeast Asia and the Middle East where the Company has full range expertise, coupled with being the regions that have acceptable geopolitical risks and relatively low costs of development and production to PTTEP. Certain additional risks and uncertainties must also be considered, such as political stability, energy policy changes, including laws and regulations.

The Company has drawn up plans to mitigate those risks which may potentially affect our operations and investment growth, such as adopting strict due diligence within the Company's investment risk limit including consideration of counterparty risks, regulatory requirements, economic feasibility as well as environmental and social impacts in order to develop clear mitigation plans in advance. In addition, we also regularly assess and analyze risks associated with climate change in relation to the business, as well as an attempt to identify our "Low Carbon Footprint Reduction" roadmap, targets and action plans to manage the risks and their impacts. The Company works to manage effects from related risks, such as the collection of carbon taxes in various countries that we operate in, and physical damage to our assets and construction structures caused by the rise in global temperature.

Investment in new countries or unfamiliar territories contains a number of inherent risks. The Company has therefore established risk mitigation guidelines for the assessment of each investment. The guidelines provide advice in various aspects, ranging from petroleum potential, size and project characteristics, acquisition procedures, additional reserves, operator's capability and performance, attractiveness of the fiscal regime, geographical conditions, related laws and regulations, political stability, issues concerning international relations, economic conditions and financial stability. Moreover, the Company also seeks advice from the consultant who has expertise in the invested country. The risks are then taken into account when preventive measures and options are formulated and integrated into a return-on-investment analysis or a joint venture agreement.

Investment in new projects, including farm-in and farm-out joint ventures, mergers and acquisitions, as well as withdrawal or divestment from any given project, must be intensively screened by the Investment Committee and the Management Committee. Their responsibility is to assess and ensure that each project adheres to the Company's investment direction and policy and that each project is economically and technologically feasible, and whether conventional or unconventional resources are involved, before proposing it to the Risk Management Committee prior to the final approval of the Board of Directors.

#### 2.2.1.2 Organizational Capability Risks

Organizational capability is a key factor for the achievement of the Company's targets. Thus, business processes and human resources are, inevitably, of great importance. Potential risks include the risk from a lack of expertise and knowledge, and risk of business process ineffectiveness and inefficiency. In this regard, PTTEP has taken the following actions to enhance our knowledge management, technology, business processes and organizational capability to support the Company's operations and expansion to new opportunities.

(1) Developing knowledge management is the Company's strategic tool to create, share and apply the valued knowledge to our operation that supports company sustainable growth and improve our staff competency to prepare for the readiness to expand into new business opportunities. The Company plans and executes activities to drive the shared knowledge both from our staff within the Company and from the external expertise. In addition, new technologies and capability of the Company's research and development program are developed in line with our growth strategy to expand into new business

opportunities. Our Capability and Technology Development Roadmap has been developed along with continuous research on technology to support business growth.

(2) Systems, procedures, and the organizational structure are improved and developed in line with PTTEP's growth strategy and business plan. These include key process improvement to reduce non value-added tasks to maximize work efficiency, development of new Delegation of Authority and Signatures (DAS) concept to increase organizational agility, while maintaining sufficient controls, and lastly, adoption of the "New Way of Working" to allow PTTEP staff to safely and effectively work from home amidst challenges from the external environment, e.g. COVID-19 pandemic, protest, and so on.

In addition, PTTEP has developed the information technology system to be an IT Global Platform, while maintaining system stability and control of confidential information, such as the use of cloud storage. The Company also develops staff competency to align with our strategy and plans, e.g. arranging in-house training for staff, called Digital Academy training, to improve staff understanding for adaptation to agile work and establish DCOE (Digital Center of Excellence) to be the center for development of technology capability for our staff, such as Data Scientists and Data Engineers.

(3) To prepare for our investments in our core business and new business opportunities including smooth transition, the Company has devised Human Resources Development plans to recruit required and qualified staff members to support in operating and targeted countries. The plans focus on developing their capabilities and leadership, recruiting external personnel in key positions that do not yet have in-house personnel, together with enhancing our employee engagement by targeting the Company to be ranked in Oil & Gas APAC Top Quartile level in 2020. In addition, Human Resource Process Improvement and our values and culture cultivation (*EP* SPIRIT) also ensure that development and growth of the Company are in line with PTT Group's goals.

### 2.2.2 Financial & Marketing Risks

#### 2.2.2.1 Financial Risks

PTTEP determines an effective financial risk management policy with an emphasis on funding activities and liquidity management under an acceptable financial risk limit defined and regularly reviewed by the Risk Management Committee. The capital structure is also actively monitored to ensure the robustness of financial health to suit the current market environment and to support the Company's investment plans and execution in both the short and long term.

Major financial risks consist of counterparty risk and liquidity risks. For counterparty risk, it is PTTEP Group's policy that we conduct business transactions only with reputable, trusted and creditworthy counterparties. The financial stability and credibility of each counterparty must be analyzed and reviewed regularly. Currently, the majority of PTTEP Group's products are sold to PTT, which is our parent company.

For liquidity risks arising from the inability to maintain adequate working capital necessary for the operations, PTTEP Group has a policy to manage such risks by preparing appropriate cash flow forecasts and maintaining both committed and uncommitted credit facilities with financial institutions to support its working capital requirements.

#### 2.2.2.2 Marketing and Distribution Risks

Revenue mainly comes from domestic gas sales which PTT is the major customer. PTTEP has entered long-term gas sales agreements (GSAs) with PTT and the terms of the GSAs generally last 15-30 years. If later on, a project has

potential reserves beyond the volume specified in its GSA, PTTEP will analyze and negotiate the GSA for this additional volume, either for additional gas sales or period extension. Moreover, to mitigate market risks which can result in refusals from buyers to purchase contracted volumes of natural gas, GSAs stipulate obligations for the buyer and the seller to commit to the annual minimum volumes. Buyers must pay for the committed volumes of gas, whether or not the full amount is taken (Take-or-Pay).

As a part of Thailand government policy to liberalize natural gas market, Energy Regulatory Commission (ERC) granted the LNG shipping license to 3 private companies this year. This is expected to have a minimal impact on PTTEP's gas sales because the licenses allow only LNG import for additional volume over the committed gas sales in current GSAs, and current GSAs with PTT also have Take-or-Pay obligation as mentioned above. To effectively cope with the dynamics of Thailand's energy demand, the Company closely monitors petroleum demand in coordination with PTT and related government agencies to collectively outline an optimized supply plan. The Company reviews and adjusts our production as well as project development plans regularly to ensure that the development master plan is able to optimize reserves and resources of existing assets to match the country's energy demand. We also have a project in Mozambique which possesses large natural gas reserves that can be developed as a Liquefied Natural Gas (LNG) project. This project is a good example of projects which fit in well with PTT's plan to import LNG as well as to contribute effectively to the enhancement of the energy security of Thailand.

#### 2.2.2.3 Petroleum and Oil Price Risks

PTTEP Group's product prices depend on the world's crude oil prices, which are subject to multiple factors beyond our control, for example, COVID-19 outbreak situation which lead to lockdown measures in different countries and directly affect global oil demand. Additionally, there are global oil supply factors from major oil producers (e.g. OPEC's production cut policy and its members' compliance level and another major oil producer, U.S. where the oil production has declined due to low oil price). There are also more factors that impact oil price (e.g. COVID-19 vaccine development progress, trade wars, U.S. sanction policy, civil wars) in some Middle East countries including the economic stimulus from various countries. Fluctuations in the world's oil prices immediately affect the prices of PTTEP Group's crude oil and condensate. Yet, while natural gas prices tend to follow oil prices, most of PTTEP Group's contractual natural gas prices are adjusted every 3, 6, or 12 months, depending on the gas price formula of each project. As a result, natural gas prices are more stable than those of crude oil and condensate.

To reduce impacts from oil prices volatility, PTTEP Group closely monitors oil prices and implemented an oil price hedging program with the objective of minimizing negative impacts on the Company's cash flow and operating performance.

#### 2.2.2.4 Exchange Rate Risks

PTTEP Group adopts the U.S. Dollar (USD) as its functional currency in accordance with the Thai Financial Reporting Standards (TFRS) since the USD is the main currency used for trading PTTEP Group's major petroleum products, such as crude oil and natural gas. PTTEP Group's cash flows are, however, still exposed to USD/THB rate movement due to the settlement of USD-linked revenues being in THB. This is because a majority of PTTEP Group's trade customers are Thai entities; hence, revenue from USD-linked petroleum product is restricted to be paid in THB equivalent to USD only, while the Company's main cash outflows for investments and operating expenditures are mostly in USD. The currency mismatch and discrepancies between payables' and receivables' settlement periods as well as the USD/THB volatility therefore inevitably impose foreign exchange risk on our cash flows. Under this circumstance, PTTEP Group has minimized the foreign exchange risks by

matching revenues and expenses cash flow in THB ("natural hedge") and employs applicable financial derivative instruments, such as forward and option contracts, to hedge the foreign-exchange exposure with reference to exchange rates in the sales agreements.

With USD as the functional currency, PTTEP Group is also exposed to the foreign-exchange translation risk arising from the translation of non-USD assets and liabilities at the end of every accounting period. To minimize such translation risk, PTTEP Group has consistently put in great efforts to maintain a proper balance between our non-USD assets and liabilities, mainly in THB. The Company also entered into cross-currency swaps on non-USD denominated obligations by converting both interests and principal payments to USD to reduce the impacts of exchange rate volatility.

#### 2.2.2.5 Interest Rate Risks

PTTEP Group is exposed to interest rate risk as the risk affects future cash flows and fair values of the financial instruments employed. PTTEP Group eliminates and minimizes the risk by maintaining an appropriate debt portfolio optimization (ratio of fixed-rate liabilities and floating-rate liabilities) and using financial derivatives, such as using interest rate collar (Zero Cost Collar). Interest rate risk management is conducted dynamically, appropriately, and correspondingly to the nature of the business, the market conditions, relevant costs and the Company's acceptable risk limits.

### 2.2.3 Political and Legal/Regulatory Risks

#### 2.2.3.1 Political Risks in Investment Countries

Based on PTTEP's investment strategies, we aim to invest in focused areas of strategic significance in order to accommodate long-term growth. It is possible that such areas may be prone to geopolitical risks. Given this circumstance, PTTEP not only sets a certain level of risk limit of countries which such limit is derived from the political situation, economy, business and investment environment, laws and regulations but we also appoint a geopolitical risk team to closely monitor the situations in countries and territories where PTTEP operates from international sources. The team periodically produces monthly analysis reports of situation developments and changes regarding political stability, macroeconomic conditions, legal and regulatory aspects, and security across a range of investment countries. Thus far, two areas, i.e. the Middle East and North Africa, have been identified as areas with significant geopolitical/country risks. Nevertheless, all projects in which PTTEP currently invests have not experienced any direct negative impacts.

In addition, PTTEP incorporates both the assessment of geopolitical risks and country risks into an investment process and project management for further decision-making and preparation of contingent plans for management and related departments.

Results from the geopolitical risk and country risk analysis in our investment areas are used to formulate geopolitical risk rating scores which will be considered as part of the assessment process before making decisions whether to invest in new projects. In addition, PTTEP liaises closely with the Ministry of Foreign Affairs and Royal Thai Embassies in countries we invest to ensure that the Company's business operations are well-supported by relevant government agencies and that the projects are aligned with the respective national energy policies.

#### 2.2.3.2 Compliance Risks

Generally, these risks can result from a variety of factors, such as complexity of specific laws, changes made to existing laws and regulations, misinterpretation of laws, or even nuances of the language in which the laws are written. The risks can potentially lead to certain actions or conduct that may be deemed incorrect, ultimately causing violation of or non-compliance with applicable laws which may then lead to pecuniary forms of punishment, such as fines and operational difficulties, potential revocation, suspension of licenses, and possible damage to PTTEP Group's reputation. To minimize these risks, the Governance, Compliance, and Internal Control Department is responsible for assuring that all of the business units of PTTEP Group strictly comply with their relevant laws, thereby building confidence among the Company's shareholders, Board of Directors, the management, and employees that we are in full compliance with laws relating to our business operations. As such, this department closely and regularly monitors the cabinet resolution, bills of laws and relevant applicable laws which may affect PTTEP's operations.

PTTEP continued to focus on anti-corruption risks and monitoring programs. Details are disclosed in the "Corporate Governance Performance" section, "Anti-Corruption" part.

### 2.2.4 Operational Risks

#### 2.2.4.1 Exploration Risks

Exploring new petroleum resources is essential to the E&P business. In addition to finding petroleum reserves to replace those already produced, it is also looking for new reserves to generate revenue growth for PTTEP according to its corporate strategy. This is to support the growth of petroleum production according to the corporate goals in the future.

The objective of exploration is to search for sizable petroleum resources that can be commercialized. The risks associated with exploration activities are geological risks and the uncertainty of discovered resources volume (Resources Volume Uncertainty).

Managing key exploration risks thus depends on the evaluation of exploration areas with good chances of finding sizable petroleum resources that allow for commercial development and production within an appropriate timeline and cost. The key factors that affect investment decision on petroleum exploration include chance of success, resources estimation, exploration and production period, planned expenditures including development, operating and decommissioning cost and terms of contracts. Various activities are normally performed to understand and mitigate risks in exploration, i.e. geological studies, seismic acquisition and interpretation.

PTTEP establishes clear processes and criteria in project evaluation at each stage of E&P life cycle, starting from potential petroleum basin evaluation and selection, in-depth subsurface studies of targeted blocks, and above-ground investment risks. The Geosciences and Exploration Group of PTTEP is tasked with formulating the exploration strategy and managing exploration portfolio, allocating and prioritizing exploration budget to high-potential opportunities. This process is reviewed and revised annually to ensure that the exploration strategies updated and aligned with the corporate targets.

In addition, the Company also stipulates that exploration studies need to be reviewed by the Technical Assurance Committee to ensure that all key technical aspects and uncertainties are covered. The assessment must also be in line

with PTTEP's standards as well as PTTEP's guidelines to ensure investment decision with confidence and that the results of the exploration are in accordance with PTTEP's goals.

To align with the Company strategy, PTTEP has a policy to diversify exploration investment by distributing the investment proportion in many areas around the world, share risks and rewards with strategic partners who have exploration expertise to extend the Company's exploration success.

**2.2.4.2 Project Development Risks**

Following oil price fluctuations, PTTEP has continued to review the Company's development as well as cost control plans to meet targets. Development projects are part of the preparation for increasing reserves and production in the near future, such as those in the Mozambique Rovuma Offshore Area 1 Project and Algeria Hassi Bir Rekaiz Project. Meanwhile, for new projects with potential delays and cost overruns, the Company has implemented the following risk mitigation measures to ensure that they all remain on schedule.

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

(2) Personnel and process: To meet the targets set for safety, quality, budget, and timeline for project completion, the Company focuses on development of the team's skills which help us to better prepare for and protect ourselves when there is increased competition in the employment market for those with extensive skills and experience in the field. Information and experience-sharing from previous projects are also encouraged as part of all our project team skill development, while the Company's Project Realization Process (PREP) continues to actively seek out new approaches to fine-tune the operations so that targets are realized.

(3) Commercial contracts: To ensure maximum efficiency in minimizing the risks associated with non-contractual compliance and disputes while working with our contractors, the Company focuses on contract drafting, definitions of terms and conditions and contract administration. These risks can, however, be controlled by negotiations based on comprehensive competency, knowledge, and concerted efforts from various departments, such as those pertaining to construction, engineering, procurement, finance, accounting, and legal aspects. Prudent contract management also lessens the risks and helps mitigate possible damage which could result from delays, potentially causing adverse effects on a given project and the Company's performance at large.

**2.2.4.3 Production Risks**

In every production process, PTTEP has to face various potential risks, starting from the production process at the bottom of the well until the point of sale. These risks include risk of well potential, production design flaws, damaged equipment, aging facilities, operation errors, and poor product quality, all of which can directly impact the corporate goals, production and sales targets.

Mitigation of production risks focuses on the areas of process planning and platform design, production control systems, and preventive maintenance. Operational Excellence Management System-Reliability & Asset Integrity (RAI), which is a part of the Operational Excellence Project, has been adopted and continuously improved to ensure the highest standards of production in terms of integrity and safety. The RAI has been designed specifically to minimize production losses

due to worn-out equipment and also to improve equipment efficiency through preventive maintenance and inspection, with the goal of achieving zero unplanned shutdowns. Meanwhile, work procedures, operation manuals, and extensive training programs have been improved, developed and adopted to instill greater understanding and efficiency among the Company's operating personnel.

The Company has also received ISO 22301 Business Continuity Management System (BCM) certification. The certified sites include S1 Project, Zawtika M-9 Production Operations and Business Support (Myanmar), Petroleum Development Support Base (Songkhla), and PTTEP Headquarters - Office Facility Management. BCM provides a formal plan that will keep effective and prompt business operation during disruptive period to build customer and stakeholder confidence.

#### 2.2.4.4 Safety, Security, Health and Environmental Risks

PTTEP has continued to analyze Safety, Security, Health and Environment (SSHE) risks to reduce the likelihood and impacts of unexpected events. The analysis comprises identification of internal and external factors. This helps to prevent major accidents as well as to reduce the risks that would affect PTTEP Group's employees, assets, environment and social communities. This will also assure safe and effective business continuity with full compliance to international and local regulations where PTTEP operates.

PTTEP has managed SSHE risks through the Company's SSHE Management System by setting the SSHE policies, standards, guidelines and procedures for employees and contractors, so that they understand the implementation process and its objectives. This is in addition to fostering SSHE awareness in the corporate culture by providing training relating to SSHE and risk management to improve knowledge and performance as well as to keep process safety risks to the As Low As Reasonably Practicable (ALARP).

PTTEP has monitored SSHE Risk Management through the Company's Risk Management Committee at various levels and with a variety of key risk indicators and trackers, for example, Total Recordable Injury Rate, audit findings and close-out status, natural disasters, security status, and health infection in high risk countries, to ensure that all situations are being monitored to determine the suitable mitigation plans for prevention, correction and improvement towards achieving even higher social and business sustainability.

#### 2.2.4.5 Social and Community Risks

PTTEP commits to being a good corporate citizen and responsible to society and communities, places importance on human rights and takes into account of risks and impacts in everywhere that PTTEP operates, both in domestic and international exploration and production areas. Therefore, in compliance with Community Relations and Management Policy and Corporate Social Responsibility Policy, PTTEP emphasizes on social development, local environment and living standard improvement, natural resources and environment conservation, as well as value creation for our stakeholders along with the sustainable growth of PTTEP that consequently gain trust, acceptance and also support undertakings that will bring benefits to the Company and society as a whole.

All stakeholders, including government agencies are regular engaged and communicated. PTTEP's social strategy is designed as a two-level strategy: the macro-level strategy focusing on restoration of marine abundance and promoting activities that reduce marine debris and the micro-level strategy focusing on the promotion and development of social development projects in PTTEP operating areas, which is in line with the United Nations Sustainable Development Goals (SDGs).

In addition, PTTEP developed Issue and Stakeholder Management System (ISMS) to assess social impact and issues that may be a cause of concern for the community. The community relations officers shall revise and update the ISMS Report annually in order to deliver the information for selecting suitable and appropriate social development projects for each operating area. In dealing with complaints, PTTEP has a standard approach set by Grievance Handling Guidelines. The benefits from PTTEP social projects delivered to stakeholders are evaluated and the stakeholder perception and commitment survey is conducted to provide great value to the Company to make the social projects to best serve the needs of stakeholders further.

To operate in respect of human rights, PTTEP manages salient human rights issues in five areas, including Employee, Community, Supply Chain, Safety Security and Environment. The management approach takes into consideration the rights of all relevant stakeholders including the vulnerable groups, such as children, minorities, indigenous peoples and migrant workers. Human Rights Risks are assessed on two factors which are likelihood and impact in line with the PTT group guideline. We conduct our risk assessment in alignment with the Group Framework, UN Global Compact Management Model and IPIECA guidance on Human Rights Due Diligence.

PTTEP embedded the Fundamental Principles of Human Rights as part of PTTEP Good Corporate Governance and Business Ethics, Human Rights policy as well as established Human Rights Management System which includes the Due Diligence process and the capacity building function to create awareness as part of holistic human rights management in business operation. Human rights risk assessment is conducted annually. In 2020, the Company invited a team of third party human rights specialists to work more closely with our frontline and operation teams to support risk assessment and due diligence process, resulting in more inclusive and updated human rights context and regulation in new countries PTTEP entered through new acquisition. The process included re-train and workshop with functional and operational team across corporate and assets. Details on key human rights risks by location as well as mitigation are available on our website (https://www.pttep.com/en/Sustainable development/Business/Labourpractices.aspx).

#### 2.2.4.6 Cybersecurity Risks

Cyber threats occur and spread across multiple business sectors through various channels which can potentially lead to business disruption. PTTEP recognizes the importance of safeguarding against cyber threats and includes the risk of digital security threats in the Company's Corporate Risk Profile to closely monitor the development as well as to implement necessary measures. These measures include raising Cybersecurity awareness, Phishing simulation for Company's staff, establishing a Cyber Security Operation Center (CSOC) responsible for monitoring cybersecurity incidents, Security Information and Event Management (SIEM) responsible for collecting and providing real-time analysis of security alerts, conducting Cyber Security Response Drills, regularly performing Data Backup and reviewing the Disaster Recovery Plan. The results are subsequently reported to the Risk Management Committee and the Board of Directors respectively to ensure prompt responses to disruptive and emergency situations.

PTTEP currently refer to the National Institute of Standards and Technology (NIST) as a standard framework for managing cybersecurity. Risk assessment has been carried out based on the ISO 27001:2013 standard for the electronic-mail system and data center facility since 2014 and has a risk assessment plan based on the ISO 27001:2013 standard for every system. PTTEP is confident of the readiness to participate in the test and report significant cyber threats to government agencies as required by law.

### 2.2.5 Emerging Risks

With the current situations, such as changing in business environment and advanced technology as well as the rising of stakeholder expectations on the Company's regulations compliance and more intensive environment impact mitigation measures, PTTEP has therefore monitored the situations and assessed the emerging risks that may affect the Company's business operations in the future as well as improved strategic risk management to be efficient and create more resilient for the Company's business operations to deal with emerging risks and enhance PTTEP's capability to continue business operations with sustainable growth.

#### 2.2.5.1 Climate Change Risks

In view of extreme weather events and natural disasters posing more severe, coupled with the greenhouse effect, PTTEP, an exploration and production company, is well aware of risks from climate change and its possible impacts on our business operations in various aspects, namely (1) Physical risk refers to the risks arising from the physical impact of climate change, such as heat wave, heavy precipitation, tropical cyclone, drought and water related and (2) Transition risk or risks arising from change in policy, law, technology, or market shift to green energy. At the 2015 United Nations Climate Change Conference (COP21) held in Paris, France, in December 2015, heads of state and governments around the world signed an agreement with the aim of reducing greenhouse gas emissions and substituting low-carbon fuels for typical fossil fuels. Thailand has also adopted a plan to reduce greenhouse gas emissions by 20-25% by 2030 (compared to the base year of 2015).

PTTEP realizes the significance of climate change management and managed to have the climate related risk assessment for both existing projects and acquiring projects covering all those 2 aspects. The assessment covered the short-term risk (2020-2025), medium-term risk (2025-2035) and long-term risk (2035-2050) under various scenarios according to the Representative Concentration Pathways (RCP), Stated Policies Scenarios, Sustainable Development Scenario (SDS) and IPCC 1.5°C scenario. The physical and transition risk assessment results have revealed that PTTEP was ranked in low-to-medium risk level for all scenarios and timeframes. The result confirms that our management in climate change risk are appropriate and in line with the global target to control temperature well below 2 degrees Celsius. The climate change risk will be carefully monitored and mitigated so that the risk is reduced to the As Low as Reasonably Practicable (ALARP) level together with a right balance of business operations in a sustainable way. PTTEP has established a risk management plan on climate change focusing on improving work processes to maximize energy efficiency and 25% reduction of greenhouse gas emissions by 2030 (compared to the base year of 2012). Moreover, the Company has conducted the studies on potential CO2 sequestration under PTTEP reforestation projects as well as carbon offsetting through various mechanisms. Correspondingly, PTTEP has also engaged with the Thailand Greenhouse Gas Management Organization (TGO) to develop a set of activities, measures, and policies to reduce greenhouse gases under the Thailand Voluntary Emission Reduction (T-VER) project.

PTTEP's strategy on the new business opportunities emphasizes the gas value chain businesses including the "Gas to Power" project and Liquefied Natural Gas (LNG) project, as well as renewable energy opportunities which will also support transition to a low-carbon society.

#### 2.2.5.2 Risks Arising from Disruptive Technology that Adversely Impacts Oil and Gas Industry

Technological advancement and growth in renewable energy are playing an increasingly crucial role in the energy industry. They come in all forms, such as more reliable and efficient energy storage, battery-powered cars (Electric Vehicles), as well as other renewables and EV businesses whose production costs have plummeted over the years. Such disruptive technologies coupled with the government's policy regarding environmental issues with the intention of reducing greenhouse gas (GHG) emissions following the recent Paris Agreement on climate change as well as promotion of alternative-energy usage, such as the Alternative Energy Development Plan (AEDP) (2015-2036) that aims to increase the proportion of alternative-energy consumption in the forms of electricity, heat, or biofuel to 30% of the final stage of energy consumption in 2036, can cause tremendous damage to the petroleum industry. Oil demand has consequently been affected; many believe that days of the oil era are now numbered. This situation will be PTTEP's primary strategic risk as it directly impacts our revenues from crude oil, condensate and oil-linked gas sale. Additional risks include the loss of production cost advantages due to accelerated technology development by competitors.

New technology is a key factor in the volatile energy business, PTTEP's vision for technology development is to become an energy technology partner, enhancing E&P business competitiveness and readiness for future energy transitions to ensure the Company's sustainable growth. PTTEP develops technology through partnership with both Thai and international parties and institutions. Moreover, knowledge sharing is crucial, both within PTTEP and with partners across sectors. By encouraging collaboration, the Company brings together various expertise inside and outside the energy sectors to jointly develop technologies and innovation to enhance capabilities and achieve sustainable business objectives.

The petroleum exploration and production business will continue to face a number of challenges in the next few years, especially those brought by Disruptive Technology. In this time of sudden and rapid change, adaptability and an ability to transform will determine how a business can maintain its competitiveness. PTTEP has adjusted our business strategy to anticipate advancing technologies and drive transformation. The first one is "Digital Transformation" to enhance competitiveness through technology, such as Artificial Intelligence, Machine Learning and the Internet of Things (IoT). This will enable effective and quick informed decisions, increase exploration successes, and enhance the potential development capacity and production of more petroleum resources.

Another area is "Organization and New Normal Transformation" that will allow us to adopt a more streamlined structure and management process, empowering the capabilities of our people, and strengthening the corporate mindset and culture. Therefore, PTTEP becomes an ever more agile organization with accelerated decision-making and responsiveness, to ensure continued reductions in costs and natural resources required for operations.

In addition to transformation, PTTEP is also exploring New Business opportunities alongside our core business to create future growth focusing on three new businesses the natural gas value chain, such as Gas to Power business, LNG related businesses, and commercialization of technological innovation projects developed within PTTEP. The Company evaluates new business opportunities in the Gas-to-Power value chain in Myanmar where it can add value to its existing natural gas fields as well as Gas/LNG-to-Power in other countries while seeking for investment opportunities in renewable energy in solar and wind. Additionally, PTTEP aims to scale up the AI & Robotics Venture (ARV) on four core sectors: Subsea, Agricultural,

Medical and Drone Inspection. Our specialized E&P technologies in ARV solutions are instrumental in enhancing PTTEP competitive capability and can also support other industries to boost their efficiency and business value.

**Risk of investors in the Company's Securities**

Risk from the Control of Major Shareholder

As of August 14, 2020, PTT Public Company Limited or PTT is the major shareholder of the Company with 65.29% of shareholding (both direct and indirect) in the paid-up capital. PTT, therefore, is able to control the resolutions of the Shareholders' Meeting including the Director's appointment, approval on other matters that require a majority vote from the Shareholders' Meeting and agendas, but not applicable for agendas by laws or by the Articles of Association of the Company, which require 3 out of 4 votes of the Shareholder's Meeting.

However, PTTEP values compliance with the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET) rules and criteria while taking seriously the perennial stewardship of minor shareholders' rights. The Company has also set the clear organizational structure to manage its business. There were 9 independent directors from total 15 directors who provided opinions and beneficial recommendations with prudence and independence. The Company has also appointed the Audit Committees consisting of 4 independent directors, which have no interests in the Company in order to monitor and review the Company's operations and protect the interests of minority shareholders resulting in appropriate check and balance and verifiable system to achieve business transparency and good corporate governance.

# 3. Driving Business for Sustainability

## 3.1 Sustainability Management Policy and Target

### 3.1.1 PTTEP Sustainability Management Overview

PTTEP's Sustainability Management integrates our responsibilities to the environment and society as a part of our business decisions to meet the expectations of our stakeholders, investors, shareholders, business partners, host governments, various communities, and employees. We continuously emphasize effective management of the three pillars of sustainability to reflect all ongoing concerns regarding any environmental and social issues as well as to create value for the Company and our stakeholders. Sustainability targets and strategies, and their implementation are driven by efficient business processes, funding, Governance, Risk and Compliance (GRC) management, technology and innovation, cost reduction, and human capability development to enhance production and to achieve work efficiency. To accomplish this, we have adopted His Majesty King Bhumibol Adulyadej The Great's (Rama IX) Sufficiency Economy Philosophy (SEP) as a guideline for our business operations and have aligned our sustainability management with the United Nations Sustainable Development Goals (UN SDGs), focusing on Goals 7, 8, 12, 13, 14 and 16 while continuing our support for the remaining SDGs in our routine operations. Further, we use the Dow Jones Sustainability Indices (DJSI) to measure our sustainability performance at the international level.

The Company has developed the Sustainable Development Policy, also known as the G.R.O.W.T.H Policy, to be adopted across the entire organization. The purpose is to demonstrate our definite sustainability objectives and determination to overcome the challenges of developing and becoming a sustainable organization. For the Sustainable Development Policy, please visit the Company's website (www.pttep.com). The Company has also developed the Sustainable Development Guideline underlying various aspects which are important to the sustainability of the organization to establish a universal understanding of the Company's approach to sustainability. Consistency in respect to social responsibility throughout the Company is also established by having everyone operate according to international standards and policies, such as ISO 26000, Safety, Security, Health and Environment (SSHE) Policy of the International Association of Oil & Gas Producers (IOGP), International Petroleum Industry Environmental Conservation Association (IPIECA), OHSAS 18001, and the United Nations' Universal Declaration of Human Rights (UDHR). All divisions within the Company also strictly adhere to our Corporate Governance and Business Ethics, local laws, culture and values, while interacting with all stakeholders, such as employees, communities, suppliers, business partners, regulators, and investors.

In 2020, PTTEP was selected as a DJSI member in the World Oil and Gas Upstream & Integrated Industry for the 7$^{th}$ consecutive year and was chosen as a member of the FTSE4Good Index Series for the 5$^{th}$ consecutive year. In addition, we were listed in 2020 Thailand Sustainability Investment (THSI) for the 5$^{th}$ year by the Stock Exchange of Thailand (SET).

For more details, please see PTTEP Sustainability Report 2020 and visit PTTEP website at
https://www.pttep.com/en/Sustainabledevelopment.aspx



### 3.1.2 Materiality Assessment

PTTEP's materiality assessment process engages both internal and external stakeholders by using international standards, such as the Global Reporting Initiative (GRI Standards) Sustainability Reporting Guideline: Oil and Gas Sector Disclosures (OGSD) framework – core level, IPIECA's Oil and Gas Industry Guidance on Voluntary Sustainability, Dow Jones Sustainability Indices (DJSI), AA1000 AccountAbility Principles Standard (2018) (AA1000APS), and SASB Materiality Map™ of Sustainability Accounting Standards Board (SASB). This includes a thorough review of the current and future business risks and opportunities in the business, social and environmental dimensions, to identify and prioritize the Company's material sustainability issues which are significant issues to our business and stakeholders. Additionally, the Materiality issues are used as key inputs for the development of PTTEP Sustainability Strategy and long-term targets, which are publicly disclosed in our Sustainability Report.

In 2020, 8 material sustainability issues of importance were reviewed from the process of engaging with our stakeholders and top management through the standard materiality assessment process. The 8 issues are listed below:

Business Dimension

- GRC - Governance, Risk Management and Compliance
- Reserve to Production Ratio
- Human Resource Preparation
- Technology and Innovation
- Occupational Health and Safety

Social Dimension

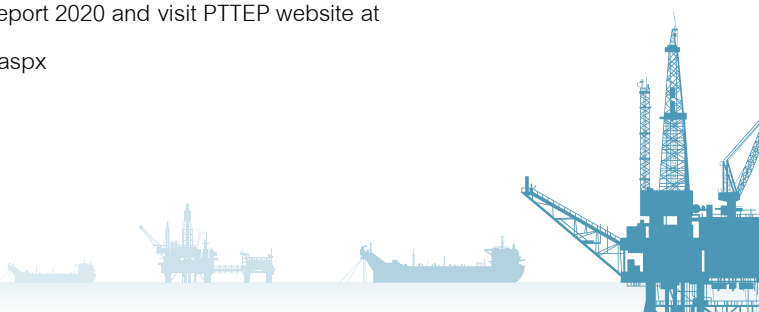
- Contribution to Community and Society

Environmental Dimension

- Lower Carbon Future
- Environment Management

The Company's assessment review process for identifying the material sustainability issues for 2020 includes a structured and systematic review of the issues with significant business, environmental and social impact on the Company as well as those issues which are important to our internal and external stakeholders. The assessment is conducted by identifying and assessing the material issues from the Company's and the stakeholder's perspectives, defining reporting boundaries, and prioritizing the issues from their level of significance using agreed criteria and stakeholder engagement. The result is subsequently submitted to the Management Committee and the Board of Directors for content review and approval.

For more details, please see PTTEP Sustainability Report 2020 and visit PTTEP website at https://www.pttep.com/en/Sustainabledevelopment.aspx



### 3.1.3 Sustainable Development Philosophy, Framework and Target

PTTEP developed the Sustainable Development Framework as a foundation to support our journey towards sustainability to achieve our vision of becoming the Energy Partner of Choice. The framework comprises three main components namely: High Performance Organization (HPO) or "Be Smart", Governance, Risk Management and Compliance (GRC) or "Be Good", and Stakeholder Value Creation (SVC) or "Be Responsible". The framework also corresponds with the United Nations Sustainable Development Goals (SDGs).

PTTEP is confident that this strong foundation as well as conscious consideration of all stakeholders' interests will enable us to deliver value and foster sustainability for the wider world (From We to World).

Within the Sustainable Development Framework, PTTEP formulated the sustainability strategy through the materiality assessment process to address and prepare for future challenges, cope with energy transition as well as create long-term sustainable value in response to stakeholders' expectations. Our sustainability strategy and corporate long-term targets (2030) are as follows:

<u>High Performance Organization (HPO)</u>

1) Execute and Expand Strategy, consist of the following targets:
   - 5% CAGR Production Growth
   - Maintain Proved Reserve to Production Ratio (R/P Ratio or 1P/Production) at no less than 7 years
   - Unit cost in the top quartile among peers
   - 20% of net income from New Business
   - Achieve zero work-related accident (SSHE Target Zero)

<u>Governance, Risk Management and Compliance (GRC)</u>

1) Smart Assurance and GRC in Common Sense Strategy, consist of the following targets:
   - Become GRC role model among Thai Listed Companies
   - Increase GRC Maturity Level to the highest level at Level 5 (Continuous Improvement with Automation)

<u>Stakeholder Value Creation (SVC)</u>

1) Greenhouse Gas Reduction Strategy, consist of the following target:
   - Reduce greenhouse gas emissions intensity by at least 25%, compared to the 2012 base year
2) Circular Model for E&P Strategy, consist of the following targets:
   - At least 50% of main structures must be reused, with safety awareness, and efficient conditions
   - Zero waste to landfill

3) Ocean for Life Strategy, consist of the following targets:

- 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
- 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

For more details, please see PTTEP Sustainability Report 2020 and visit PTTEP website at https://www.pttep.com/en/Sustainabledevelopment.aspx

### 3.1.4 Operation and Reporting

PTTEP has adopted the Global Reporting Initiative (GRI Standards), using sector specific guidelines of the GRI, such as the Sustainability Reporting Guidelines & Oil and Gas Sector Disclosures (OGSD) - core level which is one of the world's most prevalent guidelines for sustainability reporting to provide information in regards to the Company's economic, environmental, social and governance performance. Information on the Company's capability to reduce greenhouse gas emission, for example, is also included in the report. The high standard, comparable to those of financial management, allows the Company to monitor our sustainability effectively. The report includes sustainability data and performance indicators from all parts of the business. This ranges from business planning, corporate risk assessment, internal control process, internal auditing, monitoring and reporting of the Company's performance. PTTEP also adopts and includes other international best practices in our sustainability report, such as Dow Jones Sustainability Indices (DJSI) best practices and requirements, AA1000 AccountAbility Principles Standard (2018) (AA1000APS), SASB Materiality Map™ of Sustainability Accounting Standards Board (SASB), UNGC – Advanced Level, IPIECA's Oil and Gas Industry Guidance on Voluntary Sustainability and SDG Compass to support the UN Sustainable Development Goals. The Company's material sustainability issues which are significant issues to our business and stakeholders have been continuously disclosed to all stakeholders to inform our sustainability management.

For more details, please see PTTEP Sustainability Report 2020 and visit PTTEP website at https://www.pttep.com/en/Sustainabledevelopment.aspx

## 3.2 Stakeholder Impacts Management in the Business Value Chain

### 3.2.1 Business Value Chain

To achieve our vision to become an Energy Partner of Choice, in 2020, PTTEP created and passed on value to all stakeholders through the allocation of resources in six areas: (1) Financial Capital (2) Production Capital (3) Human Capital (4) Intellectual Capital (5) Social and Relationship Capital (6) Natural Capital, and the work processes that support the Company's vision and strategy. For more details, please see PTTEP Sustainability Report 2020 at Stakeholder Value Creation topic.

### 3.2.2 Stakeholder Analysis in the Business Value Chain

PTTEP organizes engagement activities with 9 key stakeholder groups: (1) Government Agencies and Regulators (2) Suppliers and Contractors (3) Customers (4) Employees (5) Shareholders and Investment & Financial Institution (6) Business Partners, Consortium and Joint Ventures (7) Communities (8) Independent/Public Organizations, NGOs, and Academics (9) Press and Media. The objective of stakeholder engagement is to solicit feedback and expectations and discuss and communicate them to exchange viewpoints. PTTEP uses issues raised by the stakeholders as input to improve the efficiency of our business operations.

For more details about stakeholders' expectations and our responses, please visit PTTEP website, Stakeholder Management topic, at

https://www.pttep.com/en/Sustainabledevelopment/Stakeholdervaluecreation/Stakeholdermanagement.aspx

## 3.3 Sustainability Management in Environmental Dimension

### 3.3.1 Environmental Policy and Practice

PTTEP realizes that compliance with standards and regulations on community, social and environmental protection ( Covering various Climate Change, Spill, Biodiversity, Waste, Air Pollution, and Water Resources) are essential to our business sustainability. Not only does it reduce direct and indirect environmental impacts, but also helps gain trust from our stakeholders. The Company also promotes the responsible use of natural resources, environmental protection as well as sustainable conservation and management. There are major environmental targets which are in line with our sustainability strategy on Stakeholder Value Creation (SVC) as follows:

1) Reduce greenhouse gas emissions intensity at least 25% by 2030, compared to the 2012 base year.

2) Achieve zero hazardous waste to landfill by 2020; zero industrial waste to landfill by 2025; and zero total waste to landfill by 2030.

3) Achieve zero oil and chemical spill.

4) Avoid operating in areas at risk from water scarcity and ensure that there is no impact on the community and water users.

5) Avoid operating in World Heritage sites as defined by UNESCO and achieve No-Net Loss of biodiversity in protected areas as defined by the International Union for Conservation of Nature (IUCN) by 2024.

6) 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.

For more details, please visit PTTEP website, Environmental Management topic, at

https://www.pttep.com/en/Sustainabledevelopment/Stakeholdervaluecreation/Environmentalmanagement.aspx

### 3.3.2 Environmental Performance

In order to achieve major environmental targets, PTTEP strives to operate various environmental management including Climate Management, Spill Management, Biodiversity and Ecosystem Services Management, Waste Management and Water Management.

For more details, please visit PTTEP website, Environmental Management topic, at
https://www.pttep.com/en/Sustainabledevelopment/Stakeholdervaluecreation/Environmentalmanagement.aspx

## 3.4 Sustainability Management in Social Dimension

### 3.4.1 Social Policy and Practice

PTTEP values social development as well as the conservation of natural resources and the environment. All our stakeholders, including government agencies, are regularly engaged and regularly communicated with through meetings, activities and projects conducted across our operating areas. A long-term strategy for social projects is in place to build trust and acceptance from the communities including relevant stakeholders, in accordance with the Community Relations Management and Corporate Social Responsibility Policy. PTTEP strives to gain trust, acceptance and supports undertakings that will bring benefits to the company and society. In order that PTTEP's commitment to conducting business with the balance of business, society and environment, 17 Sustainable Development Goals (SDGs) have been adopted as a framework for implementing our social development projects.

For more details, please visit PTTEP website, Stakeholder Value Creation topic, at
https://www.pttep.com/en/Sustainabledevelopment/Stakeholdervaluecreation.aspx

### 3.4.2 Social Performance

In 2020, PTTEP has focused on implementing social development projects under the framework of the 17 Sustainable Development Goals (SDGs). There are highlight social development projects under the Ocean for Life strategy, covering environmental management activities and marine debris, ecological preservation and increase marine resources, and provide opportunities for local economic development in the operating area.

For more details, please visit PTTEP website, Stakeholder Value Creation topic, at
https://www.pttep.com/en/Sustainabledevelopment/Stakeholdervaluecreation.aspx

### 3.4.3 Impact of Business Operation on Social Responsibility

Details are disclosed in the "Legal Dispute" part.

# 4. Management Discussion and Analysis of Operating Results

## 4.1 Executive Summary

The year of 2020 has been a very challenging year for businesses due to the on-going Coronavirus (COVID-19) pandemic that has severely affected global economy and caused a significant drop in demand for crude oil. Together with the fallen crude oil demand, the oil price war from the disagreement in production cut among OPEC+ members, had caused a sharp drop in crude oil prices in the beginning. However, the situation was better in 2H/2020 as there were signs of recovery in many industries, despite concerns on the new wave of COVID-19 in many countries. Crude oil prices started to recover from its lowest point in the second quarter, supported by the improving crude oil demand as a result of the easing of lockdown restriction and COVID-19 vaccine administration in some countries, together with strong commitment of OPEC+ compliance and agreement.

PTTEP has sharpened our plan under the strategy "EXECUTE" and "EXPAND" in order to be resilient in the industry's increasingly challenging environment and enhance our competitive advantage and promote sustainability. In 2020, PTTEP focused on strengthening core business, Exploration and Production by optimizing development and production plans for cost competitiveness with the goal to continuously reduce unit cost. In terms of our operations, our projects in the Gulf of Thailand, namely Bongkot, Arthit and Contract 4 projects, were able to deliver production volumes according to the buyer's lower nomination as a result of the fallen demand from the outbreak. The results of the drilling of appraisal well at Sarawak SK 410B Project that began in late Q3/2020 to further evaluate upside potential after the successful exploration in mid-2019, are expected to be completed in Q1/2021. We also started to drill an exploration well at Sarawak SK 417 Project in Q4/2020, with the expected results in Q1/2021. In addition, we have expanded our investments in the Middle East, a prolific area with high petroleum potential, with the exploration and production rights for Oman Onshore Block 12 Project in Oman and Abu Dhabi Offshore 3 Project in United Arab Emirates (UAE). On February 1, 2021, PTTEP signed a Sale and Purchase Agreement (SPA) to acquire 20% interest in Oman Block 61 in the Sultanate of Oman from BP Exploration (Epsilon) Limited. The transaction value of this acquisition is 2,450 MMUSD, subject to final net working capital and other closing adjustments per SPA, and the contingent payment at the maximum amount of 140 MMUSD, if the pre-agreed conditions under SPA are accomplished. The Completion Date is expected to be in 2021, including necessary regulatory approvals.

Moreover, for our new business, we have expanded AI & Robotics Ventures (ARV) business by establishing two joint ventures companies, namely ATI Technologies Co.,Ltd. for Smart Farming related business and ZeaQuest Co.,Ltd. for subsea inspection, repair and maintenance (Subsea IRM) business. The Gas to Power Project has made a good progress with the approval of Notice to Proceed in Q4/2020 and Final Investment Decision (FID) is expected in 2022.

In 2020, PTTEP reported net income of 720 MMUSD, a decrease of 54% compared to the previous year. This is mainly driven by lower selling prices as a result of lower global crude oil prices. Nonetheless, PTTEP was able to reduce unit cost and cash cost to 30.5 USD/barrel of oil equivalent (BOE) and 14.4 USD/BOE, respectively. As a result, PTTEP reported cash flow generated from operations of 2,799 MMUSD with EBITDA margin at 68%. During 2020, PTTEP also recognized impairment loss on asset (before taxes) of 91 MMUSD mainly from the Mariana Oil Sand Project due to the forecast of

low oil price in the long term indicating project development uncommercial and adjustments to the productions profile of Yetagun Project. As of the year-end 2020, PTTEP reported total assets of 22,493 MMUSD, of which 3,804 MMUSD was cash and short-term investments, while total liabilities were reported at 10,694 MMUSD, of which 3,932 MMUSD was interest-bearing debt. Total shareholders' equity ended at 11,799 MMUSD with debt to equity ratio at 0.33, reflecting strong and healthy financial structure.

Summary of Key Financial Results

| (Unit: MMUSD) | 2020 | 2019 | % INC (DEC) YTD | Q3 2020 | Q4 2020 | Q4 2019 | % INC (DEC) QoQ | % INC (DEC) YoY |
|---|---|---|---|---|---|---|---|---|
| Total Revenue | 5,357 | 6,413 | (16) | 1,305 | 1,348 | 1,841 | 3 | (27) |
| Sales Revenue | 5,043 | 6,046 | (17) | 1,228 | 1,292 | 1,755 | 5 | (26) |
| EBITDA | 3,512 | 4,354 | (19) | 890 | 829 | 1,188 | (7) | (30) |
| Profit (Loss) for the period | 720 | 1,569 | (54) | 230 | 81 | 384 | (65) | (79) |
| Basic earnings (Loss) per share (Unit: US Dollar) | 0.18 | 0.38 | (53) | 0.06 | 0.02 | 0.09 | (67) | (78) |
| Profit (Loss) from normal operation | 781 | 1,445 | (46) | 195 | 168 | 379 | (14) | (56) |
| Profit (Loss) from non-recurring items | (61) | 124 | >(100) | 35 | (87) | 5 | >100 | >(100) |

## 4.2 Economic Overview in 2020

### (1) Crude Oil Prices

Crude oil price is one of the major factors affecting the Company's performance. In 2020, average Dubai crude price fell to 42.3 USD per barrel, lower than 2019 average price of 63.5 USD per barrel. This was mainly due to the COVID-19 outbreak, which caused country lockdown in several parts of the world. Consequently, crude demand decreased from 97 million barrels per day (MBPD) in January to 85 MBPD in March. In addition, the OPEC+ meeting to cut additional output had failed, making Saudi Arabia to counter back by increasing the oil supply to a record high and led to a drop in oil price to 23.4 USD per barrel at the end of Q1/2020. Pressured by the rise of COVID-19 cases worldwide, crude demand and Dubai price in April thus hit the lowest level at 75 million barrels per day and below 20 USD per barrel, respectively.However, to uphold the crude price, OPEC+ reached the mutual agreement to cut the output by 9.7 MBPD from May to July and by 7.7 MBPD from August to December 2020. In addition, the G20 countries, led by U.S., Canada, and Brazil, agreed to contribute additional production cut up to 5 MBPD, while the improved COVID-19 situation in many countries also supported the recovery of crude demand to 91 MBPD and average Dubai price at 42.9 USD per barrel in Q3/2020.

During Q4/2020, the approval of COVID-19 vaccine was issued and vaccines were then administered to the Americans, the British, and the EU citizens in December, together with the strong commitment of OPEC+ compliance. The agreement reached during the OPEC+ meeting in December 2020, which the production cut of January 2021 will be 7.2 MBPD compared with 5.8 MBPD cut agreed previously and the average Dubai crude price in this quarter then went up to 44.6 USD per barrel, and even beyond 50 USD per barrel during the last week of 2020.

**2) Liquefied Natural Gas (LNG)**

For the LNG market in 2020, the average Asian Spot LNG price decreased to 4.39 USD per MMBTU, with the lowest level in Q2/2020 at 1.83 USD per MMBTU. The key driver was from lower demand caused by the COVID-19 outbreak. However, during the last week of December, the spot LNG price went up to an average of 13.49 USD per MMBTU, mainly from the boosted demand from freezing temperatures across North Asia, the transportation congestion at the Panama Canal, as well as the LNG supply shortage caused by the shutdown of several LNG projects. For the global LNG market in 2020, total capacity was at 378 million tons per annum (MTPA) (2019: 360 MTPA), while LNG demand remained at approximately 362 MTPA (2019: 351 MTPA). (Source: FGE as of December 2020)

**3) Thailand's Energy Demand**

Thailand's energy demand from January to October 2020 was reported at 1.98 million BOED, a decrease of 7.9% relative to the same period of the previous year (Source: EPPO, The Ministry of Energy). The decrease was attributed primarily by the economy slowdown resulting from the COVID-19 pandemic which caused country lockdown and impacted almost every business sector, especially the tourism industry and jet fuel usage. Overall, energy usage decreased for every segment except for hydro and imported electricity.

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

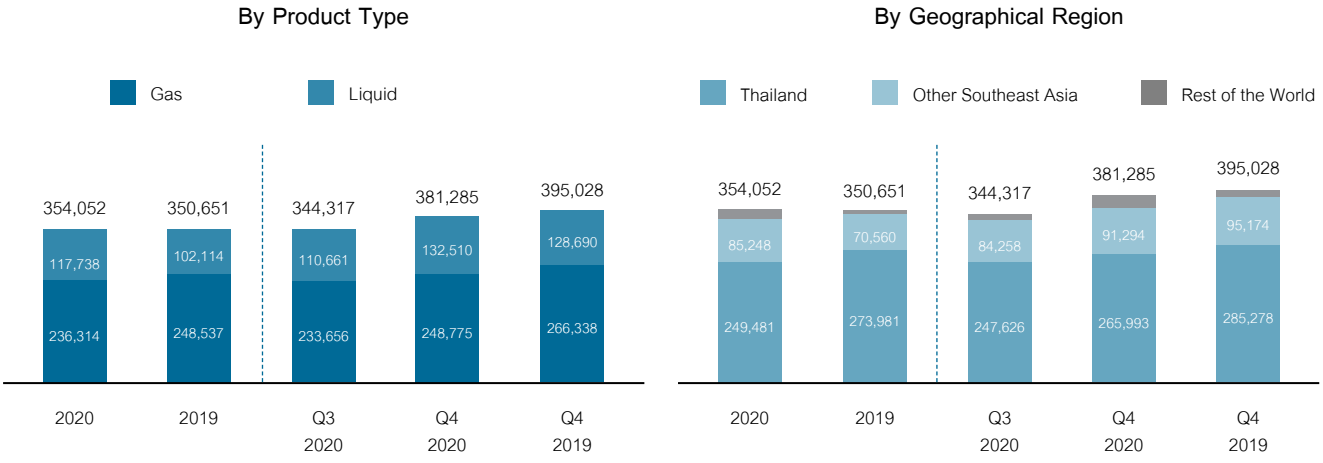
During 2020, the THB, against USD, was quite volatile throughout the year, weakening in the first quarter and strengthening for the rest of the year to close at 30.04 THB/USD, attributed by the COVID-19 pandemic, which created negative impacts to the global economy and financial markets. The government of Thailand exercised both monetary and fiscal measures to stimulate the economy and uphold the confidence in financial markets. Furthermore, the Bank of Thailand continued to use accommodative monetary policies and cut the policy interest rate to a historical low at 0.50 percent. Nonetheless, THB rapidly rallied in the last quarter of the year, in line with other regional currencies, supported by increasing investments from foreign investors into emerging markets after the U.S. election and positive news of COVID-19 vaccine progress, despite the new wave of COVID-19 outbreak in Thailand.

In terms of financial performance, PTTEP was affected by THB fluctuations mainly in the form of income tax filing due to the difference in tax filing currency (THB) and functional currency (USD) according to accounting standards. Tax laws and related regulations were completely enacted so that PTTEP could submit tax filing in US Dollar currency which was its functional currency. As a result, there would be no impact of THB/USD foreign exchange volatility on PTTEP's financial performance from Q4/2020 onward.

## 4.3 Financial Performance

### Average Sales Volume and Selling Price

*Unit: Barrels of Oil Equivalent per Day*




| Average selling price and Dubai crude oil price (Unit: USD) | 2020 | 2019 | % INC (DEC) YTD | Q3 2020 | Q4 2020 | Q4 2019 | % INC (DEC) QoQ | % INC (DEC) YoY |
|---|---|---|---|---|---|---|---|---|
| Average selling price (/BOE) | 38.92 | 47.24 | (18) | 38.77 | 36.85 | 48.28 | (5) | (24) |
| Liquid price (/BOE) | 41.55 | 61.18 | (32) | 41.82 | 42.61 | 61.94 | 2 | (31) |
| Gas price (/MMBTU) | 6.27 | 6.92 | (9) | 6.22 | 5.63 | 6.95 | (9) | (19) |
| Average Dubai crude oil price (/BBL) | 42.27 | 63.51 | (33) | 42.88 | 44.64 | 62.03 | 4 | (28) |

**2020 Compared with 2019**

In 2020, the average sales volume of PTTEP and its subsidiaries (the "Group") increased to 354,052 barrels of oil equivalent per day (BOED) when compared with 2019 of 350,651 BOED. The increase was primarily from sales volume of Malaysia Project and Partex Group according to full year recognition after business acquisition in the second half of 2019, offset with a decrease in sales volume from Contract 4 Project and Bongkot Project due to lower gas nomination from buyer. The average selling price in 2020 decreased to 38.92 USD/BOE (2019: 47.24 USD/BOE).

**Fourth Quarter of 2020 Compared with Third Quarter of 2020**

In Q4/2020, the average sales volume of the Group increased to 381,285 BOED when compared with Q3/2020 of 344,317 BOED primarily from Contract 4 Project due to higher gas nomination from buyer, as well as an increase in crude oil sales volume of Partex Group and Malaysia Project. The average selling price in Q4/2020 decreased to 36.85 USD/BOE (Q3/2020: 38.77 USD/BOE).

**Fourth Quarter of 2020 Compared with Fourth Quarter of 2019**

When compared with the average sales volume for the Q4/2020 to Q4/2019 of 395,028 BOED, the average sales volume decreased primarily from Bongkot Project due to maintenance shutdown in Q4/2020 and MTJDA Project due to lower gas nomination from buyers. The average selling price in Q4/2020 decreased to 36.85 USD/BOE (Q4/2019: 48.28 USD/BOE).

### 4.3.1 Overall Operating Results

**2020 Compared with 2019**

In 2020, the Group had net profit of 720 MMUSD, a decrease of 849 MMUSD or 54% from a net profit in 2019 of 1,569 MMUSD. The decrease was primarily due to a decrease in sales revenue of 1,003 MMUSD, as well as a recognition of impairment loss on assets of 91 MMUSD (2019: no loss recognized), offset with gain on financial instruments of 99 MMUSD (2019: recognized loss of 109 MMUSD). The net profit for 2020 of 720 MMUSD can be separated as follows.

The profit from normal operation in 2020 was 781 MMUSD, a decrease of 664 MMUSD when compared with a profit in 2019 of 1,445 MMUSD. The primary reason was a decrease in sales revenue of 1,003 MMUSD due to lower average selling price despite of an increase in sales volume. Additionally, depreciation, depletion and amortization and operating expenses increased by 60 MMUSD and 44 MMUSD, respectively, according to full year recognition of Malaysia Project and Partex Group after business acquisition in the second half of 2019. However, there were decreases in income tax expenses of 319 MMUSD due to lower sales revenue and petroleum royalties of 135 MMUSD from lower domestic sales revenue.

The loss from non-recurring items in 2020 was 61 MMUSD, a change of 185 MMUSD when compared with a profit in 2019 of 124 MMUSD. The primary reason was an increase in income tax expenses relating to foreign exchange rate of 245 MMUSD due to higher reversal amount of income tax benefits which were recognized in prior years. Such reversal was due to the change of corporate income tax and petroleum income tax calculation currency. While in 2019, the Group recognized lower income tax expenses relating to foreign exchange rate (tax saving) from the appreciation of Thai Baht against USD at 2.30 THB/USD. In addition, the Group recognized impairment loss on assets of 91 MMUSD (2019: no loss recognized), primarily from Yetagun Project and Mariana Oil Sands Project, offset with gain on financial instruments of 99 MMUSD, mainly from oil price hedging instruments while recognized loss of 109 MMUSD in 2019.

**Fourth Quarter of 2020 Compared with Third Quarter of 2020**

In Q4/2020, the Group had net profit of 81 MMUSD, a decrease of 149 MMUSD or 65% from a net profit in Q3/2020 of 230 MMUSD. The decrease was primarily from a recognition of loss on financial instruments of 72 MMUSD (Q3/2020: recognized gain of 27 MMUSD) together with increases in operating expenses and administrative expenses of 53 MMUSD and 48 MMUSD, respectively. In addition, there was a recognition of impairment loss on assets of 44 MMUSD (Q3/2020: no loss recognized), offset with an increase in sales revenue of 64 MMUSD and a decrease in income tax expenses of 61 MMUSD. The net profit for the Q4/2020 of 81 MMUSD can be separated as follows.

The profit from normal operation in Q4/2020 was 168 MMUSD, a decrease of 27 MMUSD compared with a net profit in Q3/2020 of 195 MMUSD. The primary reason was an increase in operating expenses of 53 MMUSD mainly from higher sales volume of Partex Group, together with an increase in administrative expenses of 48 MMUSD mainly from higher professional and consulting fee. However, sales revenue increased by 64 MMUSD from higher average sales volume despite of a decrease in average selling price.

The loss from non-recurring items in Q4/2020 was 87 MMUSD, a change of 122 MMUSD when compared with a profit in Q3/2020 of 35 MMUSD. The primary reason was a recognition of loss on financial instruments of 72 MMUSD while recognized gain of 27 MMUSD in Q3/2020 mainly from foreign exchange forward contracts and oil price hedging instruments. In addition, there was a recognition of impairment loss on assets of 44 MMUSD from Yetagun Project (Q3/2020: no loss recognized).

**Fourth Quarter of 2020 Compared with Fourth Quarter of 2019**

When compared with the same period last year which reported a net profit of 384 MMUSD, the Group had a decrease in net profit of 303 MMUSD or 79% . The decrease was primarily due to a decrease in sales revenue of 463 MMUSD and a recognition of impairment loss on assets of 44 MMUSD (Q4/2019: no loss recognized). However, there were decreases in income tax expenses of 110 MMUSD, petroleum royalties and operating expenses of 47 MMUSD each. The net profit for the Q4/2020 of 81 MMUSD can be separated as the follows.

The profit from normal operation in Q4/2020 was 168 MMUSD, a decrease of 211 MMUSD compared with a net profit in Q4/2019 of 379 MMUSD. The primary reason was a decrease in sales revenue of 463 MMUSD due to decreases in average selling price and average sales volume. While income tax expenses decreased by 142 MMUSD due to lower sales revenue, petroleum royalties decreased by 47 MMUSD from lower domestic sales revenue and operating expenses decreased by 47 MMUSD primarily from Malaysia Project due to maintenance shutdown in Q4/2019.

The loss from non-recurring items in Q4/2020 of 87 MMUSD, a change of 92 MMUSD when compare with a profit in Q4/2019 of 5 MMUSD. The primary reason was a recognition of impairment loss on assets of 44 MMUSD from Yetagun Project (Q4/2019: no loss recognized) and an increase in income tax expenses relating to foreign exchange rate of 32 MMUSD primarily from lower amount of income tax benefits relating to exchange rate (tax saving) due to the change of corporate income tax and petroleum income tax calculation currency. While in Q4/2019, the Group recognized income tax benefits relating to foreign exchange rate (tax saving) due to the appreciation of Thai Baht against USD at 0.44 THB/USD in Q4/2019. In addition, there is an increase in loss on financial instruments of 31 MMUSD mainly from foreign exchange forward contracts and oil price hedging instruments.

### 4.3.2 Operating Results by Segment

| Net Profit (Loss) (Unit: MMUSD) | 2020 | 2019 | % INC (DEC) YTD | Q3 2020 | Q4 2020 | Q4 2019 | % INC (DEC) QoQ | % INC (DEC) YoY |
|---|---|---|---|---|---|---|---|---|
| Exploration and Production | 868 | 1,634 | (47) | 254 | 215 | 457 | (15) | (53) |
| Southeast Asia | 944 | 1,660 | (43) | 260 | 207 | 473 | (20) | (56) |
| - Thailand | 799 | 1,236 | (35) | 192 | 204 | 343 | 6 | (41) |
| - Other Southeast Asia | 145 | 424 | (66) | 68 | 3 | 130 | (96) | (98) |
| Australia | (28) | (15) | (87) | (1) | (16) | (1) | >(100) | >(100) |
| America | (56) | (10) | >(100) | (2) | (5) | (2) | >(100) | >(100) |
| Africa | 23 | 14 | 64 | (3) | 32 | (7) | >100 | 557 |
| Others | (15) | (15) | 0 | (0.49) | (3) | (6) | >(100) | 50 |
| Head Office and others | (148) | (65) | >(100) | (24) | (134) | (73) | >(100) | (84) |
| **Total** | **720** | **1,569** | **(54)** | **230** | **81** | **384** | **(65)** | **(79)** |

**2020 Compared with 2019**

For 2020, the Group reported a net profit of 720 MMUSD, a decrease of 849 MMUSD or 54% when compared with a net profit of 1,569 MMUSD in 2019, primarily from a decrease of Exploration and Production segment in Southeast Asia (Thailand decreased of 437 MMUSD and other Southeast Asia decreased of 279 MMUSD), decrease in America of 46 MMUSD and a decrease in Head Office and others segment of 83 MMUSD.

1) Exploration and Production Segment

1.1) Southeast Asia

- Thailand

In 2020, Thailand reported a net profit of 799 MMUSD, a decrease of 437 MMUSD or 35% when compared with a net profit of 1,236 MMUSD in 2019, primarily from a decrease of sales revenue due to a decrease in both average selling price and sales volume, while there was a decrease in income tax expense, petroleum royalties in accordance with a decrease in sales revenue, as well as a decrease of depreciation, depletion and amortization in accordance with a decrease in average sales volume.

- **Other Southeast Asia**

In 2020, Other Southeast Asia reported a net profit of 145 MMUSD, a decrease of 279 MMUSD or 66% when compared with a net profit of 424 MMUSD in 2019, primarily from a decrease of sales revenue due to a decrease in average selling price despite of an increase in average sales volume. The depreciation, depletion and amortization were increased in accordance with an increase of sales volume of Malaysia Project according to full year recognition after business acquisition in the second half of 2019. Moreover, there was a recognition of impairment loss on assets from Yetagun Project in 2020 (2019: no loss recognized). However, exploration expenses decreased, mainly due to decrease in exploration wells written-off.

**1.2) America**

In 2020, America reported a net loss of 56 MMUSD, an increase of 46 MMUSD or more than 100% when compared with a net loss of 10 MMUSD in 2019, primarily from recognition of impairment loss on assets from Mariana Oil Sands Project.

**2) Head Office and Other Segments**

In 2020, Head Office and other segments reported a net loss of 148 MMUSD, an increase of 83 MMUSD or more than 100% when compared with a net loss of 65 MMUSD in 2019, primarily from an increase of income tax expense as a result of an increase in taxable income, offset with recognition of gain on financial instruments mainly from oil price hedging instruments, while loss was recognized in 2019.

**Fourth Quarter of 2020 Compared with Third Quarter of 2020**

For the Q4/2020, the Group reported a net profit of 81 MMUSD, a decrease of 149 MMUSD or 65% compared with a net profit of 230 MMUSD in Q3/2020, primarily from a decrease of Exploration and Production segment in Southeast Asia (mainly from other Southeast Asia's decrease of 65 MMUSD) and decrease at Head Office and other segments of 110 MMUSD.

**1) Exploration and Production Segment**

**1.1) Southeast Asia**

- **Other Southeast Asia**

In Q4/2020, other Southeast Asia reported a net profit of 3 MMUSD, a decrease of 65 MMUSD or 96% when compared with a net profit of 68 MMUSD in Q3/2020, primarily from a recognition of impairment loss on assets from Yetagun Project in Q4/2020 (Q3/2020: no loss recognized) and a decrease of sales revenue due to a decrease of average selling price despite of an increase in average sales volume.

2) Head Office and Other Segments

In Q4/2020, Head Office and other segments reported a net loss of 134 MMUSD, an increase of 110 MMUSD or more than 100% when compared with a net loss of 24 MMUSD in Q3/2020, primarily from a recognition of loss on financial instruments mainly from foreign exchange forward contracts and oil price hedging instruments.

**Fourth Quarter of 2020 Compared with Fourth Quarter of 2019**

For the Q4/2020, the Group reported a net profit of 81 MMUSD, a decrease of 303 MMUSD or 79% compared with a net profit of 384 MMUSD in Q4/2019, primarily from a decrease of Exploration and Production segment in Southeast Asia (Thailand's decrease of 139 MMUSD and other Southeast Asia's decrease of 127 MMUSD) and decrease at Head Office and other segments of 61 MMUSD.

1) Exploration and Production Segment

1.1) Southeast Asia

- Thailand

In Q4/2020, Thailand reported a net profit of 204 MMUSD, a decrease of 139 MMUSD or 41% when compared with a net profit of 343 MMUSD in Q4/2019, primarily from a decrease of sales revenue due to a decrease in both average selling price and sales volume, while there was a decrease in income tax expense and petroleum royalties in accordance with a decrease in sales revenues, as well as, a decrease of depreciation, depletion and amortization in accordance with a decrease in sales volume.

- Other Southeast Asia

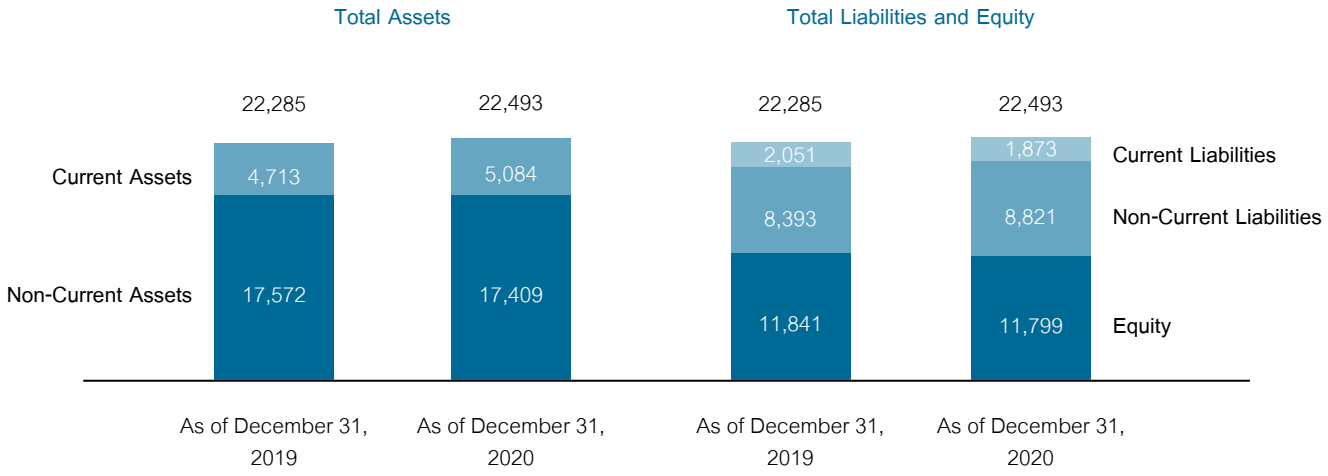
In Q4/2020, other Southeast Asia reported a net profit of 3 MMUSD, a decrease of 127 MMUSD or 98% when compared with a net profit of 130 MMUSD in Q4/2019, primarily from a decrease of sales revenues due to a decrease in average selling price, recognition of impairment loss on assets from Yetagun Project (Q4/2019: no loss recognized) while there was a decrease of operating expenses together with a decrease of income tax expense as a result of a decrease of sales revenue.

2) Head Office and Other Segments

In Q4/2020, Head Office and other segments reported a net loss of 134 MMUSD, an increase of 61 MMUSD or more than 84% when compared with a net loss of 73 MMUSD in Q4/2019, primarily due to higher loss on financial instruments mainly from foreign exchange forward contracts and oil price hedging instruments and an increase of income tax expense as a result of an increase in taxable income.

### 4.3.3 Financial Position

*Unit: Million US Dollar*




#### 1) Assets

As of December 31, 2020, the Group had total assets amount of 22,493 MMUSD, an increase of 208 MMUSD from total assets as of December 31, 2019 of 22,285 MMUSD, primarily due to;

1.1) Current assets, which were primarily comprised of cash and cash equivalents, short-term investments, trade and other receivables and inventories, increased of 371 MMUSD mainly from increases in cash and cash equivalents and short-term investments of 781 MMUSD mainly from cash flow from operation offset with decrease of other current assets of 214 MMUSD from selling of investment securities during 2020 and decrease in trade and other receivables of 192 MMUSD in accordance with a decrease in sales revenue.

1.2) 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, goodwill and deferred tax assets, decreased 163 MMUSD mainly due to a depreciation, depletion and amortization expenses, although there was an increase in investments for exploration and production assets.

#### 2) Liabilities

As of December 31, 2020, the Group had total liabilities of 10,694 MMUSD, an increase of 250 MMUSD from total liabilities as of December 31, 2019 of 10,444 MMUSD, primarily due to;

2.1) Current liabilities, which were primarily comprised of trade and other payables and income tax payable, decreased 178 MMUSD mainly due to income tax payable of 358 MMUSD from the payment of income tax for the year 2019 offset with the current increased portion of lease liabilities due within one year of 117 MMUSD.

2.2) Non-current liabilities, which were primarily comprised of provision for decommissioning costs, debentures and deferred tax liabilities, increased 428 MMUSD mainly due to an increase of lease liabilities of 246 MMUSD and an increase of debenture of 126 MMUSD primarily due to debentures issuance during 2020.

3) Equity

As of December 31, 2020, the Group had equity of 11,799 MMUSD, a decrease of 42 MMUSD from equity as of December 31, 2019 of 11,841, primarily due to the dividend payment for the second half of 2019 and for the first half of 2020, as well as the repurchase of the remaining of USD denominated subordinated capital debentures offset with the profit of 2020.

4) Capital Structure

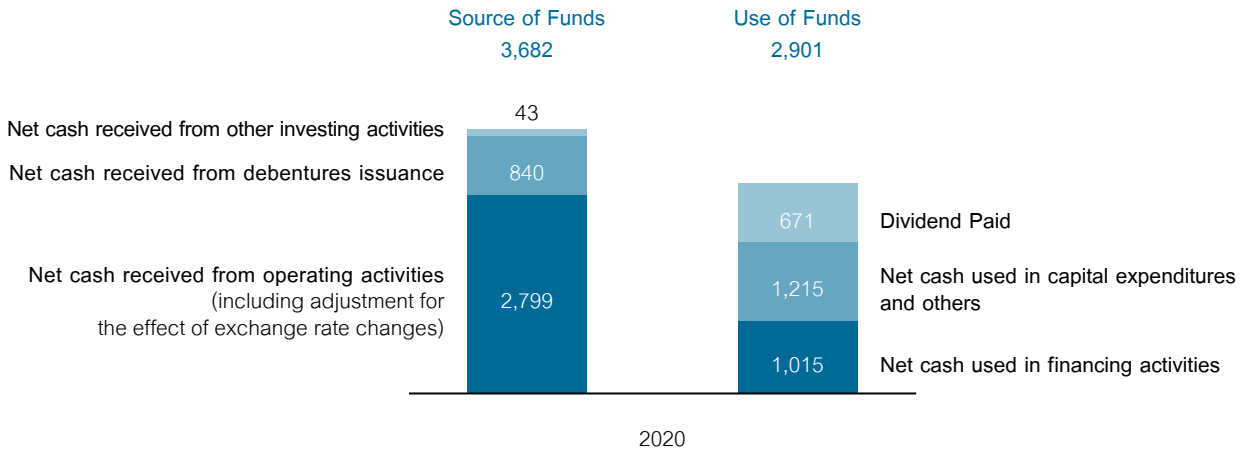
As of December 31, 2020, the capital structure comprised of 11,799 MMUSD in equity and 10,694 MMUSD in total liabilities. The Group total liabilities were comprised of 3,932 MMUSD worth of interest-bearing debts with a weighted average cost of debt of 3.44% and having average maturity of 14.08 years, in which all interest-bearing debts were denominated in USD and the fixed interest rates to the floating interest rates ratio is 82:18.

In 2020, the Group managed its financial structure in relation to USD denominated debentures to ensure the highest efficiency, appropriateness in consistent with the current investment condition, with the following details:

- Repurchased the remaining of 31 MMUSD worth of its 500 MMUSD denominated subordinated capital debentures with a fixed interest rate at 4.60% per annum at the redemption price in accordance with the terms, conditions and methods prescribed in the bond indenture January 10, 2020. After the repurchase, The Group has no outstanding USD denominated subordinated capital debentures.
- Repurchased 700 MMUSD denominated senior unsecured and unsubordinated debentures with a fixed interest rate at 5.692% per annum which was issued and offered to offshore investors. On January 15, 2020, PTTEP repurchased such debentures of 220 MMUSD and repurchased remaining debenture of 480 MMUSD on February 25, 2020 at the redemption price in accordance with the terms, conditions and methods prescribed in the bond indenture.
- Issued and offered of 350 MMUSD debentures with a fixed interest rate at 2.993% per annum to offshore investors on January 15, 2020. The debenture will be mature on January 15, 2030.
- Issued and offered of 500 MMUSD debentures with a fixed interest rate at 2.587% per annum to offshore investors on June 10, 2020. The debenture will be mature on June 10, 2027.

### 4.3.4 Cash Flows

*Unit: Million US Dollar*




As of December 31, 2020, the Group's cash and cash equivalents, including short-term investments in the form of bank fixed deposit with a maturity of more than three months but within twelve months of 3,804 MMUSD, an increase of 781 MMUSD from cash and cash equivalents, including short-term investments as of December 31, 2019 of 3,023 MMUSD.

**Sources of funds** amount of 3,682 MMUSD primarily came from **Net cash received from operating activities** as a result of the positive net cash flow from sales revenues, offset with cash payment for expenditures and income tax expenses and **Net cash received from financing activities** derived from the issuance of the USD denominated unsecured and unsubordinated debentures.

**Uses of funds** amount of 2,901 MMUSD, primarily from the **Net cash used in financing activities** as a result of the repurchase of the USD denominated unsecured and unsubordinated debentures, as well as the dividend payment for the second half of 2019 and for the first half of 2020. The **Net cash used in capital expenditures** was mainly from exploration and production assets, primarily for investing in S1, Mozambique Area 1 and Malaysia Projects.

#### 4.3.5 Key Financial Ratios

| | 2020 | 2019 | Q3 2020 | Q4 2020 | Q4 2019 |
|---|---|---|---|---|---|
| **Profitability Ratios (%)** | | | | | |
| EBITDA to revenue from sales | 68.38 | 70.65 | 70.99 | 63.26 | 66.74 |
| Return on equity | 6.09 | 13.16 | 8.64 | 6.09 | 13.16 |
| Net profit margin | 13.43 | 24.47 | 17.01 | 13.43 | 24.47 |
| **Leverage Ratios (Times)** | | | | | |
| Debt to equity | 0.33 | 0.29 | 0.33 | 0.33 | 0.29 |
| Debt to EBITDA | 1.05 | 0.62 | 0.78 | 1.05 | 0.62 |

Remarks:

| | | |
|---|---|---|
| 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 to weighted average shareholders' equity for the past 12 months |
| Net profit margin | = | Net profits to total revenue for the past 12 months |
| Debt to equity | = | Interest Bearing Debt to total shareholders' equity |
| Debt to EBITDA | = | Average Interest Bearing Debt to profit for the past 12 months before deduction of interest, tax, and depreciation |

## 4.4 Operational Highlights

At the end of 2020, PTTEP had over 40 projects with domestic and international operations in 15 countries, with total proved reserves of 1,074 million barrels of oil equivalent (MMBOE) and probable reserves of 548 MMBOE. The following are key project highlights.

### 4.4.1 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 2020, the average sales volume from projects in Thailand was 249,500 BOED, accounting for 70% of total sales volume. Average sales volume from other countries in this region is 85,200 BOED, which accounted for 24% 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: **S1 Project** was able to maintain production volumes



as planned and in November 2020, was officially approved to extend the petroleum production period for another 10 years until 2031. The **Bongkot Project, Arthit Project** and **Contract 4 Project** were 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), is in the process of site access negotiation with current operator and preparation work in the area of staff recruitment, Gas Sales Agreement, and related procurement activities aiming for successful transition and gas production as per commitment.

**Projects in Myanmar**

The key ***Producing Project*** in Myanmar is **Zawtika Project** located in the Gulf of Moattama in Myanmar which can maintain production volumes as planned. ***Exploration Projects*** are highlighted as follows: **Myanmar M3 Project** is waiting for an approval from the government on Field Development Plan, which was resubmitted in Q3/2020. The **Gas to Power Project** received the approval of Notice to Proceed in December 2020. The Gas to Power project is an investment in power plant and gas transportation. At the initial stage, PTTEP plans to feed the natural gas from Zawtika Project and Myanmar M3 Project to supply a new power plant with a capacity of 600 Megawatts for domestic consumption due to the high demand of electricity in the country. The Final Investment Decision (FID) of the Integrated Gas to Power Project is expected in 2022. **Myanmar MD-7 Project** has completed the drilling of an exploration well and found no commercial reserves. The project submitted the block relinquishment notification letter in Q4/2020. The termination will be effective after receiving the official approval from the Government of Myanmar.

**Projects in Malaysia**

***Producing Project*** 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 for 2021 are the infill development of SNP and GK. **Sarawak SK 309 and SK 311 Project** are oil and gas producing fields located in the shallow water of offshore Sarawak. The main projects for 2021 include the installation and start-up of the Pemanis gas facility and the infill oil development to increase production from the existing facilities.

***Development Projects*** in Malaysia are as follows: **Block H Project**, located in the deep-water of offshore Sabah with capacity of 270 MMSCFD. During the final stage of commissioning prior to the original first gas target in late Q3/2020, there was a failure of a subsea component. The remediation plan is well in progress and the revised first gas delivery is expected at the earliest opportunity in 2021. This event caused no harm to the environment.

***Exploration Projects*** in Malaysia are highlighted as follows: **Sarawak SK 410B Project** is currently drilling an appraisal well to confirm petroleum potential upside resources of the Lang Lebah Field along with studying on the field development plan. The petroleum potential results are expected within Q1/2021 and the Final Investment Decision (FID) is expected in 2022. **Peninsular PM 415 Project** is currently drilling 2 exploration wells to explore and evaluate petroleum potential. **Sarawak SK 417 Project** is drilling an exploration well with the results expected in Q1/2021. Moreover, the project will continue drilling an addition exploration well in 2021. **Sarawak SK 438 Project**, and **Sarawak SK 405B Project** are

currently planning to drill 2 exploration wells and 1 exploration well in 2021, respectively. Other Malaysia Exploration projects are in the process of studying and prioritizing exploration drilling plan.

**Projects in Vietnam**

The key ***Producing Project*** is **Vietnam 16-1 Project**, located offshore in the southeastern region. The project completed drilling an appraisal well in Q2/2020 to maintain production plateau as planned. For ***Exploration Projects***, **Vietnam B & 48/95 Project** and **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 of approximately 490 MMSCFD.

### 4.4.2 Projects in the Middle East

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

***Producing Projects*** in this region include the **PDO (Block 6) Project** which is the largest potential onshore oil producing asset in Oman. **Mukhaizna (Block 53) Project** is a large producing onshore oil field located in southern Oman. In 2020, both projects continued to curb production per OPEC+ agreement to support price due to weakening energy demand. For ***Exploration Project***, **Oman Onshore Block 12 Project** located onshore central part of Oman, with Total, in February 2020, received exploration and production rights from Oman's Ministry of Oil and Gas (MOG). Currently, the project continues geological and geophysical studies and plan to drill an exploration well in 2021.

Middle East projects under the ***exploration phase*** are located offshore in the northwest of Abu Dhabi, UAE. **Abu Dhabi Offshore 1 Project** is currently being evaluated for petroleum potential for future exploration. **Abu Dhabi Offshore 2 Project** is currently being evaluated for petroleum potential to prepare for the drilling of the first exploration well in 2021. **Abu Dhabi Offshore 3 Project** with Eni Abu Dhabi, had been selected as the successful bidders for exploration and production rights of Offshore 3 Block. The consortium had signed Concession Agreement with the Abu Dhabi National Oil Company (ADNOC) in December 2020.

### 4.4.3 Project in Americas

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

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

Projects in Brazil include **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. **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 **Mexico Block 12 (2.4) Project** located in the Mexican Ridges, western Gulf of Mexico, is currently being evaluated for petroleum potential to prepare for drilling of an exploration well in 2021.

**Mexico Block 29 (2.4) Project**, located in the Campeche, has completed drilling of 2 exploration wells in 2020, both exploration wells show promising high potential. The project is currently working on obtaining approval of the appraisal plan from the Mexican regulators and preparing appraisal process in 2021 as well as further development plans.

#### 4.4.4 Projects in Australasia

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

**Cash Maple Field** is currently under evaluation for the appropriate development plan. **AC/P54** in **Orchid Field** is in the ***exploration phase***, plans to include its development along with the Cash Maple Field.

#### 4.4.5 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).

**Algeria 433a and 416b Projects**, both of which are in the ***production phase***, are located onshore in the eastern part of Algeria. In 2020, the project had average production of 17,280 barrels per day (BPD) resulting from the agreement of OPEC+ and the weakening energy demand.

**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 the 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 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. The transaction will be completed when receiving confirmation and official announcement by Algerian government. 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%.

**Mozambique Area 1 Project**, which is in the ***development phase***, is a large LNG project located in offshore Mozambique. In 2020, the Afungi site improvement consist of Airstrip, staff camp, Palma-Afungi Highway and Temporary Beach Landing was completed as planned. Although the project had an impact from COVID-19 which caused the project to lockdown for a while, and resumed in June, the work was in progress as planned. In addition, the project has completed the process of the LNG ship-owners selection and is in the finalization process to execute Time Charter Party Agreements. Moreover, the project has signed senior debt financing agreements under project finance arrangement, in the amount of USD 14.9 billion to advance the first two-train LNG development. Currently, the project is in the process of document preparation for the 1$^{st}$ drawdown from Project Finance for its first commercial cargo by 2024 as planned.

## 4.5 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 a sustainable organization that takes conscious consideration of all stakeholders' interests, maintains energy security, delivers value and fosters sustainability for the wider society. With the aim towards a balance between the strong performance, and the business sustainability, PTTEP has set an aspiration to create balance between strong performance and business sustainability and set the aspiration targets to be achieved by 2030 as follows:

- Continuously reduce unit cost to be at the industry Top Quartile (approximately 25 USD per BOE)
- Sustain 5% average production growth (CAGR)
- Maintain the reserves to production ratio (R/P) of 7 years
- Drive the LNG value chain through joint venture investments in upstream and liquefaction plants
- Achieve 20% contribution to Net Income from new businesses
- Transform to the New Normal through the transformation projects that consist of various initiatives to accelerate digital transformation aimed at improving long-term work efficiency towards the concept of "One Team, One Goal"

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 are as follows:

### 4.5.1 High Performance Organization (HPO)

PTTEP is still focus on Execute and Expand strategies. Nevertheless, the Company has sharpened our execution plans in order to adapt to the changing situation, enhance the Company's competitive advantage and promote 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**

- **Create additional value from existing assets** with an emphasis on increasing production from key projects while also accelerating the development of major overseas projects particularly the Mozambique Area 1 Project in Mozambique and the Hassi Bir Rekaiz Project in Algeria to ensure timely production start-ups.
- **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.
- **Effectively execute the transitions** for G1/61 and G2/61 Projects and newly acquired assets.
- **Transform to the New Normal** by implementing transformation projects and redesigning human resources within the Company. The new transformation projects 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 on growth in strategic investment areas and diversify into energy related businesses for long-term sustainability**

- **Coming-Home Strategy:** PTTEP focuses on investments in strategic investment areas being Thailand and Southeast Asia. Moreover, PTTEP is also expanding business opportunities in the Gas Value Chain business in Myanmar in the form of Gas to Power.
- **Strategic Alliance Strategy:** PTTEP aims to capture investment opportunity in other petroleum prolific areas with strategic alliances by mainly focusing on the Middle East.
- **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 core E&P business, future investment opportunity related to the energy industry, e.g. solar and wind and the A.I. and Robotics Ventures (ARV) scale-up.
- **LNG Strategy:** PTTEP is committed to driving LNG value chain with a focus on investments in the upstream and liquefaction plants while developing in-house LNG capabilities.

PTTEP places great importance on effective financial management by focusing on building financial discipline and maintaining a robust capital structure. As of the end of 2020, the Company maintained a strong liquidity position with cash on hand of approximately 3,804 MMUSD. The debt-to-equity ratio is 0.33x which is in line with the Company's financial policy. In addition, the Company has implemented liability management activities, continuing from 2019, with respect to its USD denominated bonds which reduce the cost of capital from 4.41% to 3.44%, with no debt service obligation in 2020 and 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 has encouraged 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 $CO_2$ reserve, removing contaminants in condensate, enhancing oil recovery, reducing environmental impact, reducing decommissioning cost and improving operation and maintenance efficiency. As of the end of Q4/2020, there are 38 projects under research and development in which 10 projects are under the field trial phase. 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 Injury Rate (TRIR) of 0.29. The Company's performance on both safety indicators (LTIF and TRIR) is among the First Quartile of the International Association of Oil and Gas Producers (IOGP) average.

In Q4/2020, PTTEP received three innovative awards from both national and international organizations, including the Innovative Organization Award from the National Innovation Agency which is an organization under the Ministry of Higher Education, Science, Research and Innovation, the Best Innovative Company Award from the Stock Exchange of Thailand, as well as the winner of the ADIPEC Awards 2020 in the Breakthrough Technological Project of the Year category from ADIPEC, which is the world's largest oil and gas exhibition and conference held in the United Arab Emirates. The awards reflect that PTTEP has a good innovation management system and has been recognized as an innovative organization by external agencies.

### 4.5.2 Governance, Risk Management and Compliance (GRC)

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. In 2020, although PTTEP was facing many operation challenges during the COVID-19 pandemic which has led to adjust its working method under the project of New Way of Working, PTTEP remains committed and adhered to carry out GRC work as planned. The main progress of GRC work achieved within 2020 are as follows:

- Extended responsible scope of the Corporate Governance Committee to oversee sustainable development and GRC, including Smart Assurance, which aims to develop assurance processes and utilize digital technologies to increase efficiency, and GRC in Common Sense, which focuses on cultivating GRC principles in employee mindset. In addition, the Company successfully prepared for GRC roadmap for 2020-2030 with regularly monitoring the performance progress.
- Completed the implementation of GRC principles in newly acquired assets (Transition Projects) and prepared for GRC Maturity Level Assessment Program in overseas projects, which will be assessed in 2021.
- Extended communication and understanding of GRC principles to employees in overseas assets through GRC training course (GRC101) to prepare readiness of employees in all assets in accordance with GRC strategies, including improvement of communication channels according to New Way of Working such as online training and e-learning.
- Started using Web-based Risk Register System for risk owners to identify and analyze risks for more completeness, flexibility, conciseness and effectiveness of the risk register processes. It also allows related parties to quickly and conveniently monitor the risk management anywhere anytime.
- Cooperated with Internal Audit to review lists of key processes and company-wide risks in order to improve company database.
- Worked with Sustainable Development and Knowledge Management Department in preparing Stakeholder Perception Survey on a GRC role model among Thai listed companies to analyze results and improve our GRC Program to achieve the goal of being a GRC role model. This survey is set as part of 2021 workplan.
- Shared GRC good practices to the PTT Group companies and external business alliances by participating as a guest speaker on Risk Management for the Thai Listed Companies Association.

PTTEP's strong commitment and concrete performance has made PTTEP recognized by both domestic and international institutions. This can be seen from the awards which PTTEP received in 2020 such as the NACC Integrity Awards (Year 2019) for the 3rd time and the 3 awards from 15th ASIAN ESG Award 2019 – The Best of Asia (by Corporate Governance Asia in Hongkong); Asia's Icon on Corporate Governance for the 8th consecutive year, Asian Corporate Director Recognition Award given to Mr. Phongsthorn Thavisin, PTTEP's Chief Executive Officer and ESG Influencer Award. PTTEP also earned an "Excellent" level and received five symbols of recognition, which is the highest level, from the Corporate Governance Report of Thai Listed Companies 2020 (CGR 2020) and the 2 awards from 2019 ASEAN CG Scorecard; ASEAN Top 20 PLCs Award which is given to companies in the top 20 among all ASEAN listed companies and ASEAN Asset Class PLCs Award is given to companies with the scores of at least 97.50. Moreover, the Dow Jones Sustainability Indices (DJSI) score on PTTEP's Risk and Crisis Management topic was rated Top Quartile for the 7th consecutive year.

### 4.5.3 Stakeholder Value Creation (SVC)

PTTEP concern for natural resource conservation, environmental restoration as well as community and social development. Our strategies and main progress in 2020 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 2020, the Company reduced greenhouse gas emissions intensity by 8% 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 2020, PTTEP launched Circular Design Guideline for E&P Facilities Development for our internal application for the new asset. 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. The pilot stage was completed for 168 meters road pavement at the PTTEP Technology and Innovation Centre (PTIC) helipad in August. Additionally, in 2020, our hazardous waste to landfill was reported at zero in line with our long-term target for zero waste to landfill by 2030.
- **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 sets the target to Increase 50% of community income for focused communities and achieves 16,000 conservation networks by 2030, compared to the baseline data before PTTEP project implementation. In Q4/2020, PTTEP signed a Memorandum of Understanding (MOU) with the Department of Marine and Coastal Resources to support our Ocean for Life strategy. During Q4, PTTEP also conducted the first-time sampling around our operation area in the Gulf of Thailand for the Baseline Study of Microplastics Project with Kasetsart University. In 2020, the Company also established 5 zones of Coastal Conservation Area and Fish Home and 5 Aquatic Animal Hatchery Learning Center Projects in Songkhla, Nakhon Si Thammarat and Pattani 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, the Carbon nanotube production from flare gas, 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 and field trial.

In Q4/ 2020, PTTEP received a CSR award for Innovation in Community Relations or Public Service Communications category (Silver) from the Asia-Pacific Stevie Awards 2020, United States of America for the implementation of the Crab Hatchery Learning Center at Ban Hua Khao in Songkhla. The Company also received a CSR award in Green Leadership from Asia Responsible Enterprise Awards 2020 (AREA 2020), Singapore, for the implementation of the Forest Restoration Project for Eco-Learning at Si Nakhon Khuean Khan Park (Khung Bang Kachao).

## 4.6 Future Business Outlook

### 1) Energy Outlook

The COVID-19 pandemic and subsequent economic downturn has caused a slump in global energy consumption. Oil-based transportation has been the most affected, and in a less magnitude for gas and renewables. However, the primary global energy demand still relies on fossil fuels such as crude oil, natural gas and coal. IHS Markit forecasted that fossil fuels' consumption during the next 30 years is expected to maintain its dominant proportion. Natural gas and LNG demand remains robust as global economy recovers and expands and is especially strong in the power generation sector stemming from the national energy policies of various key growth countries which is transforming to natural gas, which is cleaner energy. Crude oil consumption continues to slowly grow and eventually plateau by 2040, mainly from petrochemical, trade and goods transportation sectors, partially offset by efficiency gains and alternative transport fuels. Moreover, in the short term, the renewable energy sector tends to suffer from the COVID-19 pandemic due to the lack of governments budget to provide support; however, in the longer term, demand in the renewable energy will eventually recover, particularly for solar and wind as support for environmental and climate policies implemented by several countries globally.

For Thailand, the Government has updated the Power Development Plan (PDP 2018 Rev.1), issued in October 2020, of which added long-term investment plan of community power plant to support. However, the plan is expected to be revised soon to reflect the impact from COVID-19.

PTTEP continues to highly focus on natural gas which aligns with the world's transition towards cleaner energy. The Company committed to developing large natural gas projects in its portfolio such as the Sarawak SK 410B Project in Malaysia and Mozambique Area 1 Project in Mozambique, including opportunities in the gas value chain business in Myanmar in the form of Gas to Power. Moreover, PTTEP continues to drive the LNG value chain by focusing on investments in the upstream and liquefaction plants while developing in-house LNG capabilities. Furthermore, the Company is also focusing on technology and innovation as well as R&D capability to support core E&P business, future investment opportunity related to the energy industry, e.g. power business from solar and wind.

### 2) Oil Price Outlook

Oil market outlook in 2021 is expected to continue its recovery from COVID-19 pandemic. The key contributor is COVID-19 vaccine development which was proven above 90% effectiveness. The vaccine has been used in many countries since December 2020. The vaccination program will continue throughout 2021 with the expectation that 50% of the total population in the developed countries will get vaccinated by the 2021 year end, which builds the immunity across majority of its population and thus enhance more economic activities and mobility across regions. The new variant and the 2$^{nd}$ wave of the COVID-19 situation still needs to be monitored closely as this might cause repetitive lockdown in several countries. However, it is expected that global oil demand will be recovered from 2020 by 4-5 million barrels per day (MBPD).

Meanwhile, oil supply is expected to remain under control by OPEC+ at least the first quarter of early 2021 after its member countries reached conclusion to extend the production cut at 7.2, 8.125, and 8.05 MBPD from January, February, and March 2021 respectively (including Saudi Arabia voluntary additional cut of 1 MBPD) instead of previously agreed cut at only 5.8 MBPD. Moreover, they will also discuss the production cut quota again in the monthly OPEC+ meeting. The meeting is aimed to assess the demand situation and production cut compliance from each member to sustain oil price at an appropriate level. For U.S., the production will be maintained 11-12 MBPD at least for 2021 due to negative factors, such as oil rig count, reduced workforce, and oil company bankruptcies in 2020. The concern for 2021 is the production surplus from OPEC+ countries' non-compliance on the production cuts, and the relief of U.S. sanction, according to Joe Biden's policy, which might result in a supply rise from Iran and Venezuela.

Based on the above-mentioned demand and supply situations, the average Dubai price is expected to be slightly recovered to 50-55 USD per barrel in 2021. The key factors which need to be monitored are the COVID-19 situation, lockdown measures, vaccination progress, demand recovery, economic stimulus, oil supply levels of main producing countries (OPEC, Russia and United State) and U.S. policy to Iran and Venezuela.

**3) LNG Market**

The oversupply situation of Global LNG market is expected to prolong throughout 2021, with total production capacity of existing and upcoming LNG projects growing by 24 MTPA to 402 MTPA from 2020 (approximately 6%), while demand for LNG is anticipated to be to 375 MTPA (Source: FGE as of December 2020). The crude oil prices in the world market are likely to still fluctuate in 2021, which could affect LNG price. LNG demand tends to increase as a result of LNG market liberalization that drive the demand in several Asian countries. Moreover, a decline in domestic gas production in many countries would cause more demand for LNG import. The average 2021 Asian Spot LNG price is expected to be 6.4-7.6 USD per MMBTU (Source: Woodmac, FGE as of January 2021).

**4) Environmental, Social and Governance (ESG)**

The Environmental, Social and Governance (ESG) is a challenging issue that companies have to find effective management methods as it directly affects the sustainability of the organization and in turn, profitability, competitiveness and reputation. Therefore, the organization has to focus on ESG risks and integrate them into the organization's management which includes formulating vision and strategy as well as risk management, in order to build confidence among all stakeholders.

PTTEP has completed the materiality assessment to identify the key material issues to the business in the stakeholders' perspectives, in order to support the management of ESG risk which consists of 8 key areas: including (1) Governance, Risk Management and Compliance (2) Increasing Petroleum Reserves (3) Human Resource Preparation (4) Technology and Innovation (5) Occupational Health and Safety (6) Contribution to Communities and Society (7) Lower Carbon Future (8) Environmental Management. PTTEP has developed sustainability strategy to address these issues under

PTTEP's Sustainable Development Framework. The framework comprises three main components namely: High Performance Organization (HPO), Governance, Risk Management and Compliance (GRC), and Stakeholder Value Creation (SVC). The balance of these three components will support PTTEP's journey towards sustainability, please refer to "Strategies under Sustainable Development Framework" for more details.

5) Thai Economy and Foreign Exchange Outlook

The Bank of Thailand expects the economy to expand at 3.2% in 2021 due to the high degree of uncertainty of economic recovery. The new wave of the COVID-19 outbreak situation and containment measures by the government are still the factors to be closely monitored in the short run. From a longer-term perspective, the economic recovery would depend on the globally prolonged COVID-19 pandemic, the recovery of tourism sector in Thailand and the efficacy of COVID-19 vaccines. Therefore, the Bank of Thailand signaled that the monetary policy in the near term will mainly focus on boosting the economic recovery.

In 2021, THB is expected to strengthen and move within the range of 29.00-30.50 THB/USD, driven by positive COVID-19 vaccine development news despite vaccine distribution challenges and capital inflows to emerging markets given the global economy recovers. However, on Thailand front, political uncertainty and the new wave of COVID-19 may continue to pose as negative factors to the recovery of tourism sector. In the meantime, the Bank of Thailand has closely monitored the foreign exchange market and capital flows and markets expect that the policy interest rate would remain unchanged at 0.50%. The Bank of Thailand is equipped to continue applying measures to prevent the THB appreciation, which could negatively impact economic recovery.

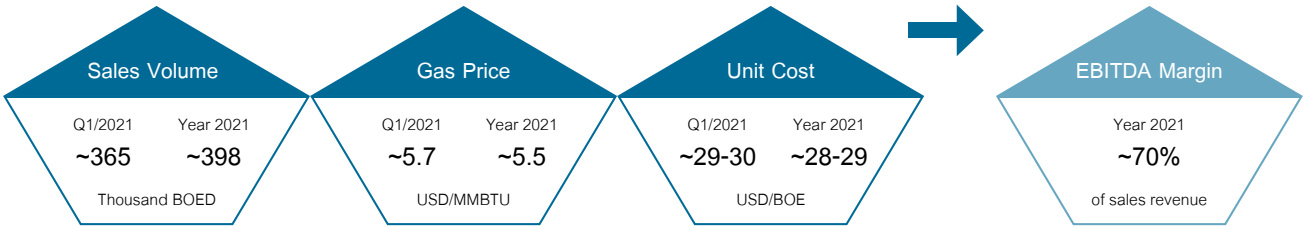
PTTEP has adopted the natural hedge method to manage FX risks by matching USD and USD-linked revenues from petroleum products with major USD expenses. Remaining FX risk exposures from non-USD revenues and expenses are managed by utilizing financial hedging instruments such as forwards and cross currency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

6) 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 such 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.

7) PTTEP's Performance Outlook for 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 2021 of 50 USD/BBL

3. Including Oman Block 61 Project performance which, on February 1, 2021, PTTEP has signed a Sale and Purchase Agreement (SPA) to acquire 20% interest, with expected Completion Date in 2021.

Sales Volume:

PTTEP expects the average sales volume for the Q1/2021 and for the full-year of 2021 to be approximately 365,000 and 398,000 BOED, respectively. The higher sales volume in 2021, compared to the previous year will mainly come from additional sales volume from Malaysia-Block H Project and Algeria Hassi Bir Rekaiz Project that will start production during the year and the acquisition of Oman Block 61 Project which expected completion date in 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 Q1/2021 and the full year of 2021 are estimated at approximately 5.7 and 5.5 USD/MMBTU, respectively, reflecting the adjustment of selling price in accordance to global crude prices and the acquisition of Oman Block 61 Project as mentioned above.
- Outstanding volume of oil price hedging at the end of 2021 is approximately 21 million barrels; the Company, however, consistently monitors crude oil price movements and has the flexibility to adjust its hedging plan as appropriate.

Unit Cost:

For the Q1/2021 and the full-year of 2021, PTTEP expects to be able to maintain unit cost at 29-30 and 28-29 USD/BOE, respectively, in line with planned investments and activities. The unit cost for the full-year 2021 slightly declines from the acquisition of Oman Block 61 Project as mentioned above.

# 5. General Information and Other Significant Information

## 5.1 General Information

### 5.1.1 Information of PTTEP

| | |
|---|---|
| Company Name | PTT Exploration and Production Public Company Limited or PTTEP |
| Headquarters Address | 555/1 Energy Complex Building A, 6th and 19th - 36th Floor, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900, Thailand |
| Type of Business | Exploration and production of petroleum and investments in related businesses |
| Registration Number | 0107535000206 |
| Telephone | +66-2537-4000 |
| Facsimile | +66-2537-4444 |
| Website | www.pttep.com |
| E-mail | Independent Directors: independentdirector@pttep.com<br>Investor Relations: ir@pttep.com<br>Corporate Secretary: corporatesecretary@pttep.com |
| Registered Capital | 3,969,985,400 ordinary shares with THB 1 per share (THB 3,969,985,400) |
| Paid-Up Capital | 3,969,985,400 ordinary shares with THB 1 per share (THB 3,969,985,400) as of December 31, 2020 |

### 5.1.2 Subsidiaries and Associated Companies Information

- **Subsidiaries Information**[1]

As of December 31, 2020, there were 82 subsidiaries which have the same contact address, telephone and facsimile numbers as PTTEP as in 5.1.1. Details of the directors designated by the PTTEP Group for each subsidiary are disclosed in Attachment 2 as follows:

| No. | Company Name | Abbreviation | Number of Shares Sold | | Total Direct/Indirect Holding | |
|---|---|---|---|---|---|---|
| E&P and Related Businesses | | | | | | |
| 1 | PTTEP Australia Pty Ltd | PTTEP AU | 50,000 | Ordinary Share | PTTEPH | 100% |
| 2 | PTTEP Australia Offshore Pty Ltd | PTTEP AO | 50,000 | Ordinary Share | PTTEP AU | 100% |
| 3 | PTTEP Australia Perth Pty Ltd | PTTEP AP | 50,000 | Ordinary Share | PTTEPH | 100% |
| 4 | PTTEP Australia Browse Basin Pty Ltd | PTTEP AB | 50,000 | Ordinary Share | PTTEP AP | 100% |
| 5 | PTTEP Australasia (Staff) Pty Ltd | PTTEP AAS | 10 | Ordinary Share | PTTEP AB | 100% |
| 6 | PTTEP Australasia (Ashmore Cartier) Pty Ltd | PTTEP AAA | 1,700,000 | Ordinary Share | PTTEP AB | 100% |
| 7 | PTTEP Australasia (Operations) Pty Ltd | PTTEP AAO | 106,686,517 | Ordinary Share | PTTEP AB | 100% |
| 8 | PTTEP Australia Timor Sea Pty Ltd | PTTEP AT | 50 | Ordinary Share | PTTEP AB | 100% |
| 9 | PTTEP Sabah Oil Limited | PTTEP SBO | 10,000 | Ordinary Share | PTTEP HK | 100% |
| 10 | PTTEP Sarawak Oil Limited | PTTEP SKO | 10,000 | Ordinary Share | PTTEP HK | 100% |
| 11 | PTTEP Brasil Investimentos Em Exploração e Produção de Petróleo e Gás Ltda. | PTTEP BL | 790,293,700 | Ordinary Share | PTTEP BI<br>PTTEP NH | 99.9999999%<br>0.0000001% |
| 12 | Partex Brasil Ltda. | PBL | 20,008,638<br>506,611 | Ordinary Share | PBC<br>PEC | 97.53%<br>2.47% |
| 13 | Partex Brasil Operações Petrolíferas Ltda. | PBO | 349,000<br>1,000 | Ordinary Share | PBC<br>PEC | 99.71%<br>0.29% |

[1] Notification of the Securities and Exchange Commission No. Kor Chor. 17/2551 Re: Determination of Definitions in Notifications relating to Issuance and Offer for Sale of Securities

| No. | Company Name | Abbreviation | Number of Shares Sold | | Total Direct/Indirect Holding | |
|---|---|---|---|---|---|---|
| 14 | PTTEP Canada Limited | PTTEP CA | 3,061,291,990 | Ordinary Share | PTTEP NC | 100% |
| 15 | Cove Energy East Africa Limited | CEEAL | 1,000 | Ordinary Share | COVE | 100% |
| 16 | Cove Energy Mozambique Rovuma Onshore Limited | CEMROL | 1,000 | Ordinary Share | CEEAL | 100% |
| 17 | PTTEP Mozambique Area 1 Limited | PTTEP MZA1 | 1,000 | Ordinary Share | CEEAL | 100% |
| 18 | PTTEP FLNG Holding Company Limited | PTTEP FH | 10,000 | Ordinary Share | PTTEP IH | 100% |
| 19 | PTTEP HK Holding Limited | PTTEP HK | 10,000 | Ordinary Share | PTTEP<br>PTTEPI | 25%<br>75% |
| 20 | PTTEP HK Offshore Limited | PTTEP HKO | 10,000 | Ordinary Share | PTTEP HK | 100% |
| 21 | PTTEP MENA Limited | PTTEP MENA | 500 | Ordinary Share | PTTEP BC | 100% |
| 22 | PTTEP Offshore Investment Company Limited | PTTEPO | 6,667 | Ordinary Share | PTTEP<br>PTTEPI | 75%<br>25% |
| 23 | PTTEP Holding Company Limited | PTTEPH | 50,000 | Ordinary Share | PTTEPO | 100% |
| 24 | Sinphuhorm Holdings Limited | SHL | 100 | Ordinary Share | PTTEPO | 100% |
| 25 | PTTEP International Holding Company Limited | PTTEP IH | 50,000 | Ordinary Share | PTTEPH | 100% |
| 26 | PTTEP Africa Investment Limited | PTTEP AI | 50,000 | Ordinary Share | PTTEPH | 100% |
| 27 | JV Marine Limited | JV Marine | 50,000 | Ordinary Share | PTTEP IH | 100% |
| 28 | PTTEP Netherland Holding Limited | PTTEP NL | 50,000 | Ordinary Share | PTTEP IH | 100% |
| 29 | PTTEP Indonesia Company Limited | PTTEP ID | 50,000 | Ordinary Share | PTTEPH | 100% |
| 30 | PTTEP Sadang Limited | PTTEP SD | 50,000 | Ordinary Share | PTTEP ID | 100% |
| 31 | PTTEP Semai II Limited | PTTEP SM | 50,000 | Ordinary Share | PTTEP ID | 100% |
| 32 | PTTEP South Mandar Limited | PTTEP SMD | 50,000 | Ordinary Share | PTTEP ID | 100% |
| 33 | PTTEP South Sageri Limited | PTTEP SS | 50,000 | Ordinary Share | PTTEP ID | 100% |
| 34 | PTTEP Malunda Limited | PTTEP ML | 50,000 | Ordinary Share | PTTEP ID | 100% |
| 35 | PTTEP Algeria Company Limited | PTTEP AG | 50,000 | Ordinary Share | PTTEPO | 100% |
| 36 | PTTEP Hoang-Long Company Limited | PTTEP HL | 50,000 | Ordinary Share | PTTEPO | 100% |

| No. | Company Name | Abbreviation | Number of Shares Sold | | Total Direct/Indirect Holding | |
|---|---|---|---|---|---|---|
| 37 | PTTEP Hoan-Vu Company Limited | PTTEP HV | 50,000 | Ordinary Share | PTTEPO | 100% |
| 38 | PTTEP Kim Long Vietnam Company Limited | PTTEP KV | 50,000 | Ordinary Share | PTTEPO | 100% |
| 39 | PTTEP Southwest Vietnam Company Limited | PTTEP SV | 50,000 | Ordinary Share | PTTEPO | 100% |
| 40 | PTTEP South Asia Limited | PTTEP SA | 50,000 | Ordinary Share | PTTEPH | 100% |
| 41 | Partex (Brazil) Corporation | PBC | 50,000 | Ordinary Share | PGH | 100% |
| 42 | PTTEP (Kazakhstan) Corporation | PKC | 500 | Ordinary Share | PGH | 100% |
| 43 | PTTEP (Angola) Corporation | PANG | 50,000 | Ordinary Share | PGH | 100% |
| 44 | Partex Oil and Gas (Holdings) Corporation[2] | POGHC | 50,000 | Ordinary Share | PGH | 100% |
| 45 | PTTEP Mexico E&P Limited, S. de R.L. de C.V. | PTTEP MEP | 3,000 | Ordinary Share | PTTEP HK<br>PTTEP HKO | 99.97%<br>0.03% |
| 46 | Carigali-PTTEPI Operating Company Sdn. Bhd. | CPOC | 350,000 | Ordinary Share | PTTEPI | 50% |
| 47 | PTTEP Netherlands Coöperatie U.A. | PTTEP NC | - | - | PTTEP IH<br>PTTEP NL | 0.000022%<br>99.999978% |
| 48 | PTTEP Netherlands Holding Coöperatie U.A. | PTTEP NH | - | - | PTTEP HK<br>PTTEPI | 75%<br>25% |
| 49 | PTTEP Brazil Investment B.V. | PTTEP BI | 50,000 | Ordinary Share | PTTEP NH | 100% |
| 50 | Natuna 2 B.V. | Natuna | 90,000 | Ordinary Share | PTTEP NH | 50% |
| 51 | PTTEP Group Holding B.V. | PGH | 100,000 | Ordinary Share | PTTEP HK | 100% |
| 52 | Participations and Explorations Corporation | PEC | 20,000 | Ordinary Share | PGH | 100% |
| 53 | PTTEP Oman E&P Corporation | POC | 2,500 | Ordinary Share | PGH | 100% |
| 54 | PTTEP Gas Corporation | PGC | 2,000,000 | Ordinary Share | PGH | 100% |
| 55 | Partex Services Corporation | PSC | 3,000 | Ordinary Share | PGH | 100% |
| 56 | Partex Services Portugal – Serviços para a Indústria Petrolífera, S.A. | PSP | 50,000 | Ordinary Share | PGH | 100% |

[2] In liquidation process

| No. | Company Name | Abbreviation | Number of Shares Sold | | Total Direct/Indirect Holding | |
|---|---|---|---|---|---|---|
| 57 | PTTEP International Limited | PTTEPI | 2,000,000,000 | Ordinary Share | PTTEP | 100% |
| 58 | PTTEP Siam Limited | PTTEPS | 1,000,000 | Ordinary Share | PTTEP<br>PTTEPO | 51%<br>49% |
| 59 | Orange Energy Limited | Orange | 1,000,000 | Ordinary Share | PTTEPO<br>MOECO B.V.<br>KrisEnergy | 53.9496%<br>36.0504%<br>10% |
| 60 | PTTEP G7 Limited | PTTEP G7 | 8,030,741 | Ordinary Share | PTTEPI | 100% |
| 61 | PTTEP Energy Holding (Thailand) Company Limited | PTTEP EH | 132,715,004 | Ordinary Share | PTTEP | 100% |
| 62 | PTTEP Energy Development Company Limited | PTTEP ED | 56,995,000 | Ordinary Share | PTTEP EH | 100% |
| 63 | EP-Tech Ventures Holding Company Limited | EP-Tech | 9,016,250 | Ordinary Share | PTTEP EH | 100% |
| 64 | APICO (Khorat) Limited | APICO KL | 5,885,168 | Ordinary Share | APICO KH | 100% |
| 65 | Cove Energy Limited | Cove | 63,840,000 | Ordinary Share | PTTEP AI | 100% |
| 66 | PTTEP SP Limited | PTTEP SP | 2<br>61,279,585 | Ordinary Share | SHL | 100% |
| 67 | APICO LLC | APICO | 338,278<br>389,937 | Ordinary Share | PTTEP SP<br>PTTEP HK | 33.83%<br>38.99% |
| 68 | APICO (Khorat) Holdings LLC | APICO KH | - | - | APICO | 100% |
| **Service Business** | | | | | | |
| 69 | PTTEP Services Limited<br>(Personnel services support) | PTTEP Services | 1,000,000 | Ordinary Share | PTTEP<br>PTTEPI | 25%<br>75% |
| 70 | Andaman Transportation Limited<br>(Investments in gas pipeline projects in Myanmar) | ATL | 62,500 | Ordinary Share | PTTEPO<br>MOGE | 80%<br>20% |
| 71 | PTTEP Southwest Vietnam Pipeline Company Limited<br>(Investments in gas pipeline projects in Vietnam) | PTTEP SVPC | 50,000 | Ordinary Share | PTTEPH | 100% |
| 72 | PTTEP Canada International Finance Limited<br>(Raise fund for PTTEP business) | PTTEP CIF | 50,000 | Ordinary Share | PTTEP NC | 100% |

| No. | Company Name | Abbreviation | Number of Shares Sold | | Total Direct/Indirect Holding | |
|---|---|---|---|---|---|---|
| 73 | PTTEP Treasury Center Company Limited<br>(Treasury center for PTTEP and subsidiaries) | PTTEP TC | 10,000,000 | Ordinary Share | PTTEP<br>PTTEPI | 25%<br>75% |
| 74 | PTTEP Business Center Company Limited<br>(Business center for PTTEP and subsidiaries) | PTTEP BC | 666,937,540 | Ordinary Share | PTTEP EH | 100% |
| Other Business | | | | | | |
| 75 | AI and Robotics Ventures Company Limited<br>(Research and Development and providing service for AI and Robotics) | ARV | 300,000 | Ordinary Share | EP-Tech | 100% |
| 76 | Energy Complex Company Limited<br>(Property Leasing) | EnCo | 180,000,000 | Ordinary Share | PTTEP | 50% |
| 77 | PTT Global LNG Company Limited<br>(Investment in LNG Business) | PTTGL | 10,421,446,000 | Ordinary Share | PTTEP BC | 50% |
| 78 | PTTGL Investment Limited<br>(Investment in LNG Business) | PTTGLI | 309,825,000 | Ordinary Share | PTTGL | 100% |
| 79 | Mungalalu Truscott Airbase Pty Ltd<br>(Air Base Operations) | MTA | 600 | Ordinary Share | PTTEP AAO | 50% |
| 80 | Troughton Island Pty Ltd<br>Air Base (Secondary) | TTI | 100 | Ordinary Share | PTTEP AAO | 50% |
| 81 | ATI Technologies Company Limited<br>(Development and provision of technologies for the agricultural sector) | ATi | 20,000,000 | Ordinary Share | ARV | 50% |
| 82 | ZeaQuest Company Limited<br>(Provisioning of underwater inspection, repair and maintenance services enhanced by AI and Robotic technologies) | ZeaQuest | 5,000,000 | Ordinary Share | ARV | 50% |

- **Associated Companies' Information**[3]

As of December 31, 2020, PTTEP had 20 associated companies.

| No. | Company Name | Type of Business | Abbreviation | Number of Shares Sold | | Total Direct/Indirect Holding |
|---|---|---|---|---|---|---|
| 1 | PTT Digital Solutions Company Limited | Information Technology and Communication Services | PTT Digital | 15,000,000 | Ordinary Share | PTTEP 20% |
| | **Head Office:** 555/1 Energy Complex Building A, 4th- 5th Floor, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900, Thailand | | | | | |
| | **Telephone:** +66-2537-3456 | | | | | |
| | **Facsimile:** +66-2537-2935 | | | | | |
| 2 | B8/32 Partners Limited | Petroleum Exploration and Production | B8/32 Partners | 110,000 | Ordinary Share | PTTEPO 25.0009% |
| | **Head Office:** 19 Siam Commercial Bank Park Plaza, East 3rd Building, 5th Floor, Ratchadaphisek Road, Chatuchak, Bangkok 10900, Thailand | | | | | |
| | **Telephone:** +66-2545-5555 | | | | | |
| | **Facsimile:** - | | | | | |
| 3 | Sarn Palung Social Enterprise Company Limited | Social Enterprise | SPSE | 1,000,000 | Ordinary Share | PTTEP 15% |
| | **Head Office:** 555/1 Energy Complex Building A, 10th Floor, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900, Thailand | | | | | |
| | **Telephone:** +66-2537-2971 | | | | | |
| | **Facsimile:** - | | | | | |

[3] Notification of the Securities and Exchange Commission No. Kor Chor. 17/2551, Re: Determination of Definitions in Notifications relating to Issuance and Offer for Sale of Securities

| No. | Company Name | Type of Business | Abbreviation | Number of Shares Sold | | Total Direct/Indirect Holding |
|---|---|---|---|---|---|---|
| 4 | Moattama Gas Transportation Company | Gas Pipeline in Myanmar | MGTC | 1,000,000 | Ordinary Share | PTTEPO 25.5% |
| | **Head Office:** No. 5 Sacred Tooth Relic Lake Avenue, Punn Pin Gone Quarter No. 5, Mayangon Township, Yangon, Myanmar | | | | | |
| | **Telephone:** +95-1-650-977, 660-466 | | | | | |
| | **Facsimile:** +95-1-650-478, 650-479 | | | | | |
| 5 | Taninthayi Pipeline Company LLC | Gas Pipeline in Myanmar | TPC | 100,000 | Ordinary Share | PTTEPO 19.31784% |
| | **Head Office:** 16 Shwe Taung Kyar Bahan, Yangon, Myanmar | | | | | |
| | **Telephone:** +95-1-526-411-4 | | | | | |
| | **Facsimile:** +95-1-525-698 | | | | | |
| 6 | Hoang Long Joint Operating Company | Petroleum Exploration and Production | HL JOC | -[4] | - | PTTEP HL 28.5% |
| | **Head Office:** Suite 2001, Me Linh Point Tower, 2 Ngo Duc Ke Street, District 1, Ho Chi Minh City, S.R. Vietnam | | | | | |
| | **Telephone:** +84-8-3829-9359 | | | | | |
| | **Facsimile:** +84-8-3822-6106 | | | | | |

[4] No share was issued. Percentage of shareholding is subject to participation interest in the concession.

| No. | Company Name | Type of Business | Abbreviation | Number of Shares Sold | | Total Direct/Indirect Holding |
|---|---|---|---|---|---|---|
| 7 | Hoan-Vu Joint Operating Company<br>**Head Office:** Suite 2006, Me Linh Point Tower, 2 Ngo Duc Ke Street, District 1, Ho Chi Minh City, S.R. Vietnam<br>**Telephone:** +84-8-3823-9525<br>**Facsimile:** +84-8-3823-9526 | Petroleum Exploration and Production | HV JOC | -[5] | - | PTTEP HV 25% |
| 8 | Groupement Bir Seba<br>**Head Office:** Zone d'activité Route Nationale N°3 BP 256 EURO JAPAN Hassi Messaoud, Ouargla, Algeria<br>**Telephone:** +213-29-79-71-66<br>**Facsimile:** +213-29-79-09-15 | Petroleum Exploration and Production | GBRS | -[6] | - | PTTEP AG 35% |
| 9 | Leismer Aerodrome Limited<br>**Head Office:** 1200, 215 - 9th Avenue SW, Calgary, AB T2P 1K3, Canada<br>**Telephone:** +1-403-237-8227<br>**Facsimile:** +1-403-264-4640 | Air Base Operations | LAL | 200 | Ordinary Share | PTTEP CA 32% |
| 10 | MOZ LNG1 Holding Company Ltd.<br>**Head Office:** 3412 ResCo-work08, 34, Al Maqam Tower, Abu Dhabi Global Market Square, Al Maryah Island, Abu Dhabi, United Arab Emirates<br>**Telephone:** -<br>**Facsimile:** - | Petroleum Exploration and Production | MOZ LNG1 Holding | 1,000,000 | Ordinary Share | PTTEP MZA1 8.5% |

[5] No share was issued. Percentage of shareholding is subject to participation interest in the concession.

[6] No share was issued. Percentage of shareholding is subject to participation interest in the concession.

| No. | Company Name | Type of Business | Abbreviation | Number of Shares Sold | | Total Direct/Indirect Holding |
|---|---|---|---|---|---|---|
| 11 | MOZ LNG1 Financing Company Ltd.<br>**Head Office:** 3510, 35th Floor, Al Maqam Tower, ADGM Square, Al Maryah Island, Abu Dhabi, United Arab Emirates<br>**Telephone:** -<br>**Facsimile:** - | Petroleum Exploration and Production | MOZ LNG1 Financing | 100 | Ordinary Share | MOZ LNG1 Holding 100% |
| 12 | Mozambique LNG 1 Company Pte. Ltd.<br>**Head Office:** 50 Raffles Place #06-00 Singapore Land Tower, Singapore 048623<br>**Telephone:** -<br>**Facsimile:** - | Petroleum Exploration and Production | MZ LNG1 | 2,500 | Ordinary Share | MOZ LNG1 Holding 100% |
| 13 | Erawan 2 FSO Pte. Ltd.<br>**Head Office:** Under domiciliation process to be registered in Singapore<br>**Telephone:** -<br>**Facsimile:** - | Lease of FSO (vessel) | E2FSO | 100 | Ordinary Share | JV Marine 13.11% |
| 14 | Asia Pacific Marine Services (EF) B.V.<br>**Head Office:** Naritaweg 165, Telestone 8, 1043 BW Amsterdam, The Netherlands<br>**Telephone:** -<br>**Facsimile:** - | Lease of FSO (vessel) | Asia Pacific Marine Services | 18,000 | Ordinary Share | E2FSO 100% |

| No. | Company Name | Type of Business | Abbreviation | Number of Shares Sold | | Total Direct/Indirect Holding |
|---|---|---|---|---|---|---|
| 15 | PETRONAS LNG 9 SDN. BHD.<br>**Head Office:** Tower 1, PETRONAS Twin Towers, Kuala Lumpur City Centre, 50088 Kuala Lumpur, Malaysia<br>**Telephone:** +60-320-515-000<br>**Facsimile:** - | LNG Liquefaction Plant | PL9SB | 39,563 | Ordinary Share | PTTGLI 10% |
| 16 | Private Oil Holdings Oman Limited<br>**Head Office:** 8 York Road, London, England, SE1 7NA , UK<br>**Telephone:** -<br>**Facsimile:** - | Holding of participating interests in oil and gas | POHOL | 649,152 | Ordinary Share | POC 5% |
| 17 | Petroleum Development Oman LLC<br>**Head Office:** Mina A1 Fahal, Muscat, The Sultanate of Oman<br>**Telephone:** +968-2467-8111<br>**Facsimile:** 5212, Petro ON<br>Cable: Petro Muscat | Petroleum Exploration and Production | PDO | 1,720 | Ordinary Share | POC 2% |
| 18 | Oman LNG LLC<br>**Head Office:** Ghala, P.O. Box 560, C.P.O, P.C. 116 The Sultanate of Oman<br>**Telephone:** +968-2460-9999<br>**Facsimile:** +968-2462-5406 | LNG Facility | OLNG | 1,209,877 | Ordinary Share | POC 2% |

| No. | Company Name | Type of Business | Abbreviation | Number of Shares Sold | | Total Direct/Indirect Holding |
|---|---|---|---|---|---|---|
| 19 | QALAHAT LNG SAOC | LNG Facility | QLNG | 1,795,000 | Ordinary Share | OLNG 0.736% |
| | **Head Office:** Al Arfan Street.<br>Gala Industrial Area – P.O. Box: 3395, P. C: 111<br>99 Street, Airport Heights, Ghala, Baushar,<br>The Sultanate of Oman | | | | | |
| | **Telephone:** +968-2462-5400 | | | | | |
| | **Facsimile:** +968-2462-5406 | | | | | |
| 20 | Abu Dhabi Gas Industries Limited | Gas Processing Facility | AGP | 8,000 | Ordinary Share | PGC 2% |
| | **Head Office:** P.O. Box 665,<br>Abu Dhabi, United Arab Emirates | | | | | |
| | **Telephone:** +971-2707-0000 | | | | | |
| | **Facsimile:** +971-2602-3389 | | | | | |

5.1.3 References

1) Share Registrar

1.1) **Name** Thailand Securities Depository Company Limited
**Address** 93, Ratchadaphisek Road, Dindaeng, Bangkok 10400, Thailand
**Telephone** SET Contact Center: +66-2009-9999
**Website** http://www.set.or.th/tsd

2) Registrar and Paying Agent

2.1) Registrar and paying agent for THB 5,000 million subordinated perpetual capital debentures issued in June 2012.
**Name** TMB Bank Public Company Limited
**Address** 5A Floor, 3000 Phahon Yothin Road, Chom Phon, Chatuchak, Bangkok 10900, Thailand
**Telephone** +66-2299-1825, +66-2299-1830
**Facsimile** +66-2242-3270

2.2) Registrar and paying agent for THB 11,400 million debentures issued in June 2014, and THB 15,000 million debentures issued in June 2019.
**Name** Siam Commercial Bank Public Company Limited
**Address** 15th Floor, North Wing, G Tower Grand Rama 9, Rama 9 Road, Huai Khwang, Huai Khwang, Bangkok 10310, Thailand
**Telephone** +66-2128-2324, 2326-9, 3540
**Facsimile** +66-2128-4625

3) Debenture Holders' Representative

3.1) Debenture holders' representative for THB 5,000 million subordinated perpetual capital debentures issued in June 2012.
**Name** Siam Commercial Bank Public Company Limited
**Address** 15th Floor, North Wing, G Tower Grand Rama 9, Rama 9 Road, Huai Khwang, Huai Khwang, Bangkok 10310, Thailand
**Telephone** +66-2128-2324, 2326-9, 3540
**Facsimile** +66-2128-4625

4) Trustee

4.1) Trustee for outstanding USD 650 million debentures issued in December 2019, outstanding USD 350 million debentures issued in January 2020, and outstanding USD 500 million debentures issued in June 2020.

**Name** BNY Mellon Corporate Trust
**Address** #04-01 Millenia Tower, 1 Temasek Avenue, Singapore 039192
**Telephone** +65-6432-0397, +65-6432-0351, +65-6432-4124
**Facsimile** +65-6883-0338

4.2) Trustee for outstanding USD 490 million debentures issued in June 2012.

**Name** CITICORP INTERNATIONAL LIMITED
**Address** 20th Floor, Citi Tower, One Bay East, 83 Hoi Bun Road, Kwun Tong, Hong Kong
**Telephone** +852-2868-7964
**Facsimile** +852-2323-0279

5) Registrar and Paying Agent

5.1) Registrar and paying agent for bills of exchange with a total revolving credit of up to THB 50,000 million.

**Name** TMB Bank Public Company Limited
**Address** 5A Floor, 3000 Phahon Yothin Road, Chom Phon,
Chatuchak, Bangkok 10900, Thailand
**Telephone** +66-2299-1825, +66-2299-1830
**Facsimile** +66-2242-3270

6) Facility Agent

6.1) Facility agent for USD 600 million loan agreement dated in June 2019.

**Name** DBS Bank Ltd.
**Address** 2 Changi Business Park Crescent, DBS Asia Hub Lobby B #04-06, Singapore 486029
**Telephone** +65-6682-0041, +65-6878-7650
**Facsimile** +65-6324-4427

7) Process Agent for Bank Loan

7.1) Process agent for USD 600 million loan agreement dated in June 2019.

**Name** Law Debenture Corporate Services Limited
**Address** 8th Floor, 100 Bishopsgate, London, EC2N 4AG
**Telephone** +44-(0)20-7606-5451
**Facsimile** +44-(0)20-7606-0643

8) Process Agent for Common Shares

8.1) **Name** CT Corporation System
**Address** 28 Liberty Street New York, New York 10005
**Telephone** +1-212-894-8800
**Facsimile** -

9) Cross Currency Swap and Zero-Cost Collar Counterparties

9.1) **Name** Siam Commercial Bank Public Company Limited
**Division** Financial Market Division
**Address** 12th Floor, Zone B, 9 Ratchadaphisek Road, Chatuchak, Bangkok 10900, Thailand
**Telephone** +66-2544-5741 - 9
**Facsimile** +66-2937-7968

9.2) **Name** The Hongkong and Shanghai Banking Corporation Limited, Bangkok Branch
**Division** Global Markets
**Address** HSBC Building, 968 Rama IV Road, Silom, Bangrak, Bangkok 10500, Thailand
**Telephone** +66-2614-4000
**Facsimile** +66-2353-7333

9.3) **Name** ANZ Bank (Thai) Public Company Limited
**Division** Markets
**Address** 63 Athenee Tower, 8th Floor, Unit 801-804,
Wireless Road, Lumphini, Pathumwan, Bangkok, 10330, Thailand
**Telephone** +66-2263-9722
**Facsimile** +66-2168-8780

10) FX Contracts Counterparties

10.1) **Name** Kasikornbank Public Company Limited
**Division** Capital Markets Business Division
**Address** 400/22 Phahon Yothin Road, Samsen-Nai, Phayathai,
Bangkok 10400, Thailand
**Telephone** +66-2470-3006
**Facsimile** +66-2271-4486

10.2) **Name** Krungthai Bank Public Company Limited
**Division** Corporate Sales, Global Markets Group
**Address** Building 1 (Nana Nuea), 8th Floor, 35 Sukhumvit Road,
Klongtoey Nuea, Wattana, Bangkok 10110, Thailand
**Telephone** +66-2208-4699
**Facsimile** +66-2256-8398

10.3) **Name** Siam Commercial Bank Public Company Limited
**Division** Financial Market Division
**Address** 12th Floor, Zone B, 9 Ratchadaphisek Road,
Chatuchak, Bangkok 10900, Thailand
**Telephone** +66-2544-5741 - 9
**Facsimile** +66-2937-7968

10.4) **Name** Bank of America, National Association (Bangkok Branch)
**Division** Fixed Income, Currencies and Commodities (FICC) Sales
**Address** 87/2 All Seasons Place, CRC Tower, 33rd Floor,
Wireless Road, Lumphini, Pathumwan, Bangkok 10330, Thailand
**Telephone** +66-2305-2986
**Facsimile** +66-2685-3224

10.5) **Name** Citibank, N.A. (Thailand)
**Division** Global Markets Thailand
**Address** Interchange 21 Building, 399 Sukhumvit Road,
Klongtoey Nuea, Wattana, Bangkok 10110, Thailand
**Telephone** +66-2079-2222
**Facsimile** +66-2079-4342

10.6) **Name** CIMB Thai Bank Public Company Limited
**Division** Global Sales, Treasury Sales Division
**Address** 44 Langsuan Road, Lumphini, Pathumwan,
Bangkok 10330, Thailand
**Telephone** +66-2670-4623
**Facsimile** +66-2657-3282 - 3

10.7) **Name** Bank of Ayudhya Public Company Limited
**Division** Global Corporate Banking Division
**Address** 550 Ploenchit Road, Lumphini, Pathumwan, Bangkok 10330, Thailand
**Telephone** +66-2296-2000
**Facsimile** +66-2296-6921

10.8) **Name** Bangkok Bank Public Company Limited
**Division** Treasury Division
**Address** 333 Silom Road, Silom, Bangrak, Bangkok 10500, Thailand
**Telephone** +66-2021-1111
**Facsimile** +66-2636-4633

10.9) **Name** TMB Bank Public Company Limited
**Division** Global Markets
**Address** 3000 Phahon Yothin Road, Chatuchak, Bangkok 10900, Thailand
**Telephone** +66-2676-8008
**Facsimile** +66-2292-4690 - 2

10.10) **Name** Deutsche Bank AG, Bangkok Branch
**Division** Risk Management Solution Group
**Address** 63 Athenee Tower, 27th- 29th Floor, Wireless Road, Lumphini, Pathumwan, Bangkok 10330, Thailand
**Telephone** +66-2646-5138
**Facsimile** +66-2651-5892

10.11) **Name** BNP Paribas Bangkok Branch
**Division** Global Markets & ALM Treasury
**Address** 990 Abdulrahim Place, 29th Floor, Rama IV Road, Silom, Bangrak, Bangkok 10500, Thailand
**Telephone** +66-2659-8990
**Facsimile** +66-2636-1929

10.12) **Name** United Overseas Bank (Thai) Public Company Limited
**Division** Global Markets
**Address** 191 South Sathon Road, Yannawa, Sathon, Bangkok 10120, Thailand
**Telephone** +66-2343-4381 - 4
**Facsimile** +66-2285-1365

10.13) **Name** J.P. Morgan Chase Bank N.A.
**Division** Currencies and Emerging Markets
**Address** 20 Bubhajit Building, 2nd Floor, North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand
**Telephone** +66-2684-2257
**Facsimile** +66-2684-2260

10.14) **Name** ANZ Bank (Thai) Public Company Limited
**Division** Markets
**Address** 63 Athenee Tower, 8th Floor, Unit 801-804, Wireless Road, Lumphini, Pathumwan, Bangkok, 10330, Thailand
**Telephone** +66-2263-9722
**Facsimile** +66-2168-8780

11) Auditor

| | |
|---|---|
| **Name** | Ms. Amornrat Pearmpoonvatanasuk |
| | Certified Public Accountant No. 4599 |
| | PricewaterhouseCoopers ABAS Ltd. |
| **Address** | 15th Floor Bangkok City Tower, |
| | 179/74-80 South Sathorn Road, Bangkok, 10120, Thailand |
| **Telephone** | +66-2844-1000 |
| **Facsimile** | +66-2286-5050 |

12) Legal Advisors

12.1)

| | |
|---|---|
| **Name** | DFDL (Thailand) Limited |
| **Address** | No.3, Rajanakarn Building, AA Floor |
| | South Sathorn Road, Yannawa, Sathorn, Bangkok 10120, Thailand |
| **Telephone** | +66-2059-4090 |
| **Facsimile** | +66-2059-4099 |

12.2)

| | |
|---|---|
| **Name** | Linklaters (Thailand) Ltd. |
| **Address** | 20th Floor, Capital Tower, All Seasons Place, |
| | 87/1 Wireless Road, Bangkok 10330, Thailand |
| **Telephone** | +66-2305-8000 |
| **Facsimile** | +66-2305-8010 |

12.3)

| | |
|---|---|
| **Name** | Weerawong, Chinnavat & Partners Ltd. |
| **Address** | 22nd Floor, Mercury Tower |
| | 540 Phloen Chit Road, Lumphini, Pathumwan, Bangkok 10330, Thailand |
| **Telephone** | +66-2264-8000 |
| **Facsimile** | +66-2657-2222 |

12.4)

| | |
|---|---|
| **Name** | Satit & Partners Co., Ltd. |
| **Address** | 2/51 Bangna Complex Tower, 11th Floor |
| | Soi Bangna Trad 25, Bangna Nuea, Bangna, Bangkok 10260, Thailand |
| **Telephone** | +66-91-017-3452 |
| **Facsimile** | - |

12.5)

| | |
|---|---|
| **Name** | Siam Premier International Law Office Limited |
| **Address** | 26th Floor, The Offices at Central World, |
| | 999/9 Rama I Road, Pathumwan, Bangkok 10330, Thailand |
| **Telephone** | +66-2646-1888 |
| **Facsimile** | +66-2646-1919 |

12.6) **Name** Atthaworadej & Associates Co., Ltd.
**Address** 12th Floor, Sri Julsup Tower
44 Rama 1 Road, Pathumwan, Bangkok 10330, Thailand
**Telephone** +66-2613-9449
**Facsimile** -

12.7) **Name** Herbert Smith Freehills (Thailand) Limited
**Address** 1403 Abdulrahim Place
990 Rama IV Road, Silom, Bangrak, Bangkok 10500, Thailand
**Telephone** +66-2657-3888
**Facsimile** +66-2636-0657

12.8) **Name** Nakhicha Law Office
**Address** 678/38 Samwa Road, Bang Chan, Bangkok 10510, Thailand
**Telephone** +66-89-126-4406
**Facsimile** -

12.9) **Name** Pracha Tooppoltup Law Office
**Address** 54 Soi Chokechai 4 Soi 73, Chokechai 4 Road
Ladprao, Bangkok 10230, Thailand
**Telephone** +66-2539-7532
**Facsimile** -

12.10) **Name** Clifford Chance
**Address** 27th Floor, Jardine House, One Connaught Place
Hong Kong, Hong Kong (SAR)
**Telephone** +852-2825-8888
**Facsimile** +852-2825-8800

12.11) **Name** Frasers Law Company
**Address** Unit 19.01, 19th Floor, Deutsches Haus
33 Le Duan Boulevard, District 1, Ho Chi Minh City, Vietnam
**Telephone** +8428-3824-2733
**Facsimile** +8428-3824-2736

12.12) **Name** Herbert Smith Freehills
**Address** 23rd Floor, Gloucester Tower
15 Queen's Road Central, Hong Kong
**Telephone** +852-2845-6639
**Facsimile** -

12.13) **Name** Jones Day
**Address** 138 Market Street, Level 28 Capita Green, Singapore, 048946
**Telephone** +65-6538-3939
**Facsimile** +65-6538-3939

12.14) **Name** Skrine Advocates & Solicitors
**Address** Level 8, Wisma UOA Damansara, 50 Jalan Dungun
Damansara Heights, 50490 Kuala Lumpur. (En Fariz Abdul Aziz)
**Telephone** +603-2081-3999
**Facsimile** +603-2094-3211

12.15) **Name** Slaughter and May
**Address** One Bunhill Row, London EC1Y8YY, UK
**Telephone** +4420-7600-1200
**Facsimile** +4420-7090-5000

13) Advisor to the Board of Directors

13.1) **Name** Mr. Tongchat Hongladarom
**Address** 8 Room 8/48, Prasanmit Condominium, Sukhumvit 23,
Klongtoey Nuea, Wattana, Bangkok 10110, Thailand
**Telephone** +66-2258-4363
**Facsimile** +66-2258-4363

## 5.2 Other Significant Information

-None-

## 5.3 Legal Dispute

As of December 31, 2020, the outstanding legal dispute which PTTEP or one of the Company's subsidiaries is a party involved as well as which can significantly affect our operation or the subsidiary's, excluding dispute from the normal operation and circumstance, is as follows:

**(1) PTTEP Australasia (Ashmore Cartier) Pty Ltd ("PTTEP AAA") was sued for damages at the Federal Court of Australia by a group of Indonesian seaweed farmers.**

On August 3, 2016, a group of Indonesian seaweed farmers filed a lawsuit against PTTEP AAA at the Federal Court of Australia, claiming for the damages caused by 2009 Montara incident in Australia. The lawsuit was filed after the lapse of the period of prescription for claims. However, the Federal Court of Australia has granted an extension of the limitation period due to certain legal exceptions on November 15, 2017. As of December 31, 2020, the case was still under the court proceeding. This lawsuit did not state the amount of claim.

PTTEP and PTTEP AAA continue to maintain the position, based on independent scientific researches overseen by the Australian Government, that no oil from Montara reached the shores of Australia or Indonesia, that there is no lasting impact on the ecosystems and biodiversity in Australian waters in the areas immediate to Indonesian waters, and that there is no long-term damage to the environment in the Timor Sea.





# Corporate Governance



# 6. Corporate Governance

## 6.1 Good Corporate Governance Policy

PTTEP's Board of Directors (Board) places importance on PTTEP's and its subsidiaries' (PTTEP Group) operations to comply with the Good Corporate Governance and Business Ethics of PTTEP Group (CG&BE) in order to grow sustainably and enhance the confidence of all of our shareholders and other stakeholders which will lead the Company to ultimately achieve its vision as Energy Partner of Choice. Furthermore, the Board has assigned the Corporate Governance and Sustainable Development Committee (CG&SD Committee) to oversee and assure that the Company's operations are in line with the CG&BE Principles and that good corporate governance is always maintained at the level of international standards. The CG&SD Committee also regularly monitors and assesses the implementation of CG&BE and ensures its integration into everyone's work. In 2020, the Board of Directors paid keen attention to the expansion of good corporate governance to embrace new investment projects acquired by PTTEP. This includes the establishment of the assurance function in Malaysia Project. A work plan was also clearly spelled out, and progress of assurance work was to be regularly updated to the Board. Furthermore, a strategic plan with long-term sustainable development goals was submitted to the Board, the outcomes of which were also regularly updated. With its commitment to ongoing development of good corporate governance, the Company earned various recognitions for our good corporate governance, domestically and internationally. Details are disclosed in the "Awards and Recognitions for Good Corporate Governance" Part.

The Board has reviewed the implementation of the Corporate Governance Code 2017 (CG Code), which was established by the Securities and Exchange Commission through means that are suitable to the Company's business. The Board assigned the Corporate Governance and Sustainable Committee to ensure CG Code compliance and its appropriate implementation, so as to maximize value in regard to the Company's future and sustainable growth. PTTEP has continued to develop and apply the CG Code principles together with internationally recognized best practices as follows:

### 6.1.1 Policy on Treatment to the Board

Details are disclosed in "Management Structure" and "Corporate Governance Performance" sections.

### 6.1.2 Policy on Treatment to Shareholders and Stakeholders

The Board has approved PTTEP's mission which puts an emphasis on the right and value creation for all stakeholders. The Company's mission is to operate globally to provide a reliable energy supply and sustainable value to all stakeholders. In practice, the Company cares for the rights of all stakeholders, including but not limited to, shareholders, customers, employees, governments, joint venture partners, communities, suppliers, creditors, competitors, and also concern about the environment, custom and tradition and human rights. The importance of the Company's stakeholders is clearly written in PTTEP Group's CG&BE in which practical guidelines with respect to business ethics are established with an effort to balance duties and responsibilities between the Company and our stakeholders. Details of the CG&BE, contact details, whistleblowing channels are disclosed in the Company's website. The details of policy on treatment to stakeholders are as follows:

1) Shareholders

PTTEP recognizes and values of the importance of the shareholders' rights and equal treatment; thus we have specified the Company's Good Corporate Governance as one of our principles to ensure that our shareholders' basic rights are protected and honored. This includes right to trade and transfer shares, declaration of share ownership, and right to attend

shareholders' meetings in person or through their proxies alongside right to participate in and vote on significant issues presented by the Board at the Company's shareholder meetings, such as election of new members of the Board to replace those due to retirement by rotation, determination of the Board's remuneration of any kinds, appointment and approval of external auditors and the auditor's fees, approval of connected transactions, acquisition or disposition of material assets as required by the laws, and other issues which are of significance to the Company. The Shareholders are also entitled to receive profit sharing in the form of dividends as well as to obtain equal and adequate information from the Company in a timely manner. The Company has only one class of ordinary shares on which one share has one vote equally. Our efforts to ensure and enhance the Shareholders' rights also include the following:

1.1) **Annual General Meeting of Shareholders:** PTTEP respected and promoted shareholders' rights in its Annual General Meeting of Shareholders (hereafter referred to as AGM or the Meeting) in 2020, through the following actions :

Before the Meeting

1) Shareholders were invited to propose agenda items and nominate qualified candidates for the election of PTTEP directors prior to the AGM from August 30 to December 15, 2019. The criteria were announced publicly through the Stock Exchange of Thailand (SET) and the Company's website. The Shareholders' proposals were considered based on the Company's established criteria to ensure that the proposed agenda items were relevant and truly beneficial to the business of PTTEP Group. The Nominating and Remuneration Committee were responsible for screening and short-listing the nominated candidates for the Board's consideration. Thereafter the Board informed the Shareholders of the resolution together with the rationale for each of the proposals at the AGM. In 2020, no such agenda or any director candidates were proposed by the shareholders.

2) PTTEP announced the venue for the AGM approximately 2 months prior to the date of the Meeting as soon as the Board resolved and approved the date for the AGM on January 30, 2020 and the date on which the Shareholders would have the right to attend the Meeting as well as to receive dividends which was on February 14, 2020 through the SET and the Company's website.

However, due to the Coronavirus 2019 (COVID-19) pandemic, resulting in the measures on the restriction of gathering to prevent the spread of the virus, PTTEP, therefore, had to postpone the 2020 AGM to June 17, 2020 and determined the new Record Date on which shareholders have the right to attend the 2020 AGM on May 15, 2020.

3) The AGM invitation letter (for the second meeting) and supplementary documents, in both Thai and English, were published on the Company's website on May 15, 2020 which was 33 days prior to the Meeting. The Invitation Letter has necessary details of each agenda, which clearly stated the types of agenda items whether for acknowledgement or approval. The Board's opinions on each agenda item were clearly stated along with other rules and regulations related to the Meeting. A proxy form (to preserve their rights to attend the Meeting) as stipulated by the Ministry of Commerce, was enclosed in the Invitation Letter along with the list of required documents that the Shareholders needed to bring to the Meeting, instructions of the Meeting and a map of the venue. The AGM invitation letter (for the first meeting) and supplementary documents were distributed to the Shareholders by postal service 21 days prior to the Meeting (the Company distributed the AGM invitation letter to shareholders by post 12 days prior to the second Meeting).

4) PTTEP provided the names of three independent directors in the Proxy Form to provide the Shareholders an option to appoint one of them as their proxy. The Company also informed the Shareholders about the stake of the independent directors on each of the agenda items, for instance, to elect new directors replacing those due to retirement by rotation, an independent director whose term was completed but re-nominated for another term would be considered as having vested interests (but not being considered a special interest) or on the agenda item to approve remuneration of the Board. The directors who would be considered as having a special interest were excluded from the voting regardless of their shareholding. The Company also recommended that the Shareholders use the proxy form, through which they could specify their votes on each agenda item.

5) The Company also invited the Shareholders to submit questions related to the Agenda Items of the Meeting or other information relevant to the Company prior to the Meeting. This action helped to make the Meeting more efficient and beneficial to the Shareholders. Such questions were consolidated and answered at the AGM as well as recorded in the Minutes of the Meeting.

**At the Meeting**

1) The Meeting was held on June 17, 2020 at 14.00 hrs. at the Meeting Room of PTT Exploration and Production Public Company Limited, the Energy Complex, Building A, 555/1 Vibhavadi-Rangsit Road, Chatuchak, Bangkok. The Meeting date, time, and venue were determined in consideration of all shareholders' convenience and situation of COVID-19 pandemic. Barcode systems and technology were used at the Meeting for registration, vote counting, compilation, and display of resolutions to ensure that the Meeting was carried out with full efficiency and accuracy. Supporting persons were adequately arranged to facilitate the Meeting. To accelerate the registration process, the registration was opened to the Shareholders 4 hours prior to the Meeting. The Company also prepared and provided duty stamps to the Shareholders who intended to vote through proxies.

2) A total of 14 out of the 15 PTTEP's directors attended the Meeting. The Company's Chairman of the Board presided over the Meeting, while the sub-committee chairmen, the President and the Chief Executive Officer, senior executives from the Finance and Accounting Group, and other function groups also participated in responding and providing clarifications on the inquiries brought by the Shareholders. The external auditor, external legal advisors from Weerawong, Chinnavat & Partners Ltd., shareholders' right protection volunteers from the Thai Investor Association and volunteers from shareholders to witness vote counting, also participated in the Meeting. The Chairman ensured that the Meeting was carried out in accordance with the Company's Articles of Association and the agenda items as per sequence stated in the invitation letter, without adding any other agenda item. The Chairman efficiently allocated time to each agenda item (no special agenda raised at the Meeting) and provided adequate time and opportunities for the Shareholders to share their views and make in-depth inquiries in regard to those subjects relating to the Company's operations and the Meeting's agenda items prior to vote casting and passing resolution.

3) PTTEP clearly provided useful information such as the number and ratio of the Shareholders who attended the Meeting both in person and by proxies, including the Meeting procedures, vote casting, vote counting before the commencement as stipulated in the Articles of Association of PTTEP. The Shareholders and proxies were required to use voting ballots to vote on each agenda item that was scheduled for discussion at the Meeting whether to agree, disagree,

or abstain through a barcode system to ensure accuracy and efficiency. Each resolution was clearly reported and displayed in the Meeting as required by relevant laws and the Company's Articles of Association, and volunteers who were selected from the Shareholders and independent inspectors were to be appointed to witness and inspect the Vote counting. The Company also kept all the Voting ballots collected, counted, and signed by the witnesses for the internal reviews and reference.

The Company permitted shareholders who reached the Meeting late to cast their votes on the agenda items that were in the consideration process or had not been considered or voted on at the time of their arrival. These shareholders were also counted as participants in the Meeting, starting from the agenda item when they registered and attended the Meeting.

4) All information presented at the Meeting was available in both Thai and English, while a translator from Thai to English for foreign shareholders who attended the Meeting was also provided to ensure fairness and equality among all Shareholders.

5) External independent legal advisors, acting as inspectors as well as witnesses, were engaged to oversee the Meeting to ensure the Meeting's transparency and that it was conducted lawfully and in accordance with the Articles of Association of PTTEP including but not limited to meeting procedures as informed by the Chairman of the Meeting, verifying the documents and the proxy examination process, ensuring a quorum as well as assuring the Meeting that none of shareholders with potential conflicts of interest cast votes on such agenda items, and making sure that the voting procedures, vote counting ballot collection from the attending shareholders and auditing of the resolution and result of the vote counting were done correctly.

**After the Meeting**

1) PTTEP disclosed the Minutes of the Meeting together with the vote counting results for each agenda item disseminated to the SET and also on the Company's website immediately after the Meeting.

2) Minutes of the Meeting, in both Thai and English, were accurately and completely recorded. They covered explanations of the Meeting's voting and vote counting procedures, details of agenda items, questions/answers, explanation and opinions related to PTTEP's business operations and the Meeting's agenda. The Company also kept in record the resolution on each agenda item, categorized them as agreed, disagreed, abstained, and voided (if any) as well as the names and positions of the directors and executives who attended the Meeting. Furthermore, the final version of the Minutes of the Meeting was delivered to the Ministry of Commerce, SET, and the Office of the Securities and Exchange Commission (SEC) within 14 days after the Meeting. The Minutes of the Meeting were also delivered to the Company's shareholders for their reference and consideration, and for verifying that any shareholders who wished to make objections did so within the timeframe enforced by relevant laws. In 2020, the Company did not receive any objections or inquiries from the Shareholders in regard to vote counting results and the Minutes of the Meeting. The approved Minutes, video and audio clips of the Meeting were also published in both Thai and English on the Company's website.

1.2) **Disclosure of Significant Material Information**: PTTEP ensures that information will be communicated to the Shareholders accurately and in a timely manner, not only for the information that is required by related regulations, but also for other information which the Company considers as necessary for the Share holders to have. These disclosures are publicized through various channels, such as the SET and the Company's website, and media or printed media.

Furthermore, the Company clearly discloses the shareholding structures in our subsidiaries and associated companies as well as with the controlling shareholder, namely PTT, to ensure the Shareholders that our organization's structu re is transparent, verifiable, and does not comprise any form of cross or pyramidal shareholding structures.

1.3) **Fostering Understanding of Business Operations and Long-Term Engagement with Shareholders**: PTTEP continuously organizes various activities for the benefits of shareholders and society. The main objectives of such activities are, for shareholders and other persons interested in PTTEP, to enhance the knowledge and understanding of exploration and production of petroleum business which are distinct from other businesses as well as participating in our CSR program. In addition, we aim to foster a high level of confidence to investors to maintain long-term investment with PTTEP. These activities include the shareholders' visit to our operation sites and CSR projects which are organized annually. However, due to the COVID-19 pandemic, the Company decided to put on hold these activities this year.

PTTEP prepared and published a quarterly newsletter as an additional channel to communicate PTTEP's news. This included the Company's performance, progress of key projects, Corporate Social Responsibility (CSR) activi ties, and corporate governance activities and other useful information; for example, the three keywords ESG to sustainability, the Company's implementation to become a sustainable organization, the good corporate governance trends in 2020, measures to prevent COVID-19 pandemic, technological innovation to protect medical staff. The quarterly newsletter was publicized on the Company's website as well as sent hard copies and E-Newsletter to the Shareholders upon request.

1.4) **Equal Treatment to Shareholders**: PTTEP provides a direct communication channel to all our shareholders via our independent directors' e-mail at IndependentDirector@pttep.com for various issues, such as activities of the directors, good corporate governance, and audit-related issues. In addition, the Shareholders can directly contact the Company Secretary at CorporateSecretary@pttep.com or Investor Relations Unit at IR@pttep.com for additional information. The Company operates businesses with optimal efficiency, with commitment to business ethics for sustainable growth of the Organization, appropriate and consistent returns to the Shareholders, and all stakeholders were properly and sustainably managed using modern and well-accepted management and monitoring tools.

1.5) **Prevention of Insider Trading**: PTTEP puts a great emphasis on controlling the use of our internal information by including this matter in the PTTEP Good Corporate Governance and Business Ethics. In line with securities laws , policies relating to the use of internal information are regularly reviewed to preserve the integrity and equality among all of the Company's stakeholders. Key measures are as follows:

1) The Board of Director has assigned the Governance, Compliance, and Internal Control Department as the center for monitoring the insider trading prevention program and preparing a list of personnel who bear material and/or internal information (Insider List) which includes directors, related executives and employees.

2) The directors, management, and employees are always informed of PTTEP's regulations and policies in regard to insider trading prevention through various communications as well as trainings to ensure that they understood and strictly followed to prevent misuse of information which may directly or indirectly conflict with his or her personal interests. Disciplinary actions are clearly specified, while the supervisors, who act as the CG Leader, are responsible for advising and encouraging their subordinates to follow. In 2020, there was no report of any misuses of internal information.

3) Prohibition on trading of PTTEP's securities during the blackout periods, such as when material information is being disclosed, which may affect the securities price. All company directors, management holding position of Senior Vice Presidents (SVPs) and above, Vice Presidents (VPs) of the Finance and Accounting Group (FNA) as well as other management and employees having material internal information will be informed of such blackout period in order to abstain from trading of PTTEP's securities whether direct or indirect. This prohibition also applies to their spouses and minor children. Violation of this prohibition is considered as a disciplinary offense. If there is a necessity, person who wishes to trade PTTEP's securities during the blackout periods shall inform the Governance, Compliance and Internal Control Department at least two days in advance.

4) The Company directors, management holding position of SVPs and above, and VPs of the Finance and Accounting Group must disclose a complete information in regard to their securities possession as well as related trading activities to the Governance, Compliance and Internal Control Department in addition to the disclosing obligation to the SEC. These pieces of information will be disclosed to the Board on a monthly basis for CG&BE compliance monitoring purpose. Shareholdings by the Company directors, management holding position of Senior Vice Presidents (SVPs) and above, Vice Presidents (VPs) of the Finance and Accounting Group (FNA) is disclosed in the Company's annual report as required by the SEC.

**2) Employees**

2.1) PTTEP complies with the UN principles by not employing illegal workforce and child labor in every area in which we operate. The following guidelines are described in the Company's CG&BE.

1) To understand and comply with all laws applicable to the PTTEP Group's operations in the locations where we conduct our business.

2) To understand the local customs, cultures and traditions of the locality in which we operate.

3) To respect the local traditions, cultures and cultural differences, and not to behave in any ways which contradict them.

4) Not to discriminate against any individuals based on our personal relationship with that individual, his or her ethnicity, nationality, gender (including pregnancy, and sexual preference), age, religion, disability, personal views, or any other conditions or characteristics which are not concerned with work.

2.2) PTTEP recruits, selects, and employs employees based on their qualifications, experience and abilities to work in the target positions. According to the Good Corporate Governance and Business Ethics of the PTTEP Group, both internal and external candidates shall be fairly treated during our transparent recruitment process. Our employees are given an opportunity to develop and grow in their professional career as well as to join external activities under the Company's policy.

2.3) PTTEP sets up and regularly reviews compensation and benefits packages to ensure fairness to both the Company and the employees according to our short-term and long-term business performance, pay positioning in energy industry in each of the countries, types of work, required skills and expertise, difficulties of work, responsibility and accountability of each position, and the individual employees' performance results to attract and retain competent and capable employees.

2.4) PTTEP provides and regularly reviews welfare and benefits packages to ensure fairness to both the Company and the employees according to our ability to pay at the present and in the long run, focusing on the welfare and benefits which help to enhance the quality of life of the employees and their families. These are, for example, healthcare benefits for employees and their families which are comparable to those provided by other leading energy companies in each of the countries. The Company regularly reviews welfare and benefits program to suit the changing social, economic, and other obligatory conditions of the business. In addition, the Company also provides psychological and legal consultation services through our "Sabaijaidee" program to the employees, their spouses and children to help them guard against anxiety from their families, private life, and work concerns. The services are provided by psychologists and professionals from one of our consulting companies.

The Company establishes a provident fund program for our employees to ensure their financial security after resignation and retirement. The fund consists of contributions from both the Company and the employees. The Company makes a monthly contribution at a rate of 15 percent of our employees' basic monthly salary, while the employees contribute 2 to 15 percent of their basic monthly salary. Receiving this fund is subject to the Company's regulations.

In addition, the Company also establishes the Long Service Awards Program to celebrate and commemorate the long-term commitment and loyalty of our employees who have achieved significant milestone years of service, namely, 5, 10, 15, 20, 25, 30, 35 and 40 years of employment with the Company. The award recipients are honored at the special event held at our headquarters in June of every year. The purpose of the program is to strengthen our corporate employee engagement through recognizing and honoring the commitment and dedication of long-term employees, while promoting long-standing careers within the Company.

2.5) PTTEP gives priority to human resources development to increase the organization's capability to drive the business performance as the Company always believes that human resources hold a key to our success. The Company provides opportunities for the employees to develop and enhance their knowledge, skills and experience through both short-term and long-term training and development programs. Apart from professional capability and necessary skills building, the Company also embeds the working values (*EP* SPIRIT) to all employees, so they can work with the same standard of expected behaviors to attain the Company's vision and mission. In 2020, our employees attended training and development programs such as ISO 14001 Environment Awareness Course at an average of 40 hours per person per year. Details are disclosed in the "Management Structure" section under the "Human Resources Development Policy" part.

2.6) PTTEP realizes the value and importance of a regular consultation between the Company's employees and their supervisors to solve the problems incurred in the day-to-day operation as fast as possible as well as to maintain a good working relationship between them. Shall any conflicts arise between the employees and their supervisors, the employees may file a complaint through one or more communication channels provided. The employees, including relevant witnesses, who comply with the provided measure and procedure and act in good faith shall be protected, without facing

a penalty, termination, or any other negative consequences. The CG Hotline or Whistleblowing System channels are also established for the employees to raise the issues relating to frauds. The reports received through these channels will be investigated confidentially and made known only to relevant persons to protect the whistleblowers.

2.7) PTTEP conducted the Employee Engagement Survey in 2020 with an objective to understand the factors relating to our employees' engagement with the Company to improve the policies and practices. The recent results confirmed that staff engagement is continuously improving. The Company also conducted focus group interview sessions to gather information to establish the improvement plan at both the organization and the function group levels. The Company continued to regularly monitor the progress of such plan.

**3) Clients**

PTTEP is committed to our mission to be a leading producer and supplier of crude oil, natural gas, condensate, naphtha and LPG at fair and competitive prices. The Company sells the products under short-term to long-term contracts as well as in the spot markets. The Company assesses clients' suitability by the following four criteria, namely, economic return of the product prices, financial stability, safety standards, and compliance to local laws and regulations of each client. The Company treats all buyers equally for the optimal benefit of all and is also committed to strictly complying with the contracts and regularly coordinating with the buyers so that we can produce and deliver quality products as specified in the contracts on time and according to their demand.

**4) Governments**

PTTEP conducts the business by adhering to the Good Corporate Governance and Business Ethics and dedicates itself to explore and supply petroleum domestically and internationally. The Company strictly complies with the laws applicable to our operations in all locations where we operate.

**5) Joint Venture Partners**

Joint venture projects between PTTEP and the Company's domestic and foreign joint venture partners operate under mutual working agreements according to the international standards. These agreements include details in regard to the rights and duties of joint venture partners such as the right to become a member of a project's management committee. The committee is responsible for establishment of the guidelines on the procurement of products and services as well as for development of the strategic planning and annual budgeting with a clear scope and approach. The partners also have the right to audit annual financial and accounting records, also to set appropriate and clear measures, for example, penalty imposed on partners for failures to honor an agreement. The Company meanwhile remains focused on distribution of information to joint venture partners and external parties with transparency.

**6) Communities and Societies**

PTTEP Corporate Social Responsibility Policy emphasizes on sustainable social development and stakeholder engagement at all levels. Social responsibility has been integrated with each business decision-making and execution process. This Corporate Social Responsibility Policy is adopted at all PTTEP operations areas.

In this regard, PTTEP uses the Issue and Stakeholder Management System (ISMS) as a tool to analyze social risks and mitigate impact as well as to promote good relationships with communities in every operating area. ISMS has been set as a KPI for the relevant managers and External Relations staff to ensure the effective implementation. ISMS workshop is organized for the executives and staff of all domestic and international assets on a regular basis. External Relations staff revisit ISMS to update the information every year.

7) Environment

With PTTEP's vision for being the "Energy Partner of Choice" through competitive performance and innovation for long-term value creation creating the shared values and benefits to all stakeholders, the Company engages with stakeholders for shared values and mutual benefits. The Company continually strives to achieve the excellence and become a leadership in Safety, Security, Health and Environment (SSHE). Furthermore, the Company's SSHE Policy, SSHE Management System, standards, procedures, guidelines and tools, as well as KPIs are developed and implemented throughout all of the operations in order to achieve our vision and commitment in SSHE. The Company continues to publicly disclose the SSHE performances indexes, such as lost time injury frequency rate, total recordable injury rate, and hydrocarbon and chemical spill rates in the website. The information is routinely communicated with the Company's external and internal stakeholders, including the staff and the Department of Mineral Fuels, through the annual Sustainability Report.

PTTEP implements the environmental management system according to the ISO 14001 Standard to improve the efficiency of the environmental management system. Currently, The Company has received the ISO 14001:2015 Certification, issued by SOCOTEC Certification (Thailand) Co., Ltd. under the United Kingdom Accreditation Service (UKAS). The certified sites include the Arthit Project, Greater Bongkot North and South fields of Bongkot Project, S1 Project, PTTEP 1 Project, L53/43 & L54/43 Project, Sinphuhorm Project, Petroleum Core Research Center, and PTTEP Petroleum Development Support Base (Songkhla and Ranong Provinces), Zawtika Project and Onshore Operation Center, in the Republic of the Union of Myanmar.

PTTEP continues implementing the Green Practice Roadmap which is aimed to mitigate environmental impacts from the operations. The roadmap also aims to increase efficiency and create value added processes to the Company's business by reducing greenhouse gas emission, studying energy consumption efficiency, increasing the biodiversity of our operating sites, CO2 sequestration by reforestation, reducing operating costs thru improving resource efficiency, and reducing wastes. Likewise, the Company continues to follow the 5S and 5S digital program throughout our offices similarly to those implemented within the PTT Group as well as to continue with the Group's green supply chain practices which involve green procurement, green logistics, green office and carbon neutral event to use green and environmentally friendly products in the operations. In addition, the Company encourages all employees, both operational and management levels, to understand our environmentally friendly business practices by regularly organizing fundamental and intensive environmental awareness training courses for them in compliance with the laws.

8) Vendors

According to the Procurement Regulation and the Good Corporate Governance and Business Ethics of the PTTEP Group (CG&BE), vendors play a crucial part in the sustainability of our business. We therefore employ a policy which aims to treat our vendors as equal business partners. PTTEP's procurement system is based on fair competition, compliance with the laws and regulations as well as other legal obligations, and taking into account the Safety, Security, Health, and Environment

(SSHE). The vendors must follow the Company's work safety standards. Their employees, meanwhile, are also required to have good business ethics and respect for human rights. In addition, under the company's vision, PTTEP leverages "Energy Partner of Choice" through competitive performance and innovation for long-term value creation.

PTTEP Vendor Guide

PTTEP developed the Vendor Guide to provide our vendors with the necessary information for contacting and conducting business with PTTEP. The information contained includes CG&BE, procurement process, contract management, and PTTEP Vendor Sustainable Code of Conduct and compliance, as well as several vendor communication channels for enquiries and complaints. Details of the PTTEP Vendor Guide are available on our website at www.pttep.com > E-Service > Procurement and Contract > PTTEP Vendor Guide.

Vendor Registration

PTTEP is deeply committed to free and fair business competition without trade barriers. There are 3 channels for interested vendors to register with the Company.

1) PTTEP website: Vendors can register their profiles through our website at www.pttep.com > E-Service > Procurement and Contract > Vendor Registration.

2) The Category & Vendor Management section: Vendors can contact the Category & Vendor Management officers or Procurement & Contract officers during the business hours to register their profiles.

3) PTTEP Users: Vendors can directly register their profiles with PTTEP users who may, in turn, provide the vendors' names to the Category & Vendor Management section to preliminary review of their qualifications.

New Vendor Pre-qualification

PTTEP pre-qualifies suppliers by screening and evaluating them according to their product and service categories. The evaluation process is performed by a special procurement committee and comprised of three functional areas:

1) Technical and QA&QC

2) Safety, Security, Health and Environment (SSHE)

3) Commercial, Legal and Social

Independently, with equality and transparency, each function of the committee has the authority to consider and evaluate the vendors to ensure that they possess the qualifications to deliver the products or provide the services needed. In addition, we also carry out background checks concerning any wrongdoings related to bribery and corruption. If the record shows any involvement in such practices and the vendor is not able to clarify the matter, the selection process will be terminated.

Vendor SSHE Contractor Management Procedure and Plan

PTTEP introduced new measures to monitor and improve the management of vendors regarding SSHE which is one of our core values. The SSHE Contractor Management Procedure and Plan was issued to ensure better understanding as well as to encourage appropriate operational planning.

Public Procurement and Supplies Administration Act, B.E. 2560 (2017)

As a state enterprise, PTTEP must comply with the Public Procurement and Supplies Administration Act B.E. 2560. PTTEP has communicated to all vendors to be prepared for the new process should they wish to submit a supply proposal to PTTEP. The communication draws their attention to, for example, study the procurement process under the Act; register themselves on the e-Government Procurement (e-GP) system; be aware of the vendor registration requirement by the Comptroller General's Department; and be aware of the anti-corruption policy and the requirement to put in place appropriate anti-corruption directions in relation to procurement. This is to ensure that our procurement procedure conforms to the objectives of the Act, namely value for money, transparency, efficiency and effectiveness, and verifiability.

Procurement Sourcing Strategy

PTTEP develops sourcing strategy based on scope of service, essential contract terms and condition, vendors, market condition, estimated contract value and duration as well as risk management. In 2020, PTTEP centralized procurement process to Procurement and Contract Department, and revoke user's authority to procure low value purchase items in order to reduce non-compliance risk and for better management.

In addition, PTTEP also continuously seeks opportunity to procure from Low Cost Countries by sourcing potential bidders from this group of suppliers to participate in the tender of each work category in order to obtain the most competitive price. The Company also promotes Low Cost Country Sourcing among PTT affiliates.

As for internal procurement sourcing approval process, the procurement strategy and contract, including a list of bidders, shall be submitted to the Procurement Committee (PC) and joint venture partners (if any) for approval prior to proceeding with the bidding. (For transparency, the procurement strategy, contract, list of bidders must be internally approved by the three functions, namely, operations, assets, and procurement prior to being submitted to the PC and joint venture partners, in order to ensure checks and balances as well as verifiability.)

In addition, under the Production Sharing Contract (PSC), PTTEP is required to submit Annual Master Procurement Plan (AMPP) in order to obtain endorsement from Department of Mineral Fuels (DMF) for procurement valued above 10 MMTHB prior to sourcing process. For any procurement transactions which have Procurement Strategy, DMF's endorsement is required 30 days in advance of procurement process.

Vendor Selection

In the process of vendor selection for high-value and high-risk procurement, two sealed envelopes are required (one for a technical proposal, another for a price proposal). The technical envelope is opened first for technical and SSHE evaluation, followed by the opening of the price envelope. Subsequently, the result of the bidding process will be submitted to the Procurement Committee (PC), joint venture partners (if any), and the Board (for high-value procurement) for endorsement prior to the stage of contract drafting with the selected vendor. Furthermore, PTTEP is required to inform bid result to DMF, and in the event that awarded contract value is 10% higher or lower than Procurement Strategy, DMF's endorsement is required prior to awarding the contract. The Company only selects vendors with the required technical and SSHE qualifications, and which offer the lowest price or on the basis of the best interest of the PTTEP Group. PTTEP has adopted a weighted technical and price score method together with Green Procurement criteria in the vendor selection process with a view to engaging qualified vendors at a competitive price through a process that is transparent and verifiable.

Contract Management and Assessment

Contract Management and Supplier Relationship Management (SRM) is an important component for the petroleum exploration and production business. A contract holder coordinates between vendors and all relevant parties, to ensure that they fully understand and comply with PTTEP's work plan, contract objectives, SSHE standards, and risk mitigation plan, as well as critical key performance indicators (KPIs). The contract holder also needs to assess and follows up periodically on the performance to ensure that the vendors operate according to the contractual terms. At the end of the contract, the contract holder also must complete the Contract Closed-out Report to identify areas of improvement regarding the operations and long-term sustainable relationship with the vendor.

Additionally, PTTEP enhanced contract management process in order to increase process efficiency by revising Procurement Regulation and Procurement and Contract Procedure for more robust understanding and communicate the new procedure to all stakeholders.

Vendor Collaboration Initiatives

In 2020, PTTEP continued to develop an effective supply chain management and supported vendor collaboration initiatives to maintain a good relationship with the vendors, e.g. developed Thai version contract for local vendors who supply non-critical products or services. Moreover, contractor meetings were also held with vendors under critical work categories, e.g. Drilling Related Service, in order to agree on the contract terms and conditions in advance under Master Service Agreement to benefit both parties as well as receiving feedbacks from vendors. The objectives of the meeting were enhancing and improving work efficiency and building work collaboration between PTTEP and vendors.

In addition to the above events, PTTEP also organized vendor site visit in order to seek opportunity from new potential vendors in the future. During the year, SSHE related activities, such as SSHE Contractor Workshop, Offshore Healthy Food Campaign and Logistics Safety Workshop and S1 SSHE Club, were also held to build awareness and enhancing efficiency in Safety, Security, Hygiene and Environmental aspects to all stakeholders.

Local Content

To enhance the capability of domestic vendors to compete internationally, PTTEP supports sourcing of local products and services. Not only does it promote domestic employment and income distribution, but it also reduces the outflow of capital to other countries. As a result of our commitment to building a long-term relationship with the communities where we operate, the Company has been entrusted by the respective communities with licenses to operate. Meanwhile, the Company also encourage our vendors to operate with care and responsibility wherever they are, and to increase their local sourcing to save on costs as well as to support the local communities.

Vendor Sustainability Management

PTTEP is committed to operating our business to achieve a sustainable growth and adhering to good corporate governance for the community, society and environment. To achieve these goals, we give priority to the supply chain management and the monitoring of our vendors.

"PTTEP Vendor Sustainable Code of Conduct" was drafted with its contents and scope adhering to the relevant rules, regulations and laws. The vendors are encouraged, in all of their activities, to be ethical, respect human rights, comply with the SSHE standard, and prioritize environmental management. An example of PTTEP's environmental management

plan is the 'Green Procurement Roadmap' that we have collaborated with the Thailand Environment Institute since 2017. The Company also encourages our vendors to apply the Vendor Sustainable Code of Conduct with their vendors to scale up the sustainable supply chain management.

Vendors' Environmental, Social, and Governance (ESG) Assessment

For more effective supply chain management in vendor management, in 2020 PTTEP and PTT Group of Companies conducted a Supplier On-site Audit by External Party for two of our key suppliers in Marine Logistics Services categories. All suppliers passed the ESG assessment. Consistent with our policy and that of PTT Group of Companies, a workshop held by an external party was organized to promote better understanding among our vendors about the sustainability assessment criteria and to encourage improvement in the sustainability capability in their respective organizations.

Whistleblowing

To give confidence and protection to vendors and related parties from possible retaliation as a result of reporting in good faith of suspicious misconduct or wrongdoing of the directors, management, employees, or persons acting on behalf of the Company which might be in violation of the law, CG&BE, or other regulations of the PTTEP Group, the Company establishes the CG Hotline to handle the matters. Vendors can email the cghotline@pttep.com or report through "PTTEP Whistleblowing System" at www.pttep.com.

Additionally, PTTEP also participated in Integrity Pact Project by proposing two high value sourcing project for public observers to verify transparency throughout the procurement process.

Digital Transformation in Vendor Management

PTTEP leverages digital technology in managing our vendors, in order to enhance the efficiency and effectiveness in managing risks. Various operations have been digitized under the Transformation strategy, covering the entire supply chain from the procurement process, contract management, purchasing, to goods and service delivery.

1) Roll out e-Tender system to increase procurement process transparency and traceability
2) Implement procurement dashboard to provide more visibility and insight of procurement information
3) Initiate project to develop new procurement platform (One procurement system) to replace legacy systems to digitalize end-to-end procurement process
4) Revisit and enhance Compliance Assessment System and Methodology by applying digital technology.

In 2020, PTTEP focused on the system and process integration throughout the supply chain management by integrating supply chain and supplier data analysis with the external source of data into company's system. Additionally, we have integrated annual procurement planning process, sourcing, logistics and payment process in order to make the entire process agile and support electronic procurement process.

9) Creditors

PTTEP recognizes the importance of the Company's internal and external stakeholders including creditors. This is based on our policy of equitable treatment for all stakeholders, and an integral part of the CG&BE.

Emphasis is placed on accurate, complete, timely, and transparent information disclosure to all of the stakeholders. Information disclosed by the Company consists of financial and non-financial information. Financial information

particularly the financial statements is reviewed and audited by an independent auditor in compliance with the Generally Accepted Accounting Principles (GAAP). The information is also endorsed by our Audit Committee as well as the Board of Directors prior to public disclosure.

Regarding creditors, PTTEP's debentures issuance and all relevant processes are in compliance with the laws, policies and regulations stipulated by the SEC as well as the policies, purposes, and resolutions set forth at the Company's shareholders' meeting. The Company agrees to fulfill the obligations stated in the terms and conditions of the debenture and loan agreements and to ensure that the information is accurately and adequately disclosed to all stakeholders. The Company also maintains all of the necessary measures to remedy incidents or other types of impairments which may arise as a result of non-compliance.

**10) Competitors**

PTTEP treats our competitors with professionalism, equality, and transparency. The Company, in our greatest effort, tries to avoid all unethical manners and ill-intentions to defame the reputation of our competitors through false, unfair statements, or acts. It is also committed to complying with local laws and regulations regarding trade competition. Details of the Trade Competition Policy are disclosed in the CG&BE.

**11) Customs and Traditions**

PTTEP adheres to local customs and traditions of all the areas and locations in which we operate. Orientations and trainings are provided by knowledgeable and experienced instructors as well as representatives from the Ministry of Foreign Affairs or the local embassies who are capable of providing suggestions and information in regard to customs, traditions, sensitive issues, and local practices to the employees who will be transferred there to understand and behave appropriately.

**12) Human Rights**

PTTEP has a human rights policy where the Company is committed to respecting fundamental human rights by complying with all applicable legal requirements, cultures, customs and values in dealing with all of our stakeholders, avoiding complicity in human rights abuses, and strictly prohibiting ourselves from direct and indirect employment of child and forced labor. The Company's Human Rights Policy fully complies with the UN Universal Declaration of Human Rights, and the UN Guiding Principles on Business and Human Rights and its corresponding covenants, including the international principles relating to labor practices and the United Nations Declaration on the Rights of Indigenous Peoples where applicable to the business. The Company also actively participates in the United Nations Global Compact (UNGC) while our UNGC Communication on Progress Report meets the criteria required for the "Advanced Level" status for the 6$^{th}$ consecutive year. Additionally, PTTEP received the winning award for the state enterprise sector as the 2020 Role Model Organization on Human Rights from the Department of Rights and Liberties Protection, Ministry of Justice for the 2$^{nd}$ consecutive year.

Currently, PTTEP is a member, in fact one of the founding members since 2016, of the Global Compact Network Thailand together with 14 other Thai organizations who have placed high priority on sustainable development. The objective of the network is to encourage Thai business sector to recognize the importance of conducting their business under the UN Global Compact principles.

The Company is also committed to providing fair employment, while ensuring that the employees have a safe and hygienic working environment, whether or not the country in which we invest has local laws on human rights. The Company ensures that no threats exist to employees or those related to the Company's operations. Only ethical partners without any infringements of human rights are considered and be partnered with. The Company also provides the interaction between the executives and employees by allowing the latter to have their representatives in the welfare committee while exchanges of views and suggestions are encouraged for improvements of welfare and other benefits to improve our employees' well-being.

For more details, please visit the PTTEP website, Human Rights topic, at
https://www.pttep.com/en/Sustainabledevelopment/Governanceriskmanagementandcompliance/Humanrights.aspx

**13) Laws**

PTTEP respects laws everywhere in which we operate. The Board sets the matters relating to the compliance with applicable laws, regulations, and policies in the Business Ethics of the PTTEP Group. The Company directors, management, and employees are required to understand as well as to strictly abide by all the applicable laws relating to the Company's operations in all areas ensuring that all PTTEP Group's operation are in full compliance and efficient.

PTTEP has a centralized compliance unit namely, the Governance, Compliance, and Internal Control Department to oversee and monitor compliance performance of the PTTEP Group. The Department has a direct reporting line to the Senior Vice President of the Corporate Secretary, the Executive Vice President of the Human Resources, Corporate Affairs, and Assurance Group, and the Chief Executive Officer, respectively. In 2013, the Company announced the Compliance Policy to express our commitment to full legal compliance as well as to define roles of all managers and employees in promoting of the compliance in all operation. The Compliance program has been developed to enhance awareness of the importance of compliance among the employees. The Company also developed the Compliance Manual as a guide book of reference in ensuring a consistent and effective approach to operating/ working for all operations with regard to the applicable laws, Company's regulations, and contractual obligations with the purpose to enhance employee-awareness on both internal and external compliances.

In 2020, in order to ensure that PTTEP will comply with the new law which affected to business operations, such as, the Personal Data Protection Act B.E. 2562, PTTEP developed the Personal Data Protection Policy to demonstrate its emphasis on the significance of personal data protection. PTTEP also issued the Implementation Plan of Personal Data Protection Act (PDPA) to ensure that PTTEP is in full of legal compliance with such new law.

### 6.1.3 Information Disclosure and Transparency

#### 6.1.3.1 Disclosure of Financial and Non-Financial Information

Information disclosure is a key aspect of good corporate governance. PTTEP gives importance to the information disclosed to the Stock Exchange of Thailand (SET) as well as to the shareholders. At the very least, the information must be accurate, sufficient, timely, and equally available to all parties. The information is prepared according to the Company's Business Ethics Guidelines. The departments which are responsible for providing information and replying to external queries from the SET and public are the Investor Relations (IR) section and the Communications Department.

The information disclosure consists of financial information and non-financial information. Financial information is disclosed through financial statements which are reviewed and audited by the external auditor to confirm that they are presented accurately, in all material respects, according to the Thai Financial Reporting Standards. The financial statements are subsequently approved by the Audit Committee and the Board prior to being disclosed to the public. The Board reports their responsibilities with respect to the financial statements in the PTTEP Annual Report. In addition to the SET's requirements, the Company also releases unaudited annual financial statements in advance to allow timely access to the financial information for the shareholders and investors. Unless stated otherwise, the information before and after the audit usually and generally does not contain any significant changes. The Company also discloses non-financial information, such as acquisition and disposal of assets, related party transactions, dividend payments, the management discussion and analysis, risk management, invitation letter for the shareholders' meetings, minutes of meetings, as well as other information which is important for investment decisions according to the SET's and the Securities and Exchange Commission (SEC)'s requirements. The Company also disclosed annual corporate governance report in the annual report and annual registration statement (Form 56-1).

Information that PTTEP discloses to SET, the Company's shareholders, investors and the general public is disseminated in both Thai and English on the Company's website which also features other up-to-date information considered to be of interest to the aforementioned parties. Key information available in the website comprises petroleum exploration and production projects, investment projects, quarterly and annual analyst meeting presentations, webcasts, roadshow presentations, historical and latest stock performance, analyst coverage, and news releases. The Company also reports our safety, security, health and environment (SSHE) performance which is included in the annual Sustainability Report. In addition, the Company makes videos and infographics presenting the financial information and operating results available on its website for those interested.

The Company also publishes a quarterly investor newsletter, the Explorer's Journal, which includes information that may be beneficial to our shareholders and investors, such as quarterly performance highlights, project updates, good corporate governance practices, topics on sustainable development, and knowledge sharing on the fundamentals of the exploration and production business. The newsletter is bi-lingual, Thai and English, and is available in both hardcopy and electronic formats. The latter can also be downloaded from the Company's website and/or received by electronic subscription. Moreover, the Company has launched PTTEP Investor Relations Mobile Application and Chatbot, effectively serving as an additional communication channel between the Company and shareholders for news and updates.

In 2020, PTTEP disclosed a total of 43 articles through the SET portal and organized the following activities for the shareholders and analysts.

| Activities | Amount (Times) |
|---|---|
| • Domestic and overseas roadshows/conferences | 4 |
| • Virtual roadshows/conferences | 16 |
| • Analyst meetings | 4 |
| • Opportunity day and SET Digital Roadshow (arranged by SET) | 7 |
| • Analyst, Shareholders' and investors' site visits | 1 |
| • Knowledge sharing events for investors | 3 |
| • Company visits and conference calls | 9 |

Due to the COVID-19 situations, the activities in 2020 were mostly arranged in the forms of virtual conferences or online meetings and interacted with the investors through daily telephone correspondence. The IR team also sets up a booth at the Company's AGMs, and readily provides information and answers to questions raised by the Company's shareholders.

The Company understands that disclosure of the information, which is accurate, complete, timely and transparent is a key to the CG&BE and therefore is committed to performing its best in this area.

#### 6.1.3.2 Investor Relations

The Investor Relations (IR) section is responsible for the communication of relevant information and news which reflects PTTEP's fair value to analysts, the Company's shareholders, and general investors according to the SET's and SEC's requirements to foster confidence within the analysts and investment community. IR is also entrusted with upholding the corporate image and perception among analysts and investors, while also relied upon to coordinate and to advise over IR related issues to the Company's executives.

PTTEP's IR can be contacted through the following channels.

1) **Head of Investor Relation:**

   Thanat Thamrongsaksuvit +66-2537-4259

2) **Investor Relations section:**

   Telephone: +66-2537-7641, +66-2537-5983, +66-2537-4891 and +66-2537-5522

   E-mail: ir@pttep.com Fax: +66-2537-4444

## 6.2 Business Ethics

PTTEP is committed to operate ethically primarily because the Company's Business Ethics is regarded as the crucial behavioral framework and good business guidance for all directors, management, and employees to perform effectively, and ethically, as well as to treat every group of stakeholders equally, fairly and transparently. These practices shall build confidence and acceptance on the efficiency and transparency of the Company's business operations, creating a long-term sustainable value for all stakeholders and fairness for everyone concerned.

Business Ethics of the PTTEP Group is part of the Good Corporate Governance and Business Ethics of PTTEP Group (CG&BE). The Board first established its written Business Ethics in 1989, and it constantly reviewed annually. The current version of the CG&BE was approved by the Board on February 14, 2020, and it was regarded as the highest regulation for business operations of PTTEP Group. More details of the CG&BE are disclosed in Attachment 5.

PTTEP's Business Ethics consists of principles, guidelines for good practice, samples of questions and answers, information for further study, and a list of the departments responsible for each of the principles. There are 10 ethical issues which reflect our organizational values of PTTEP Group to which directors, management, and employees must adhere as the following:

1) Compliance with Laws, Regulations and Rules, and Respect for Different Customs and Cultures
2) Political Neutrality
3) Human Resources
    - Workplace Environment
    - Privacy, Equal Treatment and Anti-Harassment
    - Illegal Drugs, Substance Abuse and Alcohol
    - Outside Employment, and Executives' and Employees' Participation in Outside Activities
4) Use and Protection of Information and Assets
    - Record Keeping, Use, Disclosure and Safeguarding of Information
    - Use and Storage of Electronic Data and Information Technology Resources
    - Utilization and Protection of Intellectual Property
    - Insider Trading and Use of Inside Information
5) Conflicts of Interest
6) Procurement and Contracts
7) Anti-Corruption
8) Trade Competition
9) Anti-Money Laundering
10) Safety, Security, Health and Environment

PTTEP has distributed its PTTEP Group's CG&BE booklets to all directors, management, and employees for their reference and adherence. Everyone is also required to sign their names, thus committing themselves to apply the PTTEP Group's CG&BE to the highest working standards. In addition, the booklets are sent to the Company's business partners, regulators, parties with regular business relationships with the Company, and other interested parties. For the convenience of the Company's shareholders, investors, and interested parties, the contents of the PTTEP Group's CG&BE booklets can also be found at the Company's website under the Corporate Governance section.

PTTEP continuously enhances and promotes the awareness and understanding of PTTEP Group's CG&BE among the Company directors and personnel. The Board governs the ways in which the CG&BE is communicated to the directors and personnel to ensure that they are able to uphold and comply with such policy accordingly. Communications also extend to external parties, for example, vendors, joint-venture companies, and agents of the PTTEP Group in order to promote good ethical cultures throughout the business chain and society in general. Details are explained in the "Continuing to Provide Communication, Knowledge and Training" sub-part under the "Anti-Corruption" part.

The Board monitors and evaluates the performance of the CG&BE activities quarterly. The Corporate Secretary Division is in charge of reporting them to the Corporate Governance and Sustainable Development Committee and the Board on a quarterly basis to ensure that CG&BE activities achieve the targeted performance. Furthermore, the Corporate Governance and Sustainable Development Committee has reviewed the workplan by taking into account the evaluation results on CG&BE and anti-corruption measures to ensure continuity and efficiency for development of the workplan.

## 6.3 Major Changes and Developments of Policy, Practices and Corporate Governance System in the Past Year

### 6.3.1 Significant Changes and Developments of the Corporate Governance Policy, Guideline and Governance System or Charter of the Board of Director in the Year

PTTEP realizes the importance of good corporate governance that it will promote effectiveness and sustainable growth of the Company's operations leading to the best interest of all stakeholders. PTTEP, therefore, regularly reviews and improves the policy, regulation, and relevant guidelines to ensure the effectiveness of implementation. The significant changes and developments of the Company in 2020 are as follows:

1) The Amendment of the Sub-committees

In 2020, the Board of Directors passed a resolution to amend the sub-committees to enhance the efficiency of PTTEP directors by merging the Remuneration Committee and the Nominating Committee to be one committee as the scopes of consideration were related and changed the name of committee to be the Nominating and Remuneration Committee. Furthermore, in order to promote the importance of sustainable development to be more concrete, the scope of responsibility of the Corporate Governance Committee was extended to cover sustainable development perspective. Therefore, the name of the Corporate Governance Committee was changed to the Corporate Governance and Sustainable Development Committee. The 2020 Annual Shareholders' General Meeting already approved these changes in the Articles of Association.

2) The Revision of the Good Corporate Governance and Business Ethics Regulation (CG&BE)

The CG&BE regulation are regularly reviewed and updated every year to ensure continued relevance in changing laws and alignment with international standard. The CG&BE revisions in 2020 included amendment of sub-committees, amendment of nomination of Chief Executive Officer (CEO) and amendment of Business Ethics (BE) i.e. revised principle and guidelines regarding the use of electronics devices in the Use and Protection of Information and Assets; revised principle of the Procurement and Contracts to be in line with current laws and regulations.

In addition, PTTEP amended the Standard of Practices for Anti-Corruption, which is deemed to be a part of the PTTEP Group CG&BE, to be clearer and more practical for implementation.

3) The Good Corporate Governance and Business Ethics Assessment

In 2020, PTTEP conducted the CG&BE Assessment for the second time to improve effectiveness of the Company's operations (the first assessment was conducted in 2017). The assessment conducted by an external independent consultant, gathered information from key stakeholders, namely, major shareholders, government agencies which were the Company's regulators, partners, vendors, employees, and communities both in Thailand and overseas. The examples of the assessment's results were stakeholders would like to get more communication regarding the Company's whistleblowing channels; communities would like the Company to expand the CSR programs etc. The Company already took the results into

its consideration and developed the improvement plan which were presented to the Corporate Governance and Sustainable Committee and the Board of Directors.

### 6.3.2 Other Good Corporate Governance Practices

PTTEP values and strictly abides by the PTTEP Group CG&BE and international best practices, which are applied with due regard for our circumstances, business, and the best interests of the Company, shareholders, and stakeholders as a whole. Below is PTTEP's additional implementation pursuant to best practices:

1) Since PTT holds (both directly and indirectly) 65.29% shares in PTTEP, the free-float proportion of shares is less than 40% of the total paid-up shares. Yet, the current free-float proportion is enough for minor shareholders to exercise their rights to veto significant transactions. PTTEP values full compliance with the SEC and SET rules and regulations while taking seriously the perennial stewardship of minor shareholders' rights. Our assorted activities are regularly organized to convey useful data and information to these shareholders, winning acceptance from relevant external agencies.

2) PTTEP recognizes the importance of advanced delivery of the Shareholders' meeting notices to shareholders to allow them enough time to duly examine the data. The shareholders' meeting date is scheduled in March every year for shareholders' convenience and to not coincide with other listed companies. A March date also provides shareholders with early receipt of rights and benefits, including dividends. As PTTEP operates its businesses in many countries, it takes more time to carefully audit our financial statements, which is in the interests of shareholders and to plan various report preparation well. Recently, the Company was able to send meeting invitations to shareholders 21 days in advance, before the first scheduled meeting. However, due to the COVID-19 pandemic resulting the AGM postponement, the Company, therefore, distributed the AGM invitation letter to shareholders by post 12 days prior to the second meeting. We also publicized the meeting invitations on our website no less than 30 days in advance before the Meeting to give shareholders enough time to examine the meeting data.

3) Under PTTEP's Articles of Association, director election is done by a majority vote, with one share carrying one vote, and shareholders can vote for individual directors. Directors receiving the highest votes are elected along with those receiving ranked votes, and so on until the number of available director positions are filled. PTTEP, therefore, does not rely on cumulative voting method. PTTEP has defined other methods of looking after the interests of minority shareholders, including allowing them to nominate director candidates for election in advance.

4) Detailed and thorough verification of the rights of attending shareholders ensures that multiple proxies are properly done without affecting the rights of other attending shareholders.

5) Directors automatically retire at the age of 70; their qualifications become void when they reach this age.

6) PTTEP specifies a maximum of 9 years for consecutive service by directors and independent directors. Those who completed consecutive terms totaling 9 years are no longer eligible for director re-election. PTTEP also considers and values the possibility of shorten consecutive periods for independent directors, for instance not more than 6 years, when the time is right; the primary consideration is for suitably qualified directors for the exploration and production business in the best interests of PTTEP and its stakeholders.

7) PTTEP requires that the number of independent directors should be no less than half of the Board of Directors.

8) PTTEP independence of the Chairman of the Board; therefore, we give a top priority to choose the Chairman from the list of independent directors, except for other justification or suitability in other aspects e.g. business expertise, work experience and good leadership in order to find the suitable person. PTTEP has adopted specific processes for this position,

including Chairman assessment by the entire Board of Directors to ensure his genuine independence. Details appear under the heading of "Independence of the Chairman". The present Chairman is an independent director.

9) The PTTEP Board of Directors annually revisits the suitability of the Skill Mix by explicitly defining each skill aspect or proficiency and setting the annual target for the Skill Mix in line with prevailing business circumstances and changing of business environment for director recruitment and capability development. The Board also values the Board diversity by not discriminating against gender, nationality, ethnic, race, country of origin or cultural background.

10) PTTEP applies best practices on requiring a minimum quorum for the meeting voting of no less than two-thirds of the entire Board's directors (excluding those with vested interests). Furthermore, PTTEP's corporate governance requires that directors absent without good reasons from the Board meetings on more than three consecutive occasions should automatically lose qualifications as the director. PTTEP also sets meeting attendance as an indicator of the Board Performance Target. PTTEP's practice is to determine and schedule Board and sub-committees meetings during the Year in advance for the benefit of efficient planning by the directors. In 2020 more than two-thirds of the Board attended every Board meetings. Finally, before any voting, the Chairman gives all directors opportunities to ask questions and extensively discuss issues for a unanimous decision.

11) Assessment of the Board of Directors and sub-committees is done through scoring on performance assessment forms for both self-assessment and cross-assessment, Chairman assessment, and entire-Board assessment together with evaluation against Board performance target covering all aspects of both business performance and good corporate governance. Assessment results are discussed by applicable sub-committees in order to improve their performances. In addition, the Board of Directors undergoes appraisal by neutral external agencies, including Corporate Governance Report of Thai Listed Companies (CGR) Project carried out by the Thai Institute of Director (IOD), and the ASEAN CG Scorecard assessment. Survey findings are used for the Board's performance improvement.

12) This year PTTEP held 4 independent directors' meetings and 2 non-executive meetings for consultation and exchange of views on crucial, useful matters of the Company, and major and minority shareholders and upgraded our corporate governance practices. The CEO was subsequently informed of the outcomes of these meetings.

13) PTTEP specifies a policy on CEO and senior management compensation in line with their short-term and long-term performance as well as tied to PTTEP's performance. The Company disclosed the ratio of the CEO's compensation to the average compensation of the Company's executives, as well as to the average of all employees.

14) PTTEP does not have scheme to give the management the right to buy PTTEP shares, but the Company instead applies an appropriate compensation structure suitable for business, which is competitive and screened by the Nominating and Remuneration Committee and the Board of Directors.

### 6.3.3 Awards and Recognitions for Good Corporate Governance

1) Being a recipient of the NACC Integrity Awards granted by the National Anti-Corruption Commission (NACC) at the 9$^{th}$ NACC Integrity Awards, the Company was deeply honored to have received this prestigious award for the 2$^{nd}$ consecutive year and the third time. This Integrity Award is given to organizations that stand out as a role model in operating its businesses with integrity, transparency, fraud prevention and social responsibility which is in line with good corporate governance principles and international ethical practices.

2) Being awarded the 2020 Role Model Organization on Human Rights in State Enterprise sector by the Department of Rights and Liberties Protection, Ministry of Justice, PTTEP was honored to have won this prestigious award the 2nd consecutive year. This recognition is a testament of our operation with human rights in mind. The Company has passed the evaluation criteria which are in line with the United Nations Guiding Principles on Business and Human Rights (UNGPs) and established guidelines for preventing human rights violations, built an awareness and responsibility for human rights among personnel. PTTEP also has systems in place to oversee every function within the Company and whistleblowing channels for stakeholders to voice their grievances.

3) Being rated "Excellent" and receiving five of the National Corporate Governance Committee's symbols, the highest level, based on the Corporate Governance Report of Thai Listed Companies (CGR) 2020 of the Thai Institute of Directors Association (IOD). PTTEP has continuously been rated and placed at this highest level since the first assessment in 2001.

4) Being rated to be in the ASEAN Top 20 PLCs and ASEAN Asset Class PLCs at the 2019 ASEAN CG Scorecard was a great recognition of the Company's efforts. The ASEAN Capital Markets Forum (ACMF) and the Asian Development Bank (ADB) have conducted the ASEAN CG Scorecard to honor ASEAN's listed companies that have demonstrated outstanding corporate governance practices based on the international standards of the Organization for Economic Co-operation and Development (OECD).

5) Being selected to receive 3 awards at the 15th ASIAN ESG Award 2019 from Corporate Governance Asia Magazine. The awards are as follows: (1) Asia's Icon on Corporate Governance Award for the 8th consecutive year, (2) Asian Corporate Director Recognition Award for Mr. Phongsthorn Thavisin, Chief Executive Officer (CEO), in recognition of his contributions in enhancing good corporate governance, (3) "ESG Influencer" for the first time.

6) Being recognized as an exemplary corporation in organizing the Annual General Meeting of Shareholders (AGM) for the year 2020 by successfully scoring 100 percent for the ninth year in the AGM checklist assessment conducted by the Thai Investors Association.

7) Being selected as a member of the 2020 Dow Jones Sustainability Indices (DJSI) in the DJSI World Oil and Gas Upstream & Integrated Industry for the 7th consecutive year was an honor. This achievement reflects PTTEP's strong commitment towards sustainable practices in business, society and environment and strictly adheres to good corporate governance. Dow Jones Sustainability Indices (DJSI) are a family of internationally recognized indices that evaluate the sustainability performance of the largest 4,500 companies in the S&P Global Broad Market Index. To be selected for inclusion in the DJSI, companies would be evaluated on various economic, environmental and social criteria. The indices serve as a primary benchmark for investors who integrate sustainability considerations into their investment portfolios.

8) Being selected as a constituent member of the FTSE4Good Index Series for the 5th consecutive year by FTSE Russell who prepared such index and endorsed that PTTEP has satisfied the requirements to become a constituent of the FTSE4Good Index Series. The FTSE4Good Index Series is designed to identify companies that demonstrate strong Environmental, Social and Governance (ESG) practices measured against international standards. The FTSE4Good

indices are used by a wide variety of market participants to create and assess responsible investment funds and other products.

9) Being a recipient of 4 awards from the Asset magazine of Hong Kong. The awards are as follows: (1) The Asset Platinum Award for the company with strong commitment on Environmental, Social and Governance (ESG) in its operations, (2) The Asset Best Initiative in Innovation for the product or service advancements or digital enhancements that embrace new ways of doing business, (3) The Asset Best Investor Relations Team Award for the contribution of an IR team in terms of their cooperation with analyst and investor effectively and initiatives they have taken in newer arenas such as s ocial media and web-delivered services, (4) The Asset Best CEO Award for the leadership qualities of a chief executive officer and rewards a range of skills and attributes including inspirational leadership, strategic thinking, team and relationship -building, effective communication and change management.

10) Being granted to receive 4 awards at the 10th Asian Excellence Awards 2020 namely Asia's Best CEO (for the 3rd consecutive year), Asia's Best CFO (for the 7th consecutive year), Best Investor Relations Company (Thailand) (for the 8th consecutive year), and Asia's Best CSR. The event was held by Corporate Governance Asia Magazine which is a financial magazine that promote corporate governance in Hong Kong and Asia. The awards reflect the achievement of PTTEP in terms of excellence in organization management, financial management, IR personnel and Social Responsibility activities.

11) Being selected to receive 2 awards from Thailand Best Employer Brand Awards 2020 in the category of Thailand's Best Employer Brand and Best Use of Technology for Recruitment. The awards ceremony was organized by World HRD Congress and Employer Branding Institute – INDIA to honor Thai organizations for their efforts in human resource development and achievements in human resource management.

12) Being selected to receive Golden Peacock Global Awards for Corporate Social Responsibility 2019 at the IOD's 14th International Conference on Corporate Social Responsibility held in Mumbai, India. The award was presented to the company which operates its business with social responsibility.

13) Being awarded the Platinum Winner Global CSR Award at the Energy and Environment Foundation Global CSR Awards 2020, honoring the H.T.M.S. Underwater Learning Center Project. In collaboration w ith the Royal Thai Navy, Kasetsart University, related agencies and local communities, two navy ships (H.T.M.S. Prab and H.T.M.S. Sattakut) were laid down in the seas in Chumphon and Surat Thani provinces to use as a man-made dive site and homes to sea animals. This Project can also generate revenue for local communities approximately 59 million Baht per year.

14) Being awarded to receive the 3G Best Social Empowerment Award in the initiative of CSR project "Crab Hatchery Learning Centre" at the Global Good Governance (3G) Awards 2020 held online in London, the United Kingdom. This project is designed to work towards the goal of comprehensive conservation of marine resources and continue to sustainably create value for the communities. PTTEP was honored to recei ve this award for the 2nd consecutive year. The UK-based Cambridge IF Analytica, a financial services intelligence house, held the 3G Awards 2020 to promote best practices in good governance, social responsibility and sustainable development with more than 103 awards categories.

15) Being selected to receive the CSR Award in Innovation in Community Relations or Public Service Communications category (Silver Class) from the Asia-Pacific Stevie Awards 2020, United States of America from Crab Hatchery Learning Center at Ban Hua Khao in Songkhla Province. PTTEP has cooperated with people in the community in promoting the Crab Hatchery Learning Center to replenish the abundance of the sea and generate higher incomes to the community.

16) Being granted to receive Asia's Best CSR Practices Awards, Community Development category, for the Crab Hatchery Learning Center.

17) Being awarded to receive Asia's Oil & Gas Excellence Awards, Corporate Social Responsibility category, for Crab Hatchery Learning Center.

18) Being selected to receive CSR award for corporate social responsibility and environment in Green Leadership category from Asia Responsible Enterprise Awards 2020 (AREA 2020), Singapore for the Forest Restoration Project for Eco-Learning at Sri Nakhon Khuean Khan Park (Khung Bang Kachao) as a recognition of the Company's effort. PTTEP has cooperated with Chaipattana Foundation, the Office of Royal Projects, the Department of Forestry, Kasetsart University since 2013. To preserve green area in Khung Bang Kachao under the royal initiative of H.R.H. Princess Maha Chakri Sirindhorn, the Project has been developed under the natural classroom concept by restoring the ecological forest, a public park area, a bicycle trail and a wheelchair accessible trail, organizing outdoor-exhibition for public learning and lastly generating awareness among young people in the local communities.

19) Being selected to receive 4 awards from Global CSR Awards (Silver Class) as follows: Best Country Award for Thailand Overall CSR Excellence, Best Environmental Excellence from the Forest Restoration Project for Eco-Learning at Sri Nakhon Khuean Khan Park (Khung Bang Kachao) and Best Community Program for the Waste to Energy Project and the SOBIS Pammase Project (conducted in Indonesia).

20) Being granted to receive 5 awards from Golden Globe Tiger Awards as follows: Oil & Gas Leadership CSR Project of the Year and Excellence & Leadership in CSR Community Development are awarded for Crab Hatchery Learning Center, Best Environment Friendly Award for the Forest Restoration Project for Eco-Learning at Sri Nakhon Khuean Khan Park (Khung Bang Kachao) and Concern for Health Award for Free Clinic Project in Indonesia and 100 Smiles Project in Myanmar.

21) Being selected to receive 2 Gold Class awards under the categories of Social Impact and Sustainability from the International Business Excellence Awards 2020, the United Arab Emirates for the Forest Restoration Project for Eco-Learning at Sri Nakhon Khuean Khan Park.

22) Being a recipient of Asia's Best CSR Awards from project for society at the 10$^{th}$ Asian Excellence Award 2020.

23) Being awarded with 2 SET Awards 2020 which are Best Innovative Company Awards from the world's first Subsea Flowline Control and Repair Robot named "Nautilus" and Outstanding Investor Relations Awards for listed company with more than 100 billion market capital for the 4$^{th}$ year in a roll. PTTEP is also honored to be listed in Thailand Sustainability Investment (THSI) for the 5$^{th}$ time. The SET Awards ceremony is jointly hosted by the Stock Exchange of

Thailand and the Money & Banking Magazine which hand out the awards to listed companies operate with corporate governance, responsibility and care for environment and society or ESG (Environmental, Social and Governance).

24) Being a recipient of 2 awards from IR Magazine at IR Magazine Forum & Awards South East Asia 2020. The awards are Best Investor Event and Best use of multimedia for IR (for the 2nd consecutive year). These awards are presented to companies that demonstrate an outstanding performance in Investor Relations activities in Southeast Asia through innovative applications. The Awards were considered by expert committees and editorial team of IR Magazine.

25) Being awarded the National Innovation Awards 2020 in the Innovative Organization for large business category from the National Innovation Agency or NIA (Public Organization), under the Ministry of Higher Education, Science, Research and Innovation. PTTEP has constantly been focusing on innovation management in accordance with its strategy and business plan. The Company has recognized the importance of applying high level research and development, employee competency management, data management, digital technology and artificial intelligence and robotic technology, leading towards an increase of work efficiency as well as a preparation to cope with challenging circumstances in the future. These efforts would contribute to the strengthening of national energy security.

26) Being a recipient of the 2020 LESS Award Letter of Recognition from the Ministry of Natural Resources and Environment serves as a recognition of PTTEP's contribution to Thailand Greenhouse Gas Management Organization (Public Organization) (TGO)'s Low Emission Support Scheme (LESS) which reduced greenhouse gas emissions by 340,310 kilograms of carbon dioxide equivalents at PTTEP Headquarters and its Petroleum Development Support Bases in Songkhla and Ranong provinces.

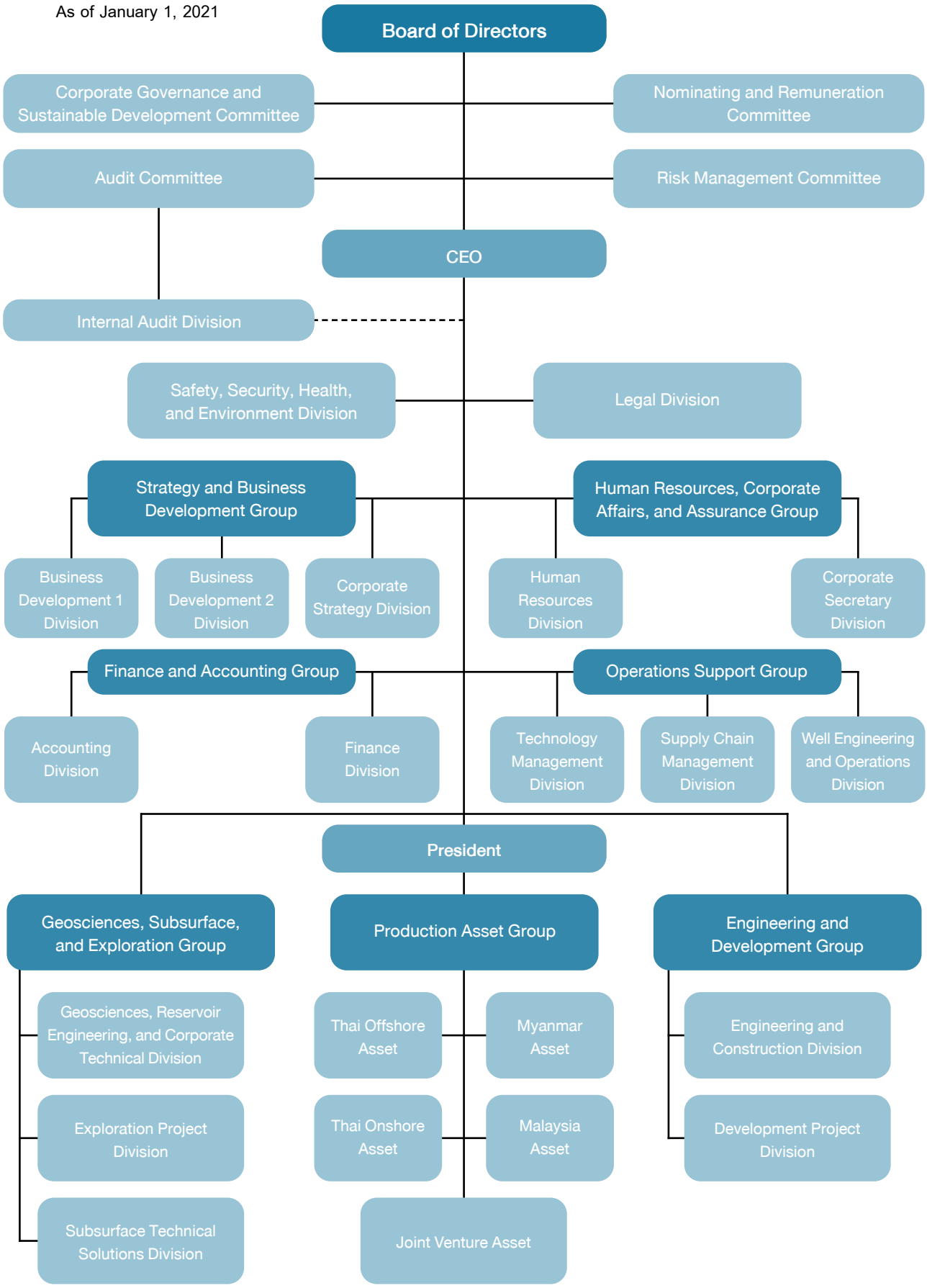
27) Received ISO 22301:2012 Business Continuity Management System Certification for our S1 Project, the largest onshore oil project from the British Standards Institution (BSI). With this international standard for business continuity management, PTTEP has been certified as an organization with an effective enterprise risk management, outlining preventive and preparation plans for crisis management and restoring major processes. This is to keep the business going to protect the interests of its stakeholders. PTTEP has previously been certified ISO 22301:2012 for PTTEP headquarters in Bangkok, the Petroleum Development Support Base (PSB) in Songkhla Province and Myanmar Asset.

28) Being selected to receive a plaque and certificate of honor in Zero Accident Campaign 2020 – Silver Class from the Institute for Occupational Safety, Health and Environment. The Certificate was presented to PTTEP Petroleum Development Support Base (PSB) in Songkhla Province to recognize the 2,675,040 hours of operation with zero accident. PSB in Songkhla is a one stop service support base that oversees the exploration and production activities and logistics services for PTTEP and other companies in the Gulf of Thailand. It was honored for 5 consecutive years and was promoted to silver class from bronze class last year.

# 7. Management Structure

## 7.1 Management Structure

As of January 1, 2021



## 7.2 The Board of Directors

### 7.2.1 The Board's Structure

PTTEP's Board of Directors (Board) consists of qualified directors who are versatile and are of possession of expertise relevant to the Company's line of work. In 2020, PTTEP reviewed the Board's Skill Mix to reflect the Company's strategic direction by classifying it into 12 subject areas under two categories.

1) Core Skills: basic expertise which is necessary for directors to govern the Company, namely business judgment, management skills & corporate governance, and business strategy.

2) Specific Skills: specific expertise or experience which is useful for directors to supervise and govern the Company, namely industry knowledge, accounting, legal, international market, risk & crisis management, economics & finance, SSHE (Safety, Security, Health and Environment), technology, and organization change & development.

Directors must not be over 70 years old and shall possess the qualifications according to the Good Corporate Governance and Business Ethics of PTTEP Group (CG&BE), Public Limited Companies Act and Securities and Exchange Act as well as rules and regulations of the Securities Exchange Commission (SEC), the Capital Market Supervisory Board (CMSB), the Stock Exchange of Thailand (SET), and relevant resolutions of the Cabinet. Directors shall also commit and dedicate their time to fully perform their duties and responsibilities. Directors, for example, would be regarded as unqualified if failed to attend Board meetings for more than three consecutive times without any reasonable justifications.

The Board structure consists of 15 directors, considered to be appropriate for the Company's operational size. The Board consists of non-executive and executive directors. In addition, the Board shall have independent directors, comprising a number not less than half of the incumbent members. As of December 31, 2020, the Board consisted of 15 directors including:

- 14 non-executive directors (93.33% of total members)
- 1 executive director: the Chief Executive Officer (CEO)
- 9 independent directors (60% of total members), a ratio which is not less than half of the incumbent members as required by the Company's CG&BE, and more than the number required by law
- 2 female directors

PTT is the only major shareholder of PTTEP, while the minor shareholders are highly varied. The aforementioned Board's component and proportion are therefore considered appropriate to maintain the balance within the Board for the best interests of the Company's shareholders.

The names, biographies, qualifications, experiences, and numbers of shares of the non-executive directors, executive directors, independent directors, and directors from PTT are disclosed in the "Information of the Board of Directors, Management, Controlling Persons and Company Secretary" section as well as in PTTEP's annual report and website.

### 7.2.2 Authorities and Responsibilities of the Board

According to the principles of accountability, duty of care and duty of loyalty, the Board has been clearly defined their roles and responsibilities, and required to perform them strictly in line with those stipulated by laws, objectives, Articles of Association of PTTEP, and resolutions of the shareholders' and Board meetings. The scopes of the authority and responsibilities of the Board are as follows:

1) To govern PTTEP's operations in compliance with the Company's CG&BE as well as to be a leader and role model in adopting, advising, communicating, and promoting the CG&BE among the employees and other organizations.

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

3) To consider and approve the PTTEP Group's strategic plan, business direction, targets, workforce structure, and other significant operations, including regularly monitoring and reviewing operation results, to ensure that they are in line with the Company's strategy, operational direction, targets, and policies as planned with an emphasis on mobility and applicability to allow the management to effectively and efficiently manage the business, whilst considering the impacts on safety, security, health, environment, innovation and technology, as well as responsibility to society.

4) To establish efficient and adequate internal control systems through a clear set of regulations and work processes as well as having a standardized and reliable accounting system and financial reporting, appropriate and adequate risk management, effective compliance program, and monitoring system.

5) To consider and approve significant matters as prescribed by laws or in the Company's affidavits, policies or regulations, as well as matters that may result in corporate obligations.

6) To consider the cases which are related to conflicts of interest in a prudent and transparent manner and to review work processes to ensure appropriate checks and balances for efficient internal control. In such case, reports of vested interests of oneself and/or those of related parties must be filed, including potential misuse of the Company's properties and execution of transactions with the Company's connected persons in an inappropriate way.

7) To ensure that the Company has clear and proper regulations, standardized and reliable financial reporting, an efficient internal control system, and proper risk management.

8) To ensure that audits are performed effectively by internal and external auditors.

9) To ensure that communication and disclosure of information to the Company's stakeholders are performed in an accurate, complete, appropriate, and timely manner.

10) To ensure that the Company's stakeholders are treated fairly and equitably.

11) To consider, approve, and appoint specialists from different professional fields to provide the Company with insightful information as well as to act on the Company's behalf on matters which can significantly affect the financial position and reputation of the PTTEP Group.

12) To consider and approve the Board Performance Target as well as to evaluate performance of the Board, Chairman of the Board, and sub-committees.

13) To consider and approve the Performance Agreement of the Chief Executive Officer (CEO), as well as to evaluate performance and determine his or her remuneration. The Board is also responsible for ensuring that the Company has an effective performance evaluation process for executives.

14) To consider and delegate appropriate authority to the CEO to manage the Company's operations according to the strategic plan, business direction, targets and policies of the organization, as well as to ensure that there is appropriate oversight and efficient monitoring and evaluation.

The Board is permitted to request information and seek advice and services in regard to the Company's business operation from the management. In addition, if deemed necessary and appropriate, directors may seek advice from external and independent advisors at the Company's expense.

### 7.2.3 The Board's Responsibilities

The followings are the major responsibilities of the Board. Details are disclosed in the "Management Structure" section, "Duties and Responsibilities of the Board" part.

1) Policy-Making and Operational Direction

The Board is responsible for making decisions in regard to PTTEP's operational policies and determination of the corporate vision, mission, and values. The Board is also assigned to be directly involved in the Company's budgetary and planning, and organizational development strategy to accommodate continuous changes in the business environment, as well as to provide the management with pieces of advice to lead the Company towards our five ultimate goals, being "Growth, Prosperity, Stability, Sustainability, and Dignity".

2) Good Corporate Governance and Business Ethics

The Board is responsible for the establishment of PTTEP Group's CG&BE for all of the directors, management, and employees to adhere to, while operating businesses for the PTTEP Group. This is to ensure that our businesses are operated under good standards, and ethical practices with transparency and efficiency. In addition, the rights of the Company's stakeholders are preserved proportionately to their fair share to maintain the general confidence and acceptance in the Company. The Corporate Governance Section meanwhile has been established to be responsible for matters regarding the CG&BE.

3) Internal Control and Auditing

The Board is responsible for assuring that the PTTEP Group is equipped with an effective internal control system which is comparable to the acceptable risk levels. The Audit Committee and the Internal Audit Division are assigned to periodically and regularly review and monitor the internal controls as well as to submit the results directly to the Audit Committee, including establishment of the Internal Control Section for conducting annual assessment of adequacy and appropriateness of internal control system, to ensure that they are in line with the operational objectives of the PTTEP Group, in compliance with relevant laws and regulations, and in trust of the management, investors, and other stakeholders. The Company's internal control system is comparable to those accepted by the international standards, considering the control environment, risk assessment relative to objectives, effective control plans, internal and external provisions of adequate and reliable information and communications, as well as routine monitoring and evaluation procedures.

4) Risk Management

The Board is responsible for regulating and overseeing management of the risks which can potentially deter PTTEP from achieving our strategic goals. The Board appoints the Risk Management Committee, a standing sub-committee that monitors and ensures an efficient and effective risk management for the PTTEP Group as defined by the Risk Management Charter. The Risk Management Committee is also assigned to determine and assess key risks which are of significance at the organizational and project levels, evaluate and monitor operational plans, oversee the implementation and revision of risk mitigation to allow for

a continuous evaluation of risks to ensure that the risks are at acceptable levels, as well as to report the results to the Board on a regular basis.

5) Prevention of Conflicts of Interest

The Board establishes various management measures to ensure that the management is efficient and transparent and acts in the best interest of the PTTEP Group, by assuring that the Company and our management are without any conflicts of interest. Shall anyone of the Company's directors, executives, or employees have a stake potentially leading to a conflict of interest. He or she must withdraw from participation or be abstained from voting, and subsequently inform the authority of the stake, in the given issue according to the CG&BE.

6) Compliance

The Board values the importance of full legal compliance in all of the areas in which the PTTEP Group operates. The Board also provides the Group with the supports required to conform to the applicable laws as well as to properly manage compliance risks. Compliance is considered one of the keys which allow the Group to function discretely as well as to be able to operate according to our strategy towards the business goals. The Governance, Compliance, and Internal Control Department is assigned by the Board to be responsible for this matter.

### 7.2.4 Authorities of the Chief Executive Officer

1) Authority under Resolutions from the Shareholder Meetings

The Chief Executive Officer is the authorized signatory to bind PTTEP with external parties (clause 9, paragraph 6, of the Company's Articles of Association registered with the Ministry of Commerce).

2) Authority under Resolutions from the Board's Meetings of PTTEP

The Board authorizes the Chief Executive Officer to act and conduct, on the Company's behalf, normal course of business operations under the stated objectives in our Memorandum of Association, petroleum concessions, and other agreements, including other businesses in which the Company has interests. In addition, the Chief Executive Officer is also authorized to be the acting body, conducting the business under PTTEP regulations, namely, the Budgetary, Finance and Accounting Charter B.E. 2555, Regulation on Human Resources Management B.E. 2548, Regulation on Procurement for PTT Exploration and Production Public Company Limited and Affiliate B.E. 2561, and Regulation on Investment Project Management B.E. 2557, by applying of the practices comparable to those of other private companies in the E&P business as well as in best interests of the Company. The Chief Executive Officer's delegation of authority is permitted unless the concerned attorney or the delegated person has a direct or indirect conflict of interest with the Company or our subsidiaries in exercising of the authority.

### 7.2.5 Segregation of Duties between the Board of Directors and Management

The Board of Directors and Management have different important roles. The PTTEP Board of Directors oversees and appoints high-level Management to manage the operations of PTTEP Group, follows up on and evaluates the performance of Management to ensure the highest benefits for PTTEP Group, and ensures that operations are carried out to achieve the stated goals. The Board's key role is oversight but not to become involved with day-to-day operations, which are the Management's responsibility. In this manner, there is a balance between the role of oversight and the role of carrying out day-to-day operations.

Management is responsible for managing operations in line with the direction set or assigned by the Board. Management must also report the results of operations to the Board regularly.

### 7.2.6 Directors' Serving Terms and Their Directorship in Other Companies

PTTEP's Articles of Association prescribes that one-third of the Company's directors shall be retired by rotation in each AGM and that the Board shall consist of no more than 15 members. The Board, meanwhile, determines to allow each of the directors or independent directors to serve on the Board for no more than nine consecutive years, while a director who has served on the Board for nine years will not be considered for another term. This essentially allows our competent and qualified directors at the time to continuously and effectively perform their duties. PTTEP recognizes the value of knowledge and experience which our directors have earned over the years in the position. PTTEP therefore does not have a rigid limit for director's term (a two-term or six-year term, for example). This is so that the Nominating Committee could best select the replacements for the optimal benefits of the Company and shareholders.

In terms of the qualifications, the Company's directors shall not assume a directorship in more than three listed companies at once. Details of the number of directorships held by each of the Company's directors are disclosed in the "Information of the Board of Directors, Management, Controlling Persons, and Company Secretary" part. As of December 31, 2020, none of the directors held a directorship in more than three listed companies. Meanwhile, serving a term as a member of the sub-committees is equal to that of the Board members.

### 7.2.7 Roles of the Chairman and Chief Executive Officer

The Board is authorized to elect one director to be the Chairman of the Board as well as to appoint a person to be Chief Executive Officer where the Chairman and Chief Executive Officer of PTTEP are of two different directors. The Chairman does not participate in the daily management of the business, providing that conducting and monitoring of the business policies are entirely separated from the daily operational management. Duties and responsibilities of the Chairman of the Board are as follows:

1) Supervise the Board to perform its duties with efficiency, according to the Board Performance Target and shareholder's expectations, with independency from the management

2) Determine agendas for the Board's meetings

3) Serve Chairman at the Board's and the shareholders' meetings and ensure that the Company's directors perform their duties as stipulated in the CG&BE and stimulate it as the Company's culture

4) Support and ensure constructive relations between directors and management

For transparency and appropriateness, the Chairman is not allowed to hold any positions in any of the Company's sub-committees as clearly stated in the charter of the sub-committees. The Chief Executive Officer meanwhile is responsible for the Company's daily management with the authority as empowered and granted by the Board.

### 7.2.8 Independence of the Chairman

PTTEP considers independency as the first priority in election of the Company's Chairman of the Board. Shall there be no suitable candidate for the position, the Company's directors will be considered. The current Chairman,

Mr. Prajya Phinyawat, is an independent director and has performed his duties with autonomy and discretion. The appraisal score of the Chairman in 2020 was 2.94 out of 3. The Chairman and his performance were appraised and examined for future improvements by the Board. Details of the appraisal results are disclosed in the " Performance Appraisal of the Board" part. In addition, all of the Company's directors are allowed to independently express their views with freedom in regard to the business operation, whether in the meetings of the Board, sub-committees, or in other occasions. This is to ensure that the management is able to operate the businesses with efficiency, accuracy, transparency, and in the best interests of the shareholders.

#### 7.2.9 Policy and Practices for Chief Executive Officer, and Executives with Directorships in Other Companies

PTTEP clearly states in the CG&BE in regard to the holding of a directorship position in other companies or organizations which are not of their own or families by the Chief Executive Officer and executives. The individuals must be given an approval from the Company's authorized personnel, on only-if-necessary and no-harms-done basis, as well as accept the condition that they shall not, in every aspect, associate PTTEP and their position held in the Company in those external activities. Meanwhile, remuneration of the Company's executives who are assigned to assume a directorship role in the organizations or units in, or related to, the petroleum exploration and production is considered PTTEP's; otherwise, the remuneration is considered theirs. Details of the number of directorships held by each of the executives are disclosed in the "Information of the Board of Directors, Management, Controlling Persons, and Company Secretary" section.

## 7.3 Sub-Committees

### 7.3.1 Sub-Committees

The PTTEP Board is responsible for the appointment of the directors who have expertise and knowledge in certain areas to become members of the sub-committees as specified by the Company's Articles of Association. Each of the Company's sub-committees is responsible for a specific set of tasks as determined by its respective charters. Qualifications, responsibilities, and service terms of the sub-committee members are prescribed by the Company's regulations through the designated charter. All members of the Audit Committee must be independent directors, while the majority of the members of the Nominating and Remuneration Committee, and the Corporate Governance and Sustainable Development Committee must be independent directors. The Chairman of the Board, however, is not allowed to assume any chairmanship or directorship in the sub-committees. In addition, the Chairman of each sub-committee, with only the exception of the Risk Management Committee, must be an independent director. Applying to every meeting, the sub-committees are required to report the results to the Board for acknowledgment as well as to disclose them in the 56-1 One Report as the duties to be completed over the year.

Currently, the Company has four sub-committees, namely, 1) the Audit Committee, 2) the Nominating and Remuneration Committee, 3) the Corporate Governance and Sustainable Development Committee, and 4) the Risk Management Committee. Names of the directors, duties and responsibilities, numbers of meetings, meeting attendance, and remuneration policy are disclosed in the " Management Structure" section. Reports of the Company's sub-committees meanwhile are disclosed in the "Reports of the Sub-Committees" part.

#### 7.3.1.1 Corporate Governance and Sustainable Development Committee

The Corporate Governance and Sustainable Development Committee has duties and responsibilities according to its charter as follows:

1) To establish the Company's sustainable development target, policy/statement, road map covering the key aspects of High Performance Organization (HPO), Governance, Risk Management and Compliance (GRC) and Stakeholder Value Creation (SVC) including communication, which will be proposed to the Board for approval.

2) To advise, promote and ensure that the Company's operation complies with the Company's sustainable development policy/ statement and achieves its target and matches with the practice of leading companies. To promote and assure that the Board, management, and all personnel follow and perform efficiently in line with the sustainable development framework.

3) To review the Company's sustainable development target, policy/statement and road map in responding to changing of the business environment, along with the laws, the international best practices and the recommendations of leading institutions, taking into consideration shareholders' proposals as well as responding to the shareholders.

4) To oversee, monitor and evaluate the Company's performance related to sustainable development to increase efficiency and balance while creating the most value to the Company and stakeholders. To regularly report the performance progress to the Board.

5) To establish the Company's good corporate governance and business ethics policy which will be proposed to the Board for approval, recommend and ensure the implementation at every level and review annually the Policy in responding to the laws and the international best practices. To oversee the Company's regular evaluation and report on the compliance of PTTEP's good corporate governance and business ethics.

6) To oversee the disclosure of the information of the Company's sustainable development to stakeholders in the annual report and sustainability report.

7) To review this Charter regularly for its appropriateness and timeliness.

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

9) To perform other duties as may be assigned by the Board.

The Corporate Governance and Sustainable Development Committee consists of at least three directors, the majority of whom must be independent directors. The Company Secretary serves as the Committee's secretary. As of December 31, 2020, the Committee comprised four members as follows:

| | |
|---|---|
| Admiral Tanarat Ubol | Chairman of the Committee and<br>Vice Chairman of the Independent Directors Committee |
| Mr. Pitipan Tepartimargorn | Member |
| Mrs. Angkarat Priebjrivat | Member and Independent Director |
| Mr. Veerathai Santiprabhob | Member and Independent Director |

Mr. Veerathai Santiprabhob was appointed as a member of the Committee in place of Mr. Sethaput Suthiwart-Narueput on October 15, 2020.

According to its charter, the Committee must meet at least 4 times a year. In 2020, the Committee held 5 meetings which were attended by all incumbent directors. The Committee disclosed its annual performance in the Corporate Governance and Sustainable Development Committee Report for 2020.

#### 7.3.1.2 Audit Committee

The Audit Committee has the duties and responsibilities according to its charter as follows:

1) To establish the audit committee charter as compatible with the Company's scope of work and responsibilities which must be approved by the Board and revised at least once a year.

2) To review the Company's financial reports with the external auditor on a quarterly basis to ensure accuracy, credibility and adequacy.

3) To ensure that the Company's activities are performed in compliance with the Securities and Exchange law, SET requirements, other laws, regulations, procedures, cabinet resolutions related to the business, including the Company's rules and regulations.

4) To review connected transactions or transactions with potential conflicts of interest to ensure that these transactions are complied with the laws and SET's regulations and that they are reasonable as well as in the best interests of the Company, and review transactions with potential fraud which may affect the Company's operations.

5) To review the efficiency and effectiveness of internal control, risk management, and governance processes.

6) To oversee and monitor the internal audit process and ensure that the process is appropriate and effective as well as ensure independence of the Internal Audit Division in order to enhance internal audit performance.

7) To evaluate Internal Audit Division performance, including audit problems and difficulties at least once a fiscal year and report the results and its suggestions for improving the performance to the Board.

8) To consider, select and propose the appointment, including removal of an external auditor, and to propose the auditor's remuneration to the Board as well as attend a meeting with the external auditor from the State Audit Office of the Kingdom of Thailand (SAO) or the external auditor endorsed by SAO at least once a year, in the absence of the management, to review audit findings and other issues, and recommend reviews or audit of any items, if necessary.

9) To endorse appointment, transfer, removal, promotion, and performance appraisal of the Head of the Internal Audit Division by seeking comments from the President and Chief Executive Officer. The Audit Committee will appoint an investigation committee to investigate the case that the Head of the Internal Audit division is suspected of noncompliance with laws, the Company's rules and regulations, and the Good Corporate Governance and Business Ethics of PTTEP Group.

10) To approve the risk-based internal audit plan.

11) To endorse the budget, division structure and manpower of the Internal Audit Division for the management to propose to the Board.

12) To approve the charter of the Internal Audit Division.

13) To approve the Conflict of Interest Declaration Form when the Head of the Internal Audit Division has to personally conduct audit field work.

14) To endorse the results of audits which were approved in the annual audit plan as well as special audit requests.

15) The Chairman of the Audit Committee or a member must attend the shareholders' meeting to answer questions in regard to the Committee's duties or the appointment of the external auditor.

16) To review the accuracy of self-assessment and related documents in regard to anti-corruption measures in reference to Thailand's Private Sector Collective Action Coalition against Corruption (CAC).

17) To perform other duties as assigned by the Board upon its consent.

18) To report the Audit Committee's performance on internal audit to the Board at least on a quarterly basis, within 60 days from the end of each quarter, except for the fourth-quarter report, which is required as an annual report. Such reports must be submitted to the regulating ministry of the Company's parent company and the Ministry of Finance within 90 days from the end of the accounting year for acknowledgment. The committee's annual report must also be disclosed in the Company's annual report.

The Audit Committee consists of at least three directors, but not more than five directors, all of whom must be independent directors. The Head of the Internal Audit Division acts as the Committee's secretary. As of December 31, 2020, the Committee comprised four members who were capable with knowledge, expertise, and experience in auditing financial statements. One of the members, Mrs. Angkarat Priebjrivat, holds a degree in accounting. Details are as follows:

| Director's Name | Position | Financial Statements Audit Experience |
|---|---|---|
| Mr. Achporn Charuchinda | Chairman of the Audit Committee | • 2013 - 2017 Board Member, The Bank of Thailand<br>• 2013 - 2016 Director, Thai Smile Airways Co., Ltd.<br>• 2013 - Jul. 2014 Chairman of the Audit Committee, Metropolitan Waterworks Authority<br>• 2007 - 2013 Chairman of the Audit Committee, Bank of Thailand's Financial Institutions Development Funds |
| Mr. Dechapiwat Na Songkhla | Member of the Audit Committee | • 2017 - Present Director of the Budget Bureau<br>• 2015 - 2017 Deputy Director of the Budget Bureau<br>• 2012 - 2015 Senior Advisor of the Budget Bureau<br>• 2010 - 2012 Director of the National Security Budget Preparation Office 1<br>• 2009 - 2010 Director of the Special Public Organizations and State-Owned Enterprises Budget Preparation Office<br>• 2008 - 2009 Budget Analyst, Expert Level, Budget Bureau |
| Mrs. Angkarat Priebjrivat | Member of the Audit Committee | • 2016 - Present Member of the Audit Committee, TSFC Securities Plc.<br>• 2013 - Present Chairman of the Audit Committee, TISCO Bank Plc.<br>• 2012 - Present Member of the Audit Committee, Thai Public Broadcasting Service (Thai PBS)<br>• 2008 - Present Chairman of the Audit Committee, TISCO Financial Group Plc. |

| Director's Name | Position | Financial Statements Audit Experience |
|---|---|---|
| | | • 2008 - Present Chairman of the Audit Committee, COL Plc.<br>• 2018 - 2020 Member of the Audit Committee, TOT Corporation Plc.<br>• 2018 - 2020 Member of the Technical Advisory Committee for Financial Reporting Standards, Office of the Securities and Exchange Commission<br>• 2018 - Sep. 2019 Member of the Finance and Accounting Subcommittee, State Railway of Thailand<br>• 2014 - 2018 Member of the Audit Committee, Tourism Authority of Thailand |
| Ms. Penchun Jarikasem | Member of the Audit Committee | • 2018 - Present Chairman of the Audit Committee, Ritta Holdings Co., Ltd.<br>• 2016 - Present Chairman of the Audit Committee, Osotspa Plc.<br>• 2018 - Oct. 2019 Chairman of the Sub-committee for Finance and Accounting, State Railway of Thailand<br>• 2016 - Dec. 2018 Sub-committee for Finance and Budgeting Improvement, Office of the Public Sector Development Commission (OPDC)<br>• 2011 - 2015 Executive Vice President, Finance and Accounting Group, PTT Exploration and Production Plc. |

Ms. Penchun Jarikasem was appointed as a member of the Committee on April 30, 2020, a replacement for Mr. Sethaput Suthiwart-Narueput who resigned.

According to the Audit Committee Charter, the Committee must hold at least one meeting on a quarterly basis. In 2020, the Committee held 13 meetings which included a meeting that was conducted together with the Risk Management Committee. The majority of incumbent directors attended all meetings. The Committee disclosed its annual performance in the Audit Committee Report for 2020.

#### 7.3.1.3 Nominating and Remuneration Committee

The Annual General Shareholders' Meeting on June 17, 2020 approved the merger of the Nominating Committee and the Remuneration Committee due to its related duties and responsibilities according to its charter enumerated as follows:

1) To select and nominate individuals who are qualified to be the Company's directors, the Chief Executive Officer (CEO) when there is a vacancy or to replace those whose terms have expired, or an Acting CEO when there is a vacancy while the nomination process is still underway for election by the Board or the shareholders, considering the Board's composition, knowledge, capability, their useful experience to the Company, number of companies in which they are serving as a director, as well as their conflicts of interest.

2) To consider the CEO's succession plan and appropriate executive-level management development system to ensure the skills and qualifications as required to achieve the Company's target growth.

3) To approve the Skill Mix and prepare a list of possible candidates for the Company's directors, CEO, or Acting CEO in advance and/ or when there is a vacancy and propose the opinions to PTT's Board of Directors for acknowledgment and to supplement the nomination selection decision before submission to the Board for consideration and to the Annual General Shareholders' Meeting (as applicable).

4) To consider the annual Board Performance Target and Performance Agreement of the CEO, to propose them to the Board for approval, as well as to set the Performance Evaluation Form of the Chairman, directors, sub-committees, and the CEO.

5) To consider and propose qualified directors to be members or the chairmen of sub-committees when there are vacancies as well as to propose restructuring of the sub-committees as deemed appropriate.

6) To consider organization restructuring to support corporate growth and changes in the business environment.

7) To consider the remuneration of the Board and sub-committees prior to proposing it at the Annual General Shareholders' Meeting for approval, using fair and reasonable criteria or principles, while ensuring that the remuneration is in line with the individuals' performances, the Company's performance, industry practices, as well as the scopes of duties and responsibilities.

8) To consider remuneration of the CEO and the salary structure of the Company's executives with fair and reasonable criteria or principles prior to proposing it to the Board for approval, whereas the remuneration of the CEO must be in line with his or her duties and responsibilities as well as performance.

9) To report performance of the Committee to the Board and disclose it in the Company's annual report.

10) To regularly review and update its own charter to ensure its appropriateness.

11) To perform other duties as assigned by the Board.

The Nominating and Remuneration Committee consists of at least 3 directors, the Chairman and the majority of the members who must be independent directors. The Company Secretary serves as the Committee's secretary. As of December 31, 2020, the Committee comprised 6 members with 4 independent directors as follows:

| | |
|---|---|
| Mr. Bundhit Eua-arporn | Chairman and Independent Director |
| Mr. Achporn Charuchinda | Member and Independent Director |
| Admiral Tanarat Ubol | Member and Vice Chairman of the Independent Directors Committee |
| Major General Nimit Suwannarat | Member and Independent Director |

| | |
|---|---|
| Mr. Pitipan Tepartimargorn | Member |
| Mr. Patchara Anuntasilpa | Member |

According to its charter, the Committee must meet at least 2 times a year. In 2020, the Committee held 8 meetings, and the majority of incumbent directors attended all meetings. The Committee disclosed its annual performance in the Nominating and Remuneration Committee Report for 2020.

#### 7.3.1.4 Risk Management Committee

PTTEP's Risk Management Committee holds the following duties and responsibilities according to its charter:

1) To define PTTEP's risk management policy and framework, and provide recommendations on corporate risk management to the Board and Management.

2) To consider risk appetite prior to proposing it to the Board for approval as well as to determine risk metrics and limit and regularly monitor the results.

3) To oversee and support the implementation of risk management to achieve objectives at both corporate and asset/project levels (Enterprise-Wide Risk Management), with a focus on enhancing the level of risk awareness in order to support the decision-making in using appropriate resources and risk responses.

4) To consider the entity's corporate risks in line with the corporate direction of the businesses PTTEP invests in, including E&P, related and other businesses, as well as to recommend mitigation strategy to manage the risks to keep them within the acceptable level according to clause 2) and to continuously monitor, assess and improve the mitigation strategy in response to the changing business environment.

5) To support risk management function in assessing key risk factors and provide advice on other potential risks facing the Company for a continuous and efficient risk management comparable to other leading companies as well as to directly assign tasks related to PTTEP's risk management to the risk management function.

6) To report the risk management results to the Board on a regular basis. For any matter with a significant impact on PTTEP, it shall be reported immediately to the Board for consideration.

7) To disclose the Committee's performance in the Company's annual report.

8) To regularly review and update its own charter to ensure its appropriateness.

9) To perform other duties relating to PTTEP's risk management as assigned by the Board.

The Risk Management Committee consists of at least 3 directors, while at least one of which must be an independent director. As of December 31, 2020, the Committee comprised 6 members, 3 of which were independent directors as follows:

| | |
|---|---|
| Ms. Penchun Jarikasem | Chairman and Independent Director |
| Major General Nimit Suwannarat | Member and Independent Director |
| Mr. Pitipan Tepartimargorn | Member |
| Mr. Twarath Sutabutr | Member |
| Mr. Atikom Terbsiri | Member |
| Mr. Veerathai Santiprabhob | Member and Independent Director |

Ms. Penchun Jarikasem assumed the Chairman of Risk Management Committee on September 24, 2020 and Mr. Veerathai Santiprabhob assumed the membership in replacement of Mr. Sethaput Suthiwart-Narueput on October 15, 2020.

According to its charter, the Committee must hold a meeting at least 4 times a year. In 2020, the Committee held 15 meetings, which included the meeting that was conducted together with the Audit Committee. The majority of incumbent directors attended all the meetings with the presence of the Committee's secretary, who was the Head of the Risk Management Unit. The Committee disclosed its annual performance in the Risk Management Committee Report for 2020.

#### 7.3.1.5 Independent Directors Committee

The Independent Directors Committee hold the following duties and responsibilities according to its charter:

1) To propose to the Board and/or the President and Chief Executive Officer (as applicable) significant matters which are beneficial to the Company as well as major and minor shareholders.

2) To advise the Board and independent directors on their roles and responsibilities for the benefit of the Company as well as the major and minor shareholders.

3) To review the Company's operations to ensure that they comply with the laws relevant to independent directors, as well as to review the definition of independent directors to be lawfully appropriate and complete .

4) To perform other duties as assigned by the Board, provided that such duties do not affect the Committee's independence.

5) To regularly review and update the Independent Directors Committee Charter to ensure its appropriateness.

Those who meet all of the qualifications of independent directors according to the CG&BE are considered independent directors without any appointment from the Board of Directors. As of December 31, 2020, the Committee comprised 9 members as follows:

| | |
|---|---|
| Mr. Prajya Phinyawat | Chairman |
| Admiral Tanarat Ubol | Vice Chairman |
| Mr. Achporn Charuchinda | Member |
| Major General Nimit Suwannarat | Member |
| Mr. Veerathai Santiprabhob | Member |
| Mr. Bundhit Eua-arporn | Member |
| Mr. Dechapiwat Na Songkhla | Member |
| Mrs. Angkarat Priebjrivat | Member |
| Ms. Penchun Jarikasem | Member |

According to its charter, the Committee must meet at least 4 times a year with the Company Secretary serving as the Committee's secretary. In 2020, the Committee held 4 meetings, and the majority of incumbent directors attended all meetings. There was no compensation paid to the members of the Committee for their meeting attendance. The Committee disclosed its annual performance in the Independent Directors Committee Report for 2020.

**PTTEP's Definition of Independent Directors**

The Good Corporate Governance of PTTEP has defined the qualifications of the Company's independent directors more strictly than those defined by the Capital Market Supervisory Board, specifically in the area of shareholding as clarified in 1) below. The definition of an independent director, whose qualifications are annually reviewed, is as follows:

1) Holding shares not exceeding 0.5% of the total number of shares with voting rights of PTTEP, our parent company, subsidiary companies, associated companies, major shareholders, or controlling persons, including shares held by related persons of the independent director.

2) Neither being nor used to being an executive director, employee, staff, or advisor who receives salary, or a controlling person of PTTEP, our parent company, subsidiary companies, associated companies, sister subsidiary companies, major shareholders, or controlling persons, unless the foregoing status has ended for not less than two years prior, excluding the case where the independent director used to be a government official or advisor of a government unit, which is a major shareholder or a controlling person of the Company.

3) Not being a person related by blood or legal registration as a father, mother, spouse, sibling, and child, including the spouse of a child of the Company's directors, executives, major shareholders, controlling persons, or persons to be nominated as a director, executive, or controlling person of PTTEP or one of the subsidiaries.

4) Neither having nor used to having a business relationship with PTTEP, our parent company, subsidiary companies, associated companies, major shareholders, or controlling persons in the manner which may interfere with his or her independent judgment, and neither being nor used to being a significant shareholder, or a controlling person of anyone having a business relationship with the Company, our parent company, subsidiary companies, associated companies, major shareholders, or controlling persons, unless the foregoing relationship has ended for not less than two years prior.

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

5) Neither being nor used to being an auditor of PTTEP, our parent company, subsidiary companies, associated companies, major shareholders, or controlling persons, and not being a significant shareholder, controlling person, or partner of an audit firm which employs auditors of the Company, our parent company, subsidiary companies, associated companies, major shareholders, or controlling persons unless the foregoing relationship has ended for not less than two years prior.

6) Neither being nor used to being a provider of any professional services, including those as a legal advisor or financial advisor who receives service fees exceeding two million baht per year from PTTEP, our parent company, subsidiary companies, associated companies, major shareholders, or controlling persons, and not being a significant

shareholder, controlling person, or partner of the provider of the professional services, unless the foregoing relationship has ended for not less than two years prior.

7) Not undertaking any businesses in the same nature and in competition with the business of PTTEP or its subsidiary companies, or not being a significant partner in a partnership or an executive director, employee, staff, advisor who receives salary or holds shares exceeding one percent of the total number of shares with voting rights of any companies which undertake a business of the same nature and in competition with that of the Company or our subsidiaries.

8) Not being a director appointed as a representative of the directors of PTTEP, major shareholders or any shareholders who are related to the major shareholders.

9) Not having any other characteristics which hamper him or her of the ability to express independent opinions in regard to PTTEP's business operations.

An independent director with the qualifications under 1) to 9), may be assigned by the Board to take part in the business decision of PTTEP, our parent company, subsidiary companies, associated companies, sister subsidiary companies, major shareholders, or controlling persons, provided that such decision shall be in the form of a collective decision.

The definition of each of the specific words mentioned is in line with the Notification of the Securities and Exchange Commission RE: Determination of Definitions in Notifications relating to Issuance and Offer for Sale of Securities.

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

– None –

## 7.4 The Management

### 7.4.1 List of Management Name

As of January 1, 2021, PTTEP's management, according to the definition of management as defined by the Capital Market Supervisory Board (CMSB), consists of 17 members. Details of their biography, qualification, and past experience are disclosed in the "Information of the Board of Directors, Management, Controlling Persons and Company Secretary" section.

List of Names and Number of Shares held by the Management, their Spouse/Cohabiting Couple and Minor Child

| Name | Number of Ordinary Shares | | |
|---|---|---|---|
| | As of January 1, 2020 | As of January 1, 2021 | Increase/(Decrease) During the Year |
| 1. Mr. Phongsthorn Thavisin | 101,037 | 101,037 | - |
| 2. Mr. Montri Rawanchaikul | 32,050 | 52,050 | 20,000 |
| 3. Mr. Kanok Intharawijitr | 41,531 | 47,231 | 5,700 |
| 4. Mr. Chayong Borisuitsawat | 55,096 | 65,096 | 10,000 |
| 5. Mr. Sumrid Sumneing | 7,000 | 13,000 | 6,000 |
| 6. Mrs. Natruedee Khositaphai | 107,457 | 107,457 | - |
| Spouse/Cohabiting Couple | 10,000 | 10,000 | - |
| 7. Mr. Suksant Ongvises | 27,681 | 27,681 | - |
| 8. Mr. Piya Sukhumpanumet[1] | N/A | 89,916 | N/A |
| 9. Mr. Sermsak Satchawannakul | 45,215 | 45,215 | - |
| 10. Ms. Orachon Ouiyamapun[2] | N/A | - | N/A |
| 11. Mr. Sakchai Sarawek[3] | N/A | - | N/A |
| 12. Mrs. Netrsuda Pokkasorn | 66,005 | 66,005 | - |
| 13. Mr. Anutra Bunnag | - | - | - |
| 14. Ms. Pratamaporn Deesrinthum | 53,249 | 53,249 | - |
| 15. Ms. Nuchanong Sangkeaw | 4,605 | 4,605 | - |
| 16. Mrs. Yada Vudhivorn | 50 | 5,173 | 5,123 |
| 17. Mrs. Vanasanan Boonyalerdlak[4] | N/A | - | N/A |
| **Management who Retired or Rotated during 2020** | | | |
| 1. Mr. Vuthiphon Thuampoomngam[5] | 15,650 | N/A | N/A |
| Spouse/Cohabiting Couple | 15 | N/A | N/A |

[1] Appointed as Acting Executive Vice President, Human Resources, Corporate Affairs, and Assurance Group effective on October 1, 2020 (Number of ordinary shares held on appointment date were 89,916 shares).

[2] Appointed as Senior Vice President, Finance Division effective on January 1, 2021 (Number of ordinary shares held on appointment date was 0 share).

[3] Appointed as Vice President, Managerial Accounting Department effective on July 1, 2020 (Number of ordinary shares held on appointment date was 0 share).

[4] Appointed as Vice President, Financial Accounting Department effective on October 1, 2020 (Number of ordinary shares held on appointment date was 0 share).

[5] Retired from the position of Executive Vice President, attached to Chief Executive Officer on December 31, 2020 (Number of ordinary shares held as at retirement date were as 6,650 shares and as held by Spouse/Cohabiting Couple were 15,815 shares).

| Name | Number of Ordinary Shares | | |
|---|---|---|---|
| | As of January 1, 2020 | As of January 1, 2021 | Increase/(Decrease) During the Year |
| 2. Mr. Yongyos Krongphanich [6] | 106,445 | N/A | N/A |
| 3. Mrs. Suchitra Suwansinpan [7] | 106,465 | N/A | N/A |
| Spouse/Cohabiting Couple | 300 | N/A | N/A |
| 4. Ms. Jaroonsri Wankertphon [8] | 73,228 | N/A | N/A |
| 5. Mrs. Chanamas Sasnanand [9] | 45,411 | N/A | N/A |
| 6. Mrs. Monsalai Tongsari [10] | 100,480 | N/A | N/A |
| Spouse/Cohabiting Couple | 14,600 | N/A | N/A |

### 7.4.2 Remuneration of the Directors of Subsidiaries and Associated Companies

PTTEP's subsidiaries and associated companies are functional units of the Company in carrying out E&P and related businesses including new business in order to optimize the Company's benefits, taking into account the business and investment conditions. PTTEP assigns the Company's management to hold a directorship position in our subsidiaries and/or associated companies in order to ensure that they are managed in compliance with the business direction and strategy of PTTEP.

PTTEP set up a policy for directors' remuneration of subsidiaries and associated companies. The directors' remuneration policy is based on the roles and authorities of the Board of the directors of such subsidiaries and associated companies, their size of investment and business risks. The management who are assigned to be directors of subsidiaries or associated companies are entitled to an additional remuneration with subject to the remuneration policy of such subsidiaries or associated companies.

### 7.4.3 Remuneration of the Chief Executive Officer

Remuneration of the Chief Executive Officer (CEO) is determined using fair and appropriate procedures and defined under the principles which are unbiased, reasonable, justifiable, and transparent. PTTEP's Nominating and Remuneration Committee is responsible for reviewing remuneration of the CEO prior to proposing for the Board's approval. The approval from

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[6] Retired from the position of Executive Vice President, attached to Chief Executive Officer on December 31, 2020 (Number of ordinary shares held as at retirement date were 106,445 shares).

[7] Retired from the position of Executive Vice President, attached to President and Chief Executive Officer on March 31, 2020 (Number of ordinary shares held as at retirement date were 106,465 shares and as held by Spouse/Cohabiting Couple were 300 shares).

[8] Completed the term in the position of Senior Vice President, Accounting Division on September 30, 2020 (Number of ordinary shares held as at the date of completion of the term were 73,228 shares).

[9] Completed the term in the position of Senior Vice President, Finance Division on December 31, 2020 (Number of ordinary shares held as at the date of completion of the term was 45,411 shares).

[10] Resigned from employment before retirement from the position VP, Accounting Policy and Solutions Department on March 31, 2020 (Number of ordinary shares held as at resignation date were 100,480 shares and as held by Spouse/Cohabiting Couple were 14,600 shares).

the Board is based on his or her performance, duties and responsibilities, the Company's performance, remuneration of listed companies comparably in size and industry, and overall economic situation. The CEO's remuneration consists of both short and long-term arrangements.

The ratio of annual compensation of the CEO compared to the average annual compensation of the Company's executives is approximately 1.6 : 1, while the ratio of annual compensation of the CEO compared to the average annual compensation of the Company's employees is approximately 11.42 : 1

### 7.4.4 Remuneration of the Executives

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

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

To maintain the Company's remuneration competitiveness, PTTEP conducts an annual survey on remuneration of leading companies in the industry. The information gathered through the survey allows the Remuneration Committee to better understand the current market situation to further increase the Company's competitiveness in the job market as well as to be able to provide the Board with thorough explanations particularly when the changes in the salary structure and payment method are drastic. The ratio of the average annual compensation of the executives compared to the average annual compensation of the Company's employees is approximately 7.7 : 1

Remuneration of the Executives

| | 2019 | | 2020 | |
|---|---|---|---|---|
| | Number | Total Amount (THB) | Number | Total Amount (THB) |
| Salary | 11 | 98,178,140 | 10[1] | 92,116,390 |
| Bonus | | 67,328,586[2] | | 45,926,257[3] |
| Other compensation[4] | | 13,481,237 | | 11,896,838 |
| **Total** | | **178,987,963** | | **149,939,484** |

In 2020, compensation (salary, bonus, and contribution to the provident fund) of PTTEP's and the subsidiaries' employees, including wages of the seconded employees, totaled THB 9,374,887,224.

[1] Executives consisted of the Chief Executive Officer, President of the Exploration and Production, Executive Vice Presidents and equivalent, and PTT's executives who have been seconded to PTTEP.

[2] Bonus for 2019 was paid in December and January 2020.

[3] Bonus for 2020 was paid in December and January 2021.

[4] Provident Fund

## 7.5 Personnel

### 7.5.1 Number of Employees

As of December 31, 2020, PTTEP and our subsidiaries had a total workforce of 4,496 employees.

Number of Employees*

| Employee Type | Total (Persons) |
|---|---|
| Thai Permanent Employees | 2,068 |
| Thai Contracted Employees | 1,323 |
| Non-Thai Contracted Employees | 77 |
| Local Employees in Overseas Subsidiaries | 1,023 |
| Seconded Employees from PTT Group Companies and Joint Venture Partners | 5 |
| **Total** | **4,496** |

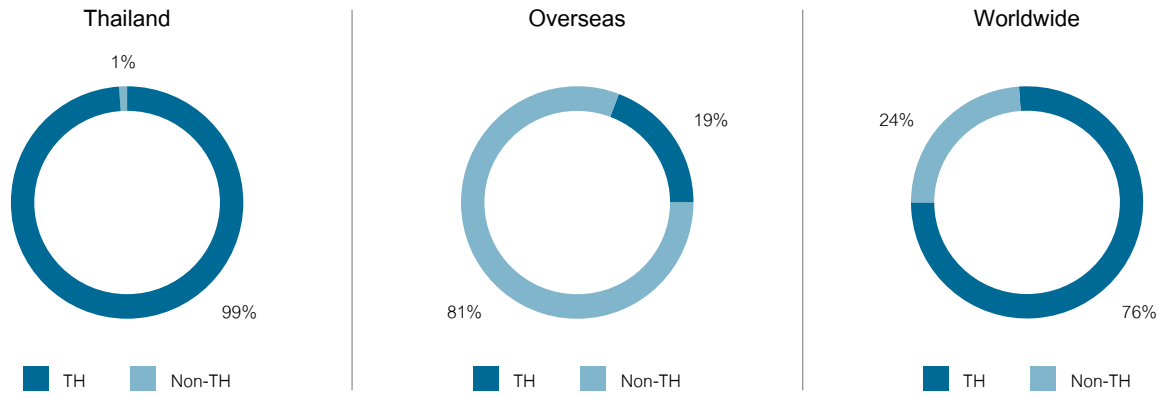
Remarks: * Based on the Company's database as of December 31, 2020.
The list is exclusive of outsourced staff hired through services contracts, e.g. maid, drivers, etc. and third-party service providers.

Number of Employees in Each Function Group[1]

| Function Group[2] | Thai Permanent Employee | Thai Contracted Employee | Non-Thai Contracted Employee | Local Employee | Seconded Employee | Total |
|---|---|---|---|---|---|---|
| Chief Executive Officer | 7 | 2 | - | - | - | 9 |
| President | 29 | 7 | - | - | 1 | 37 |
| Engineering and Development Group | 224 | 125 | 1 | 27 | - | 377 |
| Finance and Accounting Group | 140 | 128 | - | - | 2 | 270 |
| Geosciences, Subsurface and Exploration Group | 239 | 49 | 18 | - | - | 306 |
| Human Resources, Corporate Affairs, and Assurance Group | 147 | 68 | 1 | - | 1 | 217 |
| Operations Support Group | 375 | 306 | 12 | - | - | 693 |
| Production Asset Group | 749 | 610 | 42 | 996 | 1 | 2,398 |
| Strategy and Business Development Group | 77 | 10 | 1 | - | - | 88 |
| Internal Audit Division | 14 | 2 | - | - | - | 16 |
| Legal Division | 22 | - | - | - | - | 22 |
| Safety, Security, Health, and Environment Division | 45 | 16 | 2 | - | - | 63 |
| **Grand Total** | **2,068** | **1,323** | **77** | **1,023** | **5** | **4,496** |

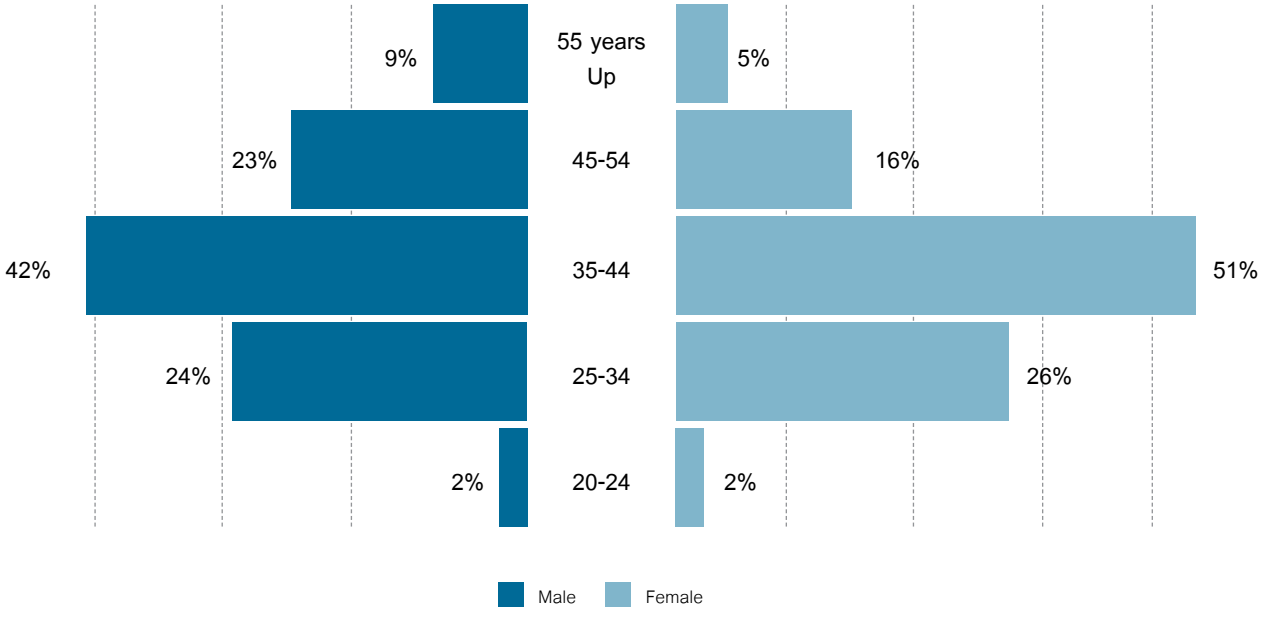
Remarks: [1] Based on the Company's database as of December 31, 2020.
[2] Based on the Company's organization structure as of December 31, 2020.
The list is exclusive of outsourced staff hired through services contracts, e.g. maid, drivers, etc. and third-party service providers.

Staff Demography by Nationality and Work Location[1]




Remark: [1] Based on the Company's database as of December 31, 2020.

Staff Demography by Gender and Age[1]




Remark: [1] Based on the Company's database as of December 31, 2020.

Employee Turnover

| | IN[1] | OUT[1, 2] |
|---|---|---|
| Thai Permanent Employees | 39 | 48 |
| Thai Contracted Employees[3] | 73 | 33 |
| Non-Thai Contracted Employees | 12 | 4 |
| National Employees | 100 | 42 |
| Seconded Employees | 2 | 1 |

Remarks: [1] Based on the Company's database as of December 31, 2020.

[2] Including voluntary resignation, dismissal, early retirement, retirement, death

[3] The turnover was exclusive of outsourced staff hired through services contracts e.g. maid, drivers, and third party service providers. M&A and Divestment conditions are excluded.

Turnover Rate

In 2020, the Company's total employee turnover rate (Voluntary resignation, dismissal, early retirement, retirement, death) was 2.8%.

Voluntary Turnover Rate

The voluntary resignation rates (resignation and early retirement) in 2016 through 2020 were as shown below.

| 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|
| 5.9% | 3.9% | 3.7% | 2.5% | 1.7% |

Remark: M&A and Divestment conditions are excluded.

### 7.5.2 Human Resources Development Policy

To increase the organization's capability and accelerate the competency development of the Company's staff for continuous expansion of the business domestically and internationally, PTTEP has developed and improved the capability development system and process by implementing a competency-based 70 : 20 : 10 model of on-the-job training, coaching and mentoring, and formal training, respectively. In 2020, the Company provided training and development programs to employees through the following channels:

**1) In-House and External Training**

The Company provides in-house and external trainings, domestically and overseas, to staff and management at all levels. These trainings comprise a wide variety of courses, including technical and functional training, and Safety, Security, Health and Environment (SSHE) training, such as computer skills, foreign language, business administration, and leadership skills. Moreover, in 2020, PTTEP started transforming the Company towards digital organization, changing the way of working to be more agile, more efficient, faster, and exploring for new business opportunities in preparation for future growth. In preparation for these

changes, the Company has developed and implemented the new learning and development programs namely digital literacy, agile way of working, etc.

**2) Long-term Training and Development Programs**

Long-term training and development programs are aimed to prepare our employees for roles and assignments in the Company's current and future projects. The programs are generally provided to selected employees based on their Individual Development Plan (IDP) in 1-3 years. Under this approach, the employees are required to undertake on-the-job trainings through various assignments relating to the Company's projects or to be temporarily assigned to work with the Company's business partners or services companies in Thailand and overseas. In the technical areas, mentors are also assigned to assist and coach the employees along their development journeys.

**3) Master's Degree Scholarship Programs for Employees**

The Company provides scholarships to employees to help them pursue master's degrees in world-class universities all over the world in the following fields:

1) Petroleum Geosciences

2) Petroleum Engineering

3) Engineering

4) Drilling and Well Engineering

5) Digital and Information Technology

The Company also provides master's degree scholarships for employees to study in Thailand's reputable institutes as follows:

1) Business Administration (Executive), SASIN Graduate Institute of Business Administration of Chulalongkorn University

2) Petroleum Geoscience (International Program), Chulalongkorn University

In 2020, the Company invested in human capital development programs at the total amount of THB 209,216,770 and provided more than 180,815 training and development hours for our employees with the average of 40 training and development hours per person per annum. PTTEP has policy for management in implementing the Individual Competency Development Plan (ICDP) for PTTEP Staff. To ensure the standardization, PTTEP has conducted the Technical Competency Assessment Calibration with Job Family Masters in each Job Family. As a result, our 2020 employees' competency increased by approximately 3.5%.

The Company calculated the Human Capital Return on Investment (HCROI) in several dimensions. These include man-hours and cost spent on development activities against total revenue and production, time to autonomy of young technical professionals, and readiness of immediate successors for senior management positions, as well as a continuous development of additional measurements to evaluate the HCROI more efficiently. The results are subsequently used to evaluate and elevate the efficiency and effectiveness of the development activities for further and future improvement.

## 7.6 Other significant Information

### 7.6.1 Secretary to the Board of Directors and Company Secretary

#### 7.6.1.1 Secretary to the Board of Directors

The Board of Directors appointed Mrs. Pranot Tirasai, Former Executive Vice President, attached to the President and Chief Executive Officer, and assigned to act as Secretary to the Board of Directors, effective from October 1, 2018. The Secretary of the Board of Directors serves as the focal point between the Board and the management and is responsible for providing advice to the Board on legal compliance regarding the duties and responsibilities of the Board and the management. The Secretary of the Board of Directors is also the accountable person for reviewing the agenda and Minutes of the Board's meetings prior to their submission to the Board, and managing documentation of the Shareholders' meeting, as well as preparation for the Board for the Shareholders' meeting. Mrs. Pranot Tirasai holds a degree in law and is highly knowledgeable, capable and experienced, allowing her to appropriately support the Board in carrying out of its fiduciary duties.

#### 7.6.1.2 Company Secretary

The Board of Directors resolved to appoint Mrs. Maneeya Srisukhumbowornchai, Senior Vice President, Corporate Secretary Division, as the Company Secretary and Secretary of the Corporate Governance and Sustainable Development Committee, Secretary of the Nominating and Remuneration Committee, and Secretary of the Independent Directors Committee since September 1, 2019. Mrs. Maneeya holds a degree in accounting. She is highly knowledgeable, capable and experienced in corporate secretarial functions. In addition, she has attended seminars and completed necessary trainings which are beneficial to her role. Detail of the Company Secretary is disclosed in the "Information of the Board of Directors, Management, Controlling Persons, and Company Secretary".

The Company Secretary has performed roles with fiduciary duties by holding responsibilities, and duties on care and loyalty to the Company, as required by the Securities and Exchange Act, including preparing and safeguarding the Company's important documents, namely the director registry, notice of the Shareholders' meetings, notice of the Board's meetings, Minutes of the Shareholders' meetings, Minutes of the Board's meetings, and Annual Reports; safeguarding the Conflicts of Interests Report submitted by the members of the Board and management as well as sending a copy of the report to the Chairman of the Board and Chairman of the Audit Committee, as stipulated by law.

The Company Secretary is also responsible for the following duties as required by the Board:

- Overseeing and advising the Board to ensure that the directors perform their roles in compliance with relevant applicable laws, rules and regulations as well as the Company's objectives, Articles of Association, resolutions from the Board's and shareholders' meeting.
- Organizing meetings of the Board, sub-committees, and shareholders.
- Providing orientation and giving pieces of advice to new members of the Board.
- Recommending necessary and appropriate training programs to members of the Board.
- Coordinating with the Company's functional units to ensure that the Company's business operations are in line with the direction set by the Board and shareholders' meeting and work with external regulators who oversees listed companies.

- Governing the Company's subsidiaries, including preparing and safeguarding their important documents.
- Promoting and educating the directors, management, and employees about the Good Corporate Governance and Business Ethics of PTTEP Group and ensuring full compliance of such policy, including reviewing PTTEP Group's CG&BE to be in compliance with related laws and in line with international practices of leading organizations.
- Ensuring that all shareholders are treated fairly, ethically and lawfully as well as promoting good relationship with minority shareholders.
- Acting as a focal point who is responsible for coordinating with relevant parties when reports or complaints were submitted through the Whistleblowing System of PTTEP Group.
- Performing other duties as required by the Company.

### 7.6.2 Head of the Internal Audit Division and Head of the Compliance Function

#### 7.6.2.1 Roles and Responsibilities of Head of the Internal Audit Division

PTTEP has established the Internal Audit Division, which has a direct reporting line to the Audit Committee and an administrative (dotted-line reporting) reporting line to the President and CEO. Key roles, responsibilities and scope of work of the Internal Audit Division include:

1) In-house and Subsidiary Audits

The purpose of the audits is to ensure that the operations achieve the Company's targets. The auditors evaluate the efficiency, adequacy and effectiveness of governance, risk management, and internal controls in a continuous effort to detect and prevent all types of deceptive schemes with potential fraudulent activities, or schemes which can potentially lead to illegal wrongdoings. The audits and the processes involved are also developed to identify control weaknesses which could potentially open opportunities for frauds as well as to provide recommendations for the enhancement of the internal controls.

2) Joint Venture Audits

The auditors conduct audits on the operators for projects that PTTEP has invested in to ensure that: the operators comply with the joint venture agreements and other related contractual arrangements; they possess appropriate internal controls; and the expenditure incurred and reported is equitable, reasonable, and accurate for the benefit of all parties involved.

3) Digital Technology Audit

The auditors conduct audits to review and assess the efficiency and effectiveness of IT-related controls of digital technologies utilized in the Company. This is to reasonably ensure that management of enterprise IT achieves the Company's business objectives in core aspects of benefit realization, risk optimization and resource optimization.

4) Consulting Services

The auditors pre-determine the scope of the consulting services prior to the engagement, ensuring that they will result in improved efficiency and effectiveness of the existing processes as well as useful recommendations on risk management, internal controls, and corporate governance.

5) Fraud Investigation

The Head of the Internal Audit Division is responsible for undertaking investigations of all reported or suspected frauds in accordance with the Reporting and Whistleblowing Regulation B.E. 2556. Investigation team members must not bear any conflicts of interest on complaints under the investigation. Prevention, detection, further investigation, and prosecution of fraud offenders are however the responsibility of the management.

6) Special Audit Requests

Special audit requests are not included in the annual audit plan. The Internal Audit Division performs special audits as requested by the Company's management and/or the Audit Committee to prevent and mitigate risk.

According to the Audit Committee Charter, the Audit Committee has a duty to endorse the appointment, transfer, removal, promotion, and performance appraisal of the Head of the Internal Audit Division.

Ms. Jutima Lalitkul held the positions of Senior Vice President of the Internal Audit Division and Head of the Internal Audit Division from November 2019 to December 2020. Since January 1, 2021, Ms. Yaninee Wajeepratubjit has assumed these positions. The Audit Committee deems that both aforementioned executives are qualified to undertake the responsibility based on their educational background, necessary knowledge, skills, and work experiences. They both have also been up-to-date in terms of professional knowledge and expertise, primarily through extensive training on internal auditing methodologies, management programs, and internal auditor competency development. Such stringent attention to the person holding the title and the support provided to the entire team highlight the importance which the Company has placed on the efficiency and effectiveness of the Internal Audit Division and performance of the Audit Committee.

Details of the Head of the Internal Audit Division are disclosed in Attachment 3: Details of Head of the Internal Audit Division and Head of the Compliance Function.

**7.6.2.2 Roles and Responsibilities of Head of the Compliance Function**

PTTEP has established the Governance, Compliance and Internal Control Department which has a direct reporting line to the Senior Vice President of the Corporate Secretary Division, the Executive Vice President of the Human Resources, Corporate Affairs, and Assurance Group, and the Chief Executive Officer respectively. The key responsibilities are to promote and ensure that PTTEP Group operates in full compliance with all applicable laws as well as to support the management in managing compliance risk efficiently through various compliance programs. This includes providing communication and training programs, developing and maintaining the legislation database, identifying and conducting compliance risk assessment, providing advice on new issuance or amendment of the PTTEP Group's internal regulations, coordinating with regulators, and regularly reporting the performance of the compliance programs to the Audit Committee and the management.

Head of the Compliance Function in 2020 was: Mr. Kanes Supyaboonrod had been appointed as the Vice President of the Compliance Department from October 1, 2018 to December 31, 2018 and has been appointed as the Vice President of the Governance, Compliance and Internal Control Department from January 1, 2019 upto present.

More details of the Head of the Compliance Function are disclosed in Attachment 3: Details of Head of the Internal Audit Division and Head of the Compliance Function.

### 7.6.3 Head of the Investor Relations Section

Details are disclosed in “Investor Relations” part.

### 7.6.4 Remuneration of Auditor

#### 7.6.4.1 Remuneration of Auditor

1) Audit Fee

In 2020, PTTEP and the subsidiaries, both domestic and overseas, paid audit fees to PricewaterhouseCoopers ABAS (PwC) and PwC network firm including other audit firm for a total of USD 1.78 million.

2) Non-Audit Fee*

In 2020, PTTEP and the subsidiaries paid a non-audit services fee to the audit firm of PTTEP (PwC) and person or companies related to the auditor and the audit firm for a total of USD 0.85 million. This fee was charged for the preparation of Comfort Letters supporting liability management of the Group for US dollar denominated debt which issued and entirely offered to offshore investors, tax services and other services.

Remark: * “Non-Audit Fee” is a terminology commonly used by Securities and Exchange Commission of Thailand (SEC reporting requirement).

#### 7.6.4.2 Summary of the Auditors’ Report for the Past Three Years (2018-2020)

The auditors expressed an unqualified opinion in the Auditors’ Report on the PTTEP’s consolidated financial statements for the past three years.

# 8. Corporate Governance Performance

## 8.1 Summary of Board's Performance in the Past Year

### 8.1.1 Independent Directors Selection Criteria

Details are disclosed in the "PTTEP's Definition of Independent Directors" part.

### 8.1.2 Nomination of Directors, the Chief Executive Officer, and Management

#### 8.1.2.1 Nomination of Directors

When there is a vacancy of a director position or when a director's term limit is due, it is a duty of the Nominating and Remuneration Committee to select the candidates who fit the required skills, experience, and are in line with the Company's Target Skill Mix and strategic directions to ensure that the Board's composition is complete, well-rounded, and for the optimal benefit to PTTEP. The Company thoroughly and transparently places high importance on the Board's diversity, gender, independency and conflicts of interest. In 2020, PTTEP Board comprised 9 independent directors and 2 female directors from 15 directors.

Moreover, the Nominating and Remuneration Committee conducts Gap Analysis of the Board's current Skill Mix and Target Skill Mix, where Target Skill Mix of the Board during 2020-2021 will be considered from various skills by emphasizing 3 following priorities;

1) International Market: According to the Execute and Expand strategy, PTTEP aims to expand more investment into new business apart from its core E&P business with the focus on adding value to the current projects as well as promoting investment in new projects such as Gas to Power/LNG and developing its potentials in commercial and marketing. Having knowledgeable, experienced and expert director nominees in this area especially in international commerce will be useful for PTTEP to be able to operate its projects and self-managed its sales and marketing.

2) Organization Change and Development: To support PTTEP in preparing business for the changes, the operatorship transfer and the setup of internal control and compliance systems for newly acquired international projects, challenge on workforce diversity and human resources management, experienced director nominees in this area are essential for PTTEP to be truly sustainable.

3) Legal: To support legal risk management and compliance which are corporate-level risks with direct impact on the Company's license to operate, new laws in responding to new technologies and dynamic environment change especially for new businesses investment needed to be monitored regularly.

The process begins with the Nominating and Remuneration Committee considering candidates' skill alignment with the aforementioned Target Skill Mix, where the Board was able to fulfill the Target Skill Mix in Organization Change and Development in 2020 while still placing importance for future candidates to have skills in International Market and Legal. In addition, the Nominating and Remuneration Committee also hold the process of searching director candidates through PTTEP's pool as well as the directors' pool of the State Enterprise Policy Office (SEPO) which comprises a list of directors from state-owned enterprises who are regarded as highly-qualified in state-enterprising. The Company also seeks advice from the major shareholder, PTT, as well as from minor shareholders (if any) according to the rules regarding nomination of a person to fill in the positions which

are due to retirement by rotation. A list of qualified candidates must be endorsed by the State Enterprise Policy Committee according to the Regulations of the Office of the Prime Minister on State Enterprise Policy and Governance Determination, B.E. 2557.

Election of directors to replace those who are due to retirement by rotation must obtain an approval from the AGM by a majority vote based on the number of the Company's shareholders with voting eligibility at the Meeting. The election process is as follows:

1) Should the number of the director candidates be less than the number of those to be elected, PTTEP will propose at the Meeting to elect those candidates as the directors by voting for the individual candidates, under which each of them must receive majority votes.

2) Should the number of the director candidates exceed the number of those to be elected, a ballot is to be held. Each shareholder may vote for as many director candidates as the number of the opened positions, while voting will then be carried out for each of the individuals. Those with the highest ballots will be elected, as many as the number of the opened positions. Each of them must receive majority votes.

When a director position becomes vacant for reasons other than rotation, the Board, with approval from the State Enterprise Policy Committee, may elect a new director, using the three-fourth majority voting rule. The elected director is permitted to remain in his or her directorship for only as long as the remaining term of the predecessor.

#### 8.1.2.2 Nomination and Succession Plan of the Chief Executive Officer

The Nominating and Remuneration Committee has included in its Charter the role to consider the Chief Executive Officer's succession plan and appropriate executive-level management's development system to ensure a candidate list with the skills and qualifications in line with the Company's target growth.

The Nominating and Remuneration Committee is responsible for considering the candidates' knowledge, skills, experience, and other various specific qualifications to bring about the best of interests to the Company, for example strategic vision of energy, large investment, working experience in Exploration and Production, ability to seek and manage New Business for company's sustainable growth and also looking into their probable conflicts of interest.

The Company formulates a succession plan for the Chief Executive Officer to prepare the Company for the time when the Chief Executive Officer is unable to perform his or her duties or when the serving term is completed. The plan helps to minimize the risks and the impacts, potentially resulting from the discontinuity on the management. The succession planning procedure is as follows:

1) PTT Group Management Committee (PTTGMC), a committee in which the Company's Chief Executive Officer is a director, and forms the Group Leadership Development Program (GLDP). The program's primary focus is to enhance the capability of the PTT Group's executives, Senior Vice Presidents and above to prepare them for a possible nomination to become the Chief Executive Officer in one of the PTT Group companies.

2) PTT Management Committee (PTTMC), with PTT being the Company's major shareholder, reviews the shortlisted executive names from 1) and proposes them to PTT's Board of Directors who is responsible to select PTTEP's next Chief Executive Officer.

3) After receiving the candidate names, accompanied by opinions of PTT's Board from 2), and comparing them with the Company's potential candidates in the executive vice president level, the Company's Nominating and Remuneration

Committee will reassess the individual's knowledge, capability, and experience relating to the business, conflicts of interest, and his or her vision to lead the Company to grow according to the strategic plan.

4) The Nominating and Remuneration Committee proposes the name of the final candidate, together with the opinions and a fair and reasonable package proposed by the Nominating and Remuneration Committee, to the Board of Directors for approval and appointment of the Company's Director and new Chief Executive Officer.

**8.1.2.3 Nomination of Management and Succession Plan**

The Board grants the President and Chief Executive Officer an authority to select and appoint the individuals who possess the knowledge, capabilities, and experience to management positions in consultation with the Career Review Board Committee (CRB) and the presence of PTTEP Rules and Regulations for Human Resources Management. The nomination must then be acknowledged by the Board. Exceptions are made to the appointment of the Executive Vice President and above, where the Board's approval is required. If the nominee is from outside of the organization, an interview with the interview committee is required, while nomination of the Head of Audit Function requires an approval from the Audit Committee.

PTTEP has a systematic succession plan for management of vacant positions which result from appointment, retirement and from reorganization to support the Company's business expansion domestically and internationally. The Career Review Board (CRB) Committee is authorized to select and appoint successors for management positions using the Company's Management Success Profile as screening criteria. These profiles comprise of organization knowledge, experiences, competency, as well as personal attributes required for the target positions, while Currently Estimated Potential is also taken into consideration. Once the successors are identified, their individual short-term and long-term development plans will be established with focus on technique and functional knowledge, managerial skills, and soft skills required for different business areas, such as Asset Management, Business Development, Technical Support, and Business Support, according to the corporate values and organizational culture to ensure that the successors are qualified for the target positions by the time of requirement.

**8.1.3 Development of Directors**

Orientation of New Directors

The orientation which is provided to the Company's new directors consists of;

1) Presentation by the Chief Executive Officer and executives: This briefing involves the nature and operational guidelines of the business, knowledge and techniques in regard to the petroleum exploration and production business of the PTTEP Group, relevant rules and regulations, Good Corporate Governance and Business Ethics (CG&BE), and essential information for the directors to perform the duties with efficiency.

2) Director Manual: This contains essential information, including the strategic plan, relevant rules and regulations, and the CG&BE, which will be beneficial for the directors to perform the duties. The Manual is regularly reviewed and updated for the directors to use as a reference.

3) Operational Sites Visit: New directors visit operational sites of the PTTEP Group to enrich their understanding of the Company's operations and optimize their knowledge and experience for the benefit of the Company.

At the end of each orientation, new directors will evaluate the effectiveness of the orientation for further improvement. The director who is elected to be the Chairman and a member of a sub-committee is also required to attend an extra session and subsequently informed of the important subjects relating to the additional new role, including performing the duties of the Chairman and a member of a sub-committee as well as conducting and leading meetings of the Company's directors and shareholders.

Development and Trainings of Directors

PTTEP's directors are knowledgeable; however, they are ambitious to learn and understand more about the business and their duties as directors. PTTEP encourages every director to acquire further knowledge through training organized by the Thai Institute of Directors Association (IOD) and other leading organizations as well as attending seminars and business visits to enhance the ability to perform their duties. To continuously provide knowledge and share opinions with the directors, the Company's management deliver lectures and exchange opinions with the Board. In 2020, six sessions were arranged by the Company's management which were "Pre-Strategy Review" and "Strategy Review" and the other four sessions related to Governance, Risk Management and Compliance (GRC). The Company always updates the directors with best practices of good corporate governance for an even better understanding on a regular basis. The following are details of the trainings, seminars and lectures attended by the Company's directors during 2020.

| Directors | Courses |
|---|---|
| 1) Mr. Prajya Phinyawat | - Internal Lecture and Discussion Session on 2021 Pre-Strategy Review<br>- Internal Lecture and Discussion Session on 2021 Strategy Review<br>- Internal Lecture about GRC on the following topics:<br>1) 2020 Corporate Governance Trends for Board<br>2) PTTEP Preparation for Personal Data Protection Act, B.E. 2562<br>3) GRC in a Time of Crisis<br>4) Geopolitical Risk<br>- Lecture and Discussion on Corporate Strategy beyond the Crisis, a Chairman/Board Perspective by Bain & Company |
| 2) Mr. Achporn Charuchinda | - Internal Lecture and Discussion Session on 2021 Pre-Strategy Review<br>- Internal Lecture and Discussion Session on 2021 Strategy Review<br>- Internal Lecture about GRC on the following topics:<br>1) 2020 Corporate Governance Trends for Board<br>2) GRC in a Time of Crisis<br>3) Geopolitical Risk<br>- Lecture and Discussion on Corporate Strategy beyond the Crisis, a Chairman/Board Perspective by Bain & Company |
| 3) Admiral Tanarat Ubol | - Seminar on Personal Data Protection; Preparation for Directors and Executives by The Securities and Exchange Commission of Thailand (SEC)<br>- Internal Lecture and Discussion Session on 2021 Pre-Strategy Review<br>- Internal Lecture and Discussion Session on 2021 Strategy Review |

| Directors | Courses |
|---|---|
| | - Internal Lecture about GRC on the following topics:<br>1) 2020 Corporate Governance Trends for Board<br>2) PTTEP Preparation for Personal Data Protection Act, B.E. 2562<br>3) GRC in a Time of Crisis<br>4) Geopolitical Risk<br>- Seminar on Board's Roles in Strategy for Business Sustainability by IOD<br>- Lecture and Discussion on Corporate Strategy beyond the Crisis, a Chairman/Board Perspective by Bain & Company |
| 4) Major General Nimit Suwannarat | - Internal Lecture and Discussion Session on 2021 Pre-Strategy Review<br>- Internal Lecture about GRC on the following topics:<br>1) 2020 Corporate Governance Trends for Board<br>2) PTTEP Preparation for Personal Data Protection Act, B.E. 2562<br>3) GRC in a Time of Crisis<br>4) Geopolitical Risk<br>- Lecture and Discussion on Corporate Strategy beyond the Crisis, a Chairman/Board Perspective by Bain & Company |
| 5) Mr. Twarath Sutabutr | - Internal Lecture and Discussion Session on 2021 Pre-Strategy Review<br>- Internal Lecture and Discussion Session on 2021 Strategy Review<br>- Internal Lecture about GRC on the following topics:<br>1) 2020 Corporate Governance Trends for Board<br>2) PTTEP Preparation for Personal Data Protection Act, B.E. 2562<br>3) GRC in a Time of Crisis<br>- Lecture and Discussion on Renew Business Investment by Global Power Synergy Pcl.<br>- Lecture and Discussion on Cyber Risk Management for New Normal Enterprise by Carnegie Mellon University and King Mongkut's Institute of Technology Ladkrabang |
| 6) Mr. Pitipan Tepartimargorn | - Internal Lecture and Discussion Session on 2021 Pre-Strategy Review<br>- Internal Lecture and Discussion Session on 2021 Strategy Review<br>- Internal Lecture about GRC on the following topics:<br>1) 2020 Corporate Governance Trends for Board<br>2) PTTEP Preparation for Personal Data Protection Act, B.E. 2562<br>3) GRC in a Time of Crisis<br>4) Geopolitical Risk<br>- Lecture and Discussion on Renew Business Investment by Global Power Synergy Pcl.<br>- Lecture and Discussion on Cyber Risk Management for New Normal Enterprise by Carnegie Mellon University and King Mongkut's Institute of Technology Ladkrabang<br>- Lecture and Discussion on Corporate Strategy beyond the Crisis, a Chairman/Board Perspective by Bain & Company |

| Directors | Courses |
|---|---|
| 7) Mr. Bundhit Eua-arporn | - Internal Lecture about GRC on the following topics:<br>1) 2020 Corporate Governance Trends for Board<br>2) PTTEP Preparation for Personal Data Protection Act, B.E. 2562<br>3) GRC in a Time of Crisis<br>4) Geopolitical Risk<br>- Lecture and Discussion on Corporate Strategy beyond the Crisis, a Chairman/Board Perspective by Bain & Company |
| 8) Ms. Penchun Jarikasem | - Seminar on Personal Data Protection; Preparation for Directors and Executives by The Securities and Exchange Commission of Thailand (SEC)<br>- Internal Lecture and Discussion Session on 2021 Pre-Strategy Review<br>- Internal Lecture and Discussion Session on 2021 Strategy Review<br>- Internal Lecture about GRC on the following topics:<br>1) 2020 Corporate Governance Trends for Board<br>2) PTTEP Preparation for Personal Data Protection Act, B.E. 2562<br>3) GRC in a Time of Crisis<br>4) Geopolitical Risk<br>- Seminar on Board's Roles in Strategy for Business Sustainability by IOD<br>- Lecture and Discussion on Renew Business Investment by Global Power Synergy Pcl.<br>- Lecture and Discussion on Cyber Risk Management for New Normal Enterprise by Carnegie Mellon University and King Mongkut's Institute of Technology Ladkrabang<br>- Training on IT Governance and Cyber Resilience Program by IOD<br>- Lecture and Discussion on Corporate Strategy beyond the Crisis, a Chairman/Board Perspective by Bain & Company |
| 9) Mr. Patchara Anuntasilpa | - Internal Lecture and Discussion Session on 2021 Pre-Strategy Review<br>- Internal Lecture and Discussion Session on 2021 Strategy Review<br>- Internal Lecture about GRC on the following topics:<br>1) 2020 Corporate Governance Trends for Board<br>2) PTTEP Preparation for Personal Data Protection Act, B.E. 2562<br>3) GRC in a Time of Crisis<br>4) Geopolitical Risk<br>- Lecture and Discussion on Corporate Strategy beyond the Crisis, a Chairman/Board Perspective by Bain & Company |
| 10) Mr. Dechapiwat Na Songkhla | - Internal Lecture and Discussion Session on 2021 Strategy Review<br>- Internal Lecture about GRC on the following topics:<br>1) 2020 Corporate Governance Trends for Board<br>2) PTTEP Preparation for Personal Data Protection Act, B.E. 2562<br>3) GRC in a Time of Crisis<br>4) Geopolitical Risk |

| Directors | Courses |
|---|---|
| | - Lecture and Discussion on Corporate Strategy beyond the Crisis, a Chairman/Board Perspective by Bain & Company |
| 11) Mr. Atikom Terbsiri | - Internal Lecture and Discussion Session on 2021 Pre-Strategy Review<br>- Internal Lecture and Discussion Session on 2021 Strategy Review<br>- Internal Lecture about GRC on the following topics:<br>1) 2020 Corporate Governance Trends for Board<br>2) PTTEP Preparation for Personal Data Protection Act, B.E. 2562<br>3) GRC in a Time of Crisis<br>4) Geopolitical Risk<br>- Lecture and Discussion on Renew Business Investment by Global Power Synergy Pcl.<br>- Lecture and Discussion on Corporate Strategy beyond the Crisis, a Chairman/Board Perspective by Bain & Company |
| 12) Mrs. Angkarat Priebjrivat | - Internal Lecture and Discussion Session on 2021 Pre-Strategy Review<br>- Internal Lecture and Discussion Session on 2021 Strategy Review<br>- Internal Lecture about GRC on the following topics:<br>1) 2020 Corporate Governance Trends for Board<br>2) PTTEP Preparation for Personal Data Protection Act, B.E. 2562<br>3) GRC in a Time of Crisis<br>4) Geopolitical Risk<br>- Lecture and Discussion on Corporate Strategy beyond the Crisis, a Chairman/Board Perspective by Bain & Company<br>- Lecture on IT Security Awareness for Top Management by ACIS Professional Center Co., Ltd.<br>- Lecture on Corporate Sustainability Development by SBDI Co., Ltd.<br>- Lecture on The future of us isn't what it used to be by KPMG Thailand and Cybersecurity, a more "matter" of IT by Deloitte Thailand, in PTT Group AC Forum 2020 arranged by PTT Plc. |
| 13) Mr. Auttapol Rerkpiboon | - Internal Lecture about GRC on the following topics:<br>1) GRC in a Time of Crisis<br>2) Geopolitical Risk<br>- Lecture and Discussion on Corporate Strategy beyond the Crisis, a Chairman/Board Perspective by Bain & Company |
| 14) Mr. Veerathai Santiprabhob | - Lecture and Discussion on Corporate Strategy beyond the Crisis, a Chairman/Board Perspective by Bain & Company<br>- Internal Lecture about GRC on Geopolitical Risk |

| Directors | Courses |
|---|---|
| 15) Mr. Phongsthorn Thavisin | - Internal Lecture and Discussion Session on 2021 Pre-Strategy Review<br>- Internal Lecture and Discussion Session on 2021 Strategy Review<br>- Internal Lecture about GRC on the following topics:<br>1) 2020 Corporate Governance Trends for Board<br>2) PTTEP Preparation for Personal Data Protection Act, B.E. 2562<br>3) GRC in a Time of Crisis<br>4) Geopolitical Risk<br>- Lecture and Discussion on Renew Business Investment by Global Power Synergy Plc.<br>- Lecture and Discussion on Cyber Risk Management for New Normal Enterprise by Carnegie Mellon University and King Mongkut's Institute of Technology Ladkrabang<br>- Lecture and Discussion on Corporate Strategy beyond the Crisis, a Chairman/Board Perspective by Bain & Company |

Currently, 13 of the Company's directors have participated in IOD's Director Certification Program (DCP), 3 has attended the IOD's Director Accreditation Program (DAP). Totally, there are 13 out of 15 directors (86.67%) who have attended the two mentioned programs. In addition, the Company regularly provided them with information on new and updated seminars and trainings. Details of the training courses attended by the directors are disclosed in the Attachment 1 "Information of the Board of Directors, Management, Controlling Persons, and Corporate Secretary".

**8.1.4 Performance Appraisal of the Board**

The Good Corporate Governance and Business Ethics of PTTEP Group (CG&BE) stipulates that there should be an annual performance appraisal of the Board derived from Board Performance Target and Performance Appraisal Form. This allowed the Company's directors to review their performance, key issues, and obstacles which they had faced during the year as well as to enhance their directorship efficiency.

The 4 types of Board's performance appraisal are:

1) Individual self-appraisal and individual cross-appraisal by other directors, including four evaluation topics, namely (1) qualifications, (2) independence, (3) roles and responsibilities, and (4) training and self-development.

2) Appraisal of the entire Board, including six evaluation topics, namely (1) corporate policies and strategic planning, (2) Board performance, (3) management governance and relationship, (4) Board meetings, (5) Board structure and qualifications, and (6) training and self-development.

3) Appraisal of the sub-committees, which includes questions on each of the sub-committee's performance efficiency according to the roles and responsibilities stated in their individual charters.

4) Appraisal of the Chairman, which includes questions on the efficiency of the Chairman's performance according to the roles and responsibilities of the Chairman as stated in the SEC's Corporate Governance Code for Listed Companies 2017 (CG Code) and the CG&BE of PTTEP Group under Section 6.3: Roles of the Board of Directors and Management. This includes topics,

such as acting as the Chairman of the Board's meetings and the Annual General Shareholders' Meeting, setting agenda for the Board's meetings, and enhancing relationship between the Board and the management.

In 2020, Board Performance Target was established, covering three aspects, namely the Company's performance results, the Corporate Governance assessment results and directors' meeting attendances. The performance appraisal form was also reviewed according to the SEC's CG Code. 2020 performance appraisal form comprised four types of Board's performance appraisal with a scoring scale of 1 to 3 (1 = need improvement, 2 = meet standard, and 3 = good).

However, Training and Self-development Appraisal questions were adjusted to cover broader aspects of learning and self-development.

Results of 2020 Board performance appraisal can be summarized as follows:

1) Self-appraisal average score was 2.86, decreased from 2.88 in 2019 (total score = 3). Individual cross-appraisal by other directors, average score was 2.87, decreasing from 2.91 in 2019 (total score = 3).

2) Average scores from self-appraisal of the entire Board was 2.86, decreased from 2.93 in 2019 (total score = 3).

In addition, 2020 self-appraisal of the entire Board included an assessment part on the relationship between the Board and management. The same set of questions was evaluated by management to further develop their relationships and to promote two-way communication.

3) 2020 appraisal scores of the four sub-committees were within "good" range as follows:

3.1) Appraisal score of Audit Committee was 2.94, decreased from 3.00 in 2019 (total score = 3).

3.2) Appraisal score of Nominating and Remuneration Committee was 2.86, decreased from 2019 in which the two Committees were separated, the Nominating Committee score was 2.97 and the Remuneration Committee score was 2.92 (total score = 3).

3.3) Appraisal score of Corporate Governance and Sustainable Development Committee was 2.92, increased from 2.89 in 2019 (total score = 3).

3.4) Appraisal score of Risk Management Committee was 2.95, decreased from 3.00 in 2019 (total score = 3).

4) 2020 appraisal of the Chairman by the Board was 2.94, decreased from 2.98 in 2019 (total score = 3).

PTTEP reported scores to the Board for acknowledgement. Recommendations from the Board's appraisal will be used in the future for efficiency improvement of the Board, sub-committees, Chairman, and management in several aspects, such as focusing more on direction towards new business. The directors increase emphasis on self-development by attending applicable training and studying business trends and technologies from seminars, business visits and exchanging knowledge with experts in other industries as well as holding the Directorship in other companies in order to enhance the Board's performance efficiency and initiation to further promote the Company's long-term sustainable growth.

### 8.1.5 Performance Appraisal of the Chief Executive Officer (CEO)

The Board assigned the Nominating and Remuneration Committee to be responsible for conducting the CEO's performance appraisal according to the CEO's Performance Agreement as determined by the Committee. The appraisal was measured by the Corporate KPIs. The appraisal outcome must also be approved by the Board to ensure checks and balances as well as to allow the Company to monitor the performance of the CEO. In addition, it helps promoting the Company's Good Corporate Governance and greater operational efficiency in the future.

### 8.1.6 The Board's Meetings

The Board's monthly meetings and agenda are scheduled and set in advance each year by the Board itself. There are 12 normal meetings annually on the last Thursday of every month. The Board members have been informed of the 2021 meeting schedule since September 2020. Meetings related to the Company's strategic planning, to which the Board has greatly committed its time and priority, are commonly held off-site, whereas additional meetings will be held when deemed appropriate. In 2020, there were 18 Board meetings. The Board usually receives meeting invitations from the Company Secretary, along with agenda and important documents related to the meetings, for review at least five working days prior to the meeting date, except in those urgent cases with insufficient information. In addition, the meeting documents are delivered to the directors through dedicated software to facilitate and speed up their reviews as well as to promote a paperless process.

Generally, the Company's Chairman, the CEO, the Secretary to the Board of Directors, and the Company Secretary are responsible for agenda proposals for Board meetings; however, in practice, the Company's directors are also eligible to make the proposals.

The Board's meeting agenda items are clearly classified, including monthly items of performance review as well as budget execution. The standing agenda items are as follows:

| Month | Standing Agenda Items |
|---|---|
| January | • Annual General Shareholders' Meeting Documents Preparation, namely:<br>1) Unaudited Annual Financial Statements<br>2) Dividend Payment<br>3) Auditor Appointment and Auditor's Fees<br>• PTTEP's Board Performance Target |
| February | • Annual Registration Statement |
| March | • Annual General Shareholders' Meeting Preparation |
| April | • Appointment of Sub-committee Members<br>• Assessment of the Annual General Shareholders' Meeting |
| May | • Strategic Direction and Annual Strategic Planning |
| July | • Interim Dividend Payment (if any) |
| September | • Board Meeting Schedule |
| November | • Business Plan, 5-Year Investment Plan, and Annual Budgeting<br>• Corporate Key Performance Indicators (KPIs) and CEO's Performance Agreement<br>• Annual Procurement Plan |
| December | • Annual Performance Appraisal of the Board of Directors, Sub-committees, and the Chairman<br>• Corporate Performance and Budget for Employees' Merit Increase and Annual Special Payment |

During each of the meetings, which usually lasts approximately three to four hours, the Chairman allocates an adequate time to each agenda to provide an opportunity for directors to express their opinions independently. The Company's executives are also invited to attend the meetings to provide necessary information as well as to acknowledge the policies and

issues being raised. The Secretary to the Board of Directors and the Company Secretary administer provide advice to the Board on related rules and regulations for proper practices, take minutes of the meetings, as well as keep complete filing of all the necessary meeting information and documents.

The Board's resolutions are based on a majority vote, where one director has one vote. Should a director have a stake in one of the issues, he or she will not be allowed to attend the meeting and/or to exercise his or her vote on that issue. In the circumstance where the voting is tied, the Chairman of the meeting is entitled to cast the decisive vote.

The issues which require an approval of no less than three-fourth of the total vote of the Company's eligible shareholders attending the meeting are as follows:

1) The sale or transfer of whole or important parts of business of the Company to other persons

2) The purchase or acceptance of transfer of businesses of other public limited companies or private companies to the Company

3) The making, amending or concealing of contracts relating to the leasing out of the businesses of the Company, wholly or certain important parts, the assignment to any other persons to manage the businesses of the Company or the amalgamation of the businesses with other persons with objectives towards profit and loss sharing

4) To amend the Memorandum or Articles of Association

5) To increase or reduce the registered capital, issue debentures, amalgamate and dissolve the Company

6) In case where the Company or one of the subsidiaries agrees to enter connected transactions, or disposition or acquisition of the Company's or the subsidiary's assets, as determined by the Securities and Exchange law and Notifications in relation to such transaction.

The minutes of the Board's meetings cover all significant matters. For issues seeking approval, all resolutions are unanimous. The names of the persons attending or absent from the meetings, names of the meetings' attendants, and names of those who state his or her opinions, questions, answers, or clarifications are recorded in detail, while the minutes are systematically filed and kept safely. All directors of the Board usually attend every meeting unless an absence is deemed necessary, in which case the director in question must provide the Board's Chairman with an application for leave, which must be communicated to all the Board members prior to the meeting and will be subsequently recorded in the report of individual directors' meeting attendance. In 2020, the majority of the Board members attended every meeting. The directors who were unable to attend the meeting informed the Chairman of the reasons in advance.

In 2020, non-executive directors held one meeting in the absence of the management. The purpose of the meeting was to discuss and clarify ongoing issues from corporate performance of 2020. The results were summarized for and acknowledged by the CEO for further consideration.

### 8.1.7 Meeting Attendance of PTTEP Directors in 2020

| Director's Name | Board of Directors | Independent Directors Committee | Non-Executive Directors Committee | Corporate Governance and Sustainable Development Committee | Audit Committee | Nominating and Remuneration Committee | Risk Management Committee | Annual General Shareholders' Meeting 2020 |
|---|---|---|---|---|---|---|---|---|
| | Total number of meetings | Total number of meetings | Total number of meetings | Total number of meetings | Total number of meetings | Total number of meetings | Total number of meetings | Total number of meetings |
| | 18 Times | 4 Times | 1 Time | 5 Times | 13 Times | 8 Times | 15 Times | 1 Time |
| 1. Mr. Prajya Phinyawat | 18/18 | 4/4 | 1/1 | - | - | - | - | 1/1 |
| 2. Mr. Achporn Charuchinda | 17/18 | 4/4 | 1/1 | - | 13/13 | 8/8 | - | 1/1 |
| 3. Admiral Tanarat Ubol | 17/18 | 4/4 | 1/1 | 5/5 | - | 8/8 | - | 1/1 |
| 4. Major General Nimit Suwannarat | 14/18 | 4/4 | 1/1 | - | - | 7/8 | 12/15 | 1/1 |
| 5. Mr. Twarath Sutabutr | 16/18 | - | 1/1 | - | - | - | 14/15 | 1/1 |
| 6. Mr. Pitipan Tepartimargorn | 18/18 | - | 1/1 | 5/5 | - | 8/8 | 15/15 | 1/1 |
| 7. Mr. Bundhit Eua-arporn | 17/18 | 4/4 | 1/1 | - | - | 7/8 | - | 1/1 |
| 8. Ms. Penchun Jarikasem[1] | 18/18 | 4/4 | 1/1 | - | 9/9 | - | 15/15 | 1/1 |
| 9. Mr. Patchara Anuntasilpa | 18/18 | - | 1/1 | - | - | 8/8 | - | 1/1 |
| 10. Mr. Dechapiwat Na Songkhla | 12/18 | 3/4 | 1/1 | - | 7/13 | - | - | - |
| 11. Mr. Atikom Terbsiri | 18/18 | - | 1/1 | - | - | - | 15/15 | 1/1 |
| 12. Mrs. Angkarat Priebjrivat | 18/18 | 4/4 | 1/1 | 5/5 | 13/13 | - | - | 1/1 |
| 13. Mr. Auttapol Rerkpiboon[2] | 5/5 | - | 1/1 | - | - | - | - | - |
| 14. Mr. Veerathai Santiprabhob[3] | 3/3 | 2/2 | - | 1/1 | - | - | 3/3 | - |
| 15. Mr. Phongsthorn Thavisin | 18/18 | - | - | - | - | - | - | 1/1 |
| Former Directors Resigning during 2020 | | | | | | | | |
| 1. Mr. Chansin Treenuchagron[4] | 13/13 | - | - | - | - | - | - | 1/1 |
| 2. Mr. Sethaput Suthiwart-Narueput[5] | 13/14 | 2/2 | - | 2/2 | 4/4 | 5/5 | 10/10 | 1/1 |

[1] Ms. Penchun Jarikasem became an independent director from February 1, 2020, was elected as membership of Audit Committee effective from April 30, 2020 and was elected as Chairman of Risk Management Committee effective from September 24, 2020.
[2] Mr. Auttapol Rerkpiboon was elected as a director in place of Mr. Chansin Treenuchagron effective from August 1, 2020.
[3] Mr. Veerathai Santiprabhob was elected as a2n independent director in place of Mr. Sethaput Suthiwart-Narueput and assumed membership of Risk Management Committee and Corporate Governance and Sustainable Development Committee effective from October 15, 2020.
[4] Mr. Chansin Treenuchagron resigned from directorship effective from August 1, 2020.
[5] Mr. Sethaput Suthiwart-Narueput resigned from directorship effective from August 31, 2020.

8.1.8 Number of PTTEP Shares held by the Directors, their Spouses/Cohabiting Couple and Minor Children as of December 31, 2020

| Director's Name | Number of Ordinary Shares | | |
|---|---|---|---|
| | As of December 31, 2019 | As of December 31, 2020 | Increase/(Decrease) during the Year |
| 1. Mr. Prajya Phinyawat | 15,000 | 15,000 | - |
| 2. Mr. Achporn Charuchinda | - | - | - |
| 3. Admiral Tanarat Ubol | - | - | - |
| 4. Major General Nimit Suwannarat | - | - | - |
| 5. Mr. Twarath Sutabutr | - | - | - |
| 6. Mr. Pitipan Tepartimargorn | - | - | - |
| 7. Mr. Bundhit Eua-arporn | - | - | - |
| Spouse/Cohabiting Couple | 4,587 | 4,587 | - |
| 8. Ms. Penchun Jarikasem | 10,000 | 10,000 | - |
| 9. Mr. Patchara Anuntasilpa | - | - | - |
| 10. Mr. Dechapiwat Na Songkhla | - | - | - |
| 11. Mr. Atikom Terbsiri | - | - | - |
| 12. Mrs. Angkarat Priebjrivat | - | - | - |
| 13. Mr. Auttapol Rerkpiboon[1] | N/A | - | N/A |
| Spouse/Cohabiting Couple | N/A | 500 | N/A |
| 14. Mr. Veerathai Santiprabhob[2] | N/A | - | N/A |
| 15. Mr. Phongsthorn Thavisin | 101,037 | 101,037 | - |
| Former Directors Resigning during 2020 | | | |
| 1. Mr. Sethaput Suthiwart-Narueput[3] | - | - | - |
| 2. Mr. Chansin Treenuchagron[4] | - | - | - |

[1] Mr. Auttapol Rerkpiboon was elected as a director in place of Mr. Chansin Treenuchagron effective from August 1, 2020.

[2] Mr. Veerathai Santiprabhob was elected as an independent director in place of Mr. Sethaput Suthiwart-Narueput and assumed membership of Risk Management Committee and Corporate Governance and Sustainable Development Committee effective from October 15, 2020.

[3] Mr. Sethaput Suthiwart-Narueput resigned from directorship effective from August 31, 2020.

[4] Mr. Chansin Treenuchagron resigned from directorship effective from August 1, 2020

### 8.1.9 Remuneration of the Board and Members of the Sub-Committees

PTTEP has a sound and transparent policy in regard to remuneration of the Company's directors of the Board and sub-committees. The Nominating and Remuneration Committee, who is responsible for the policy, reviews the remuneration with prudence by taking into consideration remuneration of listed and comparable companies in the industry, performance of PTTEP, duties and responsibilities of the directors, overall economic situation, and the shareholders' opinions. The 2020 Annual General Shareholders' Meeting (AGM) approved the following remunerations for members of the Board and sub-committees, as proposed by the Nominating and Remuneration Committee.

Remuneration Rates for Members of the Board

1) Monthly allowance of THB 40,000 per person per month in a full-month payment

2) Meeting allowance of THB 50,000 per person per a meeting attendance

3) Bonus for the Board if there is a dividend in that year, totaling 0.2% of the Company's consolidated net profit in that year, but no more than THB 60 million per year.

4) 25% increase in all of the above for the Chairman

Remuneration Rates for Members of the Sub-Committees

The Company's sub-committees received the following remuneration:

1) Meeting allowance of THB 45,000 per person per a meeting attendance

2) 25% increase for the sub-committee's Chairman

Other Remuneration for PTTEP Directors

- None -

Remuneration of Members of the Board and Sub-Committees in 2020

| Director's Name | | Remuneration | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|
| | | Board of Directors | | Audit Committee | Corporate Governance and Sustainable Development Committee | Nominating and Remuneration Committee | Risk Management Committee | 2020 Bonus Paid in 2021 | |
| | | Monthly Allowance | Meeting Allowance | Meeting Allowance | Meeting Allowance | Meeting Allowance | Meeting Allowance | | |
| 1. Mr. Prajya | Phinyawat | 600,000 | 1,125,000 | - | - | - | - | 3,715,412 | 5,440,412 |
| 2. Mr. Achporn | Charuchinda | 480,000 | 850,000 | 731,250 | - | 393,750 | - | 2,972,329 | 5,427,329 |
| 3. Admiral Tanarat | Ubol | 480,000 | 850,000 | - | 281,250 | 360,000 | - | 2,972,329 | 4,943,579 |
| 4. Major General Nimit | Suwannarat | 480,000 | 700,000 | - | - | 315,000 | 540,000 | 2,972,329 | 5,007,329 |
| 5. Mr. Twarath | Sutabutr | 480,000 | 800,000 | - | - | - | 630,000 | 2,972,329 | 4,882,329 |
| 6. Mr. Pitipan | Tepartimargorn | 480,000 | 900,000 | - | 225,000 | 360,000 | 675,000 | 2,972,329 | 5,612,329 |
| 7. Mr. Bundhit | Eua-arporn | 480,000 | 850,000 | - | - | 393,750 | - | 2,972,329 | 4,696,079 |
| 8. Ms. Penchun | Jarikasem | 480,000 | 900,000 | 360,000 | - | - | 708,750 | 2,972,329 | 5,421,079 |
| 9. Mr. Patchara | Anuntasilpa | 480,000 | 900,000 | - | - | 360,000 | - | 2,972,329 | 4,712,329 |
| 10. Mr. Dechapiwat | Na Songkhla | 480,000 | 600,000 | 315,000 | - | - | - | 2,972,329 | 4,367,329 |
| 11. Mr. Atikom | Terbsiri | 480,000 | 900,000 | - | - | - | 675,000 | 2,972,329 | 5,027,329 |
| 12. Mrs. Angkarat | Priebjrivat | 480,000 | 900,000 | 585,000 | 225,000 | - | - | 2,972,329 | 5,162,329 |
| 13. Mr. Auttapol | Rerkpiboon | 200,000 | 250,000 | - | - | - | - | 1,242,531 | 1,692,531 |
| 14. Mr. Veerathai | Santiprabhob | 120,000 | 150,000 | - | 45,000 | - | 135,000 | 633,447 | 1,083,447 |
| 15. Mr. Phongsthorn | Thavisin | 480,000 | 900,000 | - | - | - | - | 2,972,329 | 4,352,329 |
| Former Directors Resigning During 2020 | | | | | | | | | |
| 1. Mr. Chansin | Treenuchagron | 280,000 | 650,000 | - | - | - | - | 1,729,798 | 2,659,798 |
| 2. Mr. Sethaput | Suthiwart-Narueput | 320,000 | 400,000 | 180,000 | 90,000 | 225,000 | 562,500 | 1,973,432 | 3,750,931 |
| TOTAL | | 7,280,000 | 12,625,000 | 2,171,250 | 866,250 | 2,407,500 | 3,926,250 | 44,962,572 | 74,238,822 |

Remarks:

1) 2020 Directors' Bonus to be proposed for approval from the Annual General Meeting of Shareholders for the year 2021 at the rate of 0.2% of the Company's net profit from the 2020 consolidated financial statements of the Company to be approved by the shareholders in 2021. If paid Dividend to shareholders, the payment will be made according to the term of service as the director and the chairman of the board receive a 25% higher bonus, but no more than THB 60 million per year.
2) In order to comply with the terms of the management contract in the position of PTT Chief Executive Officer and President of Mr. Chansin Treenuchagron.
   2.1) Mr. Chansin Treenuchagron returns all directors' remuneration for the year 2020 from January 1 - May 12, 2020 to PTT Public Company Limited.
   2.2) PTTEP transfers all directors' remuneration for the year 2020 from May 13 - July 31, 2020 to Mr. Chansin Treenuchagron.
3) PTTEP provides the Chairman with a corporate car to carry out corporate-related purposes while in the chairmanship.
4) Resolution of the 2020 Annual General Meeting of Shareholders to merge the Remuneration Committee and the Nominating Committee to be one committee.

### 8.1.10 Corporate Governance Concerning Subsidiaries and Associated Companies

Details are disclosed in the "Structure and Business Operations" section, "Operational Policy of the PTTEP Group" part.

### 8.1.11 Monitoring of the Compliance with Corporate Governance Policies and Practices

#### 1) Conflict of Interest Prevention Policy

PTTEP is committed to preventing all potential conflicts of interest to give the Company's stakeholders' confidence that our business management is efficient, transparent, and in compliance with the Good Corporate Governance and Business Ethics of PTTEP Group under the following principles:

1) Directors, management, and employees shall treat the interests of the PTTEP Group as priority and shall not participate or be involved in all activities which may lead to any conflicts of interest.

2) Directors, management, and employees shall self-review and disclose, at least on an annual basis, their transactions that have led to a conflict of interest with the Company.

3) Directors, management, and employees who have conflict of interest shall not participate in considering or voting on any matters in which they have vested interest, and such conflict of interest shall be completely disclosed to the Company.

4) Directors, management, and employees shall strictly adhere to the laws and regulations as required by the Stock Exchange of Thailand, particularly in relation to connected transactions.

The Company has established conflict of interest preventive measures as follows:

1) Directors, management, employees, and related persons must avoid financial involvement or engagement in a relationship with outsiders which may result in the PTTEP Group's loss of benefits, conflicts of interest, or operational inefficiency.

2) Directors, management, employees who may have a potential conflict of interest on bidding, selection process, and awarding of the transaction, must report to their supervisors or those participating in the given process using the Company's Conflict of Interest Declaration Form. They must also withdraw themselves from participating in such process or conflicted transactions of PTTEP.

3) Directors, management, and employees must notify the Company immediately should there be any suspicion or uncertainty on what they or their related persons are involved in, or that their shares in the business with transactions with the Company, may lead to a conflict of interest.

Directors, management, and employees must self-review their conflicts of interest on an annual basis. To review their conflicts of interest related to any particular matter in the procurement process, management and employees who are directly involved in the procurement process must self-review and disclose their transactions which may lead to a conflict of interest at least every 6 months. Such declaration will enable the supervisors to consider a re-assignment of duty of management, employees who have a conflict of interest to prevent such conflicts of interest from occurring.

**2) Prevention of Insider Trading**

Details are disclosed in the "Corporate Governance" section, "Prevention of Insider Trading" part.

**3) Anti-Corruption**

Importance

The PTTEP's Board places an importance on operating with transparency and fairness under corporate governance with zero tolerance on any form of corruption whether directly or indirectly. PTTEP has proper governance on all relevant functions pursuant to the Good Corporate Governance and Business Ethics of PTTEP Group or CG&BE which is the PTTEP Group's regulations binding all across the organization, from the directors, management, to all employees of PTTEP and its subsidiaries, who are required to sign a commitment form agreeing to observe and conform with such regulations. Also, our measures encourage those related to the PTTEP Group, including suppliers and joint-venture partners, to abide by the CG&BE and uphold similar best practices for anti-corruption at the same level with PTTEP's standards.

PTTEP believes that efficient anti-corruption measures require a sound governance structure together with a clear management system, adequate and proper risk management and internal controls, good monitoring for strict and ongoing compliance, independent audit and explicit guidelines as stated in the CG&BE. It also requires all directors and management to lead on good governance (CG Leader). The PTTEP Board of Directors assigned the Corporate Governance and Sustainable Development Committee to monitor on compliance of the CG&BE as well as the Anti-Corruption Policy. Corporate Governance and Shareholder Engagement Section, under the Corporate Governance, Compliance, and Internal Control Department, Corporate Secretary Division, is a central function to support and drive the compliance of the CG&BE and PTTEP Group's anti-corruption measures. At least every quarter, updates are to be provided to the Corporate Governance and Sustainable Development Committee and the Board of Directors. The CG&BE has been prepared in writing under the internal control principles and published and distributed to all relevant stakeholders in Thai, English and Burmese, as well as distribution the full version of the CG&BE on the Company's website for further study by interested parties' downloading. Finally, a "Standard of Practice for Anti-Corruption" was rolled out for the management and employees to conduct themselves properly under various circumstances where corruption risks exist – another internal control measure of PTTEP.

In addition, to establish a good standard for transparent business execution and reduce the risk of conflicts of interest, the PTTEP Group constantly adheres to the No Gift Policy and explicitly announces the Policy to outsiders that PTTEP Group personnel will not accept gifts, entertainment, or any other benefit on any occasion. Integrity & Ethics has also been made as one of corporate values for cultivation across the organization.

Scope of PTTEP Group's Anti-Corruption Policy

PTTEP specifies that the CG&BE represents as the PTTEP Group's anti-corruption policy. Its contents embrace the principles, guidelines, and clear examples on all matters related to anti-corruption measures. These include governance structure stated under Corporate Governance; guidelines for conflicts of interest, procurement and contract; anti-money laundering; political neutrality; use and protection of information and assets; and specific guidelines for anti-corruption practices under Business Ethics. The CG&BE is clearly imposed on the directors, management, and employees of PTTEP and its subsidiaries, as well as their business partners, all of whom agreed in writing to comply with the CG&BE and encourage joint-venture partners to adapt suitable corporate governance and a suitable business ethics.

PTTEP defined corruption based on applicable rules and legislation, domestic and international. It focuses on intention as a prime consideration: any given action for in the interests of the PTTEP Group must not accompany with intention to use one's or others' authority for wrongful gain, which is unlawful and/or against the PTTEP Group's regulations. This also includes all corrupt practices undertaken as a giver or recipient or through an agent. PTTEP recognizes that certain activities, including not-for-profit donation, sponsorship, and facilitation payment, pose vulnerability for corruption. Therefore, in defining "corruption", these activities are mentioned so that practitioners may exercise extra precaution. PTTEP also provides appropriate guidelines for employees when facing such situations in the Standard of Practices for Anti-Corruption to reduce corruption risks. In addition, PTTEP does not make donations to support political parties for election campaigns, both at the local and national levels which is in line with guideline and principle on political neutrality under our business ethics.

Measures and Principles for Implementation

Implementation of anti-corruption measures involves internal control system, risk management, compliance oversight, audit, and promotion of corporate culture and ethics, each of which is under the responsibility of relevant functional units. Therefore, PTTEP defined "Three Lines Model" of internal control and risk management as follows:

1) The First Line Roles is made up of various functional units responsible for overseeing their respective work while they apply proper risk management, internal control and full compliance with all applicable laws and regulations. The people in this First Line Roles are required to have knowledge and understanding of internal regulations and relevant laws related to their works. Moreover, they must improve their competencies and attend the necessary trainings to ensure that they are adequately knowledgeable and ready to perform duties in their respective jobs and efficiently confront various situations.

2) The Second Line Roles is made up of those units responsible for overall legislation, regulations, and policies adopted by the Company and for defining regulations and criteria as well as monitoring the compliance. For instance, the units in charge of governance, risk management, internal control, and compliance (GRC) come under the Human Resources, Corporate Affairs, and Assurance Group. There is a proactive and explicit integration of management as stated in the Governance, Risk Management, and Compliance Management System Manual (GRC MS Manual) to enable goal achievement while having proper risk management according to applicable corporate regulations and code of ethics. At the same time, business processes are improved for efficiency and adequate internal control through reduced redundancy. The work scope contains the following 9 key components: (1) leadership and commitment; (2) policies, objectives, and plans; (3) organization and resources; (4) GRC assessments; (5) controls and responses; (6) monitoring and assurance; (7) audit; (8) continual improvement; and (9) communication and culture.

3) The Third Line Roles is made up of audit functional unit and external auditors, responsible for independently auditing the overall performance of various management systems under the First and Second Line Roles.

PTTEP requires the Internal Control Section to regularly conducts internal control assessment on potential fraud risks, which include risks of asset misappropriation, corruption, fraud, and fraudulent financial reporting, to evaluate and ensure the adequacy of the Company's internal control system in accordance with the Office of the Securities and Exchange Commission (SEC)'s regulations. The Company's Vice Presidents, from each of the function groups, are required to do self-assessment of fraud risks considering 3 main factors, namely, motivation/pressure, opportunity to fraud, and attitude/necessity to fraud. The results of the Assessment indicated that PTTEP has an adequate and appropriate level of internal

control. The majority of the function groups have carefully assessed taking into consideration these 3 factors and appropriately adjusted their internal control measures in time.

Continuous Communication and Knowledge Development and Training

The Corporate Governance and Sustainable Development Committee has defined a clear plan for cultivating the CG&BE of the PTTEP Group and the Anti-Corruption Policy for everyone across the organization through various ongoing activities encompassing target groups at all levels and of all age groups. Activities were designed to match target groups' interests and knowledge levels, and their implementation expanded to external stakeholders, including suppliers. Performance indicators of target groups inside and outside PTTEP were clearly defined to ensure proper policy implementation for the most concrete results. This year 2020 relevant actions included the following:

Measures for Internal Parties

1) Organized induction sessions for new directors, management, and employees regarding the governance, risk management, and compliance (GRC) providing them with basic knowledge and understanding for acknowledgment and compliance. A GRC Induction video was prepared to educate employees operating at various sites to make it convenient for them.

2) Organized quarterly GRC promotion for the Board before Board meetings to educate them of information and case studies helpful for the performance of the directors and management. The Chairman of the Board's Meetings stressed that the directors and management should also carry these out. The topics of 2020 were as follows:

- 2020 Corporate Governance Trends for Board
- PTTEP Preparation for Personal Data Protection Act, B.E. 2562
- GRC in a Time of Crisis
- Geopolitical Risk

3) Organized GRC basic knowledge training courses (GRC 101) for staff who worked with the Company for 2-3 years. Contents cover corporate governance and business ethics, risk management, internal control, and compliance, with an emphasis on anti-corruption and relevant matters so that employees have correct understanding and duly apply them on their works.

4) Established the assurance function in the Malaysia Projects whom requires to report the progress to functional unit that manage GRC at PTTEP's headquarters. GRC Unit at headquarters already directly communicated the GRC matters to Partex Holding B.V. Group.

5) Developed a CG&BE E-Learning course which is mandatory for executives and employees to enhance their knowledge and understanding with a post-test to assess their understandings. The result of post-test is provided promptly after finishing the test.

6) Jointly organized the PTT Group CG Day 2020, an annual activity of the PTT Group's flagship companies for all personnel of the PTT Group and representatives of entities dealing with governance and anti-corruption, suppliers, and customers of the PTT Group. Known this year as "PTT Group CG Day 2020: Step to the Future", the activity was held on December 23, 2020 as a virtual event to adapt to the COVID-19 pandemic. This event clearly demonstrates of the unity and commitment

among the PTT Group in carrying out transparent businesses, readiness to encourage all business sectors society, and the whole country to adapt a work culture with transparency, fairness, and free from all types of corruptions.

7) Amended the Standard of Practice for Anti-Corruption to be clearer and more practical for implementation. The revision includes the reporting and approval process for employees stationed at PTTEP's projects in other countries when there is a giving to government official whether in a form of gift, representation, or other kind of benefit and the reporting and approval process for the acceptance of PTTEP employees whether in a form of gift, representation, or other kind of benefit. The Company also provided and communicated the related frequently asked questions (FAQs) to employees to know and correctly follow the Guidelines.

8) Established communication on conflicts of interest and the complaint handling together with the provision on protection so that management and employees may recognize their importance and confidently file complaints through the Company's defined channels with a good understanding of relevant procedures and protection. The number of complaints were disclosed annually as a summary along with punished cases. (Detail are shown under the heading of "Whistleblowing Reporting and Protection Procedures") This is part of the campaign for all to be part in building corporate culture with transparency and corruption-free practices.

9) Instituted other ongoing communications to educate across the organization such as the collaboration with the Global Compact Network Thailand (GCNT) and produced a short film with a title of "No Joke", reflecting the corruption problems deeply rooted in Thai society under the concept that we shall not allow corruptions to damage Thailand for better and sustainable society. We also encourage employees to participate in various anti-corruption activities at the headquarter and other operation sites e.g. promoting Anti-Corruption Day through multiple channels, such as communication signboards, e-mails and newsletter, etc.

Measures for External Parties

PTTEP has a clear intention to become a leading company in the realm of Corporate Governance (CG) demonstrating strong commitment and expand good governance to external parties. This is evidenced by PTTEP having written clear policy covering external stakeholders, for example, vendors, joint venture partners, and representatives of the PTTEP Group. The Company also encourages these external stakeholders to conduct businesses ethically and not to be involved with corruptions through the following activities:

1) Notifying all suppliers about the No Gift Policy and request for their cooperation not to give or offer gifts, souvenirs, or other benefits on any occasions to the directors, management, and employees of the PTTEP Group. PTTEP also communicated and invited suppliers with the top 100 contract values to engage in online training (including post-test) on anti-corrupt practices. Total of 84 percent in actual attendance successfully passed the test.

2) Announcing to external parties the No Gift Policy explicitly on PTTEP's website and installing communicating signboards in office premises near spots where visitors can clearly see, both in Thailand and other countries.

3) Advocating to society a culture of good governance and anti-corruption. This year 2020 PTTEP took actions and participated in various key activities. Detail are shown under the heading of "Collective Efforts with the Public to Counter Corruption".

4) Establishing channels for external parties to inquire in case of questions or recommendations on good corporate governance and business ethics by emailing to Corporate Secretary Division (corporatesecretary@pttep.com)

**Monitoring the Implementation of Anti-Corruption Measures**

The Board of Directors has assigned the Corporate Governance and Sustainable Development Committee to monitor implementation concerning anti-corruption measures, which is part of the CG&BE. The Company Secretary, as this Committee's Secretary, gathers such outcomes and reports to the Committee at least quarterly. Besides, since the oversight of compliance with anti-corruption measures of the PTTEP Group is jointly done by several functional units (Second Line Roles and Third Line Roles), reports are made to the applicable sub-committees, namely the Risk Management Committee and the Audit Committee. All implementation results are reported to the Board of Directors and summarized for the Shareholders in the Annual Report.

Furthermore, the Corporate Governance and Sustainable Development Committee monitors the outcomes of the CG&BE plan annually and assesses such outcomes against relevant KPIs to ensure goal achievement.

**Audit**

PTTEP designates the Internal Audit Division to perform fraud auditing tasks, which include corruption, and undertaking further examination when complaints received. Currently, the Internal Audit Division has an Internal Audit Guideline – Fraud Audit that covers fraud risk assessment, prevention, detection and investigation of fraud, as well as practical guidelines used in the investigation process for complaints of fraud. Moreover, in 2020, there was an audit on the Company's anti-corruption measures for the recertification as a member of the Private Sector Collective Action Coalition against Corruption (CAC). This audit covered the expenses of high-risk functional units such as sales, procurements and logistics to ensure that the expenses related to gift, properties or other benefits offering, representation, traveling, donation and supporting fund to government officials were comply with the Company's Standard of Practice for Anti-Corruption.

PTTEP has implemented its Continuous Control Monitoring System to monitor and inspect any irregular transactions that occur in PTTEP's work processes. The system has initially been implemented on the Procure to Pay process, and currently expanded to cover warehousing and inventory management, targeting the risk of non-compliance with regulations or work procedures that may possibly lead to fraud and corruption. When an irregular transaction has been detected, the system will send a notice directly to management, enabling them to investigate and promptly resolve the matter.

**Collective Efforts with the Public to Counter Corruption**

PTTEP acknowledges the significance of our role as a listed company to build confidence of our shareholders and stakeholders that the Company's management is transparent, fair, and free from fraud and corruption. The Company as one of the State Enterprises has a responsibility to lead by example and to encourage society to adapt better anti-corruption standards. In 2020, the Company proactively took several measures and participated in several activities to counter corruption. For instance, they are Thailand's National Anti-Corruption Day which was on September 15, 2020 and International Anti-Corruption Day (Thailand) which was on December 9, 2020, both of which are online activities.

The Private Sector Collective Action Coalition against Corruption certified PTTEP as a member of Thailand's CAC on May 17, 2018. This Certification confirms our dedication and commitment to fight all forms of corruption, as well as affirming our continuous effort to expand and encourage anti-corruption measures among our subsidiaries, joint venture partners, vendors, and business partners. PTTEP is currently under process of CAC recertification which will be due in May 2021.

4) Whistleblowing Reporting and Protection Procedures

PTTEP's Board of Directors has established the Reporting and Whistleblowing Regulation for the PTTEP Group to ensure that the complaint-handling process is effective, transparent, fair, and comparable to international standards. This Regulation is meant to provide appropriate and fair protection for whistleblowers and those cooperating with the Company in good faith. This mechanism gives an opportunity for both internal and external parties of the organization to report any suspicious misconduct or wrongdoing that might be in violation of laws, the Good Corporate Governance and Business Ethics (CG&BE), anti-corruption policies, and other related regulations, as committed by the Board, management, employees, or representatives of the PTTEP Group.

PTTEP sets a clear procedure and timeframe for investigation of complaints as prescribed in the Regulation to ensure the transparency and fairness of the complaint-handling process. Examples are as follows:

- The Corporate Governance Section, Corporate Secretary Division, as a case coordinator according to the Reporting and Whistleblowing Regulation, and a subsidiary case coordinator preliminary evaluates the information and adequacy of the evidence before forwarding the complaint to the Company's investigator within 7 working days.
- The investigators prescribed in the Regulation must complete the investigation within 30 working days in every case. If the period is extended due to necessity, the extension can be made only with the approval of the authorized person (not more than 7 working days at a time for non-complex cases and not more than 30 working days at a time for complex cases). The investigator shall not have vested interests in the complaint. Every complaint coming through the whistleblowing channels is summarized and reported to the Corporate Governance and Sustainable Development Committee and/or Audit Committee (as the case may be), and subsequently reported to the Company's Board of Directors.

Whistleblowing channels of the PTTEP Group are as follows:

1) Send mail to PTTEP director, supervisor, or the Corporate Governance Section, Corporate Secretary Division:

PTT Exploration and Production Plc.
555/1 Energy Complex Building A, 33rd Floor,
Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900

2) Send e-mail to the supervisor or the Corporate Governance Section, Corporate Secretary Division (cghotline@pttep.com)

3) Report through the whistleblowing system, which is available on PTTEP's website (www.pttep.com). The system will assign an individual Report Number and PIN to the whistleblowers to ensure security and prevent forbidden access by unauthorized personnel, as well as to allow the whistleblowers to perform a follow-up on the progress of the reported complaint and make inquiries. This system serves as a necessary tool for preventing and monitoring the risks of corruption.

Whistleblowers and those cooperating with the Company in good faith shall receive appropriate and fair protection from the PTTEP Group, such as, no change of job positions/titles, no threat or unfair treatment, etc. The Complaint investigation shall be conducted on a confidential basis and not disclosed to irrelevant persons.

In 2020, PTTEP received a total of 10 complaints through the Whistleblowing Channels. After preliminary review on the clarity and adequacy of these complaints, 5 cases were accepted for further investigation, and all investigations were completed. A summary of complaints is shown in the table below.

| Topic | 2018 | 2019 | 2020 |
|---|---|---|---|
| Number of whistleblowing cases | 10 | 7 | 10 |
| **Whistleblower** | | | |
| - External reporter | 2 | 2 | 1 |
| - Internal reporter | 7 | 2 | 4 |
| - Anonymous reporter | 1 | 3 | 5 |
| Number of accepted cases after considering evidence and witnesses | 6 | 3 | 5 |
| Number of wrongdoing cases | 4 | 1 | 2 |
| **Type of wrongdoings** | | | |
| - Health and safety | - | - | - |
| - Business integrity | 4 | - | 1 |
| - Treatment of employees (Human Resources) | - | 1 | 1 |
| - Others | - | - | - |
| **Consequences of wrongdoings** | | | |
| - Verbal Warning | 1 | - | 1 |
| - Written Warning | 1 | - | - |
| - Suspension | - | - | - |
| - Termination with severance pay | - | - | - |
| - Termination without severance pay | 2 | 1 | 1 |

After completing the investigation of these 5 accepted cases pursuant to the Regulation, there were 3 cases that no offenses have been found. While, there were 2 cases of wrongdoing, details are as follows;

1) One case was related to inappropriate behavior of staff which has been considered disciplinary offense pursuant to the Human Resources Management Policy and Business Ethics on Human Resources. PTTEP has given verbal warning to the offender.

2) One case was related to a conflict of interest whereby the offenders have relationship with PTTEP's counterparty through friends and relatives and the offenders also used and disclosed internal confidential information to others with the aim to gain benefits for their own business and relatives' business. These wrongdoings have been considered serious disciplinary offense pursuant to the Human Resources Management Policy. PTTEP has terminated their employment without severance pay.

The Corporate Governance Section prepared and reported the results of the complaint investigation to related parties. The findings of the cases were used to carry out further improvements of the Company's internal control measures.

In 2020, there was an enhancement of the whistleblowing system to facilitate operations of subsidiaries and international assets to improve effectiveness of the PTTEP Group's whistleblowing case management. For more details of the Reporting and Whistleblowing Regulation and Whistleblowing System, please visit PTTEP website at https://www.pttep.com/en/Aboutpttep/Corporategovernance/ReportingAndwhistleblowingregulations.aspx

## 8.2 The Sub-Committees Report

### 8.2.1 The Corporate Governance and Sustainable Development Committee Report

PTTEP places importance on effective execution relating to sustainable development and constantly betterment of corporate governance. The Board, thus, established the Corporate Governance and Sustainable Development Committee in order to govern and promote sustainable development and corporate governance of PTTEP which are deemed important principles of strengthening organization and creating long-term value for all stakeholders. The Committee comprises at least three directors, most of whom are independent directors.

In 2020, the Committee convened five times, with all incumbent directors attending every meeting and providing useful recommendations for improving the Company's performance. The duties and responsibilities of the Committee this year can be summarized as follows:

1) Reviewed and revised the Corporate Governance Committee Charter to be in line with the Board's and 2020 Annual General Meeting's resolution. The name of the committee was amended from the Corporate Governance Committee to the Corporate Governance and Sustainable Development Committee. The scope of roles and responsibilities of the committee was extended to cover Sustainable Development perspective in order to govern and promote sustainable development and corporate governance of PTTEP which are deemed important principles of strengthening organization and creating long-term value for all stakeholders.

2) Established Ocean for Life 2030 strategy which is under the Sustainable Development (SD) Framework. The committee also screened SD Statement to be clear, simple to understand and cover all linkage in order to create the same understanding organization wide.

3) Monitored progress of execution under the SD Roadmap which covers; High Performance Organization (HPO), the committee provided recommendations on strategies and goals of PTTEP from 2020-2030 which emphasize on investment in new business to create long-term sustainability. Governance, Risk Management and Compliance (GRC), the committee provided recommendations and monitored execution under Smart Assurance and GRC in Common Sense strategies. Stakeholder Value Creation (SVC), the committee provided recommendations on Greenhouse Gas Reduction strategy, Circular Model for E&P strategy and Ocean for Life strategy including long-term plan 10 years (2020-2030), Strategic SD Communication, and CSR projects, in order to ensure that the current operations and in the future, are in line with the strategy of PTTEP and able to create long-term value for all stakeholders.

4) Promoted business operations of the PTTEP Group and performance of the Board, management, and employees, in all operations area both domestically and internationally, to be sure that they are in line with the CG&BE. In terms of its policy, the committee monitored enhancement of Global Whistleblowing System to facilitate subsidiaries and international asset. In terms of communication and training, the committee emphasized on building awareness among employees through the various channels relating to conflict of interest, No Gift Policy and CG&BE training which was arranged through online channels for all employees. Moreover, the company also communicated and encouraged its vendors to attend online training relating to anti-corruption and evaluate the understanding after the training. In terms of monitoring and evaluation, the committee encouraged to conduct CG Assessment for the second consecutive year by independent external consultants. The consultants surveyed the opinions from key stakeholders of the PTTEP Group and created the development plan based on the results.

In terms of shareholders' and investor relations' activities, the committee encouraged to arrange appropriate activities to decrease the spread of Coronavirus 2019 (COVID-19) and no effect on the rights of shareholders to access the company's information.

5) Considered and reviewed the implementation of the Corporate Governance Code (CG Code) by means that are deemed suitable to the PTTEP Group's businesses and conducive to strengthening long-term business values. The Company also established corporate governance reporting in accordance with the SEC's CG Code and international standards as well as incorporating the CG Report in the annual report for stakeholders.

The Corporate Governance and Sustainable Development Committee constantly reported the results of all meetings to the Board for its acknowledgement. In 2020, the Committee executed its assigned tasks in accordance with its charter and amendments with prudence, competence, and independence. The Committee properly provided straightforward opinions for enhancement and betterment of corporate governance and business ethics of the organization and the optimal benefit for PTTEP, the shareholders and stakeholders.

(Signed) *Tanarat Ubol*

(Admiral Tanarat Ubol)

Chairman of the Corporate Governance

and Sustainable Development Committee

### 8.2.2 The Audit Committee Report

PTTEP is determined to conduct our E&P business with a long-term strategy to achieve sustainable growth while emphasizing the importance of fair and good corporate governance as well as benefit for the shareholders and stakeholders. The Audit Committee and the Internal Audit Division, in line with this direction, are appointed by the Board to govern, oversee and review the Company's processes and their conformity to the Good Corporate Governance and Anti-Corruption policy to ensure that Governance, Risk management and Compliance (GRC) management remains effective in accordance with the changing business environment as well as to ensure that the Company's work processes and goals are closely monitored as we strive towards a sustainable future.

The Audit Committee consisted of 4 independent directors, all of whom were designated financial experts who are able to review the accuracy and reliability of financial statements. In 2020, the Committee convened 13 times which included a meeting that was conducted together with the Risk Management Committee, and the majority of incumbent directors attended all the meetings to discuss related matters with the management, the Company's internal and external auditors. This included the meetings with the Risk Management Committee to share information to ensure that their duties on monitoring the Company's activities were appropriate for dynamic risk. In 2020, the Committee's principal activities were as follows:

1) Review of Financial Reports

The Committee reviewed the Company's quarterly and annual financial statements together with the management and the external auditor [PricewaterhouseCoopers ABAS Limited (PwC)] to ensure the statements' accuracy, completeness, and compliance with all relevant laws and regulations as well as generally accepted accounting standards. The Committee also provided recommendations in regard to the Company's Management's Discussion and Analysis (MD&A) to provide an analysis of the factors affecting the Company's operation and financial statements.

2) Review of the Internal Control System

The Committee reviewed and endorsed the assessment results of the Company's internal control system. This review comprised an assessment questionnaire as required by the Securities and Exchange Commission of Thailand (SEC), which found that the Company had incorporated a proper internal control system. The Committee promoted a proactive approach in internal auditing while taking into account the key risks and crucial lessons learned, and also continued to encourage a continuous implementation of the preventive controls which helped to prevent or reduce the business risks which may have an unfavorable impact on the Company.

3) Review of Connected Transactions or Transactions with Potential Conflicts of Interest

The Committee reviewed the connected transactions or transactions with potential conflicts of interest prior to the Board's consideration to ensure that they were reasonable and beneficial to the Company and the shareholders, particularly the minority shareholders. The Committee also reviewed the disclosure of the transactions and viewed that the transactions had been correctly and completely disclosed, that the prices and conditions were fair, and that the transactions had been appropriately approved by the management or the Board of Directors prior to their commencement.

4) Review of Compliance with Laws and Related Regulations

The Committee reviewed PTTEP Group's compliance with the securities and exchange laws, SET's regulations, including other related laws, both Thai laws and the laws of other countries in which the PTTEP Group operates or invests in. The Committee also acknowledged the compliance report relating to the Company's and our subsidiaries' business operations, as prepared by the Governance, Compliance, and Internal Control Department, in addition to the other compliance audit results reported by the Internal Audit Division.

5) Oversight of Internal Audit Activities

The Committee considers a revision of the Audit Committee Charter and Audit Charter every year and reviews the performance according to the work plans and key performance indicators of the Internal Audit Division. It also regularly monitors the progress of the corrective or improvement actions plans in response to audit findings.

The Committee gave precedences to digital technologies and promoted the adoption of it in the audit process. This enabled audit work to adapt to transformation in the digital era, additionally, supported audit work to be accurate, complete and efficient as well as better analysis which led to precise and timely problem-solving. The example was the implementation of the Continuous Control Monitoring System on 1) Procure to Pay Process and 2) Warehouse and Inventory Management Process.

The Committee also focused on personnel development of the Internal Audit Division and adoption of new technology to ensure that internal audit activities are appropriate and effective.

6) Nomination of/Meeting with the External Auditor

The appointment of the external auditor for 2020, the State Audit Office of the Kingdom of Thailand (SAO) requested the Company to outsource the external auditor in accordance with the State Fiscal and Financial Disciplines Act, B.E. 2561 (2018), Section 71, requiring the SAO or the external auditor endorsed by the SAO to audit the financial reports of the government agency. The Company then proposed Ms. Amornrat Pearmpoonvatanasuk, Certified Public Accountant Registration No. 4599 or Mr. Boonrueng Lerdwiseswit, Certified Public Accountant Registration No. 6552, the auditors from PricewaterhouseCoopers ABAS Limited (PwC), to serve as the Company's external auditor. The Committee considered that PwC is a leading company with reliable performance and independence; furthermore, the audit fee is reasonable comparable to other companies in the same business. Therefore, the Committee agreed to propose PwC to be the Company's external auditor. In addition, the Committee met with the external auditor to acknowledge the audit plan and observations as well as key audit matters in the auditor's report, and also met separately with the external auditor in the absence of the management to acknowledge additional opinions from the auditor.

The Committee also assigned the management to set criteria of obtaining approval from the Committee for engaging the external auditor for significant Non-audit services. This is to ensure the external auditor's independence.

7) Oversight of Fraud Prevention

The Committee encouraged improvement of the Company's internal control system to ensure optimal control over fraud prevention. For example, the Committee promoted procurement through a competitive bidding process and supported the management to provide an analysis of past procurement reports in order to get information for preparing annual procurement plans in advance. As a result, the proportion of bidding transactions is significantly higher than direct negotiation transactions every year. The Committee also supported reporting and whistleblowing procedures, which allowed a person to raise a suspicious misconduct or a potential fraud. In addition, the Committee was responsible for verifying the results of the Company's

self-assessment relating to the anti-corruption process required by CAC and the Corporate Governance Code for Listed Companies (2017). The Company has also become a certified member of Thailand's Private Sector Collective Action Coalition Against Corruption (CAC), reflecting our determination to stand strongly and prominently against corrupt practices.

In conclusion, in 2020, the Committee conducted its work thoroughly, methodically and strictly according to the Audit Committee Charter and reported the results of all meetings to the Board on a regular basis. The Audit committee enhanced the Company's good corporate governance. This approach and its follow-through ensured that the Company is able to deliver the best possible performance in comparison with our industrial peers.

In addition, the Committee is confident in the competency of the Internal Audit Division, which consists of personnel with various qualifications, skills and experiences, enabling them to perform their duties in auditing to cover various aspects efficiently.

The Committee's overall opinion regarding the work in 2020 is that the Company's financial reports were accurate, in compliance with generally accepted accounting standards and with International Financial Reporting Standards. The Company also conducted the operations in compliance with the laws and all obligations by incorporating proper systems of risk management, internal controls, internal audit, and corporate governance.

The Committee's performance was graded "Very Good" by themselves, the Board of Directors, and related agencies.

(Signed) *Achporn Charuchinda*

(Mr. Achporn Charuchinda)

Chairman of the Audit Committee

### 8.2.3 The Nominating and Remuneration Committee Report

In 2020, PTTEP considered the merger of the Nominating Committee and the Remuneration Committee because of its related duties, i.e. nomination of Directors, Sub-Committees and CEO and consider their appropriate remuneration, consider Board, Sub-Committees and Chairman's performance assessment, develop executive succession plan and organization's salary structure. The merger was approved by the Shareholders at the Annual General Shareholders' Meeting on June 17, 2020.

PTTEP still focuses on the Execute and Expand business strategy with the aim to achieve its goals and target workplan particularly the transition of operations of newly acquired projects, review investment plan according to low oil price situation, create value added from current projects as well as expand investment opportunities in both E&P related business and new business for Company's sustainable growth. The Nominating and Remuneration Committee has hence been focusing on organization readiness, organization restructuring, development of executives' competencies, and nomination of Company's leaders by developing executive succession plan. Also, the Committee has been nominating directors who are qualified, knowledgeable, and experienced fitting its core business to provide long-term competitiveness.

The Nominating and Remuneration Committee convened 8 times in 2020, summarized as follows:

1) Considered the principles for 2020 Board Performance Target in which the Board shall focus on monitoring and providing feedbacks to the management to best achieve PTTEP's Corporate Key Performance Index (Corporate KPIs) as well as measuring the stakeholders' perspectives towards the Company including the Corporate Governance Report of Thai listed companies (CGR) and criteria and requirements of Dow Jones Sustainability Indices (DJSI).

2) Set Target Skill Mix of the nominees in replacement of the directors who are due to retire by rotation in 2021 in the areas of International Market, Organization Change and Development, and Legal to accommodate investment expansion in new business, develop full potential in commercial and marketing especially for international projects, prepare organization readiness for newly acquired projects' operatorship transfer, set internal control and reporting systems between PTTEP and its subsidiaries and manage human resources internationally in order to promote PTTEP to be a multinational company.

3) Nominated to the Board of Directors suitable candidates with appropriate Skill Mix for consideration on election of directors and sub-committee members when positions were vacated, with due consideration for Board composition, competency, experiences that useful to PTTEP, the number of companies they were serving, and potential conflicts of interest. Also, it reviewed the principles allowing shareholders to nominate qualified director nominees in accordance to the Company's Target Skill Mix for considerations by the Board of Directors and consequently the Annual General Shareholders' Meeting so that major and minor shareholders are treated fairly and suitably.

4) Considered the Board, Sub-Committees and Chairman's performance assessment and report the result of the assessment to the Board of Directors.

5) Considered the qualifications and selection process for qualified candidates to be the Company's leader and developed appropriate executives succession plan to accommodate organization's growth and to be aligned with business environment both short and long terms. Also, considered the CEO's performance appraisal and remuneration.

6) Screened and commented to the Board of Directors on organization restructuring and work process to support long-term corporate growth.

7) Reviewed the remuneration policy and organization's salary structure based on the same industry in order to maintain competitiveness and attract high-potential of both Thais and foreigners to join the Company to support the Execute and Expand strategy to be accomplished.

8) Reviewed the remuneration policy and criteria for the Board and Sub-Committees on appropriate principles based on their responsibilities and consistent with long-term corporate strategy as well as being comparable to other companies in the same industry. Moreover, the Committee took business environment into account in considering appropriate remuneration to create incentives for the Board to direct the organization to achieve its short and long-term goals together with being adaptive to the changing technology.

The Nominating and Remuneration Committee prudently and freely executed their duties to the best of their ability by providing comments for the best interest of all shareholders and stakeholders. The results of all meetings were regularly reported to the Board of Directors throughout 2020.

(Signed) *Bundhit Eua-arporn*

(Mr. Bundhit Eua-arporn)

Chairman of the Nominating and Remuneration Committee

### 8.2.4 The Risk Management Committee Report

PTTEP realizes the importance of risk management and commits to its efficiency and effectiveness to enable itself in achieving the vision, mission, strategy and business objectives, including appropriate response to stakeholders' expectations for sustainable growth as well as short-term and long-term value creation. In 2020, it was a very challenging year for PTTEP to manage risks in order to achieve its goals as PTTEP has encountered the worst oil price crisis since 2016 which the average Dubai crude oil price in April fell to 20.4 US dollars per barrel. This circumstance derived from Coronavirus 2019 (COVID-19) pandemic that affects the declining global energy demand, also the conflicts in the managing of crude oil production of OPEC and Russia, causing an oversupply situation. In addition, there are other risk factors such as declining demand for fossil fuels, import of liquefied natural gas (LNG) replacing domestic gas production, disruptive technology and cybersecurity, etc., which could potentially affect the achievement of PTTEP's strategic goals. Therefore, PTTEP's Board of Directors appointed the Risk Management Committee. As of December 31, 2020, the Committee comprised 6 members, 3 of whom were independent directors. The Committee played a vital role in overseeing that PTTEP's risk management is in line with PTTEP's Board of Directors' directions to ensure that the risks are most effectively and efficiently managed.

In 2020, the Committee convened 15 times, which included a meeting with the Audit Committee. The duties and responsibilities of the Committee can be summarized as follows:

1) Governed strategic risk management in response to the dynamically changing external environment, especially the COVID-19 pandemic and the low oil price situation by considering the followings; (1) preventive measures and mitigations to the COVID-19 pandemic in accordance with government regulations to ensure continuity of offshore, onshore, and office operations, (2) mitigations to reduce impact from the oil price slump by revising business and investment plan e.g. efficient cost management for the best benefits to the company in short-term and long-term, and (3) the implementation to improve work efficiency and apply new way of working after the COVID-19 situation, etc. The Committee also considered long-term strategic risks such as Energy Transition to mitigate risks of declining demand for fossil fuels. Moreover, the Committee considered 2021 Work Program and Budget, 5-year (2021-2025) investment plan and ensure the alignment with the corporate direction and sustainability development framework.

2) Monitored for the smooth and efficient transition of operations in Bongkot and Erawan, post-merger integration of Murphy in Malaysia and Partex in accordance with the Execute strategy by providing recommendations e.g. applying lessons learned from past mergers and acquisitions (M&As), assigning personnel from Corporate to supervise key tasks, and provide suggestions on risk mitigation of operations transferred from previous operators to ensure that the operations can be carried out smoothly with safety, security, health and environment (SSHE), including encouraging a Post Project Review study to formulate knowledge and lessons learned, and to prepare mitigations in case the assumptions change and significantly affect the performance of the project. In addition, the Committee also considered petroleum production extension for the expiring concessions such as S1 and Nam Phong (E5) projects by assessing risks and economic returns for the continuous operations of producing assets.

3) Considered investment projects in order to expand in E&P and new business including Merger & Acquisition, new exploration, divestment projects and portfolio rationalization to ensure the alignment with the Expand strategy such as investment opportunities in exploration and production projects, new business investment opportunities for energy transition.

The committee therefore assessed both risks and potential opportunities for value creation as well as provided recommendations to mitigate risks, including counterparty and country risk analysis, market risk analysis e.g. petroleum demand-supply, financial risk analysis e.g. exchange rate, and legal risk analysis, etc.

4) Enhanced for the effectiveness and efficiency of oil price and financial risk management during the low oil price crisis by closely monitoring the entering into derivative contracts for optimal oil price hedging and exchanging rate to reduce the negative impact on net cash flow and financial performance of PTTEP.

Furthermore, Risk Management Committee consistently oversaw enterprise risk management to ensure the businesses were operated within PTTEP's risk appetite, particularly risks related to exploration and production operations, market, cybersecurity, environment, and legal, including emerging risk. The outcomes of Risk Management Committee meetings were reported to the Board on a monthly basis. In this regard, PTTEP has been selected as a member of the 2020 Dow Jones Sustainability Indices (DJSI) in the DJSI World Oil and Gas Upstream & Integrated Industry and maintained a DJSI score in the area of Risk and Crisis Management in the top quartile for the 7$^{th}$ consecutive year.

In summary, during the year 2020, the Committee independently performed its duties relating to PTTEP risk management systematically, prudently, and competently for PTTEP to efficiently manage risks in order to achieve our objectives and goals for fair and maximum benefit to PTTEP, shareholders, and other stakeholders for long-term sustainability.

(Signed) *Penchun Jarikasem*

(Ms. Penchun Jarikasem)

Chairman of the Risk Management Committee

### 8.2.5 The Independent Directors Committee Report

Independent directors play a significant role and is a crucial mechanism for ensuring the best interests of the Company, shareholders and stakeholders. Independent directors ensure governance, policies and strategies implementation, together with transparency and efficient operations. This is to be certain for the equal distribution of benefits to all shareholders. PTTEP has therefore set a requirement to have independent directors more than half of the Board of Directors, a more stringent requirement than that set by the Office of the Securities and Exchange Commission (SEC); that is, a minimum of one-third of the Board. Currently, the Independent Directors Committee comprises 9 directors from the total 15 Board of directors.

In 2020, PTTEP continued to focus on growing its businesses under the Execute and Expand strategies, putting efforts to assure achievements as planned. Moreover, the Company has set the target to reduce Unit Cost in order to maintain its competitiveness and expand the business opportunity for both E&P and new business to align with the changing business environment. In order to ensure sustainable growth, the independent directors gave their useful recommendations and independent comments. This year, the Independent Committee convened 4 meetings with 8 agenda items for consideration, and the essence of the meetings can be summarized below:

1) Considered the agenda items related to overall PTT Group's business, for example, LNG business, Gas to Power in order to ensure equal benefits to all shareholders and the Company.

2) Considered the outcomes of corporate governance appraisal related to independent directors in accordance with domestic and international best practices so as to review and drive PTTEP for better corporate governance. For example, Independent directors' recommendation to explain to appraiser the reasons behind PTTEP current policy on the tenure of Independent director which has been set as 9 years, that is appropriate for the business. The Company emphasizes on the qualifications of directors it sees fit with business for the best advantage of the Company and stakeholders.

3) Reviewed to ensure that the Committee's roles and responsibilities were in line with PTTEP's Independent Directors Committee Charter as well as the international best practice so as to ensure that PTTEP's independent directors have performed their duties according to international best practices.

4) Independently considered to select the positions of corporate leaders appropriately with the business circumstance. In 2020, the Company conducted re-organization to ensure benefits to the Company as a whole.

5) Considered Independent directors report for distribution to all stakeholders in the annual report.

The Independent directors fully executed their duties and promoted transparency in the meeting. In the event that a Director is shown to have a conflict of interest with any of the agenda items, he must abstain from expressing an opinion and voting on the agenda items and leave the meeting room when the issue is discussed to allow the other Directors to express their opinions freely. An exception can be made if the other Directors vote unanimously to allow the Director to stay in the meeting room to provide information for the agenda so that the Board can deliberately make a decision. However, the Director is not allowed to vote or make a decision on an issue having conflict of interest. This is to ensure that the decisions are made for the best interest of the Company without diminishing shareholders' right especially minority shareholders and all stakeholders.

(Signed) *Prajya Phinyawat*

(Mr. Prajya Phinyawat)

Chairman of the Independent Directors Committee

# 9. Internal Controls and Connected Transactions

## 9.1 Internal Controls

PTTEP places great emphasis on continuous development of the internal control system by employing the Committee of Sponsoring Organizations of the Tread way Commission (COSO) or COSO 2013 Framework to our business activities adequately and appropriately. This is to provide reasonable assurance that (1) the Company's *operations* including utilization of resources is efficient and effective, and the safeguarding of its assets, (2) *reporting* for both financial and non-financial reports is accurate, reliable and timely, and (3) all business operations are in *compliance* with relevant laws and regulations. PTTEP also establishes our Internal Control Unit reporting to the Governance, Compliance, and Internal Control Department to be responsible for governing and supporting our business operations in alignment with the Internal Control Policy as well as to assess the efficiency of the internal control system throughout the organization, which is subsequently reported and reviewed by the Audit Committee every year.

### 9.1.1 Sufficiency and Suitability of the Internal Control System

PTTEP assesses its internal control system annually based on the five components of COSO 2013 Framework, namely (1) Control Environment, (2) Risk Assessment, (3) Control Activities, (4) Information and Communication, and (5) Monitoring Activities. It also employs the Self-Assessment Form provided by the Office of the Securities and Exchange Commission of Thailand (SEC). The 2020 assessment results are as follows:

1. Control Environment

PTTEP has established a sufficient and suitable control environment which promotes effective and efficient business operations. The board of directors ("Board") and management team also continuously cultivate an ethical working attitude and atmosphere where the Company's internal control system is conducted according to the Good Corporate Governance and Business Ethics of the PTTEP Group (CG&BE) in order to achieve the ultimate objectives: Growth, Prosperity, Stability, Sustainability, and Dignity. The main activities conducted by our control environment can be summarized as follows:

- PTTEP has specified a written principle of CG&BE as its highest internal regulation of the PTTEP Group. The Board as well as management and employees at all levels are required to sign the commitment form to formally acknowledge and strictly conform to the CG&BE accordingly. They are also required to self-assess their conflicts of interest annually. Moreover, Integrity & Ethics is also embedded as one of the PTTEP's corporate values (*EP* SPIRIT) to emphasize that CG&BE principles shall be implemented as a fundamental concept for our transparent and auditable business operations. All employees will also receive formal communication regarding our CG&BE along with its booklet to be used as a reference since the very beginning of their employment.
- PTTEP emphasizes the communication of good practices according to the CG&BE and the consequential penalties in case of a breach to ensure that it is well understood by the management and employees, both domestically and internationally, through email communications and other activities such as email alerts regarding blackout periods for stock trading to prevent insider trading issues, induction programs for new directors and employees, as well as live training and e-learning. PTTEP also publicizes the CG&BE on its website for external stakeholders' communication and demonstrates a strong will to encourage our business alliances including joint-venture partners, suppliers/vendors and company representatives

to operate their businesses with integrity and to avoid involvement in any form of corruption. In addition, online training and examination is also specifically arranged for our vendors to ensure that PTTEP's anti-corruption practices are well-understood. The Company also have a clear stance to fight against corruption together with the public sector and civil society by continually participating in anti-corruption activities such as being a certified member of Thai Private Sector Collective Action against Corruption (CAC), as well as supporting the International and National Anti-Corruption Days.

- PTTEP monitors and assesses whether our business ethics (on par with the code of conduct) are being followed by the Second Line Roles and the Third Line Roles to ensure that the management and employees can effectively integrate ethical conduct into their work courses. To exemplify, the business ethics on Procurement and Contract has the Supply Chain, Procurement, and Contracts unit perform the second line roles, whereas the Internal Audit Division plays the third line roles to independently audit operations to ensure conformance to internal regulations and efficiency of the Company's internal control system in accordance with the international standards. Additionally, PTTEP is regularly evaluated by external independent parties such as assessments by the Corporate Governance Report of Thai Listed Companies held by the Thai Institute of Directors Association (IOD), the Dow Jones Sustainability Indices (DJSI), the ASEAN Corporate Governance Scorecard, and the Thai Private Sector Collective Action against Corruption (CAC).
- PTTEP establishes a clear segregation of duties (SoD) between the Board and management. The Board's duty is to develop corporate goals and strategies, without performing routine operations as the management do, and to oversee and follow up on business performance of the management to achieve strategic plans, operational direction, objectives, and specified policies. The Board also ensures that strategies and policies are practical and suitable enough to allow the management team to smoothly and efficiently operate under the business environment at the particular time and thus enable the Company's sustainable growth, where the management would report our operational performance to the Board on a regular basis. During 2020, the Board placed high importance on the execution of Governance, Risk Management and Compliance (GRC) for our newly acquired assets which are under a transition phase. Furthermore, the Board has assigned the Audit Committee to oversee and raise observations on the Company's internal control system, internal audit system, and financial reports, as well as the appointment of the external auditor which are in line with the roles and duties set out in the Audit Committee Charter.
- PTTEP's organization structure is appropriately designed in accordance with our main business of exploration and production, with flexibility and efficient collaboration that is in line with internal control principles, such as SoD and checks and balances, so as to support corporate strategic plans and ensure our resource utility management. In 2020, to appropriately support our business growth, the Company conducted an organizational restructuring in related areas, for instance, the establishment of the Oman Exploration Project and Malaysia Asset Transition Team. PTTEP moreover established a working team to drive the New Way of Working project to ensure performance efficiency across the Company.
- PTTEP has appropriate reporting-line structures and hierarchy of authorities for the Company's business requirements and responsibilities of the management and employees, which are clearly defined and documented in the Company's Functional Description and the Delegation of Authority and Signatures (DAS).In 2020, PTTEP revised DAS according to the new organization structure for more effectiveness of authority delegation in related areas such as human resource management, petroleum technical review, donation and charity, credit rating, and investment, exploration and production.

- PTTEP has an extensive set of human resource management regulations and policies which focus on attracting, developing, and retaining employees to support short-term and long-term organization growth. Since 2019, the Company has aimed to recruit and develop personnel to meet business needs in four main areas, namely (1) mergers and acquisitions (M&A), (2) exploration success, (3) joint venture management, and (4) deepwater. In 2020, the Company also focuses on personnel development areas to support new businesses, such as commerce, business and organization transformation, digital technology, and new ways of working.

- PTTEP also continuously reviews current and future manpower demands to support business growth and future expansion by specially focusing on development of existing employees. In addition, specific development plans for high potentials, management succession plans, job rotation, and promotion plans have also been developed. Employee engagement is also given importance; a survey is regularly carried out to obtain current employee satisfaction levels and to create improvement plans for higher levels of employee engagement.

- PTTEP has an established process of employee performance appraisal and a pay-for-performance compensation system to retain highly competent individuals. Consequently, employees' merit increases, bonuses, as well as promotions are subject to their performance appraisal results to complement and retain those with outstanding performance and compatible attitudes to corporate values (*EP* SPIRIT). Since 2019, the Company has also introduced the implementation of its 360 Evaluation System as a tool to assess a given employee's behavioral attributes against *EP* SPIRIT. The 360 Evaluation is also an essential part of an individual's Key Performance Indicators (KPIs) as it helps to reflect an employee's performance in all-round aspects by including evaluations from peers and subordinates apart from direct supervisors.

- PTTEP has established both Internal Control Policy and the Internal Control Standard. These documents have been consistently communicated with the management and employees through training courses, activities and publications such as the GRC program, to ensure accurate understanding of the principles, roles, and responsibilities of each individual in relation to the internal control system. Moreover, PTTEP, which is defined as a state enterprise under the State Fiscal and Financial Disciplines Act B.E. 2561 (2018), appointed its Internal Control Committee as stipulated by the Ministry of Finance's Rule on Internal Control Standard and Guidelines for Government Agency B.E. 2561 (2018) in order to ensure that the Company's operations are in compliance with the mentioned laws and regulations.

2. Risk Assessment

PTTEP places importance on risk management by appointing the Risk Management Committee which is responsible for setting policy, risk appetite and risk metrics & limits, as well as overseeing the effectiveness of the company-wide risk management. The Company has also applied the ISO 31000 Risk Management concepts company-wide as well as the assessment of key risks related to our businesses, including fraud risk or risks which may arise as a result of significant changes to the Company, to appropriately manage such risks in a timely manner. These risk management approaches can be summarized as follows:

- PTTEP has specified a Risk Management Framework and documents related to risk management including Risk Appetite Statement, Risk Metrics & Limits, and Enterprise Risk Management Policy to clearly define roles, responsibilities, and authorities relevant to risk management at all levels across the Company, including the Board, the Risk Management Committee, and the management, as well as supporting and operational business units. It is also ensured that

the contents under each document are updated and aligned with the dynamic business environment as well as being communicated on a regular basis.

- PTTEP regularly communicates its Risk Management Standard, Guidelines, Process, and Tools to the management and employees through various channels, such as employee training, workshops, and announcements on the intranet to enhance personnel's understanding and to ensure that they can apply the c oncepts and practices to their work responsibilities in order to ensure the Company's objective achievement.

- PTTEP develops the Business Continuity Management Policy, Business Continuity Management Standard and Corporate Business Continuity Procedure. In 2020, the policy, standard and procedure were reviewed and revised for more appropriate practices. Furthermore, the Company continuously develops and improves the Business Continuity Management System in accordance with the ISO 22301:2012 standard as demonstrated by the following certifications earned at critical assets: PTTEP Myanmar Asset, PTTEP Petroleum Development Support Base (PSB) in Songkhla, and PTTEP Headquarters Office Facility Management to maintain certification, and S1 Project to receive the certification for the first time. As for our operations during the time of the Coronavirus-2019 (COVID-19) outbreak, PTTEP has been able to maintain smooth operations in accordance with the Business Continuity Management Policy as specified.

- PTTEP manages risk throughout the organization based on four risk categories, namely Strategic Planning and Management, Investment and Divestment Decision Making, Capital Project Management, and Operations and Business Process. In addition, the Company has developed its new web-based risk register system for relevant units to identify and assess risk at all levels, ranging from corporate, functional group, division, and department levels to asset/project levels.

- Risk mitigation plans are developed, executed, and monitored to reduce the levels of risk through various measures. Key Risk Indicators (KRIs) are also prepared to provide early warnings of risk to prevent and timely develop mitigation plans for risks that can potentially obstruct the Company from achieving its business objectives.

- PTTEP appointed a Hedging Committee to oversee and to more efficiently manage petroleum price risk and financial risk.

- At the corporate level, PTTEP assesses business activities that face high exposure to fraud risk, which comprises asset misappropriation, corruption, fraudulent practices, and misstatement of financial reporting. The Company considers historical information, incentives and/or pressure, opportunities, and rationalization of fraud to evaluate the likelihood and develop its Corporate Risk Profile. In 2020, as part of the application preparation for PTTEP's CAC membership recertification, the Company also assessed corruption risks that may significantly cause high impact on PTTEP as well as initiating an additional internal audit plan for anti-corruption schemes.

- At the process level, process owners are responsible for managing both fraud and operational risk arising from processes under their responsibilities and develop internal controls corresponding to such risks with the aim to effectively improve our internal control system.

- PTTEP performs risk assessment from all-round factors that may impact corporate performance, including (1) internal factors such as strategic risk, exploration, development, and production risk, investment risk of existing and new projects, etc. and (2) external factors from volatility risk in oil prices, foreign-exchange rates, interest rates, etc. In 2020, PTTEP specially assessed possible risks that may affect our operations, both in short and long term, which may result from the COVID-19 outbreak.

- PTTEP's Audit Committee assigned its Internal Audit Division to carry out audits on high-risk areas which can lead to fraud. The Internal Audit Division is also responsible for undertaking an investigation of any suspected fraud cases upon receipt of a report, or as requested by the Audit Committee and/or the Chief Executive Officer (CEO).
- PTTEP regularly monitors and reviews strategic plans to ensure that business goals remain reasonable and consistent with the changing situations. The Company closely monitor changes of key factors that may affect PTTEP such as oil prices, global and domestic economies, geopolitics, foreign exchange rates, laws and regulations, government policies and technological advancements. This is to ensure that PTTEP is able to respond to the risks that have arisen from such factors or any emerging risks from our new operations in a timely manner, and is able to adjust its operation to the disruption of technologies and alternative energy which play a more important role in the energy industry.

3. Control Activities

PTTEP has adequate control activities which are able to mitigate risks to acceptable levels for their respective business environments or activities of each unit. Control activities have been established to mitigate risks and these are also periodically reviewed and improved. For instance, deployment of control is done through the practices and regular reviews of policies and work procedures, or usage of technology. The Company also encourages employees to be strictly and constantly aware of the importance of conformance to the control activities and compliance with related laws and regulations to ensure that our internal control system is as effective as designed. Our key control activities can be summarized as follows:

- PTTEP has extensive sets of written policies and work procedures which the management and employees must strictly comply with, whereas the management and supervisors are responsible for overseeing and monitoring compliance with such policies and work procedures. In 2020, to ensure higher work efficiency within the organization, the Company developed and updated corporate policies, standards and guidelines to improve work efficiency, such as its Internal Audit Policy, Cybersecurity Policy, PTTEP Vendor Guide, as well as the Investment Project Management Regulation, Budget, Finance and Accounting Regulation, and Reporting & Whistleblowing Regulation.
- PTTEP recognizes the significance of control activities at the process level, including SoD, review and authorization of transactions, to ensure that the Company's business operations are efficient and able to prevent fraudulent acts. In 2020, the Company carried out a number of business process improvements to achieve higher levels of work efficiency and effectiveness as well as to develop and revise process controls through control self-assessment (CSA) such as the Digital Transformation Project Management and Cybersecurity processes. In addition, the Company regularly monitors contractors/ suppliers to ensure that they comply with contract agreements by using control measures such as Contract Management Procedure review and improvement, random implementation assessment against the procedure, and random contractual compliance assessment. During the year, PTTEP has moreover developed the One Procurement System to include every procurement step within a single platform.
- PTTEP develops general controls over IT system and physical equipment security, including data backup and recovery to ensure business continuity from any disruption. This IT security policy was announced across organization in keeping with good corporate governance. In 2020, the Company has utilized various information system activities that would ensure operational security and flexibility, especially to support the work-from-home scheme during the lockdown period from

COVID-19 outbreak, such as setting up the Cybersecurity Operation Center which operates 24 hours, implementation of Multi-factor Authentication, and Phishing Email Reporting and Training.

- PTTEP appointed its IT Steering Committee to provide IT strategic directions, goals, strategies, policies and standards, including investment direction in the IT Master Plan and Roadmap to mitigate IT risk to an acceptable level.
- PTTEP governs subsidiaries, associated companies and joint ventures by assigning the Company's management and employees to manage these entities. The Company has developed the Subsidiary Directors' Guidelines for the assigned persons to ensure standardized Subsidiary Directors' Roles and Responsibilities. The Internal Audit Division also has the responsibilities to audit assets/projects in which the Company has invested. During 2020, PTTEP established the Non-E&P Business Management Department to systematically monitor the performance as well as changes in policies and operations of our new investments to ensure alignment with PTTEP's standards.
- PTTEP regularly reviews policies, standards and work procedures to ensure that work processes and defined control activities are effectively and efficiently managed against relative risk when changes occur. In 2020, the Company revised policies, standards and work procedures for greater efficiency, such as the issuance and communication of the Personal Data Protection Policy which expresses our commitment to safeguarding the personal data of both employees and external related parties, including notification of the data owner's rights. This is to ensure our employees are aware of their duty to comply with internal and external laws and regulations. For internal regulations, the owners of those documents are held responsible in ensuring compliance with the stated requirements. Another example is the revisions of Management System Document including regulations, policies, standards, procedures, and guidelines, as to enhance operational efficiency.

4. Information and Communication

PTTEP realizes the significance of information and communication, particularly quality of data processing systems to provide accurate, complete, up-to-date and timely information which is appropriate and sufficient to support business operations and make effective decisions. The Company has effective internal and external communication systems in place to support the functioning of the internal control system as well as a special communication channel to allow our stakeholders to confidentially report their concerns or complaints. Our key information and communication activities can be summarized as follows:

- PTTEP validates data and information from internal and external sources after being reviewed by responsible units before making decisions. In addition, the Company imposes the confidentiality of usage and protection of information in both physical and digital formats, including data classification to prevent the disclosure of the Company's sensitive or confidential information.
- PTTEP has developed a Corporate Reference Document Center or "FindMe" as the information technology infrastructure to store and manage important business documents through a single access channel.
- For internal communication, PTTEP has effective and efficient internal channels to ensure that the management and employees can access essential information for their work requirements. The Company communicates objectives and responsibilities of internal control through internal meetings and emails. PTTEP has also set up the "Call Tree" network for communication when any crisis arises. During 2020, the Company organized a taskforce team to specially monitor the COVID-19 outbreak situation and act as a centralized team to communicate response measures for alignment of practices

throughout the Company. This arrangement exists most importantly for the purpose of continual business operations and ultimately to ensure the achievement of our business objectives. Moreover, the Company's management have arranged Online Live Townhalls, both at corporate and function group levels, as another centralized communication means to stress the importance of internal control during the new working method.

- For external communication, PTTEP established business units which are responsible for communicating with each specific group of stakeholders, such as Investor Relations, Corporate Communication and Corporate Secretary units.This is to ensure that information disclosed to external stakeholders is accurate, complete, sufficient, transparent, timely, and regularly communicated. In 2020, the Company continually provided updated information to our stakeholders, particularly on our managerial measures under the situation of the oil price crisis along with the COVID-19 outbreak, as well as updates on new investments in the Middle East from our Execute and Expand strategy. The Company also provided information publications for analysts, fund managers and shareholders to enhance better understanding of the E&P business of which the majority were completed via digital media since the beginning of COVID-19 outbreak, for instance, Digital Roadshow and Virtual Conference.

- PTTEP maintains the availability of our whistleblowing channels for employees and external stakeholders to accurately, completely, and timely report wrongdoings by our directors, the management, employees, or third parties acting on behalf of the Company. Based on the PTTEP Reporting and Whistleblowing Regulation, complaints can be reported through various channels such as letter, email, and reporting system on the Company's website. During 2020, the Company enhanced its Whistleblowing System to fulfill the coverage of complaints management by our overseas operations.

5. Monitoring Activities

PTTEP regularly monitors and assesses the effectiveness of our internal control system through ongoing evaluations which are built into the Company's daily operational activities along with separate evaluations to ensure that the system is sufficient and suitable for the current business environment and dynamic risk factors. Subsequently, once the deficiencies are identified, improvement plans will be developed and responsible parties will be assigned to respond with timely resolutions. For separate evaluations, the Company has developed control self-assessment evaluations (CSA) on an annual basis at both corporate and business process levels. In addition, the Internal Audit Division, which has a direct reporting line to the Audit Committee, has the responsibilities for performing independent audits correspondingly. PTTEP's monitoring activities can be summarized as follows:

- PTTEP performs two levels of CSA, namely (1) corporate and (2) process levels. For the corporate level, evaluation is conducted by management review through an online survey in which the set of questions is based on the assessment form provided by the SEC Office. While at the process level, related process owners are required to assess controls of their processes. Consequently, Continuous Control Self-Assessment (CCSA) system will be conducted as a continuous monitoring tool at least twice a year.

- The Governance, Compliance, and Internal Control Department is responsible for monitoring, reviewing, and reporting of (1) compliance with external laws and regulations and (2) compliance with internal regulations and policies in high risk areas. Such reports are to be submitted to the CEO on a monthly basis and to the top management every quarter. Additionally, the report of item (1) shall be presented to the Audit Committee Meeting at least twice a year. In case there is any

non-compliance case with significant impact on the PTTEP Group, the management shall report to the Board of Directors as appropriate.

- The Internal Audit Division (CIA) is responsible for auditing and providing recommendations for improvement to ensure that the defined controls have been complied with. CIA is also responsible for providing recommendations or developing improvement plans to resolve any issues identified and then subsequently communicate with responsible parties including the Internal Control unit to further support the remediation, and regularly report the findings and improvement progress to the Audit Committee.
- In addition to the established Continuous Control Monitoring System (CCMS) for procure to pay process, CIA also extended CCMS to inventory management process in 2020 where the system shall notify the responsible parties in case any irregular transactions are detected for appropriate corrections. Furthermore, PTTEP's whistleblowing channel is another method of monitoring and assessing the Company's CG&BE implementation.

Board of Directors' Evaluation of PTTEP's Internal Control System

For the year 2020, from the Board of Directors' evaluation on PTTEP and its subsidiaries internal control system, subsequent to the Audit Committee's review, it can be concluded that the PTTEP Group's internal control system based on the aforementioned five components, is sufficient and suitable. The PTTEP Group assigned an adequate and appropriate proportion of human resources to efficiently operate business in accordance with its internal control system which enable the effective and sufficient monitoring and prevention of possible misconducts including asset misappropriation by any unauthorized directors or management individuals, including entering into transactions with persons with potential conflicts of interest or related parties.

**9.1.2 Audit Committee's Evaluation in case it is different from the Board of Directors'**

N/A

## 9.2 Connected Transactions

### 9.2.1 Connected Transactions between Related Companies

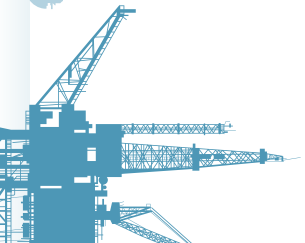
Connected transactions at PTTEP and our subsidiaries with other entities that may result in conflicts of interest in the fiscal year ending December 31, 2020 are as follows:

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| PTT Public Company Limited (PTT) | • PTT, the Company's major shareholder, (directly) holds 63.79% of the Company's registered and paid-up capital.<br>• PTT's executives who serve as PTTEP's directors are:<br>(1) Mr. Auttapol Rerkpiboon<br>(2) Mr. Atikom Terbsiri<br>(3) Mr. Phongsthorn Thavisin | Petroleum product sales: crude oil; natural gas; liquefied petroleum gas; and condensate<br>▪ Total income<br>▪ Accounts receivable | <br><br>3,811.34<br>425.49 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| | | Other income includes:<br>• Income from infrastructure services to support petroleum development, such as warehouse, helicopter, and accommodation for PTT personnel at Arthit and Bongkot projects<br>• Income from maintenance of natural gas meters<br>• Income from charges to PTT for working areas at Arthit and Bongkot projects' production platformsbased on the Gas Sales Agreement<br>• Income from charges to PTT for gas receiving areas, working areas and accommodation on platforms based on the Greater Bongkot South field's natural gas purchase/sale contract | | • Conditions and price setting for other income follow normal business operations, at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| | | • Income from the jetty and warehouse rentals at Songkhla base<br>• Income from the Company's personnel seconded to PTT<br>• Income from service charges for management's drivers based on the agreement between PTT and PTTEP Services (a subsidiary of PTTEP)<br>• Income from office building rental and facility management provided by Energy Complex Company Limited (EnCo) (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br><br><br><br>12.52<br>3.75 | |
| | | Purchase of petroleum products and related expenses, manpower charges for PTT personnel seconded to the Company and subsidiaries, and other expenses<br>▪ Total expenses<br>▪ Accounts payables including rental deposit for office building/service provided by EnCo | <br><br><br><br>20.68<br>1.26 | • Conditions and price setting for the purchase of petroleum products, related equipment, related services, and other expenses follow normal business operations, at an arm's length basis for non-related persons or operations.<br>• Manpower rates are based on the actual rates PTT pays to employees seconded to PTTEP. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| | | Deferred compensation that is the Company's obligation based on the Arthit Project's Gas Sale Agreement | 1.76 | • Conditions and price setting follow normal business operations at an arm's length basis for non-related persons or operations. |
| Energy Complex Company Limited (EnCo) | • PTT, the Company's major shareholder, holds 50% of EnCo's registered and paid-up capital.<br>• PTTEP, EnCo's major shareholder, holds 50% of EnCo's registered and paid-up capital. | • Dividend income<br>• Income fromthe Company's personnel seconded to EnCo<br>▪ Total income<br>▪ Accounts receivable | <br><br><br>2.65<br>0.19 | • Manpower rates are based on the actual rates the Company pays to employees seconded to EnCo. |
| | | The Company has signed a 3-year lease agreement with EnCo to rent the office building, storage and common areas at the Energy Complex. The Company is eligible to extend its lease agreement for another 3 years.<br>▪ Total lease and service expenses<br>▪ Accounts payable | <br><br><br><br>18.76<br>0.0014 | • The leasing rate is based on the market rate of the office building lease and follows normal business operations, at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| | | The Company signed a loan contract with EnCo under the following conditions:<br>● Contract period of 13 years and 6 months<br>● Expiration date is October 2, 2022<br>● Reference interest rate follows the loan contract between EnCo and Krungthai Bank Public Company Limited, dated April 2, 2009 (contract amendment is included.) The interest rate is FDR+2% per year.<br>▪ Interest income<br>▪ Loans outstanding | <br><br><br><br><br><br><br><br>0.48<br>15.56 | ● The mentioned contract follows the conditions of the loan contract signed by EnCo and Krungthai Bank Public Company Limited, dated April 2, 2009 (contract amendment is included.) with the financial support of all of EnCo's shareholders proportionately. |



| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| PTT Digital Solutions Company Limited (PTT Digital) (Formerly is PTT ICT Solutions Company Limited.) | • PTT, the Company's major shareholder, holds 20% of PTT Digital's registered and paid-up capital.<br>• PTTEP holds 20% of PTT Digital's registered and paid-up capital. | Income from the following services:<br>• Income from the Company's personnel seconded to PTT Digital<br>• Dividend income<br>• Income from office building rentals and facility service, such as water, electricity, air conditioning and parking provided by EnCo (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br><br><br><br>2.44<br>0.17 | • Manpower rates are based on the actual rates the Company pays to employees seconded to PTT Digital. |
| | | The Company and subsidiaries have signed a contract with PTT Digital for IT services and communications.<br>▪ Total expenses<br>▪ Accounts payables including rental deposit for office building/service provided by EnCo | <br><br><br>27.32<br>4.96 | • Conditions and price setting follow normal business operations at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| PTT Energy Resources Company Limited (PTTER) | • PTT, the Company's major shareholder, holds 100% of PTTER's registered and paid-up capital. | Income from office building rentals and facility service, such as water, electricity, air conditioning and parking provided by EnCo (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br>0.15<br>0.0015 | • Conditions and price setting follow normal business operations at an arm's length basis for non-related persons or operations. |
| | | Rental deposit for office building/service provided by EnCo (a subsidiary of PTTEP) | 0.04 | • Conditions and price setting follow normal business operations at an arm's length basis for non-related persons or operations. |
| PTT Energy Solutions Company Limited (PTTES) | • PTT, the Company's major shareholder, holds 40% of PTTES's registered and paid-up capital.<br>• GC, TOP and IRPC, whose major shareholder is PTT, hold 20%, each of PTTES's registered and paid-up capital. | Income from office building rentals and facility service, such as water, electricity, air conditioning and parking provided by EnCo (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br>0.01<br>0.01 | • Conditions and price setting follow normal business operations at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| Business Services Alliance Company Limited (BSA) | • PTT, the Company's major shareholder, holds more than 10% of BSA's registered and paid-up capital. | Income from office building rentals and facility service, such as water, electricity, air conditioning and parking provided by EnCo (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br>0.14<br>0.0047 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| | | Expenses from the following services:<br>• Expenses for field trip arrangements<br>• Manpower charges for BSA personnel seconded to PTT Global LNG Company Limited (PTTGL) (a subsidiary of PTTEP)<br>• Manpower charges for BSA personnel providing services at (1) Energy Complex, (2) PTT headquarters, (3) PTT Research and Technology Institute in Wangnoi District, Phra Nakhon Si Ayutthaya Province, and (4) PTT Research and Technology Institute in Wang Chan District, Rayong Province based on the agreement between BSA and EnCo (the subsidiary of PTTEP)<br>▪ Total expenses<br>▪ Accounts payables including rental deposit for office building/service provided by EnCo | <br><br><br><br><br><br><br><br><br><br>0.70<br>0.12 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| IRPC Public Company Limited (IRPC) | • PTT, the Company's major shareholder, holds 47.55% of IRPC's registered and paid-up capital. | Income from office building rentals and facility service, such as water, electricity, air conditioning and parking provided by EnCo (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br>1.52<br>0.01 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| | | Service fee for equipment inspection of "Pressure Transmitter Yokogawa Model & Pressure gauge precision range" which is used for measurement of gas pressure for S1 Project<br>▪ Total expenses<br>▪ Accounts payable | <br><br><br><br>0.0001<br>- | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| | | Rental deposit for office building/service provided by EnCo (a subsidiary of PTTEP) | 0.32 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| Sport Services Alliance Company Limited (SSA) | • PTT, the Company's major shareholder, holds more than 10% of BSA's registered and paid-up capital.<br>• BSA holds 100% of SSA's registered and paid-up capital. | Income from office building rentals and facility service, such as water, electricity, air conditioning and parking provided by EnCo (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br><br>0.0002<br>- | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| Dhipaya Insurance Public Company Limited (TIP) | • PTT, the Company's major shareholder, holds 13.33% of TIP's registered and paid-up capital. | Income from office building rentals and facility service, such as water, electricity, air conditioning and parking provided by EnCo (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br><br>0.0089<br>0.05 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| | | Expenses for the Company and subsidiaries' assets insurance, and our employees' health and life insurance<br>▪ Total expenses<br>▪ Accounts payables including rental deposit for office building/service provided by EnCo | <br><br><br><br>9.42<br>0.0008 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| Thai Oil Public Company Limited (TOP) | • PTT, the Company's major shareholder, holds 45.03% of TOP's registered and paid-up capital. | Income from the following services:<br>• Income from inspection services provided by AI and Robotics Ventures Company Limited (ARV) (a subsidiary of PTTEP)<br>• Income from office building rentals and facility service such as water, electricity, air conditioning and parking provided by EnCo (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br><br><br><br>1.11<br>0.08 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| | | Rental deposit for office building/service provided by EnCo (a subsidiary of PTTEP) | 0.23 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| PTT Global Chemical Public Company Limited (GC) | • PTT, the Company's major shareholder, holds 47.68% of GC's registered and paid-up capital. | Income from the following services:<br>• Income from meeting room rentals<br>• Income from office building rentals and facility service, such as water, electricity, air conditioning and parking provided by EnCo (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br><br><br>2.55<br>0.04 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| | | Mercury analysis fees for PTTEP SP Gas Processing Plant<br>▪ Total expenses<br>▪ Accounts payable | <br><br>0.0072<br>0.0005 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| | | Rental deposit for office building/service provided by EnCo (a subsidiary of PTTEP) | 0.56 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| PTT Natural Gas Distribution Company Limited (PTT NGD) | • PTT, the Company's major shareholder, holds more than 10% of PTT NGD's registered and paid-up capital. | Income from office building rental and facility service, such as water, electricity, air conditioning and parking provided by EnCo (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br>0.18<br>0.0075 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| | | Rental deposit for office building/service provided by EnCo (a subsidiary of PTTEP) | 0.04 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| PTT Retail Business Company Limited (PTTRM) | • PTT, the Company's major shareholder, holds more than 10% of PTTRM's registered and paid-up capital. | Income from office building rental and facility service, such as water, electricity, air conditioning and parking provided by EnCo (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br>0.07<br>0.01 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| | | Expenses for drinking water for EnCo (a subsidiary of PTTEP)<br>▪ Total expenses<br>▪ Accounts payable | <br><br>0.0014<br>0.0068 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| PTT Tank Terminal Company Limited (PTT Tank) | • PTT, the Company's major shareholder, holds more than 10% of PTT Tank's registered and paid-up capital. | Income from office building rentals and facility service, such as water, electricity, air conditioning and parking provided by EnCo (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br>0.02<br>0.0004 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| | | Rental deposit for office building/service provided by EnCo (a subsidiary of PTTEP) | 0.0048 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| Trans Thai-Malaysia (Thailand) Limited (TTM) | • PTT, the Company's major shareholder, holds more than 10% of TTM's registered and paid-up capital. | Income from the following services:<br>• Income from warehouse rentals at Songkhla base<br>• Income from office building rentals and facility service such as water, electricity, air conditioning and parking provided by EnCo (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br><br><br><br>0.01<br>0.0030 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| PTT International Trading Pte. Ltd. (PTTT) | ● PTT, the Company's major shareholder, holds 100% of PTTT's registered and paid-up capital. | Petroleum product sales: crude oil<br>▪ Total income<br>▪ Accounts receivable | <br>36.50<br>- | ● Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| | | Income from oil price hedging contracts<br>▪ Total income<br>▪ Accounts receivable | <br>22.76<br>0.61 | ● Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| | | Expense from oil price hedging contracts<br>▪ Total expenses<br>▪ Accounts payable | <br>3.53<br>1.22 | ● Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| PTT International Trading London Ltd. (PTTT LDN) | ● PTT, the Company's major shareholder, holds 100% of PTTT LDN's registered and paid-up capital. | Petroleum product sales: crude oil<br>▪ Total income<br>▪ Accounts receivable | <br>43.28<br>7.15 | ● Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| Global Power Synergy Company Limited (GPSC) | • PTT, the Company's major shareholder, holds 22.81% of GPSC's registered and paid-up capital.<br>• Co-director is Mr. Atikom Terbsiri. | Income from the following services:<br>• Income from manpower charges based on the agreement between GPSC and PTTEP Services (a subsidiary of PTTEP)<br>• Income from office building rentals and facility service such as water, electricity, air conditioning and parking provided by EnCo (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br><br><br><br>0.67<br>0.06 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| | | Rental deposit for office building/service provided by EnCo (a subsidiary of PTTEP) | 0.07 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| PTT Global LNG Company Limited (PTTGL) | • PTT, major shareholder of PTTEP and PTTGL, hold 50% of PTTGL's registered and paid-up capital.<br>• PTTEP, PTTGL's major shareholder, holds 50% of PTTGL's registered and paid-up capital. | Income from the following services:<br>• Income from accounting, tax and financial operations services provided by PTTEP<br>• Income from financial services provided by PTTEP Treasury Center Company Limited (a subsidiary of PTTEP)<br>• Income from the Company's personnel seconded to PTTGL<br>• Income from service charges for management's drivers provided by PTTEP Services (a subsidiary of PTTEP)<br>• Income from subleasing office areas of approximately 320 sq.m.<br>• Income from providing facility services and others<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br><br><br><br><br><br><br><br>0.86<br>0.24 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| PTTGL Investment Limited (PTTGLI) | • PTT, major shareholder of PTTEP and PTTGL, hold 50% of PTTGL's registered and paid-up capital.<br>• PTTEP, PTTGL's major shareholder, holds 50% of PTTGL's registered and paid-up capital.<br>• PTTGL, the major shareholder of PTTGLI, holds 100% of PTTGLI's registered and paid-up capital. | PTTEP Treasury Center Company Limited (a subsidiary of PTTEP) signed a loan contract with PTTGLI under the following conditions:<br>• Contract period of 4 years and 6 months<br>• Expiration date is July 2, 2024<br>• Interest rates refer to the LIBOR plus Interest Rate Spread which are in line with market rates.<br>▪ Interest income<br>▪ Loans outstanding | <br><br><br><br><br><br><br>1.95<br>59.38 | • The mentioned contract follows the conditions and price setting of the normal business operations, at an arm's length basis for non-related persons or operations with the financial support of all PTTGL's shareholders proportionately. |
| | | The Company and subsidiaries signed contracts with PTTGLI for the following services:<br>• Accounting, Tax and Financial Operations services provided by PTTEP<br>• Financial services provided by PTTEP Treasury Center Company Limited<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br><br>0.05<br>- | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| PTT LNG Company Limited (PTTLNG) | • PTT, the Company's major shareholder, holds 100% of PTTLNG's registered and paid-up capital. | Income from office building rentals and facility service, such as water, electricity, air conditioning and parking provided by EnCo (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br>0.08<br>0.0010 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| | | Rental deposit for office building/service provided by EnCo (a subsidiary of PTTEP) | 0.0189 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| PTT Oil and Retail Business Public Company Limited (PTTOR) (Formerly is PTT Retail Management Company Limited "PTTRB".) | • PTT, the Company's major shareholder, holds 100% of PTTOR's registered and paid-up capital. | Income from the following services:<br>• Income from sublease of office space on Floor 6, EnCobuilding A and Floor 18, EnCo building B (total 1,927 sq.m.) and other facility services, such as water, electricity, air conditioning and parking provided by PTTEP<br>• Income fromproviding facility services and others<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br><br><br><br>4.22<br>0.06 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |
| | | Purchase of petroleum products and related expenses<br>▪ Total expenses<br>▪ Accounts payable | <br><br>31.39<br>4.09 | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| PTT Treasury Center Company Limited (PTT TCC) | • PTT, the Company's major shareholder, holds 100% of PTT TCC's registered and paid-up capital. | PTTGLI (a subsidiary of PTTEP) signed a loan contract with PTT TCC under the following conditions:<br>• Contract period of 4 years and 6 months<br>• Expiration date is July 2, 2024<br>• Interest rates refer to the LIBOR plus Interest Rate Spread which are in line with market rates.<br>▪ Interest expenses<br>▪ Loans outstanding | <br><br><br><br><br><br><br>0.97<br>29.69 | • The mentioned contract follows the conditions and price setting of the normal business operations, at an arm's length basis for non-related persons or operations with the financial support of all PTTGLI's shareholders proportionately. |

| Connected Company | Relationship | Transaction | Value (Unit: Million USD) | Pricing Policy and/or Reason |
|---|---|---|---|---|
| Alpha Com Company Limited (Alpha Com) | • PTT, the Company's major shareholder, holds 100% of PTT Global Management Company Limited (PTTGM)'s registered and paid-up capital.<br>• PTTGM holds 100% of Global Management Holding Company Limited (GMH)'s registered and paid-up capital.<br>• GMH holds 100% of Siam Management Holding Company Limited (SMH)'s registered and paid-up capital.<br>• SMH holds 100% of Alpha Com's registered and paid-up capital. | Income from office building rentals and facility service, such as water, electricity, air conditioning and parking provided by EnCo (a subsidiary of PTTEP)<br>▪ Total income<br>▪ Accounts receivable | <br><br><br><br><br>0.0020<br>- | • Conditions and price setting follow normal business operations, at an arm's length basis for non-related persons or operations. |

Remark: Please see historical data of 2019 and 2018 for 3-year comparison from the Company's website.

### 9.2.2 Preconditions and Reasons for Connected Transactions

PTTEP's Audit Committee reviewed the connected transactions which were recorded during the fiscal year ending December 31, 2020 as summarized above and considered them to be indispensable, fair and justifiable in terms of conditions and prices, and/or within the arm's length basis. The transactions were also approved by the management or the PTTEP's Board of Directors (Board) according to the Company's policy prior to execution.

### 9.2.3 Policy and Future Possibility of Connected Transactions

#### 9.2.3.1 Policy for Connected Transactions

PTTEP treats connected transactions as normal business transactions without any intentions to transfer benefits between or among the Company and related companies, or persons. The Company strictly adheres to securities and exchange laws and regulations, including those imposed by the Capital Market Supervisory Board, the Stock Exchange of Thailand, and other related supervisory agencies, regarding connected transactions to ensure that, with reasonable business terms and conditions, and use of the market reference prices, for instance, the Company's shareholders and stakeholders will be treated equally and in their interests, in accordance with the Company's good corporate governance policy.

#### 9.2.3.2 Future Possibility of Connected Transactions Potentially Leading to Conflicts of Interest

PTTEP will continue to have connected transactions with related entities in the future. Most of these transactions include normal business, office building-leasing, and supporting business transactions, which can be summarized as follows:

1) Sales of petroleum products and purchases of fuel: Since the transactions are a normal part of the Company's business and are executed under conditions and requirements as stated in the contracts, they will continue due to their necessity to the operations.

2) Lease of office buildings: Since leasing of office buildings is reasonable and necessary for the Company's business operations, the transactions will be continued.

3) Hiring of information and technology services: Since it remains reasonable and necessary for the Company to be supported with information and technology services to operate our business, the transactions will be continued.

# Financial Statements



# 10. Financial Statements

## 10.1 Financial Statements

The financial statements of PTT Exploration and Production Public Company Limited and subsidiaries being consolidated have been prepared in accordance with Thai Financial Reporting Standards (TFRS) under the Accounting Act B.E. 2543, and with Thai Accounting Standards issued under the Accounting Profession Act B.E. 2547, including interpretations and accounting treatment guidance announced by the Federation of Accounting Professions, as well as the financial reporting requirements of the Securities and Exchange Commission under the Securities and Exchange Act B.E. 2535. For more details, please see PTTEP Financial Report 2020.

## 10.2 Significant Financial Information

PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED AND SUBSIDIARIES
STATEMENTS OF FINANCIAL POSITION

| | As at December 31, 2018 * (Restated) | | As at December 31, 2019 * | | As at December 31, 2020 | |
|---|---|---|---|---|---|---|
| | Thousand (USD) | % | Thousand (USD) | % | Thousand (USD) | % |
| Assets | | | | | | |
| Current Assets | | | | | | |
| Cash and cash equivalents | 3,180,095 | 16.3 | 2,822,897 | 12.7 | 3,704,003 | 16.5 |
| Short-term investments | 820,530 | 4.2 | 200,000 | 0.9 | 100,000 | 0.4 |
| Trade and other receivables | 1,237,646 | 6.4 | 983,201 | 4.4 | 790,763 | 3.5 |
| Inventories | 282,227 | 1.5 | 330,337 | 1.5 | 338,105 | 1.6 |
| Current tax assets | 44,251 | 0.2 | 55,338 | 0.2 | 56,168 | 0.2 |
| Derivative assets | 44,760 | 0.2 | 12,342 | 0.1 | 4,362 | 0.0 |
| Other current financial assets | 81,000 | 0.4 | 213,703 | 1.0 | - | - |
| Other current assets | 65,559 | 0.3 | 95,472 | 0.4 | 90,847 | 0.4 |
| Total Current Assets | 5,756,068 | 29.5 | 4,713,290 | 21.2 | 5,084,248 | 22.6 |
| Non-current Assets | | | | | | |
| Investments in associates | 219,797 | 1.1 | 227,626 | 1.0 | 216,866 | 1.0 |
| Investments in joint ventures | 17,412 | 0.1 | 225,370 | 1.0 | 233,344 | 1.0 |
| Long-term loans to related parties | 95,496 | 0.5 | 86,056 | 0.4 | 74,945 | 0.3 |
| Property, plant and equipment | 8,203,148 | 42.1 | 10,661,984 | 47.8 | 9,837,537 | 43.7 |
| Right-of-use assets | - | - | - | - | 482,778 | 2.1 |
| Goodwill | 1,244,242 | 6.4 | 1,903,802 | 8.5 | 1,903,803 | 8.5 |
| Intangible assets | 82,092 | 0.4 | 131,976 | 0.6 | 130,453 | 0.6 |
| Exploration and evaluation assets | 3,071,909 | 15.8 | 2,880,319 | 12.9 | 2,886,220 | 12.8 |
| Deferred tax assets | 462,550 | 2.4 | 961,729 | 4.3 | 1,098,682 | 5.0 |
| Rights to receive reimbursement from decommissioning funds | 161,721 | 0.8 | 237,265 | 1.1 | 265,789 | 1.2 |
| Derivative assets | 22,099 | 0.1 | 83,678 | 0.4 | 49,051 | 0.2 |
| Other non-current financial assets | 781 | 0.0 | 870 | 0.0 | 757 | 0.0 |
| Other non-current assets | 146,807 | 0.8 | 171,316 | 0.8 | 228,973 | 1.0 |
| Total Non-current Assets | 13,728,054 | 70.5 | 17,571,991 | 78.8 | 17,409,198 | 77.4 |
| Total Assets | 19,484,122 | 100.0 | 22,285,281 | 100.0 | 22,493,446 | 100.0 |

* Reclassified to be comparable with 2020 financial statements

PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED AND SUBSIDIARIES
STATEMENTS OF FINANCIAL POSITION (cont'd)

| | As at December 31, 2018 * (Restated) | | As at December 31, 2019 * | | As at December 31, 2020 | |
|---|---|---|---|---|---|---|
| | Thousand (USD) | % | Thousand (USD) | % | Thousand (USD) | % |
| Liabilities and Equity | | | | | | |
| **Current Liabilities** | | | | | | |
| Trade and other payables | 732,937 | 3.8 | 888,925 | 4.0 | 893,694 | 4.0 |
| Current portion of long-term financial liabilities | 407,015 | 2.1 | 18,282 | 0.1 | 135,475 | 0.6 |
| Income tax payable | 678,133 | 3.5 | 862,953 | 3.9 | 504,785 | 2.2 |
| Short-term provisions | 133,675 | 0.7 | 131,500 | 0.6 | 150,218 | 0.7 |
| Deferred considerations acquired through business acquisition | 465,972 | 2.4 | - | - | - | - |
| Derivative liabilities | 10,685 | 0.0 | 15,214 | 0.0 | 29,675 | 0.1 |
| Other current liabilities | 57,364 | 0.3 | 133,969 | 0.6 | 159,074 | 0.7 |
| **Total Current Liabilities** | **2,485,781** | **12.8** | **2,050,843** | **9.2** | **1,872,921** | **8.3** |
| **Non-current Liabilities** | | | | | | |
| Debentures | 1,537,767 | 7.9 | 2,704,746 | 12.1 | 2,830,375 | 12.6 |
| Long-term loans | 985 | 0.0 | 593,261 | 2.7 | 594,659 | 2.6 |
| Lease liabilities | - | - | 125,413 | 0.5 | 371,552 | 1.6 |
| Deferred tax liabilities | 781,885 | 4.0 | 1,442,489 | 6.5 | 1,445,792 | 6.4 |
| Provision for employee benefits | 135,264 | 0.7 | 245,248 | 1.1 | 265,511 | 1.2 |
| Provision for decommissioning costs | 2,243,655 | 11.5 | 2,967,512 | 13.3 | 3,140,385 | 14.0 |
| Provision for remuneration for the renewal of petroleum production | 238,661 | 1.2 | 190,758 | 0.9 | 103,243 | 0.5 |
| Derivative liabilities | - | - | - | - | 674 | 0.0 |
| Other non-current liabilities | 54,725 | 0.3 | 123,837 | 0.6 | 69,216 | 0.3 |
| **Total Non-current Liabilities** | **4,992,942** | **25.6** | **8,393,264** | **37.7** | **8,821,407** | **39.2** |
| **Total Liabilities** | **7,478,723** | **38.4** | **10,444,107** | **46.9** | **10,694,328** | **47.5** |
| **Equity** | | | | | | |
| Share capital | | | | | | |
| Issued and paid-up share capital | 150,684 | 0.8 | 150,684 | 0.7 | 150,684 | 0.7 |
| Share premium | 3,439,037 | 17.7 | 3,439,037 | 15.4 | 3,439,037 | 15.3 |
| Subordinated capital debentures | 1,154,687 | 5.9 | 187,435 | 0.9 | 156,571 | 0.7 |
| Retained earnings | | | | | | |
| Appropriated | | | | | | |
| Legal reserve | 15,048 | 0.1 | 15,048 | 0.1 | 15,048 | 0.1 |
| Reserve for expansion | 431,231 | 2.2 | 431,231 | 1.9 | 431,231 | 1.9 |
| Unappropriated | 6,847,837 | 35.1 | 7,630,675 | 34.2 | 7,672,902 | 34.1 |
| Other components of equity | (33,125) | (0.2) | (12,936) | (0.1) | (66,355) | (0.3) |
| **Total Equity** | **12,005,399** | **61.6** | **11,841,174** | **53.1** | **11,799,118** | **52.5** |
| **Total Liabilities and Equity** | **19,484,122** | **100.0** | **22,285,281** | **100.0** | **22,493,446** | **100.0** |
| Book value per share (USD) | 3.02 | | 2.98 | | 2.97 | |
| Issued and fully paid-up capital at the end of year (Thousand share) | 3,969,985 | | 3,969,985 | | 3,969,985 | |

* Reclassified to be comparable with 2020 financial statements

PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED AND SUBSIDIARIES

STATEMENTS OF INCOME

FOR THE YEARS ENDED DECEMBER 31,

| | 2017 | | 2018 | | 2019 | |
|---|---|---|---|---|---|---|
| | Thousand (USD) | % | Thousand (USD) | % | Thousand (USD) | % |
| **Revenues** | | | | | | |
| Revenue from sales | 5,202,810 | 95.3 | 6,046,416 | 94.3 | 5,043,170 | 94.1 |
| Revenue from pipeline transportation | 107,564 | 2.0 | 116,396 | 1.8 | 92,350 | 1.7 |
| Gain on foreign exchange rates | - | - | 108,597 | 1.7 | 26,062 | 0.5 |
| Gain on remeasuring of financial instruments | 13,966 | 0.3 | - | - | 99,331 | 1.9 |
| Gain on debt modification | - | - | - | - | 22,307 | 0.4 |
| Interest income | 83,353 | 1.5 | 86,235 | 1.3 | 36,729 | 0.7 |
| Other income | 50,784 | 0.9 | 55,391 | 0.9 | 37,012 | 0.7 |
| **Total Revenues** | **5,458,477** | **100.0** | **6,413,035** | **100.0** | **5,356,961** | **100.0** |
| **Expenses** | | | | | | |
| Operating expenses | 645,084 | 11.8 | 750,682 | 11.7 | 795,112 | 14.8 |
| Exploration expenses | 45,685 | 0.8 | 128,098 | 2.0 | 104,314 | 1.9 |
| Administrative expenses | 290,234 | 5.3 | 383,776 | 6.0 | 314,117 | 5.9 |
| Petroleum royalties | 469,663 | 8.6 | 546,334 | 8.5 | 410,154 | 7.7 |
| Depreciation, depletion and amortisation | 1,848,511 | 33.9 | 2,026,056 | 31.6 | 2,086,083 | 38.9 |
| Loss on foreign exchange rates | 18,632 | 0.3 | - | - | - | - |
| Loss on remeasuring of financial instruments | - | - | 109,400 | 1.7 | - | - |
| Impairment loss on assets | - | - | - | - | 91,576 | 1.7 |
| Other expenses | 57,768 | 1.1 | - | - | 20,341 | 0.4 |
| Finance costs | 238,565 | 4.4 | 234,979 | 3.7 | 254,476 | 4.8 |
| **Total Expenses** | **3,614,142** | **66.2** | **4,179,325** | **65.2** | **4,076,173** | **76.1** |
| Share of profit of associates and joint ventures | 7,932 | 0.1 | 12,352 | 0.2 | 41,636 | 0.8 |
| **Profit before income taxes** | **1,852,267** | **33.9** | **2,246,062** | **35.0** | **1,322,424** | **24.7** |
| Income taxes | (732,658) | (13.4) | (676,998) | (10.5) | (602,880) | (11.3) |
| **Profit for the year** | **1,119,609** | **20.5** | **1,569,064** | **24.5** | **719,544** | **13.4** |
| **Basic earnings per share (USD)** | **0.27** | | **0.38** | | **0.18** | |

PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED AND SUBSIDIARIES

STATEMENTS OF CASH FLOWS

FOR THE YEARS ENDED DECEMBER 31,

| | 2018 | 2019 | 2020 |
|---|---|---|---|
| | Thousand (USD) | Thousand (USD) | Thousand (USD) |
| **Cash flows from operating activities** | | | |
| Profit before income taxes | 1,852,267 | 2,246,062 | 1,322,424 |
| Adjustments for: | | | |
| Share of profit of associates and joint ventures | (7,932) | (12,352) | (41,636) |
| Depreciation, depletion and amortisation | 1,848,510 | 2,026,056 | 2,086,083 |
| Allowance for impairment loss on assets | - | - | 91,576 |
| Allowance for decrease in value of inventories to net realisable value | 1,643 | (1,364) | 474 |
| Write-off of exploration expenses | 673 | 76,756 | 62,140 |
| Other amortised expenses | 11,975 | 32,050 | 10,208 |
| Loss on disposal of assets | 17,369 | 19,049 | 24,215 |
| Income recognised from deferred income | (5,457) | (3,541) | (2,550) |
| Loss (gain) on remeasuring financial instruments | (35,470) | 57,850 | 43,649 |
| Other provisions | 11,005 | 8,133 | - |
| (Gain) loss on foreign exchange rates | 8,006 | (8,014) | (10,229) |
| Interest income lower than interest expenses | 147,262 | 147,107 | 212,035 |
| Gain on debt modification | - | - | (22,307) |
| Loss from divestment of asset | 57,768 | - | - |
| Other expenses | 13,395 | 35,252 | 37,371 |
| | 3,921,014 | 4,623,044 | 3,813,453 |
| Changes in working capital | (644,147) | (1,103,438) | (1,041,953) |
| **Net cash flows provided by operating activities** | **3,276,867** | **3,519,606** | **2,771,500** |
| **Cash flows from investing activities** | | | |
| Cash paid for short-term investments | (1,652,635) | (744,750) | (100,000) |
| Cash received from investing in short-term investments | 3,786,110 | 1,365,410 | 200,000 |
| Cash paid for investment in other financial assets | (10,444) | (36) | - |
| Cash received from investment in other financial assets | - | 10,444 | - |
| Cash received from long-term loans to related parties | 15,129 | 10,801 | 11,086 |
| Dividend received from related parties | 5,437 | 14,716 | 26,807 |
| Cash paid for business acquisition | (652,852) | (2,713,300) | - |
| Cash prepayment for business acquisition | (397,780) | - | - |
| Net cash (paid) received for expense related to divestment of asset | 133,092 | (19,627) | - |
| Cash paid for investment in joint venture | - | (79,412) | (3,138) |
| Cash received from investment in joint venture | 1,049 | - | 393 |
| Cash received from lease receivables | - | - | 378 |
| Interest received from short-term investments | 39,797 | 15,376 | 5,843 |
| Interest received from loans to related parties | 3,335 | 5,218 | 2,277 |
| Increase in property, plant and equipment | (1,081,485) | (1,063,093) | (1,093,140) |
| Increase in intangible assets | (11,695) | (26,147) | (28,467) |
| Increase in exploration and evaluation assets | (60,773) | (119,228) | (93,651) |
| **Net cash flows (used in) provided by investing activities** | **116,285** | **(3,343,628)** | **(1,071,612)** |

PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED AND SUBSIDIARIES

STATEMENTS OF CASH FLOWS (cont'd)

FOR THE YEARS ENDED DECEMBER 31,

| | 2018 | 2019 | 2020 |
|---|---|---|---|
| | Thousand (USD) | Thousand (USD) | Thousand (USD) |
| **Cash flows from financing activities** | | | |
| Cash received from short-term loan | - | 259,581 | - |
| Cash paid for repayment of short-term loan | - | (258,826) | - |
| Cash paid for repayment of debentures | (403,742) | (418,199) | (730,443) |
| Cash received from issuance of debentures | - | 1,130,045 | 850,000 |
| Cash paid for lease liabilities | (575,135) | (7,785) | (96,362) |
| Cash received from long-term loans | - | 600,000 | - |
| Finance costs paid for issuance of debentures and long-term loans | - | (7,613) | (9,945) |
| Cash paid for interest | (128,372) | (109,932) | (147,594) |
| Cash paid for redemption of subordinated capital debentures | - | (990,846) | (30,852) |
| Interest paid for subordinated capital debentures | (57,696) | (53,611) | (10,126) |
| Net cash received (paid) from financial derivative contracts | (2,395) | 1,353 | - |
| Finance costs paid for issuance of subordinated capital debentures | (1,226) | - | - |
| Dividends paid | (555,702) | (697,760) | (671,000) |
| **Net cash flows used in financing activities** | **(1,724,268)** | **(553,593)** | **(846,322)** |
| Net increase (decrease) in cash and cash equivalents | 1,668,884 | (377,615) | 853,566 |
| **Cash and cash equivalents at the beginning of the year** | **1,512,181** | **3,180,095** | **2,822,897** |
| | 3,181,065 | 2,802,480 | 3,676,463 |
| Adjustment for the impact of exchange rate changes | (970) | 20,417 | 27,540 |
| **Cash and cash equivalents at the end of the year** | **3,180,095** | **2,822,897** | **3,704,003** |

## Significant Financial Ratio Summary Table

| | | 2018 (Restated) | 2019 | 2020 |
|---|---|---|---|---|
| **Liquidity ratio** | | | | |
| Current Ratio | Times | 2.32 | 2.30 | 2.71 |
| Quick Ratio | Times | 1.90 | 1.86 | 2.45 |
| Cash Flow from Operations to Current Liabilities Ratio | Times | 1.60 | 1.55 | 1.41 |
| Account Receivable Turnover | Times | 7.58 | 8.12 | 7.52 |
| Account Payable Turnover | Times | 5.90 | 7.20 | 6.70 |
| Collection Period * | Days | 48 | 45 | 49 |
| Day Payable * | Days | 62 | 51 | 55 |
| **Profitability Ratio** | | | | |
| Net Profit Margin | % | 20.51 | 24.47 | 13.43 |
| Return on Equity | % | 9.53 | 13.16 | 6.09 |
| **Efficiency Ratio** | | | | |
| Return on Assets | % | 5.80 | 7.51 | 3.21 |
| Return on Fixed Assets | % | 26.33 | 28.72 | 20.77 |
| Assets Turnover | Times | 0.28 | 0.31 | 0.24 |
| **Financial Policy Ratio** | | | | |
| Debt to Equity Ratio | Times | 0.16 | 0.29 | 0.33 |
| Net Debt to Equity Ratio | Times | (0.17) | 0.04 | 0.01 |
| Times Interest Earned | Times | 16.18 | 18.53 | 13.80 |
| Dividend Ratio | % | 55 | 49 | 77 |
| **Data per Share** | | | | |
| Book Value per Share | USD | 3.02 | 2.98 | 2.97 |
| Net Profit per Share | USD | 0.27 | 0.38 | 0.18 |
| Dividend per Share | THB | 5.00 | 6.00 | 4.25 |
| **Growth Rate** | | | | |
| Total Asset | % | 1.84 | 13.95 | 0.93 |
| Total Liabilities | % | (2.00) | 38.53 | 2.40 |
| Sales | % | 21.83 | 16.05 | (16.67) |
| Net Profit | % | 88.63 | 40.14 | (54.14) |

* Collection Period and Day Payable is in range of credit term of PTTEP's Group



# Attachments

# Attachment 1 : Information of the Board of Directors, Management, Controlling Persons and Corporate Secretary

1. PTTEP's Board of Directors

As of December 31, 2020, PTTEP's Board of Directors consists of 15 directors. Details of 15 current directors and 2 directors retiring from the office during the year 2020 are as below.

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| **Mr. Prajya Phinyawat**<br>- Chairman<br>- Chairman of the Independent Director<br>**Starting Date**<br>March 28, 2012 | 69 | **Education**<br>● Ph.D. (Civil Engineering), University of Texas at Austin, USA<br>● M.S. (Civil Engineering), Stanford University, USA<br>● B.E. (Civil Engineering), Chulalongkorn University, Thailand<br>**Training of Thai Institute of Directors Association**<br>● Director's Briefing – Corporate Strategy beyond the Crisis, a Chairman/Board Perspective, Bain & Company, Inc.<br>● Board Matter and Trend (BMT) 4/2017<br>● The Power of Culture: From Performance Culture to Winning Culture Seminar | 0.00038 % (15,000 shares) | None | **Other Listed Companies**<br>None<br>**Other Companies**<br>2011 - 2016<br>2015 - Present<br>**Other Organizations** | ● Chairman<br>● Director of Council Vidyasirimedhi Institute of Science and Technology (VISTEC) | ● PTT Asahi Chemical Company Limited<br>● Vidyasirimedhi Institute of Science and Technology (VISTEC) |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • Anti-Corruption: Leadership Role of the Board<br>• Chairman Forum: "Clean Business: What is the Chairman Role?" 1/2014<br>• Role of the Chairman Program (RCP) 35/2014<br>• Director Certification Program (DCP) 14/2002<br>**Other Training**<br>• The 1st PLATTS-PTT Day Academic Seminar by PTT and Platts McGraw Hill Financial<br>• The Joint State – Private Sector course (Class 15), National Defense College<br>• Capital Market Academy Leadership Program (Class 7), Capital Market Academy<br>• Certificate of Energy Literacy for a Sustainable Future Program (Class 1/2012), Thailand Energy Academy | | | | | |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • CERAWeek 2019 in Houston, Texas, USA | | | | | |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| **Mr. Achporn Charuchinda**<br>- Independent Director<br>- Chairman of the Audit Committee<br>- Nominating and Remuneration Committee<br>**Starting Date**<br>January 1, 2013 | 67 | **Education**<br>● L.L.B., Faculty of Law, Thammasat University, Thailand<br>● Thai Barrister-at-Law, Institute of Legal Education of the Thai Bar Association<br>**Training of Thai Institute of Directors Association**<br>● Director's Briefing — Corporate Strategy beyond the Crisis, a Chairman/Board Perspective, Bain & Company, Inc.<br>**Other Training**<br>● Law Drafting Certificate, Republic of India<br>● The National Defense Course (Class 46), National Defense College | None | None | **Other Listed Companies** | | |
| | | | | | 2012 - 2015 | ● Member of the Legal Committee | ● Thai Airways International Public Company Limited |
| | | | | | **Other Companies** | | |
| | | | | | 2013 - 2016 | ● Director | ● Thai Smile Airways Company Limited |
| | | | | | **Other Organizations** | | |
| | | | | | 2020 - Present | ● Executive Board | ● Life Insurance Fund |
| | | | | | 2018 - Present | ● Advisory Board | ● The Crown Property Bureau |
| | | | | | 2018 - Present | ● Special Advisory Committee | ● Highland Research and Development Institute (Public Organization) |
| | | | | | 2017 - Present | ● Member | ● The Risk Oversight Committee The Bank of Thailand |
| | | | | | 2015 - Present | ● Member | ● Constitution Drafting Committee |
| | | | | | 2003 - Present | ● Member of the Council of State | ● The Office of the Council of State |
| | | | | | 2017 - 2020 | ● Board Member | ● Office of Insurance Commission |
| | | | | | 2017 - 2019 | ● Chairman | ● National Reform Committee in Justice Process, National Reform Committee |
| | | | | | 2017 - 2019 | ● Board Member in Legal | ● The National Economic and Social Development Board (NESDB) |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | | | | 2015 - 2020 | • Board Member | • The National Economic and Social Development Board (NESDB) |
| | | | | | 2015 - 2018 | • Board Member | • Highland Research and Development Institute (Public Organization) |
| | | | | | 2013 - 2017 | • Board Member | • The Bank of Thailand |
| | | | | | Apr. - Oct. 2016 | • Director | • Thailand Tobacco Monopoly, Ministry of Finance |
| | | | | | 2013 - 2015 | • Chairman of the Securities and Exchange Commission Board | • The Securities and Exchange Commission Board |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| **Admiral Tanarat Ubol**<br>- Vice Chairman of the Independent Directors Committee<br>- Chairman of the Corporate Governance and Sustainable Development Committee<br>- Member of the Nominating and Remuneration Committee<br>**Starting Date**<br>September 1, 2014 | 66 | **Education**<br>● Master of Public and Private Management, National Institute of Development Administration (NIDA), Thailand<br>● Bachelor of Science in Electrical Engineering, The National Defense Academy of Japan<br>**Training of Thai Institute of Directors Association**<br>● Director's Briefing – Corporate Strategy beyond the Crisis, a Chairman/Board Perspective, Bain & Company, Inc.<br>● Board Matters and Trends (BMT) 4/2017<br>● Strategic Board Master Class (SBM) 1/2017<br>● Anti-Corruption: Leadership Role of the Board<br>● How to Develop a Risk Management Plan (HRP) 9/2016 | None | None | **Other Listed Companies**<br>None<br>**Other Companies**<br>2014 - 2015<br>Apr. - Sep. 2015<br>**Other Organizations**<br>2015 - Present<br>2014 - 2015<br>2014 - 2015<br>Apr. - Sep. 2015 | ● Chairman<br>● Director<br>● Royal Thai Navy Retired<br>● Chief of Staff<br>● Chairman<br>● Director, Equipment Control and Industry Development Committee | ● Bangkok Dock Co., Ltd.<br>● Thai Aviation Industries Company Limited<br>● Office of the Permanent Secretary for Defence<br>● Royal Thai Navy<br>● Frigate Squadron Project, Royal Thai Navy<br>● Defence Industry Department, Ministry of Defence |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • Risk Management Program for Corporate Leaders (RCL) 26/2016<br>• Boards that Make a Difference (BMD) 1/2016<br>• Ethical Leadership Program (ELP) 1/2015<br>• Director Certification Program (DCP) 204/2015<br>**Other Training**<br>• 22nd World Petroleum Congress (WPC), Istanbul, Turkey<br>• Maritime Joint Force Commander Course (Admiral Level), Hawaii, USA<br>• Advanced Security for Senior Executive, Hawaii, USA<br>• National Institute for Defense Studies (Japan)<br>• National Institute for Defense College (Class 51) | | | Apr. - Sep. 2015 | • Deputy Chief of Joint Staff | • Royal Thai Armed Forces Headquarters |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| **Major General Nimit Suwannarat**<br>- Independent Director<br>- Member of the Nominating and Remuneration Committee<br>- Member of the Risk Management Committee<br>**Starting Date**<br>September 1, 2014 | 49 | **Education**<br>● Master of Arts in International Relations, Chulalongkorn University, Thailand<br>● Master of Science in Electrical Engineering (Communications and Signal Processing), University of Minnesota, Minneapolis, USA<br>● Bachelor of Science in Electrical Engineering, Virginia Military Institute, Lexington, Virginia, USA<br>**Training of Thai Institute of Directors Association**<br>● Director's Briefing – Corporate Strategy beyond the Crisis, a Chairman/Board Perspective, Bain & Company, Inc.<br>● Director Certification Program (DCP) 216/2016<br>**Other Training**<br>● Public Key Infrastructure (Certification Authority, Digital Signature) Course, Ottawa, Canada | None | None | **Other Listed Companies** | | |
| | | | | | None | | |
| | | | | | **Other Companies** | | |
| | | | | | None | | |
| | | | | | **Other Organizations** | | |
| | | | | | Jun. 2019 - Present | ● Advisor to the Prime Minister | ● The Prime Minister's Office |
| | | | | | 2018 - Present | ● Deputy Chief of Office | ● Office of Military Affairs Coordination to the Ministry of Foreign Affairs, Office of Policy Planning Ministry of Defence, Ministry of Defence |
| | | | | | 2017 - Mar. 2018 | ● Commanding Officer | ● 1st Development Regiment, Royal Thai Army |
| | | | | | Apr. - Sep. 2018 | ● Staff Officer to the Minister of Defence | ● Ministry of Defence |
| | | | | | 2015 - 2016 | ● Senior Operation Officer, Defence Industry and Energy Center | ● Office of the Permanent Secretary for Defence |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • Electronic Commerce Course, Orlando, Florida, USA<br>• Computer Emergency Response Team, Carnegie Melon, Pennsylvania, USA<br>• National Crisis Management Course, APCSS, Hawaii, USA<br>• Command and General Staff College (Class 83), Royal Thai Army<br>• Joint Staff Course, Joint Staff College<br>• Intermediate Certificate Course in Political Leadership in the New Era (Class 2), King Prajadhipok's Institute | | | 2015 - 2016<br><br><br><br><br>2010 - 2015 | • Commanding Officer of the 1st Field Artillery Regiment King's Guard<br>• Executive Officer of the 1st Field Artillery Regiment, King's Guard | • Royal Thai Army<br><br><br><br><br>• Royal Thai Army |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| **Mr. Twarath Sutabutr**<br>- Director<br>- Member of the Risk Management Committee<br>**Starting Date**<br>October 1, 2015 | 51 | **Education**<br>● Ph.D. Civil & Environmental Engineering, Massachusetts Institute of Technology (MIT), USA<br>● M.S. Soil Mechanics, Asian Institute of Technology (AIT)<br>● B.E. Civil Engineering, Chulalongkorn University<br>**Training of Thai Institute of Directors Association**<br>● Anti-Corruption: Leadership Role of the Board<br>● Director Certification Program (DCP) 115/2009<br>● Financial Statements for Directors Program (FSD) 4/2009<br>**Other Training**<br>● Executive Program in International Management, Stanford – National University of Singapore<br>● CERAWeek 2019, Houston, Texas, USA | None | None | **Other Listed Companies** | | |
| | | | | | 2014 - 2015<br>Apr. - Jul. 2015 | ● Director<br>● Director | ● Thai Oil Public Company Limited<br>● PTT Public Company Limited |
| | | | | | **Other Companies** | | |
| | | | | | 2019 - Present | ● Board of Director | ● Dhanarak Asset Development Co., Ltd. |
| | | | | | **Other Organizations** | | |
| | | | | | Jul. 2020 - Present<br>2019 - Present<br>Nov. 2019 - Present<br>Oct. 2018 - Present<br>2017 - Present | ● Governing Board Member<br>● Vice President<br>● Executive Committee<br>● Chief Inspector General<br>● Director, The Civil Service Sub-Commission | ● The Renewable Energy and Energy Efficiency Partnership<br>● Chulalongkorn University Alumni Association under the Patronage of His Majesty the King<br>● Asian Institute of Technology (AIT)<br>● Ministry of Energy<br>● The Office of the Civil Service Commission (OCSC) |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • Ministry Spokesperson Program, Institute of Public Relation, The Government Public Relations Department<br>• Executive Program on the Rule of Law and Development (ROLD), Thailand Institute of Justice (TIJ)<br>• Energy Literacy for a Sustainable Future (Class 10), Thailand Energy Academy<br>• Capital Market Academy Leadership Program (Class 24), Capital Market Academy<br>• International Leadership Program (ILP) by Government of the United Kingdom<br>• e-Government Executive Program (e-GEP) Class 5, Electronics Government Agency (Public Organization) | | | 2017 - Present<br><br><br><br><br><br><br><br>2017 - Dec. 2019<br><br>2017 - Nov. 2019<br><br><br><br><br><br>2015 - Oct. 2018<br><br>2014 - Feb. 2018<br>2014 - 2015<br><br>2014 - 2015 | • Sub-Committee Member, Public Sector Development Commission Sub-Committee on Public Sector Drive 4.0<br>• Association President<br>• Association President, Thai Government Scholarship Students Association<br>• Director-General<br>• Spokesperson<br>• Deputy Director General<br>• Chairman | • Office of the Public Sector Development Commission (OPDC)<br>• Asian Institute of Technology (AIT)<br>• The Office of the Civil Service Commission (OCSC)<br>• Energy Policy and Planning Office, The Ministry of Energy<br>• Ministry of Energy<br>• Ministry of Energy<br>• Department of Alternative Energy Development and Efficiency Co-Operative |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • Advance Management Program (AMP) INSEAD, France (Government Officials Development Scholarship, Office of the Civil Service Commission)<br>• Top Executive Program in Commerce and Trade (TEPCoT) Class 6, University of Thai Chamber of Commerce<br>• TLCA Executive Development Program (EDP) Class 9, Capital Market Academy<br>• The Civil Service Executive Program for Senior Civil Servants (Class 61), Office of the Civil Service Commission<br>• New Wave Leadership Development (Class 3), Office of the Civil Service Commission<br>• Energy Executive Program (Class 2), Ministry of Energy | | | | | |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • Infrastructure in a Market Economics, Harvard University, Cambridge, USA | | | | | |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| **Mr. Pitipan Tepartimargorn**<br>- Independent Director<br>- Member of the Risk Management Committee<br>- Member of the Corporate Governance and Sustainable Development Committee<br>- Member of the Nominating and Remuneration Committee<br>**Starting Date**<br>November 1, 2015 | 64 | **Education**<br>● M.A. Political Science (Public Administration), Thammasat University, Thailand<br>● B.E. Electrical Engineering (Second Class Honor), King Mongkut's Institute of Technology Ladkrabang, Thailand<br>**Training of Thai Institute of Directors Association**<br>● Director's Briefing - Corporate Strategy beyond the Crisis, a Chairman/Board Perspective, Bain & Company, Inc.<br>● Anti-Corruption: Leadership Role of the Board<br>● Director Certification Program (DCP) 138/2010<br>● Anti-Corruption for Executive Program (ACEP) 4/2012 | None | None | **Other Listed Companies** | | |
| | | | | | Oct. 2018 - Nov. 2019 | ● Chairman of the Nomination and Remuneration Committee | ● Thai Airways International Public Company Limited |
| | | | | | Feb. 2018 - Nov. 2019 | ● Member of the Nomination and Remuneration Committee | ● Thai Airways International Public Company Limited |
| | | | | | Apr. - Nov. 2019 | ● Member of the Corporate Plan Steering and Monitoring Committee | ● Thai Airways International Public Company Limited |
| | | | | | May - Jul. 2019 | ● Chairman of the Labour Relations Committee | ● Thai Airways International Public Company Limited |
| | | | | | May 2018 - Apr. 2019 | ● Member of the Risk Management Committee | ● Thai Airways International Public Company Limited |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | Other Training<br>• Strategic Human Resource Management, Harvard University, USA<br>• NIDA – Wharton Executive Leadership Program, The Wharton School, University of Pennsylvania, USA<br>• Senior Executive Program (SEP), Sasin Graduate Institute of Business Administration of Chulalongkorn University<br>• Advance Political and Electoral Development Program (Class 3), Office of The Election Commission of Thailand<br>• PTT Executive Leadership Program, General Electrics, Crotonville, USA<br>• Capital Market Academy Leadership Program (Class 19), Capital Market Academy | | | Jan. 2018 - Apr. 2019<br><br>Aug. 2018 - Apr. 2019<br><br>2017 – Nov. 2019<br><br>Mar. - Aug. 2018 | • Member of the Human Resources Committee<br>• Member of the U-Tapao Aircraft Repair Center Project Governance and Thai Airways Business Development Project at U-Tapao Airport Sub-Committee<br>• Director<br>• Member of the Recruitment of THAI's President Committee | • Thai Airways International Public Company Limited<br>• Thai Airways International Public Company Limited<br>• Thai Airways International Public Company Limited<br>• Thai Airways International Public Company Limited |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | | | | Oct. 2015 - Sep. 2016 | • Chief Operation Officer, Upstream Petroleum and Gas Business Group | • PTT Public Company Limited |
| | | | | | Oct. 2010 - Sep. 2015 | • Senior Executive Vice President, Human Resources & Organization Excellence | • PTT Public Company Limited |
| | | | | | Other Companies | | |
| | | | | | 2014 - 2016 | • Director and Chairman of the Remuneration Committee | • Sakari Resources Limited |
| | | | | | Apr. - Oct. 2016 | • Chairman | • PTT Energy Resources Co., Ltd. |
| | | | | | 2012 - 2015 | • Chairman | • PTT Polymer Logistics Company Limited |
| | | | | | 2010 - 2015 | • Chairman | • PTT ICT Solutions Co., Ltd. |
| | | | | | Other Organizations | | |
| | | | | | Sep. 2019 - Present | • Senior Advisor of the Governing Board | • Kamnoetvidya Science Academy (KVIS) |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | | | | Feb. 2018 - Present | • Chairman of the Executive Committee | • Vidyasirimedhi Institute (VISTEC) |
| | | | | | Dec. 2017 - Sep. 2019 | • Vice Chairman of the Governing Board | • Kamnoetvidya Science Academy (KVIS) |
| | | | | | 2015 - Present | • Council Member, Executive Board Member | • Vidyasirimedhi Institute (VISTEC) |
| | | | | | Jul. 2015 - Present | • Chairman of the Personnel Management Committee | • Vidyasirimedhi Institute (VISTEC) |
| | | | | | Oct. 2014 - May. 2019 | • Director, The Civil Service Sub-Commission on Development of Human Resource Management (HRM) | • The Office of the Civil Service Commission (OCSC) |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| **Mr. Bundhit Eua-arporn**<br>- Independent Director<br>- Chairman of the Nominating and Remuneration Committee<br>**Starting Date**<br>August 1, 2017 | 55 | **Education**<br>● Ph.D., Imperial College of Science Technology and Medicine, University of London, United Kingdom<br>● M.Eng., Chulalongkorn University<br>● B.Eng., Chulalongkorn University<br>**Training of Thai Institute of Directors Association**<br>● Director's Briefing - Corporate Strategy beyond the Crisis, a Chairman/Board Perspective, Bain & Company, Inc.<br>● Director Certification Program (DCP) 110/2009<br>**Other Training**<br>● The Executive Program in Energy Literacy for a Sustainable Future (Class 6), Thailand Energy Academy (TEA) | Spouse<br>0.00012 %<br>(4,587 shares) | None | **Other Listed Companies** | | |
| | | | | | 2016 - Present | ● Executive Board Member | ● Banpu Power Public Company Limited |
| | | | | | **Other Companies** | | |
| | | | | | Nov. 2018 - Present | ● Chairman of the Board | ● AI and Robotics Ventures Company Limited (ARV) |
| | | | | | **Other Organizations** | | |
| | | | | | 2016 - Present<br>Aug. - Sep. 2017 | ● President<br>● Board Member | ● Chulalongkorn University<br>● National Reform Committee in Energy, National Reform Committee |
| | | | | | 2015 - 2016 | ● Honorary Board Member | ● Thailand Institute of Scientific and Technological Research |
| | | | | | 2013 - 2016 | ● Dean, Faculty of Engineering | ● Chulalongkorn University |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • Power of the Kingdom (Bhumipalung Phandin) (Class 3), Chulalongkorn University Executive Program<br>• Temasek Foundation-NUS Programme for leadership in University Management | | | | | |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| **Miss Penchun Jarikasem**<br>- Independent Director<br>- Chairman of the Risk Management Committee<br>- Member of the Audit Committee<br>**Starting Date**<br>1 February 2018 | 65 | **Education**<br>● M.Sc. (Business Administration) Thammasat University<br>● Bachelor of Arts, Faculty of Arts, Chulalongkorn University<br>**Training of Thai Institute of Directors Association**<br>● Director's Briefing — Corporate Strategy beyond the Crisis, a Chairman/Board Perspective, Bain & Company, Inc.<br>● IT Governance and Cyber Resilience program (ITG) 15/2020<br>● Board Matters and Trends (BMT) 6/2018<br>● Risk Management Program for Corporate Leaders Class (RCL) 13/2018<br>● Ethical Leadership Program (ELP) 11/2018<br>● Role of Chairman Program (RCP) 36/2015 | 0.00025 % (10,000 shares) | None | **Other Listed Companies** | | |
| | | | | | 2016 - Present<br>2016 - Present<br>2011 - 2015 | ● Chairman of the Audit Committee<br>● Independent Director<br>● Executive Vice President, Finance and Accounting Group | ● Osotspa Public Company Limited<br>● Osotspa Public Company Limited<br>● PTT Exploration and Production Public Company Limited |
| | | | | | **Other Companies** | | |
| | | | | | Apr. 2018 - Present<br>Mar. 2018 - Present | ● Chairman of the Audit Committee<br>● Independent Director | ● Ritta Holdings Company Limited<br>● Ritta Holdings Company Limited |
| | | | | | **Other Organizations** | | |
| | | | | | Jun. 2020 - Present | ● The working group established to resolve accounting issues of the Energy Conservation Fund from fiscal years 2014 to 2018 | ● The Energy Conservation Promotion Fund |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • Advanced Audit Committee Programs (AACP) 7/2012<br>• Director Certification Program (DCP) 113/2009<br>• Director Accreditation Program (DAP) 75/2008 | | | 2017 - Present | • Advisory Committee for Fund Raising and Listed Company Oversight | • The Securities and Exchange Commission (SEC) |
| | | | | | Dec. 2018 - Dec. 2020 | • Sub-Committee on Consideration of Debt Securities, Derivatives and Structured Products | • The Securities and Exchange Commission (SEC) |
| | | Other Training<br>• The Executive Program in Energy Literacy for a Sustainable Future (Class 6), Thailand Energy Academy (TEA)<br>• Power of the Kingdom (Bhumipalung Phandin) (Class 3), Chulalongkorn University Executive Program<br>• Senior Executive Program no.77 (SEP 77), London Business School (LBS)<br>• Capital Market Academy Leadership (CMA 4), Capital Market Academy (CMA) | | | 2018 - Oct. 2019 | • Chairman of the Sub-Committee for Finance and Accounting | • State Railway of Thailand |
| | | | | | Apr. 2018 - Oct. 2019 | • Director | • State Railway of Thailand |
| | | | | | 2016 - Dec. 2018 | • Sub-Committee for Finance and Budgeting Improvement | • Office of the Public Sector Development Commission (OPDC) |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| **Mr. Patchara Anuntasilpa**<br>- Director<br>- Member of the Nominating and Remuneration Committee<br>**Starting Date**<br>November 1, 2018 | 49 | **Education**<br>● Master Degree in Business Administration (M.B.A.), Shenandoah University, USA<br>● Bachelor Degree in Business Administration, Bangkok University, Thailand<br>**Training of Thai Institute of Directors Association**<br>● Director's Briefing —Corporate Strategy beyond the Crisis, a Chairman/Board Perspective, Bain & Company, Inc.<br>● Director Certification Program (DCP) 221/2016<br>**Other Training**<br>● Top Executive Program, Royal Thai Police<br>● The Program for Junior Executives on Justice Administration, Class 23, Judicial Training Institute | None | None | **Other Listed Companies**<br>None<br>**Other Companies**<br>None<br>**Other Organizations** | | |
| | | | | | Oct. 2020 - Present | ● Director-General | ● The Customs Department, Ministry of Finance |
| | | | | | 2019 - Present | ● Chairman of the Board of Directors | ● Government Saving Bank |
| | | | | | 2019 - Present | ● Chairman of the Board of the Government Lottery | ● The Government Lottery Office, Ministry of Finance |
| | | | | | 2018 - Sep. 2020 | ● Director-General | ● The Excise Department, Ministry of Finance |
| | | | | | Apr. 2018 - Oct. 2019 | ● Director | ● State Railway of Thailand |
| | | | | | 2015 - May 2019 | ● Director | ● The Government Lottery Office, Ministry of Finance |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • Top Executive Program in Commerce and Trade (TEPCoT), Class 11, Commerce Academy, University of the Thai Chamber of Commerce<br>• Super Series Program: Leadership & Effective Corporate Culture (Class 2), Institute of Research and Development for Public Enterprises (IRDP) in collaboration with Judge Business School, University of Cambridge<br>• Capital Market Leader Program, Capital Market Academy (CMA 24)<br>• Financial Analysis Program, Haas School of Business, University of California at Berkeley, USA<br>• Resource management for National Defense #7, Office of the Army Comptroller<br>• Executive Program (Additional Program) #3, Office of the Civil Service Commission (OCSC) | | | 2017 - Sep. 2018<br>2016 - 2017<br>2015 - 2016<br>Mar. - Dec. 2015<br>2011 - 2015 | • Director-General<br>• Deputy Permanent Secretary of the Expense and Debt Cluster<br>• Fiscal Analyst Advisory Level<br>• Deputy Director<br>• Director | • The Treasury Department, Ministry of Finance<br>• The Expense and Debt Cluster, Ministry of Finance<br>• The Comptroller General's Department<br>• The Comptroller General's Department<br>• Non Budgetary Development Division, The Comptroller General's Department |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • Foreign Affairs Executive Program #3, Ministry of Foreign Affairs<br>• Fundamentals of Public Procurement, United Nations Development Programme: UNDP, Denmark<br>• WTO Advanced Regional Workshop on Government Procurement for Asia and Pacific Economies, World Trade Organization: WTO, China<br>• Executive Program for Senior Management in collaboration with Kellogg School of Management, Maxwell School of Citizenship and Public Affairs, and Schulich School of Business by Fiscal Policy Research Institute Foundation | | | | | |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| **Mr. Dechapiwat Na Songkhla**<br>- Independent Director<br>- Member of the Audit Committee<br>**Starting Date**<br>January 16, 2019 | 59 | **Education**<br>● Master of Science (National Development and Project Planning) University of Bradford, United Kingdom<br>● Bachelor of Science (Mathematics and Economics) University of Surrey, United Kingdom<br>**Training of Thai Institute of Directors Association**<br>● Director's Briefing – Corporate Strategy beyond the Crisis, a Chairman/Board Perspective, Bain & Company, Inc.<br>**Other Training**<br>● The National Defense Course (Class 54), National Defense College | None | None | **Other Listed Companies**<br>None<br>**Other Companies**<br>None<br>**Other Organizations**<br>2017 - Present<br>2017 - Present<br>2017 - Present<br>2017 - Present<br>2017 - Present<br>2015 - 2017<br>2012 - 2015 | ● Director<br>● Committee member by position<br>● Committee member by position<br>● Committee member by position<br>● Committee member by position<br>● Deputy Director<br>● Senior Advisor | ● The Budget Bureau<br>● The Office of the National Economic and Social Development Council<br>● The Government Pension Fund (GPF)<br>● Eastern Economic Corridor Policy Committee<br>● King Prajadhipok's Institute Council<br>● The Budget Bureau<br>● The Budget Bureau |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • Senior Justice Administration Course (Class 19), College of Justice, Office of the Judiciary<br>• High Level Executives Course for Strategic Management of Anti-Corruption (Class 1), Office of the National Anti-Corruption Commission<br>• Rule of Law for Democracy Course (Class 2), The Constitutional Court of the Kingdom of Thailand | | | | | |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| **Mr. Atikom Terbsiri**<br>- Director<br>- Member of the Risk Management Committee<br>**Starting Date**<br>October 1, 2019 | 58 | **Education**<br>• Master of Business Administration (Finance & International Business), High Distinction, Armstrong University, USA<br>• Bachelor of Business Administration, Assumption University<br>**Training of Thai Institute of Directors Association**<br>• Director's Briefing – Corporate Strategy beyond the Crisis, a Chairman/Board Perspective, Bain & Company, Inc.<br>• Director Certification Program (DCP) 125/2009<br>• Risk Management Program for Corporate Leaders (RCL) 4/2016<br>• Role of the Chairman Program (RCP) 41/2017<br>• Anti-corruption: Leadership Role of the Board | None | None | **Other Listed Companies** | | |
| | | | | | Sep. 2019 - Present | • Chief Operating Officer, Upstream Petroleum and Gas Business Group | • PTT Public Company Limited |
| | | | | | 2015 - Aug. 2019 | • Member of the Risk Management Committee | • Global Power Synergy Public Company Limited |
| | | | | | 2014 - Aug. 2019 | • Director | • Global Power Synergy Public Company Limited |
| | | | | | 2014 - Aug. 2019 | • Chief Executive Officer and the President and Director (Executive), Member of the Risk Management Committee, and the Secretary to the Board of Directors | • Thai Oil Public Company Limited |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | Other Training<br>• Crisis Management Training for PTT Executives<br>• Executive Education Program, Harvard Business School, Harvard University, USA<br>• Advanced Security Management Program, Class 1, National Defence College<br>• The State, Private Sector and Political Sectors Course, Class 5, National Defence College<br>• Capital Market Academy Leader Program, Class 17, Capital Market Academy<br>• The Executive Program in Energy Literacy for a Sustainable Future,Class 6, Thailand Energy Academy<br>• Seminar: 2018 PTIT Annual Dinner: Clean Energy and Smart Transportation: Global Trend for Sustainable World | | | 2014 - Aug. 2019 | • Chairman of the Board | • Thai Lube Base Public Company Limited |
| | | | | | Other Companies | | |
| | | | | | 2014 - Sep. 2019 | • Chairman of the Board | • TOP SPP Company Limited |
| | | | | | 2014 - Aug. 2019 | • Chairman of the Board | • Thaioil Marine Company Limited |
| | | | | | 2014 - Aug. 2019 | • Chairman of the Board | • Thaioil Solvent Company Limited |
| | | | | | 2014 - Aug. 2019 | • Chairman of the Board | • Thaioil Power Company Limited |
| | | | | | 2014 - Aug. 2019 | • Chairman of the Board | • LABIX Company Limited |
| | | | | | 2014 - Aug. 2019 | • Chairman of the Board | • Thai Paraxylene Company Limited |
| | | | | | Other Organizations | | |
| | | | | | Jul. 2020 - Present | • Director | • The Federation of Thai Industries (Term 2020-2022) |
| | | | | | Mar. 2018 - 2020 | • Director | • The Federation of Thai Industries (Term 2018-2020) |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | | | | May 2018 - Present | • Member, Backdoor Listing Transaction Committee | • Stock Exchange of Thailand |
| | | | | | Jan. 2012 - Present | • Executive Director | • Thailand Energy Academy |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| **Mrs. Angkarat Priebjrivat**<br>- Independent Director<br>- Member of the Audit Committee<br>- Member of the Corporate Governance and Sustainable Development Committee<br>**Starting Date**<br>October 1, 2019 | 65 | **Education**<br>• Ph.D. (Accounting), New York University, USA<br>• Master of Accounting Program, Thammasat University<br>• Bachelor of Business Administration (Accounting), (Second-Class Honors) Thammasat University<br>**Training of Thai Institute of Directors Association**<br>• Director's Briefing – Corporate Strategy beyond the Crisis, a Chairman/Board Perspective, Bain & Company, Inc.<br>• DCP Series 4/2019: "How to Develop a Winning Digital Strategy"<br>• Audit Committee Forum 2018: Learn, Unlearn and Relearn - Audit Committee in the Age of Disruption<br>• Driving Company Success with IT Governance (ITG) 6/2017 | None | None | **Other Listed Companies** | | |
| | | | | | 2014 - Present<br>2008 - Present<br>2008 - Present | • Chairperson of Risk Management Committee<br>• Independent Director, Chairperson of Audit Committee<br>• Independent Director, Chairperson of Audit Committee | • COL Public Company Limited<br>• COL Public Company Limited<br>• TISCO Financial Group Public Company Limited |
| | | | | | **Other Companies** | | |
| | | | | | 2016 - Present<br>2018 – 2020 | • Director/ Member of Audit Committee<br>• Independent Director/ Member of Audit Committee/ Chairperson of Risk Management Committee | • TSFC Securities Public Company Limited<br>• TOT Public Company Limited |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • The Role of Chairman (RCP) 2008<br>• Audit Committee Program (ACP) 2007<br>• Director Certification Program (DCP) 2006<br>• Director Accreditation Program (DAP) 2005<br>• Monitoring the Internal Audit Function Program (MIA)<br>• Monitoring the System of Internal Control and Risk Management Program (MIR)<br>• Anti-Corruption for Executive Program | | | Other Organizations | | |
| | | Other Training<br>• IT Security Awareness for Top Management - (2020) ACIS Professional Center Co., Ltd.<br>• Corporate Sustainability Development - (2020) SBDI Co., Ltd. | | | Jun. 2020 - Present<br><br>2013 - Present<br><br>2002 - Present<br><br>1992 - Present | • The working group established to resolve accounting issues of the Energy Conservation Fund from fiscal years 2014 to 2018<br>• Independent Director/ Chairperson of Audit Committee<br>• Member of Government Accounting Standards Committee<br>• Technical Advisor Listing and Disclosure Department | • The Energy Conservation Promotion Fund<br>• TISCO Bank Public Company Limited<br>• The Comptroller General's Department<br>• Stock Exchange of Thailand |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • PTT Group AC Forum 2020 "It's time to Reform a Next New Normal" (2020) PTT Public Company Limited<br>• Understanding Thailand Data Protection Law and its Unintended Consequence - (2019) ACIS Professional Center Co., Ltd. (ACIS)<br>• Role of the Board room: Transforming Corporate Compliance into Corruptless Society - (2018)<br>• Understanding Cryptocurrency, Blockchain, and Digital Asset and the Opportunities in Thailand - (2018) KQ Consulting Co., Ltd.<br>• Capital Market Academy Leader Program, Class 4, Capital Market Academy<br>• Certificate in International Financial Reporting Standard (IFRS), The Institute of Chartered Accountants in England and Wales (ICAEW) | | | 2018 – 2020<br>2018 – 2020<br>2018 - 2019<br>2014 - 2018<br>1997 - 2015 | • Member of Risk Management Committee<br>• Member of Technical Advisory Committee for Financial Reporting Standards and Member Advisory Committee for fund Raising and Listing Department<br>• Member of Finance and Accounting Subcommittee<br>• Director, Member of Audit Committee<br>• Associate Professor, School of Business Administration | • The Government Pension Fund (GPF)<br>• The Securities and Exchange Commission Board<br>• State Railway of Thailand<br>• Tourism Authority of Thailand<br>• National Institute of Development Administration (NIDA) |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| **Mr. Auttapol Rerkpiboon**<br>- Director<br>**Starting Date**<br>August 1, 2020 | 55 | **Education**<br>• Master of Economics Program, National Institute of Development Administration<br>• Bachelor of Engineering (Civil Engineering), Chulalongkorn University<br>• Diploma of Petroleum Management, College of Petroleum Studies, Oxford, England (British Council Scholarship)<br>**Training of Thai Institute of Directors Association**<br>• Director's Briefing – Corporate Strategy beyond the Crisis, a Chairman/Board Perspective, Bain & Company, Inc.<br>• Director Certification Program (DCP) 173/2013<br>• Company Secretary Program (CSP) 14/2005 | Spouse<br>0.00001 %<br>(500 Shares) | none | **Other listed companies** | | |
| | | | | | May. 2020 - Present | • President and Chief Executive Officer | • PTT Public Company Limited |
| | | | | | May. 2020 - Present | • Director/ Secretary to the Board | • PTT Public Company Limited |
| | | | | | Apr. 2018 - Jul. 2020 | • Director/ Chairman of the Risk Management Committee/ Member of the Nomination and Remuneration Committee | • Thai Oil Public Company Limited |
| | | | | | Oct. 2017 - May. 2020 | • Chief Operating Officer, Downstream Petroleum Business Group (Oct. 2017 - Sep. 2018, Acting Senior Executive Vice President, Downstream Business Group Alignment) | • PTT Public Company Limited |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | Other Training<br>• The National Defence Course (Class 58), National Defence College<br>• Advanced Certificate Course in Politics and Governance in Democratic System for Executives, (Class 14), King Prajadhipok's Institute<br>• Certificate, Executive Program on Energy Literacy for a Sustainable Future, (Class 12), Thailand Energy Academy (TEA)<br>• Capital Market Academy Leadership Program, (Class 20), Capital Market Academy<br>• Executive Program on Rule of Law and Development: RoLD (Class 2), Thailand Institute of Justice: TIJ<br>• Executive Development Program (EDP), Class 1, Thai Listed Companies Association (TLCA) | | | Oct. 2015 - Oct. 2018 | • Director/Director to the Corporate Governance Committee/Director to the Risk Management Committee | • PTT Global Chemical Public Company Limited |
| | | | | | Oct. 2015 - Sep. 2017 | • Senior Executive Vice President - Oil Business Unit | • PTT Public Company Limited |
| | | | | | Jun. 2015 - Oct. 2015 | • Director | • IRPC Public Company Limited |
| | | | | | Feb. 2015 - May 2015 | • Director | • Bangchak Petroleum Public Company Limited |
| | | | | | Oct. 2014 Sep. 2015 | • Senior Executive Vice President, Sustainability Management and Project Engineering | • PTT Public Company Limited |
| | | | | | Other Companies | | |
| | | | | | Dec. 2015 - Present | • Chairman | • PTT Oil and Retail Business Public Company Limited |
| | | | | | Nov. 2015 - Sep. 2017 | • Chairman | • PTT Retail Management Company Limited |
| | | | | | Dec. 2014 - Nov. 2015 | • Director | • Energy Complex Company Limited |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • Rule of Law for Democracy (Class 8), College of the Constitutional Court<br>• NIDA-Wharton Executive Leadership Program 2009, The Wharton School of the University of Pennsylvania, USA<br>• PTT Executive Leadership, General Electric, GE, New York, USA | | | Other Organizations | | |
| | | | | | Oct. 2020 - Present | • Advisory Board | • The Institute of Industrial Energy |
| | | | | | May 2020 - Present | • Council of Trustees | • Petroleum Institute of Thailand (PTIT) |
| | | | | | Jun. 2020 - Present | • Committee Member | • Ruamchit Normklao Foundation for Thai Youth under the patronage of H.R.H. the Queen |
| | | | | | May 2020 - Present | • Committee member | • OUR Khung BangKachao |
| | | | | | Mar. 2020 - Present | • Expert Committee of NIDA Council | • National Institute of Development Administration (NIDA) |
| | | | | | Sep. 2019 - Present | • Honorary Advisor | • National Institute of Development Administration (NIDA) |
| | | | | | Nov. 2018 - Present | • Honorary advisor | • Thai-Laos Business Council |
| | | | | | Jul. 2018 - Present | • Committee Member, Payment Systems Committee (PSC) | • The Bank of Thailand |
| | | | | | Nov. 2016 - Present | • Vice President | • Swimming Association Thailand |
| | | | | | May 2018 - Jul. 2020 | • President | • The Marketing Association of Thailand |
| | | | | | May 2018 - Jul. 2020 | • Director and Treasurer | • The Foundation for Educational of the Marketing Association of Thailand |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | | | | Oct. 2017 - Sep. 2020 | • Committee Member | • The Royal Automobile Association of Thailand under Royal Patronage |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| **Mr. Veerathai Santiprabhob**<br>- Independent Director<br>- Member of the Risk Management Committee<br>- Member of the Corporate Governance and Sustainable Development Committee<br>**Starting Date**<br>October 15, 2020 | 50 | **Education**<br>• Ph.D. in Economics, Harvard University, Cambridge, MA, USA<br>• A.M. in Economics, Harvard University, Cambridge, MA, USA<br>• Bachelor of Economics (First Class Honor), Thammasat University<br>**Training of Thai Institute of Directors Association**<br>• Director's Briefing - Corporate Strategy beyond the Crisis, a Chairman/Board Perspective, Bain & Company, Inc.<br>• Director Accreditation Program (DAP) 2007<br>• Directors Certification Program (DCP) 2014 | None | None | **Other Listed Companies**<br>None<br>**Other Companies**<br>None<br>**Other Organizations**<br>Oct. 2015 - Sep. 2020<br>Oct. 2015 - Sep. 2020<br>Oct. 2015 - Sep. 2020<br>Oct. 2015 - Sep. 2020<br>2013 - 2015 | • Governor<br>• Member of the Board<br>• Member of the Board<br>• Member<br>• Advisor | • Bank of Thailand<br>• Office of Insurance Commission<br>• The Securities and Exchange Commission (SEC)<br>• National Economic and Social Development Council<br>• Thailand Development Research Institute |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | Other Training<br>• Capital Market Academy Leader Program, Class 4, Capital Market Academy<br>• Corporate Strategy Executive Education Program, MIT Sloan School of Management, Cambridge, MA, USA | | | | | |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| **Mr. Phongsthorn Thavisin**<br>- Director<br>- Chief Executive Officer<br>**Starting Date**<br>October 1, 2020 | 61 | **Education**<br>• B.Sc. (Petroleum and Natural Gas Engineering), The Pennsylvania State University, USA<br>**Training of Thai Institute of Directors Association**<br>• Director's Briefing - Corporate Strategy beyond the Crisis, a Chairman/Board Perspective, Bain & Company, Inc.<br>• Director Certification Program (DCP) 223/2016<br>**Other Training**<br>• CERAWeek 2019, Houston, Texas, USA<br>• Capital Market Leader Program (Class 27), Capital Market Academy<br>• Energy Literacy Leadership Program (Class 7), Thailand Energy Academy | 0.00255 %<br>(101,037 Shares) | None | **Other Listed companies** | | |
| | | | | | Oct. 2020 - Present<br>Jan. 2019 - Sep. 2020<br>Oct. - Dec. 2018 | • Chief Executive Officer<br>• President and Chief Executive Officer<br>• Chief Executive Officer and Acting President, Exploration and Production | • PTT Exploration and Production Public Company Limited<br>• PTT Exploration and Production Public Company Limited<br>• PTT Exploration and Production Public Company Limited |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • Senior Executive Program (SEP-19), Sasin Graduate Institute of Business Administration of Chulalongkorn University<br>• Advanced Naval Studies Program (Class 40/2008), Institute of Advanced Naval Studies<br>• PTT Group EVP Leadership Development<br>• PTT Executive Leadership, General Electric, GE, New York, USA<br>• Breakthrough Program for Senior Executive, IMD<br>• The National Defense Course (2013-2014), Thai National Defense College | | | Oct. 2018 - Sep. 2020<br><br>Nov. 2017 - Sep. 2018 | • Senior Executive Vice President working on a secondment as President and Chief Executive Officer of PTT Exploration and Production Public Company Limited<br>• President, Exploration and Production and Acting Executive Vice President, Business Transformation and Organization Group | • PTT Public Company Limited<br><br>• PTT Exploration and Production Public Company Limited |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | | | | Jan. 2016 - Oct. 2017 | • Chief Operating Officer, Production Asset and Operations Support Group and acting Executive Vice President, Operations Support Group | • PTT Exploration and Production Public Company Limited |
| | | | | | Jan. 2015 - Dec. 2015 | • Executive Vice President, Technology and Sustainability Development Group | • PTT Exploration and Production Public Company Limited |
| | | | | | Other Companies | | |
| | | | | | None | | |
| | | | | | Other Organizations | | |
| | | | | | None | | |

**Director who resigned or retired in year 2020**

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| Mr.Chansin Treenuchagron | 60 | Education | None | None | Other Listed Companies | | |
| Ex-Director | | • Master Degree of Economic, Chulalongkorn University<br>• Bachelor Degree of Economic, Thammasat University | | | Jun. 2020 - Present<br>Jun. - Jul. 2020<br>Aug. 2018 - Present<br>Aug. 2018 - May 2020<br>Aug. 2018 - 2020<br>Jan. - Aug. 2018 | • Director and Acting President<br>• Independent Director<br>• Chairman<br>• President and Chief Executive Officer<br>• Director and Secretary of the Board of Directors<br>• Chief Technology and Engineering Officer | • Thai Airways International Public Company Limited<br>• Thai Airways International Public Company Limited<br>• IRPC Public Company Limited<br>• PTT Public Company Limited<br>• PTT Public Company Limited<br>• PTT Public Company Limited |
| | | Training of Thai Institute of Directors Association | | | | | |
| | | • Charted Director Class (CDC) 10/2015<br>• Director Accreditation Program (DAP) 93/2011<br>• Financial Statements for Directors (FSD) 12/2011<br>• Director Certification Program (DCP) 85/2007 | | | | | |
| | | Other Training | | | | | |
| | | • The Executive Program in Energy Literacy for a Sustainable Future (Class 7/2015), Thailand Energy Academy (TEA) | | | | | |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | • Diploma, The National Defence Course (Class 57/2014), National Defence College | | | 2017 - Aug. 2018 | • Director, Member of the Risk Management Committee and Member of the Nomination and Remuneration Committee | • Global Power Synergy Public Company Limited |
| | | | | | 2015 - Aug. 2018 | • Director and Member of the Risk Management Committee | • IRPC Public Company Limited |
| | | | | | Oct. - Dec. 2017 | • Chief Operation Officer, Infrastructure and Sustainability Management Business Group | • PTT Public Company Limited |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | | | | 2016 - 2017 | • Senior Executive Vice President, Downstream Business Group Alignment | • PTT Public Company Limited |
| | | | | | Oct. - Dec. 2015 | • Senior Executive Vice President, Petrochemicals & Refining Business Unit | • PTT Public Company Limited |
| | | | | | Apr. - Oct. 2015 | • Director | • Thai Oil Public Company Limited |
| | | | | | 2014 - 2015 | • Senior Executive Vice President, Corporate Strategy | • PTT Public Company Limited |
| | | | | | Other Companies | | |
| | | | | | 2018 - 2020 | • Chief Advisor | • PTT Saving and Credit Cooperation Limited |
| | | | | | 2017 - Aug. 2018 | • Chairman | • PTT Digital Solutions Company Limited |
| | | | | | Apr. - Dec. 2017 | • Chairman | • PTT Asahi Chemical Company Limited |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | | | | 2018 - Mar. 2019 | • Board member | • Faculty of Economics, Thammasat University |
| | | | | | Feb. 2018 - Mar. 2019 | • Board member | • College of Innovation, Thammasat University |
| | | | | | 2017 - Aug. 2019 | • Member of Committee | • Thammasat Association |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| Mr.Sethaput Suthiwart-Narueput<br>Ex-Director | 55 | **Education**<br>• Ph.D. Economics, Yale University, USA<br>• M.Phil. Economics, Yale University, USA<br>• B.A. (Highest Honors) Economics, Swarthmore College, USA<br>**Training of Thai Institute of Directors Association**<br>• Advanced Audit Committee Program (AACP) 18/2015<br>• Risk Management Committee Program (RMP) 6/2015<br>• Director Accreditation Program (DAP) 94/2012<br>**Other Training**<br>• None | None | None | **Other Listed Companies** | | |
| | | | | | None | | |
| | | | | | **Other Companies** | | |
| | | | | | 2016 - Aug. 2020<br>2011 - 2018 | • Director<br>• Director and Managing Partner | • Osotspa Public Company Limited<br>• The Advisor Co., Ltd. |
| | | | | | **Other Organizations** | | |
| | | | | | Oct. 2020 - Present | • Governor | • Bank of Thailand |
| | | | | | 2017 - Mar. 2020 | • Member of the Board of Director | • Bank of Thailand |
| | | | | | 2015 - Sep. 2020 | • Director | • Puey Ungphakorn Institute for Economic Research, Bank of Thailand |
| | | | | | 2014 - Sep. 2020 | • Member, Monetary Policy Committee, | • The Bank of Thailand |
| | | | | | 2012 - Feb. 2017 | • Executive Chairman | • Thailand Future Foundation |
| | | | | | 2015 - 2016 | • Advisor on Academic Affairs | • Sasin Graduate Institute of Business Administration of Chulalongkorn University |
| | | | | | 2000 - 2017 | • Visiting Professor of Economics | • Sasin Graduate Institute of Business Administration of Chulalongkorn University |

Criminal offense record during the past 10 years:

| | |
|---|---|
| a) Being adjudged of convicting a crime or being on trial for convicting a crime | No |
| b) Being adjudged bankrupt or a receiver is appointed | No |
| c) Being a management in the company or partnership which is adjudged bankrupt or a receiver is appointed | No |

**Remark:** The name and number(s) of the authorized directors who may sign to bind the Company from October 22, 2020 are Mr. Atikom Terbsiri, Mr. Twarath Sutabutr, and Mr. Pitipan Tepartimargorn. Two of the above three directors can sign jointly and affix the Company's seal, or Mr. Phongsthorn Thavisin, the Chief Executive Officer, can sign singly.

2. Management

As of **January 1, 2021**, PTTEP management team had **17** personnel as defined by the Capital Market Supervisory Board. Details are shown below.

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| **Mr. Phongsthorn Thavisin**<br>Chief Executive Officer | Please see part 1 for details | | | | | | |
| **Mr. Montri Rawanchaikul**<br>President and Acting Executive Vice President, Production Asset Group<br><br>Seconded from PTT Public Company Limited, Senior Executive Vice President, attached to Chief Operating Officer, Upstream Petroleum and Gas Business Group | 56 | • M.Sc. (Exploration Geophysics), University of New South Wales, Australia<br>• B.Sc (Physics), Chiang Mai University | 0.00131%<br>(52,050 shares) | None | Oct. 2020 - Present<br>Oct. 2020 - Present<br><br>Jan. - Sep. 2020<br><br>Oct. 2017 - Dec. 2019<br><br>Aug. - Dec. 2018<br>Nov. 2017 - Sep. 2018<br><br>Oct. 2016 - Sep. 2017<br><br>Sep. - Oct. 2016<br>Jul. - Aug. 2016<br><br>Jul. 2013 - Jul. 2016 | • President<br>• Acting Executive Vice President, Production Asset Group<br>• Executive Vice President, Production Asset Group<br>• Executive Vice President, Strategy and Business Development Group<br>• Project Champion, SPEND SMART Project<br>• Acting Senior Vice President, New Business Unit<br>• Acting Executive Vice President, Strategy and Business Development Group<br>• Senior Vice President, International Asset<br>• Senior Vice President, attached to Production Asset and Operations Support Group<br>• Senior Vice President, Australia Asset, seconded as General Manager, Australia Asset, PTTEP Australasia, Australia | PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| **Mr. Kanok Intharawijitr**<br>Executive Vice President, Geosciences, Subsurface and Exploration Group | 59 | • B.Sc. (Geology), Chiangmai University | 0.00119%<br>(47,231 shares) | None | Oct. 2018 - Present<br>Jul. - Sep. 2018<br>Jan. 2016 - Jun. 2018 | • Executive Vice President, Geosciences, Subsurface and Exploration Group<br>• Acting Executive Vice President, Geosciences and Exploration Group<br>• Senior Vice President, Geosciences and Technology Division | PTTEP<br>PTTEP<br>PTTEP |
| **Mr. Chayong Borisuitsawat**<br>Executive Vice President, Engineering and Development Group | 53 | • B.E. (Petroleum Engineering), Chulalongkorn University | 0.00164%<br>(65,096 shares) | None | Jan. 2020 - Present<br>Nov. 2018 - Dec. 2019<br>Oct. 2018<br>Nov. 2017 - Sep. 2018<br>Nov. 2017 - Jul. 2018<br>Jul. 2016 - Oct. 2017<br>Jan. 2015 - Aug. 2016 | • Executive Vice President, Engineering and Development Group<br>• Executive Vice President, Business and Organization Transformation Group<br>• Executive Vice President, Operations Support Group<br>• Acting Executive Vice President, Operations Support Group<br>• Project Champion, SPEND SMART Project<br>• Project Champion, SAVE to be SAVE Project<br>• Senior Vice President, Thai Onshore Asset | PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| **Mr. Suksant Ongvises**<br>Executive Vice President,<br>Operations Support Group | 56 | • B.E. (Chemical), University of Newcastle, Australia | 0.00070%<br>(27,681 shares) | None | Jan. 2020 - Present | • Executive Vice President, Operations Support Group | PTTEP |
| | | | | | Jun. - Dec. 2019 | • Executive Vice President, Engineering, Development and Operations Group | PTTEP |
| | | | | | Oct. 2018 - May 2019 | • Acting Executive Vice President, Engineering, Development and Operations Group | PTTEP |
| | | | | | Mar. 2017 - Oct. 2018 | • Senior Vice President, Engineering and Construction Division | PTTEP |
| | | | | | Apr. - Sep. 2018 | • Acting Vice President, M3 Development Project | PTTEP |
| | | | | | Jul. 2016-Feb. 2017 | • Acting Senior Vice President, Engineering and Construction Division | PTTEP |
| | | | | | Jan. 2015 -Jun. 2016 | • Vice President, Algeria Development Project | PTTEP |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| **Ms. Natruedee Khositaphai**<br>Executive Vice President, Strategy and Business Development Group | 55 | • MB.A. (Business Administration), Sasin Graduate Institute of Business Administration of Chulalongkorn University<br>• B.E. (Petroleum), Chulalongkorn University | 0.00271%<br>(107,457 shares) | None | Jan. 2020 - Present<br>Jun. - Dec. 2019<br>Oct. 2018 - May 2019<br>Oct. - Dec. 2018<br>Nov. 2017 - Sep. 2018<br>Jul. – Nov. 2017<br>May 2016 - Jun. 2017<br>Jan. 2015 - Apr. 2016 | • Executive Vice President, Strategy and Business Development Group<br>• Executive Vice President, Corporate Affairs and Assurance Group<br>• Acting Executive Vice President, Corporate Affairs and Assurance Group<br>• Acting Senior Vice President, Corporate Communications and Public Affairs Division<br>• Senior Vice President, International Asset<br>• Acting Senior Vice President, International Asset<br>• Vice President, assigned as Project Manager, SAVE to be SAFE Project<br>• Vice President, Strategic Planning Department | PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| **Mr. Sumrid Sumneing**<br>Executive Vice President, Finance and Accounting Group<br><br>Seconded from PTT Public Company Limited, Executive Vice President ,attached to Chief Financial Officer.<br><br>(The person supervising Finance and accounting) | 56 | • M.B.A. (Business Administration), Kasetsart University<br>• B.B.A. (Accounting), Thammasart University<br>**Training**<br>• Capital Market Academy 29/2019<br>• Financial & Fiscal Management Program for Senior Executive by The Comptroller General's Department 5/2018<br>• Executive Development Program (EDP II), Thai Listed Companies Association (TLCA) | 0.00033%<br>(13,000 shares) | None | Jan. 2019 – Present<br><br>Jun. 2016 - Dec. 2018<br><br>Dec. 2014 - Dec. 2015 | • Executive Vice President, Finance and Accounting Group<br>• Executive Vice President, Group Corporate Finance and Strategy<br>• Vice President, Financial Strategy and Policy | PTTEP<br><br>PTT<br><br>PTT |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| | | • Director Certification Program (Class 180/2013), Thai Institute of Directors (IOD)<br>• Leadership Development Program- Center for Creative Leadership (CCL)<br>• Finance Executive Program (FINEX 21), The Thai Institute of Banking and Finance Association | | | | | |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| **Mr. Piya Sukhumpanumet**<br>Acting Executive Vice President, Human Resources, Corporate Affairs, and Assurance Group | 55 | • M.B.A. (Business Administration), Sasin Graduate Institute of Business Administration of Chulalongkorn University<br>• B.Sc. (Geology), Chulalongkorn University | 0.00226%<br>(89,916 shares) | None | Oct. 2020 - Present<br>Sep. 2016 - Sep. 2020<br>Jul. - Aug. 2016<br>Jan. - Jun. 2016<br>Jul. 2015 - Dec. 2015 | • Acting Executive Vice President, Human Resources, Corporate Affairs, and Assurance Group<br>• Senior Vice President, Myanmar Asset, seconded as General Manager, PTTEP International Limited, Union of Myanmar<br>• Senior Vice President, Technology and Knowledge Management Division<br>• Acting Senior Vice President, Technology and Knowledge Management Division<br>• Vice President attached to Technology and Knowledge Management Division | PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP |

| Name/Position | Age (year) | Education/Training | % of Share holding | Family Relationship among Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/Company/Type of Business |
| | | | | | Other Listed Companies | | |
| | | | | | 2015 - 2017 | • Chairman | • PTT Polymer Marketing Company Limited |
| | | | | | 2015 - 2017 | • Chairman | • PTT Polymer Logistics Company Limited |
| | | | | | 2014 - 2015 | • PTT Green Energy (Thailand) Company Limited | • PTT Green Energy (Thailand) Company Limited |
| | | | | | 2012 - 2015 | • Director | • PTT Polymer Logistics Company Limited |
| | | | | | Other Organizations | | |
| | | | | | Aug. 2019 - Present | • President | • Thammasat Association |
| | | | | | 2018 - Present | • Menber | • The PTIT Council of Trustees |
| | | | | | 2018 - Present | • Director and Vice Chairman | • Thai Listed Companies Association |
| | | | | | 2018 - Present | • Member of Thailand Foundation Committee | • Thailand Foundation |
| | | | | | 2018 - Present | • Member of Committee | • Social Participation Committee, Princess Maha Chakri Award Foundation |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| **Mr. Sermsak Satchawannakul**<br>Senior Vice President,<br>Accounting Division<br><br>(The person is directly responsible to supervise accounting functions) | 52 | • M.B.A. (Business Administration), Thammasat University<br>• B.B.A.(Accounting), Thammasat University<br>**Training**<br>• EP LEAD III Leadership Development Program by IMD<br>• TLCA Executive Development Program by Thai Listed Companies Association<br>**Continuing Professional Development (CPD) 2020**<br>• TFRS 63 – CPD (Accounting) 6 hours<br>• Accounting Systems – CPD (Accounting) 6 hours<br>An Accountant with Criteria Specified by Department of Business Development | 0.00114%<br>(45,215 shares) | None | Oct. 2020 - Present<br>Jan.2019 - Sep.2020<br><br>Jan. 2019<br><br>Jul. 2015-Dec.2018<br><br><br><br>Feb.2014-Jun.2015 | • Senior Vice President, Accounting Division<br>• Vice President, Financial Accounting Department<br>• Acting Vice President, Office Facility Management Department<br>• Vice President, Myanmar Business Support Department, seconded as Myanmar Business Support Manager, PTTEP International Limited, Union of Myanmar<br>• Vice President, Information Technology and Information Management Department | PTTEP<br>PTTEP<br><br>PTTEP<br><br>PTTEP<br><br>PTTEP |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| **Ms. Orachon Ouiyamapun**<br>Senior Vice President, Finance Division<br><br>Seconded from PTT Public Company Limited, Executive Vice President, attached to chief Financial Officer | 57 | • M.B.A. (Business Administration), King Mongkut's Institute of Technology Ladkrabang<br>• B.B.A. (Human Resource Management), Prince of Songkla University | None | None | Jan. 2021 - Present<br>Oct. 2018 -Dec.2020<br>Nov.2016 - Sep.2018<br>Jun. - Oct. 2016<br><br>Dec.2014 - May 2016 | • Senior Vice President, Finance Division<br>• Vice President, Group Financial Planning<br>• Vice President, Treasury<br>• Vice President, Group Financial Structure and Funding<br>• Vice President, Affiliates Financial Management | PTTEP<br>PTT<br>PTT<br>PTT<br><br>PTT |
| **Mr. Sakchai Sarawek**<br>Vice President, Managerial Accounting Department | 51 | • M.Sc. Accounting Information System, Chulalongkorn University<br>• B.B.A. (Accounting), Thammasat University<br>, | None | None | Jul. 2020 - Present<br>Jul. 2018 - Jun. 2020<br><br>Jul. 2016 - Jun. 2018<br><br>Nov.2012 - Jun. 2016 | • Vice President, Managerial Accounting Department<br>• Vice President attached to International Asset seconded as Senior Manager, Business Support at CPOC, Malaysia<br>• Vice President, Accounting Policy and Solutions Department<br>• Vice President, attached to Australia Asset, seconded as Finance and Accounting Manager, PTTEP Australasia Limited, Australia | PTTEP<br><br>PTTEP<br><br>PTTEP<br><br>PTTEP |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| **Mrs. Netrsuda Pokkasorn**<br>Vice President,<br>Insurance Department | 55 | • M.Sc. (Economics), University of Missouri, USA<br>• B.Sc. (Economics), Chulalongkorn University | 0.00166%<br>(66,005 shares) | None | Aug. 2017 - Present<br>Feb. 2011-Jul. 2017 | • Vice President, Insurance Department<br>• Manager, Insurance | PTTEP<br>PTTEP |
| **Mr. Anutra Bunnag**<br>Vice President, attached to Finance Division, assigned as Managing Director | 57 | • M.Sc. (Finance), University of Massachusetts, USA<br>• B.Sc.(Chemistry), University of Bradford, England | None | None | May 2017 - Present<br>Oct. 2016 - Apr. 2017<br>2011 - Sep. 2016 | • Vice President, attached to Finance Division, assigned as Managing Director<br>• Vice President, Treasury Department<br>• Vice President, seconded as Vice President, Corporate Administration and Finance Department | PTTEP Treasury Center<br>PTTEP<br>Energy Complex Co., Ltd. (EnCo) |
| **Ms. Pratamaporn Deesrinthum**<br>Vice President, Accounting Policy and Solutions Department | 48 | • M.B.A. (Business Administration), Thammasat University<br>• B.B.A. (Accounting) Chulalongkorn University | 0.00134%<br>(53,249 shares) | None | Apr. 2020 - Present<br>Apr.2018 - Mar.2020<br>Jan. - Apr. 2018 | • Vice President, Accounting Policy and Solutions Department<br>• Vice President, Managerial Accounting Department<br>• Acting Vice President, Managerial Accounting Department | PTTEP<br>PTTEP<br>PTTEP |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| | | | | | Jun.- Dec. 2017 | • Accountant, Thai Offshore Asset | PTTEP |
| | | | | | Apr. 2016 - May.2017 | • Senior Accountant, assigned as Finance and Accounting Manager PTTEP Australasia, Australia | PTTEP |
| | | | | | Jan. - Mar. 2016 | • Senior Accountant, Group Accounting | PTTEP |
| | | | | | Jul. 2013 - Dec. 2015 | • Manager, Group Accounting Section | PTTEP |
| **Ms. Nuchanong Sangkeaw**<br>Vice President, Capital Market and Financial Planning Department | 43 | • M.PA. (Accounting), The University of Texas at Austin, USA<br>• B.B.A. (Accounting), Thammasat University<br>• B.Sc. (Economic Law) Chulalongkorn University | 0.00012%<br>(4,605 shares) | None | Aug. 2020 - Present | • Vice President, Capital Market and Financial Planning Department | PTTEP |
| | | | | | Jan.-Jul. 2020 | • Acting Vice President, Capital Market and Financial Planning Department | PTTEP |
| | | | | | Jul.- Dec. 2019 | • Acting Vice President, Capital and Investor Relations Department | PTTEP |
| | | | | | Nov.2018 - Jun. 2019 | • Manager, Investor Relations Section | PTTEP |
| | | | | | May 2011- Apr. 2015 | • Manager, Investor Relations Section | PTTEP |
| **Mrs. Yada Vudhivorn**<br>Vice President, Tax Department | 41 | • LL.M (Law) University of London, England<br>• LL.M (Law) Northwestern University, USA<br>• LL.B (Law), Thammasat University | 0.00013%<br>(5,173 shares) | None | Apr.2020 - Present | • Vice President, Tax Department | PTTEP |
| | | | | | Sep.2019 - Mar.2020 | • Acting Vice President, Tax Department | PTTEP |
| | | | | | Aug. 2015 - Aug.2019 | • Manager, Tax Planning Section | PTTEP |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| **Mrs. Vanasanan Boonyalerdlak**<br>Vice President, Financial Accounting Department<br><br>Seconded from PTT Public Company Limited, Vice President, attached to Chief Financial Officer | 49 | • M.B.A. (Finance), Sasin Graduate Institute of Business Administration of Chulalongkorn University<br>• B.Sc. (Accounting), Chulalongkorn University | None | None | Oct. 2020 - Present<br><br>Oct. 2017-Sep. 2020<br><br>Oct. 2016-Sep. 2017<br><br>Dec.2013-Sep. 2016 | • Vice President, Financial Accounting Department<br>• Vice President, Business Accounting and Services Management<br>• Managerial Accounting - Gas Business Division Manager<br>• Division Manager (Attached CFO) | PTTEP<br><br>PTT<br><br>PTT<br><br>PTTGE |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| PTTEP management team had 6 personnel, as defined by the Capital Market Supervisory Board, who Retired or Rotated or Resign during the Year 2020-2021. Details are shown below. | | | | | | | |
| **Mr. Vuthiphon** Thuampoomngam<br>Executive Vice President, attached to President and Chief Executive Officer<br>(As of 31 December 2020) | 60 | • M.E. (Chemical Engineering), Chulalongkorn University<br>• B.Sc. (Material Science), Chulalongkorn University | 0.00017%<br>(6,650 shares) | None | Oct. - Dec. 2020<br>Jan. - Sep. 2020<br>Jan. - Dec. 2019<br>Oct. - Dec. 2018<br>Oct. 2018<br>Aug. - Sep. 2018<br>Jan. - Jul. 2018<br>Jan. 2015 - Dec. 2017 | • Executive Vice President, attached to President and Chief Executive Officer<br>• Executive Vice President, Human Resources, Assurance, and Transformation Group<br>• Chief Operating Officer, Production Asset and Supply Chain Management Group<br>• Executive Vice President, Production Asset Group<br>• Acting Senior Vice President, International Asset<br>• Executive Vice President, Engineering and Development Group and Acting Senior Vice President, Development Project Division<br>• Executive Vice President, Engineering and Development Group<br>• Senior Vice President, Thai Offshore Asset | PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| **Mr. Yongyos Krongphanich**<br>Executive Vice President, seconded to PTT Public Company Limited<br>(As of 31 December 2020) | 60 | • M.Sc. (Accounting), Thammasat University<br>• B.B.A. (Accounting), Chulalongkorn University | 0.00268% (106,445 shares) | None | Jan. 2019 - Dec. 2020<br><br>Oct. - Dec. 2018<br><br>Oct. - Dec. 2018<br><br>Jul. 2014 - Sep. 2018 | • Executive Vice President, seconded as Executive Vice President, Group Corporate Finance and Strategy<br>• Executive Vice President, Finance and Accounting Group<br>• Acting Senior Vice President, Finance Division<br>• Senior Vice President, Finance Division | PTT<br><br>PTTEP<br><br>PTTEP<br><br>PTTEP |
| **Mrs. Suchitra Suwansinpan**<br>Executive Vice President, attached to President and Chief Executive Officer<br>(As of 31 March 2020) | 60 | • M.E. (Energy Technology), Asian Institute of Technology<br>• B.E. (Chemical), King Mongkut Institute of Technology Thonburi | 0.00268% (106,465 shares) | None | Jan. - Mar. 2020<br><br>Oct. 2016 - Dec. 2019<br><br>Dec. 2015 - Oct. 2016 | • Executive Vice President, attached to President and Chief Executive Officer<br>• Executive Vice President, seconded as Managing Director, PTT Global LNG Company Limited<br>• Executive Vice President, Strategy and Business Development Group | PTTEP<br><br>PTT Global LNG<br><br>PTTEP |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| **Ms. Jaroonsri Wankertphon**<br>Senior Vice President,<br>seconded to PTT Public Company Limited | 55 | • M.B.A. (Business Administration), Thammasat University<br>• B.B.A. (Business Admnistration) (2nd Class Honors), Chulalongkorn University<br>• B.B.A. (Accounting), Krirk University<br>**Other Training**<br>• IOD: DCP 220 (2016) | 0.00184%<br>(73,228 shares) | None | Oct. 2020 - Present<br>Jul. 2016 - Sep.2020<br>Oct. – Dec. 2018<br>Jul. – Sep. 2018<br>Oct. 2015 - Jun.2016 | • Senior Vice President, seconded as Executive Vice President, Global Business Services<br>• Senior Vice President, Accounting Division<br>• Acting Vice President, Financial Accounting Department<br>• Acting Vice President, Accounting Policy and Solutions Department<br>• Acting Senior Vice President, Accounting Division | PTT<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP |
| **Mrs. Chanamas Sasnanand**<br>Senior Vice President,<br>seconded to PTT Public Company Limited | 51 | • M.B.A. (Business Administration), University of South Carolina, USA<br>• B.B.A. (Business Administration), Chulalongkorn University | 0.00114%<br>(45,411 shares) | None | Jan. 2021 – Present<br>Jan. 2019 – Dec.2020<br>Apr. – Dec. 2018<br>Jan. - Apr. 2018<br>Jul. 2014 - Dec.2017 | • Senior Vice President, seconded as Executive Vice President, Group Corporate Finance and Strategy<br>• Senior Vice President, Finance Division<br>• Senior Vice President, Internal Audit Division<br>• Acting Senior Vice President, Internal Audit Division<br>• Vice President, Capital and Investore Relations Department | PTT<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP |

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| **Mrs. Monsalai Tongsari**<br>Vice President, Accounting Policy and Solutions Department<br>(As of 31 March 2020) | 54 | • M.B.A (Financial), Assumption University<br>• B.B.A. (Accounting), Assumption University | 0.00253% (100,480 shares) | None | Jul. 2019 – Mar. 2020<br>Dec. 2016 – Jun. 2019<br>Apr. – Nov. 2016<br>Jul. 2013 – Mar. 2016 | • Vice President, Accounting Policy and Solutions Department<br>• Manager, Thai Offshore Asset Accounting Section<br>• Manager, Accounts Receivable Section<br>• Manager, Upstream Accounting Section | PTTEP<br>PTTEP<br>PTTEP<br>PTTEP |

3. Corporate Secretary

| Name/Position | Age (year) | Education/Training | % of Shareholding | Family Relationship among Directors and Executives | Working Experiences in the 5 Preceding Years | | |
|---|---|---|---|---|---|---|---|
| | | | | | Period | Position | Function/ Company/ Type of Business |
| **Mrs. Maneeya Srisukhumbowornchai**<br>Senior Vice President,<br>Corporate Secretary Division,<br>assigned as Company Secretary | 46 | • M.B.A. (Business Administration, Thammasat University<br>• B.B.A. (Accounting), Chulalongkorn University<br>**Other Training Programs**<br>• Corporate Secretary Program (CSP) by the Thai Institute of Directors (IOD)<br>• Fundamental for Corporate Secretaries by Thai Listed Companies Association.<br>• The Executive Program in Anti-Corruption by Office of the National Anti-Corruption Commission | None | None | Sep.2019 - Present<br>Sep. 2019 - Aug.2020<br>Oct. 2018 - Jun.2019<br>May.2015 - Aug.2019<br>Jun.2014 - Apr. 2015 | • Senior Vice President, Corporate Secretary Division, assigned as Company Secretary<br>• Acting Senior Vice President, Corporate Secretary Division, assigned as Company Secretary<br>• Acting Vice President, Accounting Policy and Solutions Department<br>• Vice President, Tax Department<br>• Manager, Tax Compliance | PTTEP<br>PTTEP<br>PTTEP<br>PTTEP<br>PTTEP |

# Attachment 2: Directors of Subsidiaries and Associated Companies[1]

**1. List of PTTEP's Subsidiaries**: As of December 31, 2020, there were 82 subsidiaries.

| Name (the list only includes directors designated by the PTTEP Group) | Subsidiary | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PTTEP AU | PTTEP AO | PTTEP AP | PTTEP AB | PTTEP AAA | PTTEP AAO | PTTEP AT | PTTEP AAS | MTA | TTI | PTTEP SBO | PTTEP SKO | PTTEP BL | PBL | PBO |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Ms. Kanita Sartwattayu | | | / | / | / | / | / | / | | | | | | | |
| Mr. Ryan Hartfield | / | / | / | / | / | / | / | / | / | / | | | | | |
| Ms. Rebecca Johnston | | | | | | | | | / | / | | | | | |
| Mr. Nopasit Chaiwanakupt | | | | | | | | | | | / | / | | | |
| Mr. Montri Rawanchaikul | | | | | | | | | | | / | / | | | |
| Ms. Sirlene Santos Brêtas de Noronha | | | | | | | | | | | | | / | | |
| Mr. José António da Cruz Mendes e Souza | | | | | | | | | | | | | | / | / |

Remark: / = Director

[1] Notification of the Securities and Exchange Commission No. Kor Chor. 17/2551, Re: Determination of Definitions in Notifications Relating to Issuance and Offer for Sale of Securities

| Name (the list only includes directors designated by the PTTEP Group) | Subsidiary | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PTTEP CA | PTTEP CIF | CEEAL | PTTEP MZA1 | CEMROL | PTTEP FH | PTTEP HK | PTTEP HKO | PTTEP MENA | PTTGLI | PTTEPO | PTTEPH | SHL | PTTEP IH | PTTEP ID |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| Mrs. Krissana Juisiri | / | | | | | | | | | | | | | | |
| Mr. Don Greenfield | / | | | | | | | | | | | | | | |
| Ms. Nuchanong Sangkeaw | | / | | | | | | | | | | / | | | |
| Mr. Chaiyaphon Chirakorn | | / | | | | | | | | | | | | | |
| Mrs. Ratchada Lertwanichwatana | | | / | / | / | | | | | | | | | | |
| Ms. Stella Kattashi | | | / | / | / | | | | | | | | | | |
| Ms. Montana Chai-oon | | | | | | / | | | | | | | | | |
| Mrs. Natruedee Khositaphai | | | | | | | / | | | | | | | | |
| Mr. Sermsak Satchawannakul | | | | | | | / | | | | | | | | / |
| Mr. Montri Rawanchaikul | | | | | | | | / | | | | | | | |
| Mr. Nopasit Chaiwanakupt | | | | | | | | / | | | | | | | |
| Mr. Anusorn Tepjitar | | | | | | | | | / | | | | | | |
| Ms. Pratamaporn Deesrinthum | | | | | | | | | / | | | | | | |
| Mr. Luck Tanasomwang | | | | | | | | | | / | | | | | |
| Mr. Soraphol Asavathevakiet | | | | | | | | | | | / | | | | |
| Mr. Thanasit Vichaipairojwong | | | | | | | | | | | / | | | | |
| Mr. Nopadon Chinabutr | | | | | | | | | | | | | / | | |
| Mr. Polasant Kullavanijaya | | | | | | | | | | | | | / | | |
| Mrs. Yada Vudhivorn | | | | | | | | | | | | | | / | |
| Mr. Grinchai Hattagam | | | | | | | | | | | | | | | / |

Remark: / = Director

| Name (the list only includes directors designated by the PTTEP Group) | Subsidiary | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PTTEP AI | JV Marine | PTTEP NL | ATL | PTTEP SVPC | PTTEP SD | PTTEP AG | PTTEP HV | PTTEP HL | PTTEP KV | PTTEP SV | PTTEP SA | PTTEP SMD | PTTEP ML | PTTEP SS |
| | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| Mr. Suksant Ongvises | / | | | | | | | | | | | | | | |
| Mr. Denkey Thatchaichawalit | | / | | | | | | | | | | | | | |
| Mr. Nirandorn Rojanasomsith | | / | | | | | | | | | | | | | |
| Mr. Noppadol Pinpipat | | | / | | | | | | | | | | | | |
| Ms. Kanita Sartwattayu | | | / | | | | | | | | | | | | |
| Mr. Kittisak Hiranyaprathip | | | | / | | | | | | / | | | | | |
| Mr. Dittapon Soothi-O-Soth | | | | / | | | | | | | | / | | | |
| Mr. Direk Wangudomsuk | | | | | / | | | | | / | | | | | |
| Mr. Anun Chonchawalit | | | | | | | | | | | | | / | / | |
| Mr. Grinchai Hattagam | | | | | | / | | | | | | | / | / | / |
| Mr. Peerapong Chailapo | | | | | | | / | | | | | | | | |
| Mr. Chayong Borisuitsawat | | | | | | | / | | | | | | | | |
| Mr. Porntep Kongkapetchawan | | | | | | | | / | / | | / | | | | |
| Mr. Prawat Thong-In | | | | | | | | | | | | / | | | |
| Mr. Sermsak Satchawannakul | | | | | | | | | | | | | | | / |

Remark: / = Director

| Name (the list only includes directors Designated by the PTTEP Group) | Subsidiary | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PTTEP SM | PBC | PKC | PANG | POGHC | PTTEP MEP | CPOC | PTTEP NH | PTTEP BI | PTTEP NC | NATUNA | PGH | PEC | POC | PGC |
| | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| Mr. Sermsak Satchawannakul | / | | | | | | | | | | | | | | |
| Mr. Grinchai Hattagam | / | | | | | | | | | | / | | | | |
| Mr. Anun Chonchawalit | | / | / | / | | | / | | | | | | / | / | / |
| Mr. Direk Wangudomsuk | | | / | | | | | / | | | | | | | |
| Mr. António José da Costa Silva | | / | / | / | | | | | | | | / | / | / | / |
| *In process of company dissolution | | | | | * | | | | | | | | | | |
| Mr. Fernando António da Silva Barata Alves | | / | / | / | | | | | | | | | / | / | / |
| Mr. Alfredo Coelho Ferreira dos Santos | | / | / | / | | | | | | | | | / | / | / |
| Mrs. Supamittra Danpanich | | | | | | / | | | / | | | | | | |
| Mr. Piya Wichitchanya | | | | | | / | | | | | | | | | |
| Mr. Montri Rawanchaikul | | | | | | | / | | | | | | | | |
| Mr. Chalongrut Ya-anan | | | | | | | | | / | | | | | | |
| Mrs. Krissana Juisiri | | | | | | | | | | / | | | | | |
| Mr. Ronald Posthumus | | | | | | | | | | / | | | | | |
| Vistra Management Services (Netherlands) B.V. | | | | | | | | | | / | | / | | | |
| Mrs. Yvonne Maria Wimmers-Thenus | | | | | | | | | | | / | | | | |
| Mr. Marinus Carel Eduard van Gendt | | | | | | | | | | | | / | | | |
| Mr. Komson Tachapanich | | | | | | | | | | | | / | | | |

Remark: / = Director

| Name (the list only includes directors designated by the PTTEP Group) | Subsidiary | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PSC | PSP | PTTEP Services | PTTEP TC | PTTEPI | PTTEP G7 | PTTEPS | Orange | PTTEP BC | PTTEP EH | PTTEP ED | EP-Tech | EnCo | PTTGL | ARV |
| | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 |
| Mr. Anun Chonchawalit | / | / | | | | | | | | | | | | | |
| Mr. António José da Costa Silva | / | / | | | | | | | | | | | | | |
| Mr. Fernando António da Silva Barata Alves | / | / | | | | | | | | | | | | | |
| Mr. Alfredo Coelho Ferreira dos Santos | / | / | | | | | | | | | | | | | |
| Mr. Adisorn Smathimanant | | | / | | | | | | | | | | | | |
| Ms. Pungjai Jittasevi | | | / | | | | | | | | | | | | |
| Mr. Anutra Bunnag | | | | / | | | | | | | | | | | |
| Mr. Nopadon Chinabutr | | | | | / | | / | | | | | | | | |
| Mr. Chula Manonda | | | | | / | | | | | | | / | | | |
| Mr. Nirandorn Rojanasomsith | | | | | | | | / | | | | | | | |
| Mr. Denkey Thatchaichawalit | | | | | | / | | / | | | | | | | |
| Mr. Veerawat Aumsoi | | | | | | | / | | | | | | | | |
| Mr. Sermsak Satchawannakul | | | | | | | | / | | | | | / | | |
| Mrs. Yada Vudhivorn | | | | | | | | | / | | | | | | |
| Mrs. Natruedee Khositaphai | | | | | | | | | | / | | | | / | |
| Ms. Kanita Sartwattayu | | | | | | | | | | / | / | | | | |
| Mr. Kitchai Pitiwiwat | | | | | | | | | | | / | | | | |
| Mr. Bundit Pattanasak | | | | | | | | | | | | / | | | |
| Mr. Chayong Borisuitsawat | | | | | | | | | | | | | / | | |
| Mr. Thanasit Vichaipairojwong | | | | | | | | | | | | | / | | |
| Mr. Anusorn Wuthijaroen | | | | | | | | | | | | | / | | |
| Mr. Montri Rawanchaikul | | | | | | | | | | | | | | / | |
| Mr. Bundhit Eua-arporn | | | | | | | | | | | | | | | / |
| Mr. Suksant Ongvises | | | | | | | | | | | | | | | / |
| Mrs. Chanamas Sasnanand | | | | / | | | | | / | | | | | | / |
| Mr. Manop Dhamsirianunt | | | | | | | | | | | | | | | / |

Remark: / = Director

| Name (the list only includes directors designated by the PTTEP Group) | Subsidiary | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | ATi | APICO KL | Cove | PTTEP SP | APICO | APICO KH | ZEAQUEST | |
| | 76 | 77 | 78 | 79 | 80 | 81 | 82 | |
| Mr. Thana Slanvetpan | / | | | | | | / | |
| Mr. Artid Jivacate | / | | | | | | | |
| Mr. Supot Lertsakulsup | | / | | | | | | |
| Ms. Chawiwan Jiraratchwaro | | / | | | | | | |
| Mr. Anun Chonchawalit | | | / | | | | | |
| Mrs. Ratchada Lertwanichwatana | | | / | | | | | |
| Mr. Anutra Bunnag | | | | / | | | | |
| Mr. Nopadon Chinabutr | | | | / | | | | |
| PTTEP IH | | | | | / | | | |
| PTTEP ID | | | | | / | | | |
| APICO | | | | | | / | | |
| Ms. Suwimol Kunaridtipol | | | | | | | / | |

Remark: / = Director

**2. List of PTTEP's Associated Companies**: As of December 31, 2020, there were 20 associated companies.

| Name (the list only includes directors designated by the PTTEP Group) | Associated Company | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PTT Digital | B8/32 Partners | MGTC | E2FSO | SPSE | POHOL | PDO | OLNG | AGP | MZ LNG 1 | MOZ LNG1 Holding | MOZ LNG1 Financing |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Mr. Phongsthorn Thavisin | | | | | | | / | / | | | | |
| Mr. Montri Rawanchaikul | | | | | | | | | / | | | |
| Mr. Suksant Ongvises | / | | | | | | | | | | | |
| Mr. Sermsak Satchawannakul | | / | | | | | | | | | | |
| Mr. Denkey Thatchaichawalit | | / | | / | | | | | | | | |
| Mr. Dittapon Soothi-O-Soth | | | / | | | | | | | | | |
| Mrs. Pariyachat Oonkhanond* | | | / | | | | | | | | | |
| Mr. Siriphong Fuenglikhit | | | | | / | | | | | | | |
| Mr. António José da Costa Silva | | | | | | / | | | | | | |
| Mr. Fernando António da Silva Barata Alves | | | | | | / | | | | | | |
| Mr. Anun Chonchawalit | | | | | | | | | | | / | |
| Mrs. Patchara Romyanan | | | | | | | | | | / | | |
| Ms. Nuchanong Sangkeaw | | | | | | | | | | | | / |

Remarks / = Director

* = Alternate Director

Eight associated companies which do not have any directors from PTTEP are:

1) TPC, Asia Pacific Marine Service and PL9SB which are governed by shareholders' meetings.
2) HV JOC, HL JOC, GBRS and LAL which are governed by the Management Committee.
3) QLNG director will be appointed on a rotation annual basis by OLNG shareholder.

# Attachment 3: Details of Head of the Internal Audit Division and Head of the Compliance Function

**1. Details of Head of the Internal Audit Division as of January 1, 2021 are shown in the table below.**

| Name/Position | Education | Trainings | Work Experience in the Past 5 Years | |
|---|---|---|---|---|
| | | | Period | Position/Unit |
| Ms. Yaninee Wajeepratubjit<br>Senior Vice President,<br>Internal Audit Division | • M.B.A. (Business Administration), Chulalongkorn University<br>• B.Acc. (Accounting), University of the Thai Chamber of Commerce | • IIA Thailand Annual Conference 2020 "IA's New Value Proposal during and after the Crisis", The Institute of Interna Auditors of Thailand<br>• The Divestment and Post Merger Integration, EY<br>• International Asset Audit, EY<br>• Production Sharing Contract (PSC) in exploration blocks in the Gulf of Thailand, G1/61 and G2/61, PTTEP<br>• M&A Cycle for Internal Auditors, PwC<br>• M&A and Divestment Process, PTTEP<br>• Overview on Laws & Regulations relating to State Enterprises, PTTEP<br>• Block Chain Community Bound, Big Data and Data Analytics, and BOT Cyber Security, Bank of Thailand (BOT)<br>• Stakeholders in the Supply Chain Management, CP Training Consortium Ltd.<br>• EP-LEAD III Leadership Development Program, IMD<br>• GRC Online Training: Anti-Corruption, PTTEP | Jan. 2021 - Present<br><br>Nov. 2019 - Dec. 2020<br><br>Jan. - Oct. 2019<br><br>Jul. - Dec. 2018<br><br>Jul. 2015 - Jun. 2018<br><br>Nov. 2011 - Jun. 2015 | • Senior Vice President, Internal Audit Division, PTTEP<br>• Specialist, attached to President and CEO, in charge of internal audit assignments, PTTEP<br>• Acting Senior Vice President, Internal Audit Division, PTTEP<br>• Acting Senior Vice President, Enterprise Risk Management and Internal Control Division, PTTEP<br>• Vice President, attached to International Asset, seconded as Senior Manager, Business Support Division, Carigali-PTTEPI Operating Company Sdn. Bhd. (CPOC), Malaysia, PTTEP<br>• Vice President, Myanmar Business Services Department, Myanmar Asset, PTTEP |

In addition, details of Ms. Jutima Lalitkul who held the position of Head of the Internal Audit Division during November 2019 - December 2020 are shown in the table below.

| Name/Position | Education | Trainings | Work Experience in the Past 5 Years | |
|---|---|---|---|---|
| | | | Period | Position/Unit |
| **Ms. Jutima Lalitkul**<br>Senior Vice President,<br>Internal Audit Division | • Bachelor of Business Administration, Thammasat University | • Touchstone Research for Internal Audit: A Look at the Now and Tomorrow of Internal Audit, Wolters Kluwer<br>• IIA Thailand Annual Conference 2020 "IA's New Value Proposal during and after the Crisis", The Institute of Internal Auditors of Thailand<br>• The Divestment and Post Merger Integration, EY<br>• International Asset Audit, EY<br>• Production Sharing Contract (PSC) in exploration blocks in the Gulf of Thailand, G1/61 and G2/61, PTTEP<br>• M&A Cycle for Internal Auditors, PwC<br>• M&A and Divestment Process, PTTEP<br>• Overview on Laws & Regulations relating to State Enterprises, PTTEP | Nov. 2019 - Dec. 2020<br>Jan. - Oct. 2019<br>Apr. 2017 - Dec. 2018<br>Jan. 2015 - Mar. 2017<br>Feb. 2011 - Dec. 2014 | • Senior Vice President, Internal Audit Division, PTTEP<br>• Specialist, Internal Audit, Internal Audit Division, PTTEP<br>• Vice President, Global Supply Chain Solutions Department, PTTEP<br>• Vice President, Procurement and Contracts Department, PTTEP<br>• Vice President, Procurement Department, PTTEP |

| Name/Position | Education | Trainings | Work Experience in the Past 5 Years | |
|---|---|---|---|---|
| | | | Period | Position/Unit |
| | | • CAE Forum 2019: Winning 5G and the 4th Industrial Revolution, The Stock Exchange of Thailand<br>• Towards Sustainable Management in a New Era, Asian Confederation of Institutes of Internal Auditors<br>• Trade Competition Law, Department of Internal Trade<br>• Block Chain Community Bound, Big Data and Data Analytics, and BOT Cyber Security, Bank of Thailand (BOT)<br>• Disruption a New World Order, Blacksheep Runs Business Co., Ltd.<br>• EP LEAD I Leadership Development Program, IMD | | |

**2. Details of Head of the Compliance Function as of January 1, 2021 are shown in the table below.**

| Name/Position | Education | Trainings | Work Experience in the Past 5 Years | |
|---|---|---|---|---|
| | | | Period | Position/Unit |
| **Mr. Kanes Supyaboonrod**<br>Vice President, Governance Compliance and Internal Control Department | • LL.B., Chulalongkorn University<br>• LL.M., University of Pennsylvania | • Certified Compliance & Ethics Professional-International (CCEP-I)<br>• New Trade Competition Act<br>• FCPA and UK Bribery Act<br>• PTTEP Digital Booster Program, IMD<br>• Storytelling for Leaders<br>• TDGP 2.0 (Thailand Data Protection version 2.0) (Class 3) | Jan. 2019 - Present<br>Oct. - Dec. 2018<br>2013 - Sep. 2018 | • Vice President, Governance Compliance and Internal Control Department<br>• Vice President, Compliance Department<br>• Legal Counsel, Thai Union Group PLC. |

# Attachment 4 : Asset Revaluation

- None -

# Attachment 5: Good Corporate Governance and Business Ethics

PTTEP Group values the importance of conducting business with the good corporate governance. The Company, therefore, establishes the Good Corporate Governance and Business Ethics of PTTEP Group as the Company's regulation. The details are disclosed on PTTEP Website at https://www.pttep.com/en/Aboutpttep/Publications/download.aspx?Content=4507

# Attachment 6 : Audit Committee Report

Details are disclosed in the Corporate Governance Performance section, “The Audit Committee Report” part.

PTTEP

**PTT Exploration and Production Public Company Limited**

555/1 Energy Complex Building A, 6th, 19th-36th Floor,
Vibhavadi Rangsit Road, Chatuchak, Chatuchak, Bangkok 10900
Tel: 66 (0) 2537 4000
Fax: 66 (0) 2537 4444
www.pttep.com
www.facebook.com/pttepplc

Cover Photo:
PTTEP Greater Bongkot, Thai Offshore Production Operation Field, located in the Gulf of Thailand, is the first gas production project operated by Thais. Bongkot has contributed to Thailand's energy security for more than 27 years.

This report's cover is made from 100% eco fiber green card paper.
The papers inside are made from an environmentally-friendly production process.
The report is printed with Soy ink.

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PTTEP website