



MANAGEMENT DISCUSSION & ANALYSIS 1Q2024

PTT Public Company Limited



Management's Discussion and Analysis (MD&A) and operating result for the first quarter of 2024 ended 31 March 2024

Executive Summary

Unit: Million Baht	1Q2023	4Q2023	1Q2024	% Inc. (Dec.)	
				YoY	QoQ
Sales Revenue	756,690	807,113	782,256	3.4%	(3.1%)
EBITDA	104,008	87,970	118,717	14.1%	35.0%
Net Profit	27,855	32,765	28,968	4.0%	(11.6%)
Earnings per share (Baht/share)	0.98	1.15	1.01	3.1%	(12.2%)
Average Dubai price (US\$/barrel)	80.3	83.6	81.3	1.2%	(2.8%)

In the first quarter of 2024 (1Q2024), PTT and its subsidiaries reported Earnings before Interest, Tax, Depreciation and Amortization (EBITDA) in an amount of Baht 118,717 million, increased by Baht 14,709 million or 14.1% from the first quarter of 2023 (1Q2023) at Baht 104,008 million. This was mainly from Petrochemical and Refining business which Refining business's performance increased mainly due to an increase in stock gain. PTT and its subsidiaries' stock gain in 1Q2024 was approximately Baht 3,000 million, whereas in 1Q2023, there was an approximately stock loss of Baht 6,000 million. However, market Gross Refining Margin (GRM) decreased from US\$ 8.4 per bbl in 1Q2023 to US\$ 7.9 per bbl in 1Q2024, mainly from lower spread of diesel, jet, and gasoline price over crude oil price despite lower crude premium. Moreover, Refinery's sales volume decreased. In addition, Petrochemical business's performance increased from both Olefins business with higher product to feed of Ethylene and higher sales volume, and Aromatics business with higher product to feed of Benzene. Furthermore, the improvement in Gas business's performance mainly resulted from Natural Gas for Vehicles (NGV) business which experienced lower loss owing to lower gas cost following pool gas price, as well as higher selling price and lower sales volume. Also, Gas Separation Plant (GSP) business's performance improved from lower gas cost following a decrease in gulf gas price, also an increase in sales volume and average selling price. Eventhough, Supply and Marketing (S&M) business experienced a decrease in operating performance due to the adjustment of using the shortfall from the Gulf of Thailand amounting to Baht 4,300 million to calculate a discount on the pool gas price. However, the adjustment of the natural gas price structure, as a Single Pool, has not reflected in Gas business's operating results in 1Q2024 as the gas price calculation procedure is being reviewed under the relevant government agency. Meanwhile, International Trading business's performance decreased from higher hedging loss in 1Q2024 reflecting market conditions. Additionally, Exploration and Production business's performance stemmed from lower average selling price. In 1Q2024, Net Income of PTT and its subsidiaries was Baht 28,968 million, increased by Baht 1,113 million or 4.0% from 1Q2023 at Baht 27,855 million in accordance with the improved EBITDA in spite of higher loss on foreign exchange rate, loss on derivatives, and a increase in finance costs. Moreover, in 1Q2024, there were gain on recognition of non-recurring items (PTT's portion) after tax at approximately Baht 4,400 million mainly from gain on divestment of Alvogen Malta (Out-licensing) Holding Limited (AMOLH) of PTT Global Management Company Limited (PTTGM) amounting to approximately Baht 4,500 million. Meanwhile, in 1Q2023, there were loss on recognition of non-recurring items (PTT's portion) after tax at approximately Baht 100 million mainly from non-cash accounting transactions at the end of concession of Bongkot Project of PTT Exploration and Production Public Company Limited (PTTEP).

In 1Q2024, PTT and its subsidiaries reported EBITDA in an amount of Baht 118,717 million, increased by Baht 30,747 million or 35.0% from the fourth quarter of 2023 (4Q2023) at Baht 87,970 million. This increase was mainly from Petrochemical and Refining business. For Refining business's performance increased due to the stock gain. PTT and its subsidiaries' stock gain in 1Q2024 was approximately Baht 3,000 million, while there was a stock loss of approximately Baht 12,000 million in 4Q2023. In addition, market GRM rose from US\$ 6.2 per bbl in 4Q2023 to US\$ 7.9 per bbl in 1Q2024, primarily due to higher spread despite lower sales volume. Besides, Petrochemical business's performance also increased from both Aromatics and Olefins businesses due to higher product to feed. In addition, the performance of **International Trading business** improved mainly from the recognition of unrealized gain (Mark-to-market) on inventory following higher crude oil price. Moreover, **Oil and Retail business's** performance increased mainly from higher average gross margin per liter of diesel and gasoline. In addition, **New Business and Infrastructure business's** performance improved primarily from PTTGM's pharmaceutical business following higher sales volume of Lenalidomide compared with previous quarter. Also, **Gas business** experienced improved performance mainly from higher gross profit of GSP business due to higher average selling price and sales volume as well as improved performance of the Transmission pipeline™ business following lower maintenance cost. Furthermore, NGV business also experienced fewer loss due to lower gas cost following pool gas price. While the S&M business experienced a decrease in operating performance due to the adjustment of using the shortfall from the Gulf of Thailand amounting to Baht 4,300 million to calculate a discount on the pool gas price. However, the adjustment of the natural gas price structure, as a Single Pool, has not reflected in Gas business's operating results in 1Q2024 as the gas price calculation procedure is being reviewed under the relevant government agency. Meanwhile, **Exploration and Production business's** performance declined from lower average selling price and sales volume. In 1Q2024, PTT and its subsidiaries' net income amounting to Baht 28,968 million decreased by Baht 3,797 million or 11.6% from 4Q2023 at Baht 32,765 million despite increase in EBITDA. This decrease resulted from higher loss on foreign exchange rate and derivatives even though, in 1Q2024, there were gain on recognition of non-recurring items (PTT's portion) after tax at approximately Baht 4,400 million as aforementioned. While, in 4Q2023, there were loss on recognition of non-recurring items (PTT's portion) after tax at approximately Baht 500 million mainly from impairment loss on Mozambique Area 1 Project and assets write-off of AC/RL12 (Oliver) Project offset with a gain from divestment of AC/RL7 (Cash-Maple) Project of PTTEP.

As of 31 March 2024, PTT and its subsidiaries had the total assets amounting to Baht 3,642,279 million, increased by Baht 181,817 million or 5.3% from 31 December 2023 which had total asset amounting to Baht 3,460,462 million mainly from an increase in cash and cash equivalents and short-term investments as a result of PTT and its subsidiaries' operating activities. Moreover, an increase in trade accounts receivable and inventories is from higher sales volume and average selling price, as well as an increase in Property, Plant, and Equipment (PPE) contributed largely from PTTEP's exploration and evaluation assets of G1/61 and G2/61 projects and Thai Oil Public Company (TOP)'s construction in progress of Clean Fuel Project (CFP). Whereas the total liabilities as of 31 March 2024 were reported at Baht 1,934,607 million, increased by Baht 99,121 million or 5.4% from 31 December 2023 which had the total liabilities amounting to Baht 1,835,486 million driven mainly from an increase in interest-bearing debts due to bond issuances and the increase in long-term loan during the period together with an increase in trade accounts payable. Moreover, the total shareholders' equity as of 31 March 2024 was Baht 1,707,672 million, increased by Baht 82,696 million or 5.1% from 31 December 2023 which had the total shareholders' equity amounting to Baht 1,624,976 million as a result of PTT and its subsidiaries' performance in 1Q2024. In addition, Non-controlling interests increased mainly from currency translation differences and net income of subsidiaries.

Economic Overview in the First Quarter of 2024

The global economy expanded continuously in 1Q2024. The China's economy grew at a faster rate as the industrial sector resumed expansion amid heavy investment policies in high-tech industries (including electric vehicles and renewable energy equipment), as well as export promotion efforts to counter a severe real estate crisis, which faced debt and liquidity issues. Meanwhile the Euro area economy also resumed expansion, driven by easing pressures on inflation (stemming from the Russia-Ukraine conflict), leading to a closer adjustment of inflation rates towards the European Central Bank's (ECB) target of 2.0%, which resulted in a greater signal for reducing ECB's key interest rate policy. For the US economy, expansion slowed down due to increased imports and reduced investments in inventory amid persistent upward pressure on inflation, leading to the Federal Reserves (the Fed)'s decision to maintain its interest rates at a high level during its March 2024 meeting. In April 2024, International Monetary Fund (IMF) expected the global economy to grow at a rate of 3.2% in 2024.

According to S&P Global's report in May 2024, global oil demand in 1Q2024 averaged at 102.8 million barrels per day (MMBD), decrease from 4Q2023 at 104.1 MMBD due to a decrease in seasonal demand. Compared to 1Q2023 at 101.2 MMBD, global oil demand increased following global economic expansion and recovery of non-OECD countries, particularly China.

Unit: \$/barrel	1Q2023	4Q2023	1Q2024	% Inc. (Dec.)	
				YoY	QoQ
Average Dubai Crude Oil Price	80.3	83.6	81.3	1.2%	(2.8%)
Gasoline Crack Spread	18.6	12.5	17.9	(3.8%)	43.2%
Diesel Crack Spread	28.6	24.4	23.1	(19.2%)	(5.3%)
FO Crack Spread (180 – 3.5%S)	(16.3)	(11.0)	(9.7)	40.5%	11.8%
GRM-Singapore Crack	8.2	5.5	7.3	(11.0%)	32.7%

Dubai crude oil price in 1Q2024 averaged at US\$ 81.3 per barrel, decreased from 4Q2023 at US\$ 83.6 per barrel due to sluggish demand, while oil supply remaining steady amid production control from OPEC+ counterbalance rising supply from Non-OPEC+ countries. However, compared with 1Q2023 when price averaged at US\$ 80.3 per barrel, Dubai crude oil price have increased due to increasing tensions in the Red Sea area.

Petroleum product prices at Singapore spot market

- **Gasoline crack spread** averaged at US\$ 17.9 per barrel in 1Q2024, rising from US\$ 12.5 per barrel in 4Q2023 driven by robust demand in China during the Lunar New Year holidays, coupled with unplanned outages from US refineries triggered by a cold snap. However, compared with 1Q2023 when the spread averaged at US\$ 18.6 per barrel, the gasoline crack spread was lower amid increasing supply from new refineries.

- **Diesel crack spread** averaged at US\$ 23.1 per barrel in 1Q2024, decrease from 4Q2023 at US\$ 24.4 per barrel and 1Q2023 at US\$ 28.6 per barrel. This decline was primarily a result of a mild winter in the United States and Europe, alongside a surge in exports from China. Furthermore, high freight costs resulting from tensions in the Red Sea area, limited exports outside the region.
- **High-Sulfur Fuel Oil 3.5% crack spread (HSFO)** averaged at US\$ -9.7 per barrel in 1Q2024, increase from US\$ -11.0 per barrel in 4Q2023 and US\$ -16.3 per barrel in 1Q2023 mainly from declining Russian exports resulting from attacks on several refineries and inventory levels lower than 5-year average.

Singapore Gross Refining margin (GRM) in 1Q2024 averaged at US\$ 7.3 per barrel, an increase from US\$ 5.5 in 4Q2023. This occurred amidst unplanned maintenance shutdowns in the US caused by a cold snap, and refineries in Russia being attacked. However, compared with 1Q2023 at US\$ 8.2 per barrel, GRM decreased due to increased refining capacity following start-up refineries.

Unit : US\$/Ton	1Q2023	4Q2023	1Q2024	% Inc. (Dec.)	
				YoY	QoQ
HDPE: CFR SEA	1,085	1,023	1,041	(4.1%)	1.8%
PP: CFR SEA - Film	1,096	968	1,044	(4.7%)	7.9%
BZ: FOB Korea	930	888	1,000	7.5%	12.6%
BZ - Naphtha	241	229	314	30.3%	37.1%
PX: CFR Taiwan	1,034	1,014	1,027	(0.7%)	1.3%
PX - Naphtha	345	355	341	(1.2%)	(3.9%)
Naphtha (MOPJ)	689	659	686	(0.4%)	4.1%
PROPANE: ARAMCO CP	700	607	627	(10.4%)	3.3%

Petrochemical prices, both Olefins and Aromatics, in 1Q2024 increased compared to 4Q2023, primarily due to increasing raw material costs. Olefins price rose supported by tightened supply from the extended New Year holiday season, and both planned and unplanned maintenance shutdowns in petrochemical plants across Southeast Asia as well as production cuts in North Asia. Similarly, Aromatics price increased supported by steady US import demand amid a cold snap condition and unplanned shutdowns of petrochemical plants in Asia.

- **Olefins:** High Density Polyethylene (HDPE) price increased compared to 4Q2023, driven by maintenance shutdown from the Middle East, heightened conflict in the Red Sea area and unplanned plant shutdowns in Asia. Additionally, there was additional support from stocking purchases in Indonesia ahead of the import quota announcement in March. Similarly, Polypropylene (PP) price also increased compared to the previous quarter due to restocking demand from Indonesia including both planned and unplanned maintenance in the Southeast Asia, along with production cuts in North Asia. In addition, the increasing prices of Naphtha, Propane, and freight costs due to the situation in the Panama Canal and sustained conflict in the Red Sea

area contributed to higher price of PP. However, excess supply from the Middle East, the US, and China continued to flow into the Southeast Asia market exerting pressure on PP price. Also, Olefins product faced further pressure from subdued downstream demand, particularly from China, leading to modest increase in market price. Moreover, declining demand in Indonesia during March occurred after the Indonesian government decided to exempt HDPE and PP from import quotas.

- **Aromatics:** Benzene (BZ) price in 1Q2024 increased from 4Q2023, following the rising of Naphtha price and increasing demand in the US amid a cold snap. In addition, demand surged after the Chinese Lunar New Year holidays and the unplanned shutdown of Asia petrochemical plants further supported the price. However, subdued demand for downstream petrochemicals including Styrene Monomer (SM) put pressure on BZ price. Similarly, Paraxylene (PX) price in 1Q2024 also increased compared to 4Q2023, due to steady import gasoline blending demand from the United States during a cold snap, and tight supply resulting from planned and unplanned shutdowns of petrochemical plants in Asia. However, the slower recovering demand for downstream markets for both Purified Terephthalic Acid (PTA) and polyester put downward pressure on PX price.

Compared to 1Q2023, price of Olefins has adjusted downwards, primarily due to high supply of petrochemical plants in the region, coupled with concern surrounding the unclear economic recovery in China. For Aromatics, BZ price increased in response to China's efforts to build up inventory, whereas PX price remained stable, reflecting sluggish demand in downstream markets.

The price of Propane in 1Q2024 increased from 4Q2023 driven by increased demand for Propane in the US from a cold snap in February, leading to a significant reduction in Propane inventories. Additionally, increased demand from buyers in China, who entered the market to use in new Propane Dehydrogenation (PDH) plants, coupled with the shutdown of gas separation plants in the Middle East, further supported Propane price. However, the market was still pressured by warmer-than-usual winter conditions in several areas such as Japan and South Korea.

Compared to the same quarter of the previous year, the price of Propane in 1Q2024 decreased due to the impact of the El Niño phenomenon, which resulted in higher-than-normal temperatures in several areas. Additionally, this was compounded by economic activities in China being affected by property crisis.

The Thai economy in 1Q2024 slightly increased compared to 4Q2023, which mainly driven by ongoing growth in tourism sector with an increase in foreign tourist arrivals from nearly all nationalities, especially Chinese tourists who now lead the list of travelers to Thailand. This growth was facilitated by visa exemptions schemes and the Lunar New Year holidays. Private consumption also improved due to the recovery in household income, particularly in the service sector, along with government policies to ease cost of living burden and Easy E-Receipt to stimulus spending. Merchandise

exports continued to expand, reflecting a gradual recovery in global demand for goods and an upturn in global electronics cycle. Private investment increased in line with progress in public-private partnership (PPP) projects and an increase in the number of projects registered for investment promotion. Recent government investment incentives for automotive and electric vehicles industries further boosted private investment. However, government spending remains contracted due to a significant delay of the 2024 Budget Act and limited fiscal space. The Bank of Thailand projected the expansion of Thai economic forecast for 2024 to be 2.6% in April 2024.



Non-recurring Items in the first quarter of 2024 until Present

January 2024

- PTT: On 1 January, to support public sector on energy prices, PTT's Board of Directors at the meeting No. 12/2566 held on 21 December 2023 has extended the cap of NGV retail price. The NGV retail price for taxis in Bangkok Metropolitan Area has been capped at 14.62 Baht/kg. from 1 January until 30 June 2024. The NGV retail price for public vehicles has been capped at 18.59 Baht/kg. from 1 January 2024 until 31 December 2025, except the public vehicles in Bangkok Metropolitan Area which has been capped at 14.62 Baht/kg. from 1 February until 30 June 2024. For general vehicles, the price has been capped at 19.59 Baht/kg. until 15 May 2024 (However, if NGV cost reduced according to market price mechanisms, PTT will consider reducing the selling price for general vehicle users to reflect the reduced cost).
- PTTEP: On 2 January, PTTEP has dissolved an inactive subsidiary, namely PTTEP South Mandar Ltd., effective on 29 December 2023 in order to improve operational efficiency and minimize administrative costs. This has no impact to PTTEP's operations.
- PTT: On 3 January, Board of Directors of Arun Plus Co., Ltd. (Arun Plus) (PTT's 100% indirectly owned subsidiary) on 13 November 2023, approved Arun Plus to establish A C Energy Solution Co., Ltd. (A C Energy Solution) with the registered capital not exceeding of Baht 1,851 million in which Arun Plus holds 100% of the shares in order to operate the business of Cell-To-Pack battery assembly. This is the advanced battery manufacturing technology that directly assembles the battery cells into pack without assembling a module, resulting in higher energy efficiency, lightweight and safety. PTT is ready to produce battery for all types of electric vehicle with advanced technology to support the expansion of the electric vehicle market in Thailand. The establishment of A C Energy Solution which is completed on 3 January 2024, aligns with PTT Group's investment strategy in Future Energy business. The company is expected to start operation by 2025. Moreover, Arun Plus plans to enter into a joint venture with a partner who has experience and expertise in electric vehicle battery industries to enhance A C Energy Solution's competitive advantage and capabilities in the future.
- PTTEP: On 5 January, PTTEP has dissolved an inactive wholly-owned subsidiary, namely PTTEP Canada International Finance Ltd., effective on 31 December 2023, in order to improve operational efficiency and minimize administrative costs. This has no impact to PTTEP's operations.
- PTT: On 9 January, Innobic (Asia) Co., Ltd. (INBA) (a wholly own subsidiary of PTT) sold 100% of the total issued shares of Alvogen Malta (Out-licensing) Holding Ltd. (AMOLH), a company that procure and distribute pharmaceutical products and licenses in Europe and other regions, which INBA holding through Alvogen Emerging Markets Holdings Ltd. (AEMH) (a subsidiary of INBA) to Floki Holding S.à r.l. (Floki), a pharmaceutical and health care

company, with the total enterprise value of approximately US\$ 300 million. The transaction is completed in the first quarter of 2024 according to PTT's Board of Directors resolution at the meeting No. 12/2566 held on 21 December 2023. In addition, this divestment transaction aligns with PTT Group's strategy to enhance business footprint in the Asia Pacific, aspiring to become a leading pharmaceutical company in Asia.

- **IRPC:** On 10 January, IRPC's Board of Directors on 19 December 2023 has agreed on a dissolution of a subsidiary, namely, iPolymer Co., Ltd. (iPolymer). IRPC held iPolymer's shares by 55% and was joint venture with Guangzhou Saiju Performance Polymer Ltd. (GZSJ) who held the shares by 45%. The reason for the dissolution is in accordance with IRPC's business strategy in order to govern subsidiaries efficiently. There's no impact to IRPC's operation. The registration of dissolution is expected to be completed by June 2024.
- **PTT:** On 12 January, PTT provided clarification to Stock Exchange of Thailand (SET) in relation to the cabinet's resolution which will affect PTT's operating performance consist of (1) adjustment of the natural gas price structure (2) the adjustment of using the shortfall from the Gulf of Thailand, to calculate a discount on the pool gas. The adjustment of natural gas price will result in a higher operating cost of gas separation plant, excluding Liquefied Petroleum Gas (LPG) for domestic consumption. This measurement is a temporary enforcement until the gas price structure will be formally determined by the Energy Regulatory Commission (ERC). In addition, the estimated impact during January – April 2024 to the overall performance of PTT's gas business will be decreased by approximately Baht 6,500 million. PTT is exploring other mechanisms to reduce the impact to PTT's operating performance, such as gas separation plant optimization and procurement of LNG to meet the expected electricity price range according to the government policy. In addition, PTT will discuss with the Ministry of Energy regarding the overall impacts that will incur from the gas price restructuring in order to determine the appropriate solutions. However, the adjustment of the natural gas price structure was not reflected in PTT's operating results in the first quarter of 2024 as the gas price calculation procedure is being reviewed under the relevant government agency. Moreover, with regard to shortfall, PTT appealed order with the ERC and ERC decided to dismiss PTT's appeal and require PTT to comply with ERC's order immediately. Moreover, if PTT disagreed with ERC's decision, PTT had right to file lawsuit with the Administrative Court or to submit this matter to the Office of the Attorney General in accordance with the Rules of the Office of Prime minister on dispute resolution between government agencies and Litigation, 2561 B.E. within 90 days from the date of the receipt of ERC's decision. To comply with the ERC's orders, PTT's Board of Directors, at the special meeting No. 1/2567 on 12 January 2024 resolved that PTT would comply with ERC's decision on the appeal and PTT would consider the necessary and appropriate legal measure or exercise of right under the relevant law. At present, PTT has already exercised those rights.

- TOP: On 16 January, TOP's Crude Distillation Unit 3 (CDU-3) with capacity of approximately 180,000 barrels per day experienced technical problem and was under maintenance for approximately 13 days starting from 16 January 2024. Currently, the maintenance activity on the CDU-3 has been completed and the CDU-3 has already resumed operation at its full capacity since 29 January 2024.
- PTT & GPSC: On 31 January, Nuovo Plus Co., Ltd. (Nuovo Plus) (a subsidiary which PTT holds 51% and GPSC holds 49%), signed a Business Transfer Agreement with 24M Technologies, Inc. (24M) and 24M Technologies (Thailand) Ltd. on 30 January 2024. The agreement entails: 1) The assets sales with total value of US\$ 51.08 million to 24M Technologies (Thailand) Ltd. The asset sales include an energy storage production plant with 30 MWh per year capacity, R&D Center, machinery, and related assets. All of which are located at Map Ta Phut industrial estate, Rayong province; and 2) The purchase of 24M preferred stocks with total value not exceeding US\$ 51.08 million. The transitions are expected to be completed by the second quarter of 2024.

February 2024

- OR: On 13 February, OR's Board of Directors passed the resolution to establish a new subsidiary which is held 100% stake by Modulus, a wholly-owned subsidiary of OR, with the initial registered capital of Baht 100,000 for business operations and investments in related to the Health and Wellness business.
- PTT: On 28 February, Board of Directors of NewVersal Co., Ltd. (NewVersal) (PTT's 100% indirectly owned subsidiary) at the meeting No.1/2567 on 5 February 2024 approved the establishment of FT1 Corporation Ltd. (FT1), a joint venture company with Hana Microelectronics Public Co., Ltd. (HANA) with the registered capital of Baht 1 million. NewVersal and HANA hold 51% and 49% of the shares in FT1, respectively. The objective of the company establishment is to study the possibility of the investment in the smart electronics industry, which is one of Thailand's strategic focus industries to enhance the country's competitiveness. FT1 has completed its registration on 28 February 2024.
- PTT: On 29 February, Board of Directors of Arun Plus at the meeting No. 3/2567 on 21 February 2024 approved Arun Plus to establish Arun Plus Mobility Holding Co., Ltd. (AMH) with the registered capital not exceeding Baht 10 million which Arun Plus holds 100% and approved AMH to enter into a joint venture agreement to establish Neo Mobility Asia Co., Ltd. (Neo Mobility Asia), a joint venture company with MGC-ASIA Greentech Co., Ltd. (MGC-ASIA Greentech), subsidiary of Millennium Group Corporation (Asia) Public Co., Ltd. (MGC-ASIA), with the registered capital not exceeding Baht 30 million. AMH and MGC-ASIA Greentech hold 50.001% and 49.999% of Neo Mobility Asia's shares, respectively. The objective of the establishment is to operate the business of electric vehicle distribution to support the expansion of the electric vehicle market whichn Thailand,whichch aligns with PTT Group's

investment strategy in Future Energy business. Moreover, the joint venture agreement between Arun Plus and MGC-ASIA has been signed and completed on 29 February 2024. In Addition, the establishment of AMH and Neo Mobility Asia has been completed in the first quarter of 2024.

March 2024

- **PTTEP:** On 4 March, PTTEP has dissolved an inactive wholly-owned subsidiary, namely PTTEP Australasia (Staff) Pty Ltd. (PTTEP AAS), effective on 2 March 2024, in order to improve operational efficiency and minimize administrative costs. This has no impact to PTTEP's operations.
- **PTT:** On 7 March, Board of Directors of Arun Plus at the meeting No. 3/2567 on 21 February 2024 approved Arun Plus to establish Ze Mobility Plus Co., Ltd. (Ze Mobility Plus) and X Mobility (Thailand) Co., Ltd. (X Mobility (Thailand)) with the registered capital of Baht 10 million per company which Neo Mobility Asia Co., Ltd. (Neo Mobility Asia) (Arun Plus's subsidiary) holds 100%. The objective of the establishment of Ze Mobility Plus is to operate as a ZEEKR dealer and X Mobility (Thailand) is to operate as a XPENG distributor, which aligns with PTT Group's investment strategy in Future Energy business. The establishment of Ze Mobility Plus and X Mobility (Thailand) is completed on 6 March 2024.
- **PTT:** On 15 March, the Annual General Meeting of shareholders of Alpha Com Co., Ltd. (Alpha Com) (PTT's 100% indirectly owned subsidiary) on 15 March 2024. The resolution was passed to approve the establishment of ExpressSo NB SG Co., Ltd. (ExpresSo NB SG) in Singapore, which Alpha Com holds 100%, to be a holding company for Venture Capital investments in overseas with an initial registered capital of US\$ 10 million. In addition, the establishment of ExpresSo NB SG is expected to be completed within 2024.
- **PTT:** On 19 March, Board of Directors of Arun Plus at the meeting No. 5/2567 on 15 March 2024 approved Arun Plus to establish X Mobility Plus Co., Ltd. (X Mobility Plus) with the registered capital of Baht 10 million which is 100% owned through Neo Mobility Asia. The objective of the establishment of X Mobility Plus is to operate as a dealer of the electric vehicle under XPENG brand (XPENG dealer), which aligns with PTT Group's investment strategy in Future Energy business. The establishment of X Mobility Plus is completed on 19 March 2024.
- **OR:** On 19 March, OR's Board of Directors at the meeting No. 3/2567 held on 19 March 2024 approved a loan to Global Aero Associates Co., Ltd. (GAA), a joint venture company in which OR holds 45% of the shares, and Bangkok Aviation Fuel Services Public Co., Ltd. (BAFS) holds 55% of the shares. The transaction is a financial support to GAA in proportion to the shareholding, with OR's portion not exceeding Baht 506.25 million from a total loan amount not exceeding Baht 1,125 million.

	<ul style="list-style-type: none">● PTT: On 25 March, the Board of Directors' Meeting of PTT No. 3/2567 held on 21 March 2024 approved PTT LNG Co., Ltd. (PTTLNG), a wholly owned subsidiary of PTT, to jointly invest with the Electricity Generating Authority of Thailand (EGAT) to operate LNG Receiving Terminal 2 (LMPT2), located at Ban Nongfab, Maptaphut, Mueang Rayong, Rayong. In this connection, PTTLNG has incorporated a joint venture company called PE LNG Co., Ltd. (PE LNG), which in the initial state, is wholly owned by PTTLNG. Additionally, PTTLNG has signed the Sale and Purchase Agreement with EGAT on 25 March 2024. After the conditions precedent specified under the SPA have been satisfied or waived (as the case may be), including the completion of relevant regulatory approvals, PTTLNG sold 50% of its shares in PE LNG to EGAT. The sale price is in accordance with the calculation method specified under the SPA which the highest value is up to Baht 16,350 million. After completed the sale of shares to EGAT on 30 April 2024, PTTLNG and EGAT hold shares in PE LNG equally at the ratio of 50:50.
April 2024	<ul style="list-style-type: none">● PTTEP: On 5 April, Unocal Myanmar Offshore Co., Ltd. (UMOC), a wholly owned subsidiary of Chevron Group, had decided to withdraw its investment in the Yadana project. All withdrawal processes were subsequently fulfilled on 5 April 2024. Following the withdrawal, UMOC's participating interest was distributed to the remaining partners, resulting in PTTEP's participating interest of 62.9630 % in the Yadana project. The withdrawal was effective from 1 April 2024.
May 2024	<ul style="list-style-type: none">● GC & OR: On 2 May, GC's Board of Directors at the meeting No.5/2024, held on 22 April 2024, has resolved to approve the disposal of shares in PTT Digital Solutions Co., Ltd. (PTT Digital) in the proportion of 20% of the total shares of PTT Digital, valued at Baht 1,023 million to Modulus Venture Co., Ltd. (Modulus), a subsidiary of OR. The Board of Directors' Meeting of OR at the meeting No.4/2024, held on 30 April 2024, has resolved to approve entering this transaction. The transaction is expected to be completed by June 2024.

Financial Results of PTT Group by Business

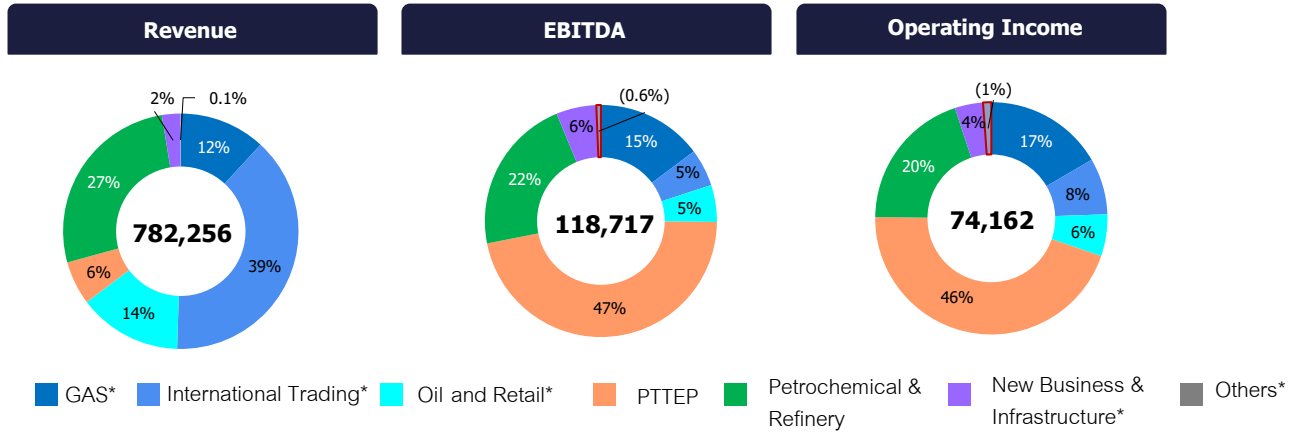
Financial performance of 1Q2024 compared with 1Q2023 and 4Q2023 are summarized as follows:

Unit : Million Baht	1Q2023	4Q2023	1Q2024	% Inc. (Dec.)	
				YoY	QoQ
Sales revenue	756,690	807,113	782,256	3.4%	(3.1%)
: Exploration & Production	75,493	79,516	75,737	0.3%	(4.8%)
: Gas	164,112	150,864	149,586	(8.9%)	(0.8%)
: Oil & Retail	197,891	193,060	179,687	(9.2%)	(6.9%)
: International trading	463,037	545,453	487,906	5.4%	(10.6%)
: Petrochemical & Refining	331,046	345,343	336,959	1.8%	(2.4%)
: New Business & Infrastructure	35,905	26,843	31,547	(12.1%)	17.5%
: Others	2,950	1,065	1,110	(62.4%)	4.2%
EBITDA	104,008	87,970	118,717	14.1%	35.0%
: Exploration & Production	58,371	60,564	56,909	(2.5%)	(6.0%)
: Gas	11,077	17,500	17,974	62.3%	2.7%
: Oil & Retail	6,028	2,570	6,256	3.8%	>100.0%
: International trading					
- Excluding effect of FX and derivatives	3,193	(9,572)	6,354	99.0%	>100.0%
- Including effect of FX and derivatives	4,826	(420)	1,694	(64.9%)	>100.0%
: Petrochemical & Refining	19,040	9,741	26,621	39.8%	>100.0%
: New Business & Infrastructure	6,754	5,472	6,808	0.8%	24.4%
: Others	(86)	(1,389)	(770)	<(100.0%)	44.6%
Depreciation and amortization expenses	41,258	46,112	44,555	8.0%	(3.4%)
Operating income (loss)	62,750	41,858	74,162	18.2%	77.2%
: Exploration & Production	38,213	37,324	34,733	(9.1%)	(6.9%)
: Gas	6,398	12,146	12,834	>100.0%	5.7%
: Oil & Retail	4,401	931	4,517	2.6%	>100.0%
: International trading					
- Excluding effect of FX and derivatives	2,906	(9,927)	6,076	>100.0%	>100.0%
- Including effect of FX and derivatives	4,539	(775)	1,416	(68.8%)	>100.0%
: Petrochemical & Refining	8,007	(1,848)	15,280	90.8%	>100.0%
: New Business & Infrastructure	3,398	1,658	3,044	(10.4%)	83.6%
: Others	(204)	(1,510)	(887)	<(100.0%)	41.3%
Share of net income from investments in joint ventures and associates	528	1,616	(35)	<(100.0%)	<(100.0%)
Loss on impairment of assets	140	4,673	93	(33.6%)	(98.0%)
Gain (loss) on derivatives	(1,868)	4,564	(5,192)	<(100.0%)	<(100.0%)
Gain (loss) on foreign exchange	10,112	21,859	(8,522)	<(100.0%)	<(100.0%)
EBIT	73,965	75,896	71,771	(3.0%)	(5.4%)
Finance costs	10,843	11,134	11,997	10.6%	7.8%
Income taxes	23,366	19,324	19,222	(17.7%)	(0.5%)
Net income	27,855	32,765	28,968	4.0%	(11.6%)
Earnings per share (Baht/share)	0.98	1.15	1.01	3.1%	(12.2%)

Segmentation Performance of PTT Group

The details of revenue, Earning before interest, Tax, Depreciation and Amortization (EBITDA) and operating income by segmentation of 1Q2024 are as follows:

Unit: Million Baht



* Including PTT own operation and PTT's affiliates

1. Upstream Petroleum and Gas Business Group

Petroleum Exploration and Production Business Group

	1Q2023	4Q2023	1Q2024	% Inc. (Dec.)	
				YoY	QoQ
Average selling price (US\$/BOE ¹)	50.0	48.4	47.2	(5.6%)	(2.5%)
Average sales volume (BOED ²)	460,817	474,679	473,048	2.7%	(0.3%)

Note: ¹BOE: Barrels of Oil Equivalent

²BOED: Barrels of Oil Equivalent per Day

First quarter of 2024 compared with First quarter of 2023

In 1Q2024, sales revenue of PTTEP was Baht 75,737 million, increased by Baht 244 million or 0.3% from 1Q2023 as the overall average sales volume increased by 2.7% from 460,817 BOED in 1Q2023 to 473,048 BOED in 1Q2024, primarily from G1/61 project ramped up the natural gas production to 800 MMSCFD in March 2024. However, the overall average selling price decreased by 5.6% from US\$ 50.0 per BOE in 1Q2023 to US\$ 47.2 per BOE in 1Q2024, primarily due to lower gas prices from G1/61 project and G2/61 project, even though crude oil prices slightly rose according to global oil prices.

EBITDA in 1Q2024 was Baht 56,909 million, decreased by Baht 1,462 million or 2.5% from 1Q2023 and the operating income in 1Q2024 was Baht 34,733 million, decreased by Baht 3,480 million or 9.1% from 1Q2023 mainly

due to depreciation, depletion and amortization increased, primarily from G1/61 project and G2/61 project, resulting from higher sales volume and additional completed assets despite higher reserves. Additionally, Arthit project and Zawtika project also contributed to this increase due to additional completed assets.

The overall performance of Exploration and Production business decreased primarily from the decline in operating income as aforementioned. However, income taxes decreased mainly from projects in Thailand Oman and Malaysia due to lower profit. Moreover, there was loss recognition of non-recurring items after tax approximately Baht 800 million in 1Q2023 (see appendix). However, no such transactions occurred in 1Q2024.

First quarter of 2024 compared with Fourth quarter of 2023

In 1Q2024, sales revenue of PTTEP was Baht 75,737 million, decreased by Baht 3,779 million or 4.8% from 4Q2023 as the overall average selling price decreased by 2.5% from US\$ 48.4 per BOE in 4Q2023 to US\$ 47.2 per BOE in 1Q2024, primarily due to a decrease in crude oil prices following global crude oil price while gas prices slightly increased from the previous quarter. Additionally, the overall average sales volume decreased by 0.3% from 474,679 BOED in 4Q2023 to 473,048 BOED in 1Q2024, primarily from G2/61 project due to lower contractor entitlement and lower crude oil sales volume from projects in Algeria, offset with G1/61 project successfully ramped up the natural gas production as aforementioned.

EBITDA in 1Q2024 was Baht 56,909 million, decreased by Baht 3,655 million or 6.0% from 4Q2023 and the operating income in 1Q2024 was Baht 34,733 million, decreased by Baht 2,591 million or 6.9% from 4Q2023 mainly due to a decrease in sales revenue as aforementioned. Meanwhile, exploration expenses increased primarily from exploration well write-offs and remaining commitment after expiration of the exploration period of Malaysia project. However, administrative expenses decreased mainly from consulting fees and IT services.

Despite the decrease in operating income, the overall performance of Exploration and Production business increased primarily because there was loss recognition of non-recurring items after tax approximately Baht 3,500 million in 4Q2023 (see appendix) while, there was no such transaction in 1Q2024.

Gas Business Group

The details of all product sales volume from GSPs are as follows:

Unit: Ton	1Q2023	4Q2023	1Q2024	% Inc. (Dec.)	
				YoY	QoQ
LPG	853,208	785,708	807,462	(5.4%)	2.8%
Ethane	404,601	466,685	456,192	12.8%	(2.2%)
Propane	165,542	199,236	217,597	31.4%	9.2%
NGL	119,710	134,385	138,310	15.5%	2.9%
Pentane ^{1/}	13,062	7,892	-	(100.0%)	(100.0%)
Total	1,556,123	1,593,906	1,619,561	4.1%	1.6%
Utilization rate (%)	70.1%	81.8%	82.3%	12.2%	0.5%

Note: ^{1/} In 1Q2024, there was no sale volume of Pentane as petrochemical plants that purchased Pentane were shutdown for maintenance

The details of reference product prices of GSPs are as follows:

Unit: US\$ per Ton	1Q2023	4Q2023	1Q2024	% Inc. (Dec.)	
				YoY	QoQ
LPG ^{1/}	706	613	632	(10.5%)	(3.1%)
LDPE ^{2/}	1,130	1,006	1,085	(4.0%)	7.9%
LLDPE ^{2/}	1,074	975	1,029	(4.2%)	5.5%
HDPE ^{2/}	1,085	1,023	1,041	(4.1%)	1.8%
Propane ^{1/}	700	607	627	(10.4%)	3.3%

Note: ^{1/} Global Gas Price (Contract Price Saudi Aramco) as a reference for selling price of petrochemical customers, LPG calculated from the proportion of Propane and Butane by 50:50

^{2/} Southeast Asia – Spot Price

First quarter of 2024 compared with First quarter of 2023

In 1Q2024, Gas business reported sales revenue of Baht 149,586 million, decreased by Baht 14,526 million or 8.9% from 1Q2023. This was primarily from the reduction in S&M business's sales revenue where the average selling price has decreased according to the pool gas price, which has decreased from the Spot LNG price that has been significantly reduced and the adjustment of using the shortfall from the Gulf of Thailand amounting to Baht 4,300 million, to calculate a discount on the pool gas price according to the ERC's directive. Moreover, the average selling price to industrial customers decreased in line with the referenced prices. In addition, the average gas sales volume (calculated at heating value of 1,000 BTU per cubic feet) increased by 416 MMSCFD or 10.2% from 4,078 MMSCFD in 1Q2023 to 4,494 MMSCFD in 1Q2024. This was mainly driven by power plant customers who switch back to use natural gas for electricity generation instead of other fuels as in 1Q2023 the gas price was at high level. Moreover, the overall domestic electricity demand also increased due to higher temperature compared to the same period last year.

The TM business's sale revenue increased following higher pipeline reserve volume from new IPP power plants that gradually start its commercial operations coupled with the new shippers, that were granted the license to procure and distribute natural gas, had imported LNG.

GSP business's sales revenue increased stemming from an increased in overall sales volume of the GSP products (including NGL derived from Dew Point Control units) from 1,556,123 tons in 1Q2023 to 1,619,561 tons in 1Q2024 or 4.1%. This was mainly due to higher GSP's production volume following an increase in gulf gas supply together with higher customer's demand. Additionally, the average selling price increased, resulted from the depreciation of the Thai Baht, even though all petrochemical referenced prices in the market declined.

In 1Q2024, EBITDA of gas business was reported at Baht 17,974 million, increased by Baht 6,897 million or 62.3%. In addition, the operating income was reported at Baht 12,834 million, increased by Baht 6,436 million or more than 100.0%. This was mainly from the lower loss of NGV business's performance, driven by lower cost of natural gas following the pool gas price together with the gradually increase in selling price across all customer groups and the decrease in overall sales volume. In addition, GSP business reported an increase in gross profit from lower cost due to the reduction of gulf gas price and higher sales volume. Also, the average selling price increased as aforementioned. Moreover, PTTLNG had higher reserve volume of its LNG receiving terminal after Nongfab Project of PTTLNG (LNG Terminal 2) started commercial operation. Furthermore, TM business's operating performance increased from higher pipeline reserve volume as aforementioned.

However, the S&M business experienced a decrease in operating performance due to the adjustment of using the shortfall from the Gulf of Thailand amounting to Baht 4,300 million, to calculate a discount on the pool gas price according to the ERC's directive. Despite the improved in normal operating performance from lower gas cost in accordance with the pool gas price and higher sales volume.

First quarter of 2024 compared with Fourth quarter of 2023

In 1Q2024, Gas business reported sales revenue of Baht 149,586 million, decreased by Baht 1,278 million or 0.8%. This resulted mainly from a decrease in sales revenue of S&M business where the average selling price has decreased according to the pool gas price, which has decreased from the adjustment of using the shortfall from the Gulf of Thailand to calculate a discount on the pool gas price as aforementioned together with a decrease in Spot LNG price. Moreover, the selling price to the industrial customer group decreased according to the referenced prices, although the average gas sales volume (calculated at heating value of 1,000 BTU per cubic feet) increased by 241 MMSCFD from 4,253 MMSCFD in 4Q2023 to 4,494 MMSCFD in 1Q2024 or 5.7%, mainly from a higher demand of power plant customers as there was lower electricity generation from hydropower plants due to seasonal factor.

Sales revenue of GSP business increased due to an increase in the overall sales volume of GSP products (including NGL derived from Dew Point Control units), which increased from 1,593,906 tons in 4Q2023 to 1,619,561 tons in 1Q2024 or 1.6% primarily due to increased demand from petrochemical customers as there was higher maintenance shutdown in 4Q2023 compared to 1Q2024. Moreover, the average selling price increased across almost all products in line with the petrochemical referenced prices in the market.

In 1Q2024, EBITDA of Gas business was reported at Baht 17,974 million, increased by Baht 474 million or 2.7% and the operating income at Baht 12,834 million, increased by Baht 688 million or 5.7% mainly from higher gross profit of GSP business due to higher average selling price and sales volume. In addition, TM business had higher gross profit from lower costs mainly due to the maintenance expenses in 4Q2023. Furthermore, NGV business has experienced reduced loss due to lower gas cost following pool gas price together with lower sales volume.

While the S&M business experienced a decrease in operating performance due to the adjustment of using the shortfall from the Gulf of Thailand to calculate a discount on the pool gas price as aforementioned. Despite, gas cost has been adjusted downward in accordance with the pool gas price.



2. Downstream Petroleum Business Group

Oil and Retail Business Group

	1Q2023	4Q2023	1Q2024	% Inc. (Dec.)	
				YoY	QoQ
Average Sales Volume* (Unit: Million Liter)	7,002	6,979	6,478	(7.5%)	(7.2%)
Average selling prices (Unit: US\$ per barrel)					
Gasoline	99.0	96.1	99.2	0.2%	3.2%
Jet	106.8	107.2	102.4	(4.1%)	(4.5%)
Diesel	108.9	108.0	104.4	(4.1%)	(3.3%)

*The average sales volume of domestic oil segment only

First quarter of 2024 compared with First quarter of 2023

In 1Q2024, sales revenue of Oil and Retail business group was Baht 179,687 million, decreased by Baht 18,204 million or 9.2% from 1Q2023 mostly from the decline in overall sales volume and global oil price. Overall sales volume decreased by 524 million liters or 7.5% from 7,002 million liters or equivalent to 489,357 barrels per day in 1Q2023 to 6,478 million liters or equivalent to 447,761 barrels per day in 1Q2024, mainly from the decline in sales volume of diesel resulted from higher sales volume sold to the power plant customers in 1Q2023 as gas price was at high level. While Non-Oil business group's revenue increased from higher sales volume according to the expansion of food and beverage stores and convenient stores.

In 1Q2024, EBITDA was Baht 6,256 million, increased from 1Q2023 by Baht 228 million or 3.8%. The operating income in 1Q2024 was Baht 4,517 million, increased by Baht 116 million or 2.6% from 1Q2023 mainly from Non-Oil business group's higher gross margin from the increase in sales volume of the Food and Beverage business. Oil business's EBITDA slightly increased mainly from higher gross margin per liter of diesel and gasoline following increased oil price.

As a result, the overall performance of Oil and Retail business group increased as compared with 1Q2023 from higher operating income.

First quarter of 2024 compared with Fourth quarter of 2023

In 1Q2024, sales revenue of Oil and Retail business group was Baht 179,687 million, decreased by Baht 13,373 million or 6.9% from 4Q2023 as a result of Oil business's lower overall sales volume, while selling price was higher, in spite of a few decline in global oil price. The overall sales volume decreased by 501 million liters or 7.2% from 6,979 million liters or equivalent to 477,147 barrels per day in 4Q2023 to 6,478 million liters or equivalent to 447,761 barrels per day in 1Q2024, mainly from lower sales volume of diesel as in 4Q2023 there was supply surplus management of domestic refineries. Non-Oil business group's revenue slightly increased mainly from convenient stores which sold Jiffy Brand drinking water to PTT Stations dealers for promotional activity.

In 1Q2024, EBITDA was Baht 6,256 million, increased by Baht 3,686 million or more than 100.0% from 4Q2023. The operating income in 1Q2024 was Baht 4,517 million, increased by Baht 3,586 million or more than 100.0% from 4Q2023. This was mainly from Oil business due to higher average gross margin per liter of diesel and gasoline despite increased costs from the adoption of EURO 5 standard. However, net operating expenses decreased mainly from a reduction in advertising and promotion expenses. EBITDA of Non-Oil business slightly increased as decreased net operating expenses which were from advertising expenses.

The overall performance of Oil and Retail business group increased as compared with 4Q2023 from higher operating income.

International Trading Business Group

Unit: Million Liter	1Q2023	4Q2023	1Q2024	% Inc. (Dec.)	
				YoY	QoQ
Average sales volume	40,883	43,253	42,165	3.1%	(2.5%)

First quarter of 2024 compared with First quarter of 2023

In 1Q2024, the sales revenue of International Trading business was Baht 487,906 million, increased by Baht 24,869 million or 5.4% compared with 1Q2023. This was due to the rise in sales volume, which increased by 1,282 million liters or 3.1% from 40,883 million liters or equivalent to 2,857,241 barrels per day in 1Q2023 to 42,165 million liters or equivalent to 2,914,455 barrels per day in 1Q2024. The majority came from an increase in international trading volume of crude oil and refined products, including LNG out-out trading, as a result of economic activity recovery and continuous pursuit of trading opportunities.

EBITDA, adjusted by the impact from foreign exchange rate and derivatives in 1Q2024 amounted to Baht 1,694 million, decreased by Baht 3,132 million or 64.9%. The operating income, adjusted by the impact from foreign exchange rate and derivatives, in 1Q2024 was Baht 1,416 million, decreased by Baht 3,123 million or 68.8% mainly due to increased losses from hedging in according to the market conditions. In addition, margin per unit of refined products trading decreased, primarily due to a decline in product spread following lower market price, particularly for diesel. However, sales volume increased as mentioned above.

First quarter of 2024 compared with Fourth quarter of 2023

Sales revenue of International Trading business in 1Q2024 was Baht 487,906 million, decreased by Baht 57,547 million or 10.6% from 4Q2023 due to a reduction in sales volume by 1,088 million liters or 2.5% from 43,253 million liters or equivalent to 2,957,161 barrels per day in 4Q2023 to 42,165 million liters or equivalent to 2,914,455 barrels per day in



1Q2024. This decline was attributed to a decrease in the volume of crude oil imports for sale to domestic refineries, despite a decrease in most of products selling prices in line with the petroleum price in global market.

EBITDA, including the impact from foreign exchange rate and derivatives, in 1Q2024 amounted Baht 1,694 million, increased by Baht 2,114 million or more than 100.0%. The operating income, adjusted by the impact from foreign exchange rate and derivatives, was Baht 1,416 million in this quarter, increased by Baht 2,191 million, or more than 100.0%. The increase was mainly from the recognition of unrealized gain (Mark-to-market) on inventory in 1Q2024 following higher crude oil price at the end of the quarter, while in 4Q2023, there was recognition of unrealized loss. Moreover, there was higher margin per unit from international crude trading despite a decrease in sales volume as mentioned above.

Petrochemical and Refinery Business Group

Unit: US\$ per barrel	1Q2023	4Q2023	1Q2024	% Inc. (Dec.)	
				YoY	QoQ
Market GRM	8.4	6.2	7.9	(6.0%)	27.4%
Inventory gain (loss) excl. NRV	(3.5)	(3.8)	0.3	>100.0%	>100.0%
Hedging gain (loss)	0.5	0.2	0.1	(80.0%)	(50.0%)
Accounting GRM	5.4	2.6	8.3	53.7%	>100.0%
Refinery Utilization rate* (%)	102.8%	102.6%	97.9%	(4.9%)	(4.7%)

*From 3 Refineries: TOP, GC and IRPC

Unit: US\$ per Ton	1Q2023	4Q2023	1Q2024	% Inc. (Dec.)	
				YoY	QoQ
Olefins					
Naphtha (MOPJ)	689	659	686	(0.4%)	4.1%
HDPE	1,085	1,023	1,041	(4.1%)	1.8%
LDPE	1,130	1,006	1,085	(4.0%)	7.9%
LLDPE	1,074	975	1,029	(4.2%)	5.5%
PP	1,096	968	1,044	(4.7%)	7.9%
Aromatics					
Condensate	678	687	677	(0.1%)	(1.5%)
PX (TW)	1,034	1,014	1,027	(0.7%)	1.3%
PX (TW) – Condensate	356	327	350	(1.7%)	7.0%
BZ	930	888	1,000	7.5%	12.6%
BZ – Condensate	252	201	323	28.2%	60.7%

First quarter of 2024 compared with First quarter of 2023

In 1Q2024, sales revenue of Petrochemical and Refining business was Baht 336,959 million, increased by Baht 5,913 million or 1.8% primarily due to Refinery business as the increase in average selling price of gasoline and fuel oil while sales volume decreased from a decrease in PTT Group refineries' utilization rates from 102.8% in 1Q2023 to

97.9% in 1Q2024 because there was TOP's unplanned shutdown of Crude Distillation Unit 3 (CDU-3) for 13 days as well as IRPC refineries' utilization rates dropped due to planned turnaround of Lube Base Oil plant in 1Q2024.

Moreover, sales revenue of Petrochemical business also increased from Olefins business due to the increase in sales volume since there was planned turnaround of GC and IRPC's Olefins plants in 1Q2023. However, in 1Q2024, there was only planned turnaround of GC's Olefins plant while average selling price of PP and PE decreased. While, sales revenue of Aromatics business decreased as a decrease in the utilization rate of GC's Aromatics plant despite the increased in selling price of BZ.

EBITDA of Petrochemical and Refining business in 1Q2024 was Baht 26,621 million, increased by Baht 7,581 million or 39.8% from Baht 19,040 million in 1Q2023. There was operating income of Baht 15,280 million in 1Q2024, increased by Baht 7,273 million or 90.8% when compared with Baht 8,007 million in 1Q2023, details are as follows:

- **Refinery performance** increased due to the higher stock gain (there was stock gain of US\$ 0.3 per bbl in 1Q2024 versus stock loss of US\$ 3.5 per bbl in 1Q2023) and the decrease in crude premium. However, market GRM decreased from US\$ 8.4 per bbl in 1Q2023 to US\$ 7.9 per bbl in 1Q2024 mainly from the decrease in product spreads of diesel, jet and gasoline over crude oil as well as decreased sales volume as aforementioned.
- **Petrochemical performance** increased mainly from Olefins business's performance increased due to increased Ethylene's product spreads and increased sales volume as aforementioned. Furthermore, Aromatics business increased from the increased BZ spreads while sales volume decreased as aforementioned.

However, the overall performance of Petrochemical and Refining business in 1Q2024 decreased when compared with 1Q2023 due to increased loss on foreign exchange rate following Thai Baht depreciation in 1Q2024 despite Thai Baht appreciation 1Q2023, whereas operating income increased as aforementioned.

First quarter of 2024 compared with Fourth quarter of 2023

In 1Q2024, sales revenue of Petrochemical and Refining business was Baht 336,959 million, decreased by Baht 8,384 million or 2.4% primarily due to Refinery business from the decrease in sales volume in consequence of the decrease in PTT Group refineries' utilization rates from 102.6% in 4Q2023 to 97.9% in 1Q2024 because there was an unplanned shutdown of CDU-3 of TOP as well as IRPC refineries' utilization rates dropped in 1Q2024 as aforementioned. Moreover, average selling price decreased following a decrease in global petroleum product prices.

While sales revenue of Petrochemical business was similar to the previous quarter. Sales revenue of Olefins business increased due to a increase in sales volume as a result of planned maintenance shutdown of GC's Olefins and

Polymer plants in 4Q2023 while there was only planned maintenance shutdown of GC's Olefins in 1Q2024 as well as the higher average selling price of PP and PE. Whereas sales revenue of Aromatics business decreased as the sales volume decreased though the average selling price of BZ and PX increased.

EBITDA of Petrochemical and Refining business in 1Q2024 was Baht 26,621 million, increased by Baht 16,880 million or more than 100.0% from Baht 9,741 million in 4Q2023. There was operating income of Baht 15,280 million in 1Q2024, increased by Baht 17,128 million or more than 100.0% when compared with operating loss of Baht 1,848 million in 4Q2023, details are as follows:

- **Refinery performance** increased due to stock gain increased (there was stock gain of US\$ 0.3 per bbl in 1Q2024 versus stock loss of US\$ 3.8 per bbl in 4Q2023). Market GRM increased from US\$ 6.2 per bbl in 4Q2023 to US\$ 7.9 per bbl in 1Q2024 mainly from an increase in product spreads of gasoline over crude oil, as well as crude premium decreased despite a decreased in sales volume as aforementioned.
- **Petrochemical performance** also increased from Aromatics business primarily due to an increase in product spread of BZ, PX and by product (condensate residue) despite a decrease in sales volume as aforementioned. Olefins business also increased due to the increased sales volume as aforementioned as well as an increase in PE spreads.

However, the overall performance of Petrochemical and Refining business in 1Q2024 decreased compared with 4Q2023 due to increased loss on foreign exchange rate following Thai Baht depreciation in 1Q2024 compared with Thai Baht appreciation 4Q2023. Even though, operating income increased as aforementioned. Moreover, there were gain recognition of non-recurring items after tax approximately Baht 4,200 million in 4Q2023 (see appendix), while there was no such an item in 1Q2024.

3. New Business and Infrastructure Business Group

	1Q2023	4Q2023	1Q2024	% Inc. (Dec.)	
				YoY	QoQ
Power sales volume (GWh)	4,207	3,389	4,918	16.9%	45.1%
Steam sales volume (Thousand tons)	3,026	3,198	2,982	(1.5%)	(6.8%)

First quarter of 2024 compared with First quarter of 2023

In 1Q2024, sales revenue of New Business and Infrastructure business was Baht 31,547 million, decreased by Baht 4,358 million or 12.1%. This was mainly from the decrease in total sales revenue of GPSC following the lower electricity and steam selling prices of Small Power Producer (SPP) power plants as a result of a decline in natural gas price despite

an increase in sales revenue of Independent Power Producer (IPP) power plants whose Energy Payment (EP) and Availability Payment (AP) revenue increased due to higher dispatch volume to EGAT. In addition, revenue of PTTGM decreased from lower sales volume of Lenalidomide according to a delivery schedule which in line with customer's demand.

EBITDA in 1Q2024 was Baht 6,808 million, increased by Baht 54 million or 0.8%. This was primarily resulted by the increase in gross profit of GPSC due to higher profit margin from electricity sales to industrial customers of SPP power plants. This is because the Ft has better reflected the fuel prices situation. Meanwhile, gross profit of PTTGM decreased mainly from the decrease in sales revenue as aforementioned. In addition, depreciation and amortization expenses for the period increased from GPSC. As a result, the operating income in 1Q2024 was Baht 3,044 million, decreased by Baht 354 million or 10.4%.

However, the overall performance of New Business and Infrastructure business in 1Q2024 compared with 1Q2023 increased as there was gain from PTTGM's non-recurring item (PTT's portion after tax) approximately Baht 4,500 million (see appendix), while in 1Q2023, there was no such transaction. Nevertheless, the overall performance of GPSC decreased following lower operating income as mentioned.

First quarter of 2024 compared with Fourth quarter of 2023

In 1Q2024, sales revenue of New Business and Infrastructure business was Baht 31,547 million, increased by Baht 4,704 million or 17.5% primarily from total revenue of GPSC's IPP power plants whose EP revenue increased due to higher dispatch volume to EGAT.

EBITDA in 1Q2024 was Baht 6,808 million, increased by 1,336 million or 24.4% and the operating income in 1Q2024 was Baht 3,044 million, increased by Baht 1,386 million or 83.6% from 4Q2023 primarily from PTTGM's pharmaceutical business following higher sales volume of Lenalidomide compared with previous quarter, as well as the increase in GPSC's gross profit due to higher profit margin from electricity sales to industrial customers of SPP power plants following higher Ft as well as higher dispatch volume to EGAT and industrial customers.

The overall performance of New Business and Infrastructure business in 1Q2024 compared with 4Q2023 increased as there was gain recognition of PTTGM's non-recurring items (PTT's portion after tax) approximately Baht 4,500 million, while in 4Q2023, there were loss recognition approximately Baht 100 million (see appendix) and higher operating income as aforementioned.

Overall Performance of PTT and its Subsidiaries

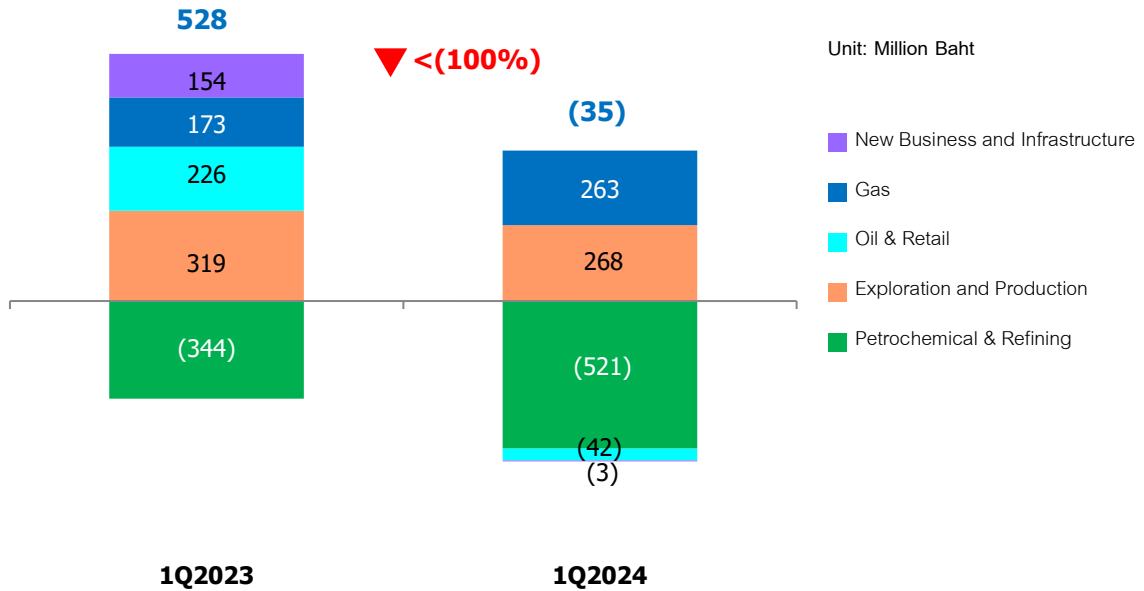
First quarter of 2024 compared with First quarter of 2023

In 1Q2024, sales revenue of PTT and its subsidiaries was reported at Baht 782,256 million increased from 1Q2023 by Baht 25,566 million or 3.4%, mainly from higher sales revenue of International Trading business mainly due to the higher sales volume following economic recovery and the increase in sales revenue of Petrochemical and Refining business following higher gasoline selling price and fuel oil selling price of Refinery business, as well as higher sales volume of Petrochemical business mainly the Olefins, which had fewer planned maintenance shutdowns than the same period last year. However, Oil and Retail business's sales revenue decreased from lower sales volume and diesel and jet selling price in accordance with the decrease in global market price. Moreover, Gas business's sales revenue declined mainly from S&M business due to lower average selling price following pool gas price, despite higher average sales volume, mainly from power plant customers. Whereas, TM business's sale revenue increased following higher pipeline reserve volume, and sales revenue of GSP business also increased from both higher sales volume and average selling price. Additionally, New Business and Infrastructure business's sales revenue decreased from SPP power plants of GPSC due to a decrease in selling prices of power and steam following a decrease in natural gas price.

EBITDA in 1Q2024 was Baht 118,717 million, increased by Baht 14,709 million or 14.1%. This was mainly from Petrochemical and Refining business which Refining business's performance increased mainly due to an increase in stock gain. PTT and its subsidiaries' stock gain in 1Q2024 was approximately Baht 3,000 million, whereas in 1Q2023, there was an approximately stock loss of Baht 6,000 million. However, market GRM decreased from US\$ 8.4 per bbl in 1Q2023 to US\$ 7.9 per bbl in 1Q2024, mainly from lower spread of diesel, jet, and gasoline prices over crude oil price despite lower crude premium. Moreover, Refinery's sales volume decreased. In addition, Petrochemical business's performance increased from both Olefins business, with higher product to feed of Ethylene and higher sales volume, and Aromatics business, with higher product to feed of Benzene. Furthermore, the improvement in Gas business's performance mainly resulted from NGV business which experienced lower loss owing to lower gas cost following pool gas price, as well as higher selling price and lower sales volume. Also, GSP business's performance improved from lower gas cost following a decrease in gulf gas price, also an increase in sales volume and average selling price. Even though, S&M business experienced a decrease in operating performance due to the adjustment of using the shortfall from the Gulf of Thailand amounting to Baht 4,300 million to calculate a discount on the pool gas price. However, the adjustment of the natural gas price structure, as a Single Pool, has not reflected in Gas business's operating results in 1Q2024 as the gas price calculation procedure is being reviewed under the relevant government agency. Meanwhile, International Trading business's performance decreased from higher hedging losses in 1Q2024 reflecting market conditions. Additionally, Exploration and Production business's performance stemmed from lower average selling price.

The depreciation and amortization expenses of 1Q2024 were Baht 44,555 million, increased by Baht 3,297 million or 8.0%, mainly from PTTEP's G1/61 project and G2/61 project following higher sales volume and additional completed assets despite higher reserves.

Share of profit (loss) from investments in joint ventures and associates



In 1Q2024, the share of loss from investments in joint ventures and associates was Baht 35 million, loss increased by Baht 563 million or more than 100.0%. This was from lower performance of joint ventures in Oil and Retail business from Brighter Energy Co., Ltd. (BE)'s higher loss on foreign exchange rate. In addition, performance of joint ventures and associates in Petrochemical and Refining business decreased mainly from NatureWorks LLC (NTR), with lower product to feed, and from PT Chandra Asri Pacific Tbk (CAP), with reduced production rate due to maintenance shutdown, offset with HMC Polymers Co., Ltd. (HMC)'s higher performance owing to higher gross margin.

In 1Q2024, loss on derivatives was Baht 5,192 million, loss increased by Baht 3,324 million or more than 100.0% mainly from commodity derivatives of PTTT, PTTT LDN, and GC.

In 1Q2024, loss on foreign exchange rate was Baht 8,522 million, loss increased by Baht 18,634 million or more than 100.0%, mostly from an increase in unrealized loss on US currency loans as a result of Thai Baht depreciation, compared to the same period last year, when Thai Baht appreciated. (Thai Baht depreciation in 1Q2024 was Baht 2.24 per US\$, while Thai Baht appreciation in 1Q2023 was Baht 0.47 per US\$).

Finance costs was Baht 11,997 million in 1Q2024, increased by Baht 1,154 million or 10.6% mainly due to PTTEP, GC, and GPSC.

In 1Q2024, there were gain recognition of non-recurring items (PTT's portion after tax) approximately by Baht 4,400 million, while in 1Q2023, there were loss recognition approximately by Baht 100 million (see appendix).

The corporate income taxes in 1Q2024 were Baht 19,222 million, decreased by Baht 4,144 million or 17.7% mainly from PTTEP's projects in Thailand, Oman, and Malaysia following lower profit.

As a result, PTT and its subsidiaries' net profit in this quarter amounting to Baht 28,968 million, increased by Baht 1,113 million or 4.0% from net profit of Baht 27,855 million in 1Q2023.

First quarter of 2024 compared with Fourth quarter of 2023

In 1Q2024, sales revenue of PTT and its subsidiaries was reported at Baht 782,256 million, decreased from 4Q2023 by Baht 24,857 million or 3.1%. This decline was mainly from lower sales revenue of International Trading business and Petrochemical and Refining business due to lower sales volume and lower average selling price in line with lower global petroleum product prices. Moreover, Oil and Retail business's sales revenue decreased following lower sales volume despite higher product selling prices. Additionally, Exploration and Production business's sales revenue decreased from lower average selling price and sales volume. Also, Gas business had lower sales revenue primarily driven by S&M business where the average selling price has decreased according to the pool gas price despite GSP business which had higher revenue from an increase in the overall sales volume and average selling price. However, New business and Infrastructure business's sales revenue increased mainly from IPP power plants of GPSC whose EP revenue increased due to higher dispatch volume to EGAT.

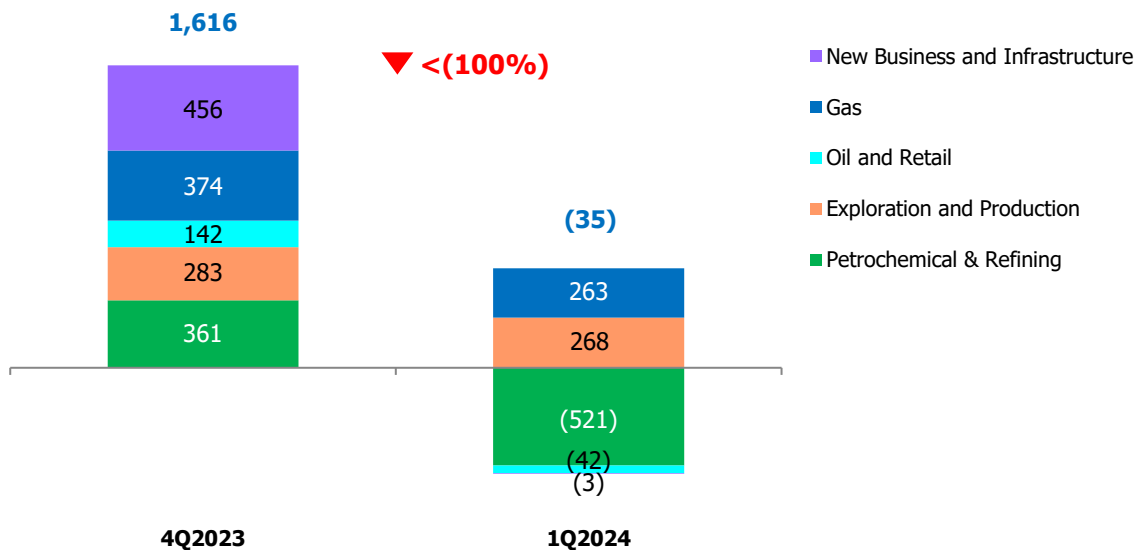
EBITDA in 1Q2024 was Baht 118,717 million, increased by Baht 30,747 million or 35.0% from 4Q2023. This increase was mainly from Petrochemical and Refining business where Refining business's performance increased due to higher stock gain. PTT and its subsidiaries' stock gain in 1Q2024 was approximately Baht 3,000 million, while there was a stock loss of approximately Baht 12,000 million in 4Q2023. In addition, market GRM rose from US\$ 6.2 per bbl in 4Q2023 to US\$ 7.9 per bbl in 1Q2024, primarily due to higher spread despite lower sales volume. Besides, Petrochemical business's performance also increased from both Aromatics and Olefins businesses due to higher product to feed. In addition, the performance of International Trading business improved mainly from the recognition of unrealized gain (Mark-to-market) on inventory following higher crude oil price. Moreover, Oil and Retail business's performance increased mainly from higher average gross margin per liter of diesel and gasoline. Furthermore, New Business and Infrastructure business's performance improved primarily from PTTGM's pharmaceutical business following higher sales volume of Lenalidomide compared with previous quarter. Also, Gas business experienced improved performance mainly from higher gross profit of GSP business due to higher average selling price and sales volume. Moreover, the performance of TM business was improved following lower maintenance costs. Furthermore, NGV business also experienced fewer losses due to lower gas cost following pool gas price. While the S&M business experienced a decrease in operating performance

due to the adjustment of using the shortfall from the Gulf of Thailand amounting to Baht 4,300 million to calculate a discount on the pool gas price. However, the adjustment of the natural gas price structure, as a Single Pool, has not reflected in Gas business's operating results in 1Q2024 as the gas price calculation procedure is being reviewed under the relevant government agency. Meanwhile, Exploration and Production business' performance declined from lower average selling price and sales volume.

The depreciation and amortization expenses in 1Q2024 were Baht 44,555 million, decreased by Baht 1,557 million or 3.4% mainly from reserves revision upward from G2/61 project and G1/61 project of PTTEP.

Share of profit (loss) from investments in joint ventures and associates

Unit: Million Baht



In 1Q2024, the share of loss from investments in joint ventures and associates was Baht 35 million, loss increased by Baht 1,651 million or more than 100.0% mainly from Petrochemical and Refining business's joint ventures which had lower performance, mainly from Thai Tank Terminal Ltd. (TTT) due to having gain from fair value assessment of investment in 4Q2023, and from GC Logistics Solutions Co., Ltd. (GCL) on account of revenue from insurance claim of warehouse in 4Q2023. New Business and Infrastructure business's associates also had lower performance, primarily from Xayaburi Power Co., Ltd. (XPCL) on account of seasonal factor.

In 1Q2024, there was loss on derivatives amounting to Baht 5,192 million, loss increased by Baht 9,756 million or more than 100.0% mainly from commodity derivatives of PTTT, PTTT LDN, and PTT.

In 1Q2024, there was loss on foreign exchange amounting to Baht 8,522 million, loss increased by Baht 30,381 million or more than 100.0% mainly from higher unrealized loss on US currency loans as a result of Thai Baht depreciation

in this quarter, while Thai Baht appreciated in the previous quarter (Thai Baht depreciation in 1Q2024 was Baht 2.24 per US\$, Thai Baht appreciation in 4Q2023 was Baht 2.33 per US\$).

Finance costs was Baht 11,997 million in 1Q2024, increased by Baht 863 million or 7.8% mainly due to PTTEP.

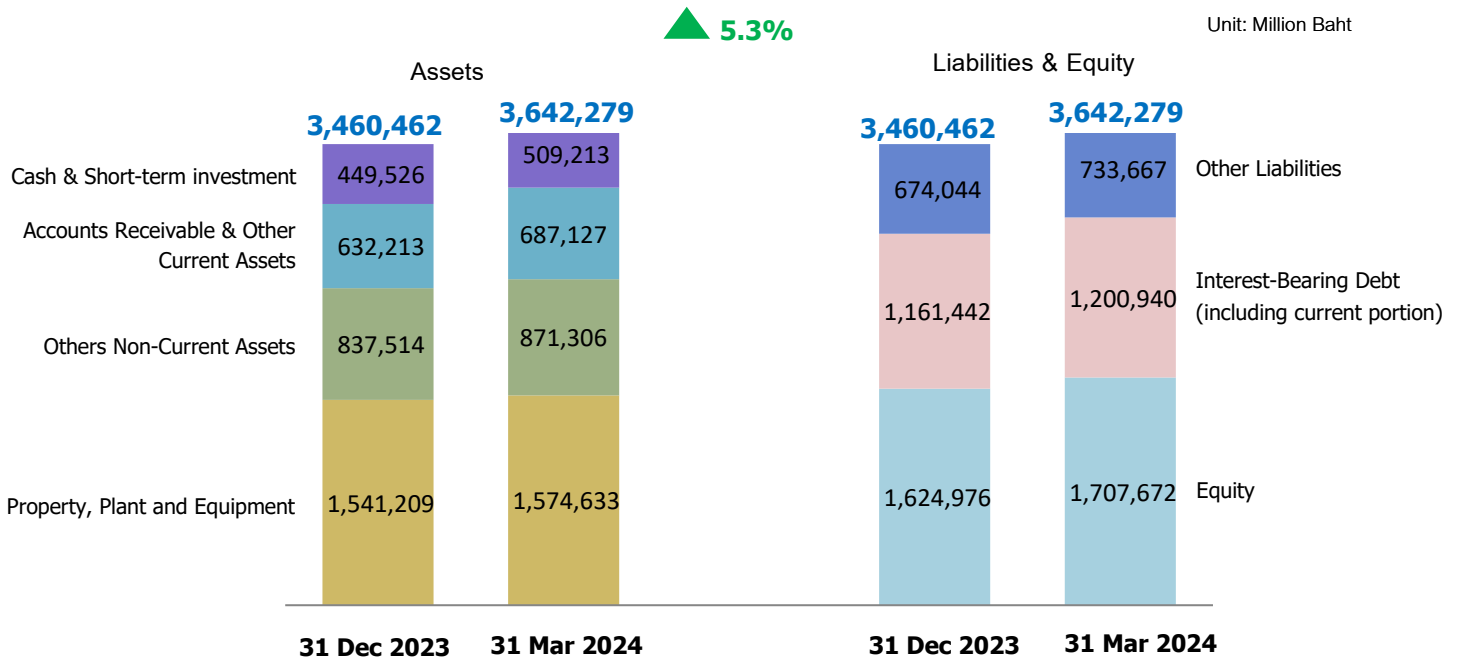
In 1Q2024, there were gain recognition of non-recurring items (PTT's portion after tax) of approximately Baht 4,400 million, while in 4Q2023, there were loss recognition approximately by Baht 500 million (see appendix).

The corporate income taxes in 1Q2024 were Baht 19,222 million, decreased by Baht 102 million or 0.5%, which was close to 4Q2023.

As a result, PTT and its subsidiaries' net profit in this quarter amounting to Baht 28,968 million, decreased by Baht 3,797 million or 11.6% from net profit of Baht 32,765 million in 4Q2023.

The Analysis of PTT Group Consolidated Financial Position

As of 31 March 2024 compared with 31 December 2023



Assets

As of 31 March 2024, total assets of PTT Group were Baht 3,642,279 million, increased by Baht 181,817 million or 5.3% compared with 31 December 2023 from the followings;

: Cash and cash equivalents and short-term investments increased by Baht 59,687 million primarily from PTT Group's operating activities.

: Trade accounts receivable and other current assets increased by Baht 54,914 million or 8.7% mainly from the followings;

- Trade accounts receivable increased by Baht 31,834 million mainly due to an increase in sales volume and average selling prices from PTT, GC, GPSC, PTT International Trading USA Incorporated (PTTT USA) and IRPC.
- Inventories increased by Baht 26,204 million due to an increase in inventory levels and higher selling prices, mainly from PTTT, PTT, GC and PTT Oil and Retail Business Public Co., Ltd. (OR).
- Other accounts receivable increased by Baht 6,462 million mainly due to an increase in refund receivable from the Oil Stabilization Fund.
- Assets held for sale decreased by Baht 5,302 million from the divestment of AMOLH of PTTGM.
- Current derivative assets decreased by Baht 3,011 million mainly from commodity derivative assets of PTTT LDN, PTTT and PTTT USA.

: Other non-current assets increased by Baht 33,792 million or 4.0% mainly from;

- Long-term investments increased by Baht 8,338 million from an increase of investments in associates due to exchange differences on translation from CAP of TOP and an increase in fair value measurement of investments in long-term financial assets in Contemporary Amperex Technology Co., Ltd. (CATL) of PTTGM, together with an increase in investments in debentures of PTT.
- Exploration and evaluation assets increased by Baht 6,987 million from PTTEP.
- Deferred tax assets increased by Baht 4,225 million primarily from PTTEP.
- Other non-current assets increased by Baht 3,509 million mainly from decommissioning fund of PTTEP.
- Right-of-use assets increased by Baht 3,318 million mainly from G2/61 and G1/61 Projects of PTTEP.

: Property, Plant, and Equipment (PPE) increased by Baht 33,424 million or 2.2% mainly from PTTEP's exploration and evaluation assets of G1/61 and G2/61 projects and TOP's construction in progress of Clean Fuel Project (CFP).

Liabilities

As of 31 March 2024, PTT Group had total liabilities of Baht 1,934,607 million, increased by Baht 99,121 million or 5.4% from 31 December 2023, mainly from the followings;

: Other liabilities increased by Baht 59,623 million or 8.8% mainly from trade accounts payable which increased by Baht 30,867 million due to higher purchase volume and higher prices, income tax payable which increased by Baht 15,944 million mainly from PTTEP and TOP, together with increased long-term provision for decommissioning costs of PTTEP mainly from exchange differences on translation as a result of Thai Baht depreciated.

: Interest-bearing debt increased by Baht 39,498 million or 3.4% mainly from an increase in long-term loans by Baht 27,390 million from the issuance of debentures and increased long-term loans of GPSC and exchange differences on translation despite debentures redemption of PTT. Additionally, lease liabilities increased by Baht 6,336 million mainly from new contract of PTTEP. Short-term loans also increased by Baht 5,772 million mainly from IRPC, PTTT, TOP and PTT Treasury Center Co., Ltd. (PTT TCC).

Equity

As of 31 March 2024, PTT Group had total shareholders' equity of Baht 1,707,672 million increased by Baht 82,696 million or 5.1% from 31 December 2023 as a result of the 1Q2024 net income amounting to Baht 28,968 million. In addition, non-controlling interests increased by Baht 26,596 million primarily from exchange differences on translation and net income of subsidiaries.

Liquidity

For the 3-month-ended 31 March 2024, PTT Group had net increase in cash and cash equivalents amounting to Baht 62,237 million. There was cash and cash equivalents at the beginning of the period of Baht 417,134 million. As a result, cash and cash equivalents at the end of the period was Baht 479,371 million. Details of cash flow by activities are as follows:

	Unit: Million Baht
	Consolidated Financial statement
Net cash provided by operating activities	86,449
Net cash used in investing activities	(28,052)
Net cash used in financing activities	(8,524)
Effects of exchange rates on cash and cash equivalents	11,896
Exchange differences on translation	468
Net increase in cash and cash equivalents during the period	62,237
Cash and cash equivalents at the beginning of the period	417,134
Cash and cash equivalents at the end of the period	479,371

Net cash provided by operating activities of Baht 86,449 million was derived from Baht 59,774 million of profit before income taxes, adjusted to net cash provided by (used in) operating activities. The increase in cash flow from operating activities resulted mainly from Baht 44,555 million of depreciation and amortization expenses, Baht 14,144 million on loss on foreign exchange rates, Baht 11,997 million of finance costs and Baht 6,599 million of loss on derivatives. The decrease in cash flow from operating activities mainly resulted from Baht 5,997 million of gain on disposal of assets, Baht 4,261 million of interest income, Baht 3,508 million of reversal of allowance for changes in value of inventories and the change in net operating assets resulted in the decrease in cash flow of Baht 26,207 million while there were income taxes paid of Baht 9,038 million.

Net cash used in investing activities was Baht 28,052 million mainly resulted from the followings;

: The cash outflow of investments in property, plant and equipment, investment property, intangible assets, and exploration and evaluation assets amounting to Baht 40,491 million mainly from investment in exploration and production assets in G1/61 project, G2/61 project, S1 project and Zawtika project of PTTEP, as well as investment in Bang Pakong-South Bangkok power plant transmission pipeline project, 7th Gas Separation Plant, the 5th transmission pipeline project of PTT, CFP of TOP and OR's investments in expansion of gas stations, restaurants and cafes, product warehouse project and cooking gas cylinder and related equipment project.

: The cash outflow from short-term investments in financial assets amounting to Baht 2,015 million mainly from fixed deposit of PTT and GC.

: The cash inflow from long-term investments in financial assets amounting to Baht 10,953 million mainly from the divestment of PTTGM's AMOLH and cash inflow from matured debt securities of PTT.

: Interests and dividends received amounting to Baht 4,481 million mainly from PTTEP, PTTGM, PTT, GC and PTT TCC.

Net cash used in financing activities was Baht 8,524 million mainly from the followings;

: Finance costs paid amounting to Baht 9,634 million mainly from GC, PTT, TOP and GPSC.

: Payment for treasury share of subsidiaries amounting to Baht 4,290 million mainly from treasury shares of Aztiq II Holdco Ltd.

: The net cash inflow of short-term and long-term loans amounting to Baht 5,465 million mainly from GPSC and IRPC.

Financial ratios and earnings per share of PTT Group

Financial Ratio	Unit	1Q2023	1Q2024
<u>Profitability Ratios</u>			
Gross profit margin	%	12.21	13.42
Net profit margin	%	5.25	5.18
<u>Solvency Ratios</u>			
Interest coverage	Times	9.59	9.90
<u>Earnings per share</u>			
Earnings per share	Baht/share	0.98	1.01

Financial Ratio	Unit	31 Dec 2023	31 Mar 2024
<u>Liquidity Ratios</u>			
Current ratio	Times	1.84	1.91
Quick ratio	Times	1.20	1.28
<u>Solvency Ratios</u>			
Debt to equity	Times	0.71	0.70

Note:

Gross profit margin	=	Gross profit divided by Sales and service income
Net profit margin	=	Net profit divided by Sales and service income
Interest coverage	=	EBITDA divided by Finance costs
Earnings per share	=	Net income attributable to ordinary shareholders divided by the weighted average number of ordinary shares which are held by third parties during the periods
Current ratio	=	Current assets divided by Current liabilities
Quick ratio	=	(Cash and cash equivalent + Current investments + Accounts receivable) divided by Current Liabilities
Debt to equity	=	Interest bearing debt divided by Total shareholder's equity

Economic Outlook in the Second Quarter of 2024

The world economy is expected to continue its expansion in 2Q2024. The US economy is expected to receive sustained momentum from private consumption amid a resilient labor market and high-interest rate policies aimed at curbing inflation. Meanwhile, the Euro Area economy is expected to see inflation rates approaching the ECB's target of 2.0%, coupled with a clear downward trend in key interest rates. This scenario is likely to support the recovery of private consumption amid the lingering Russia-Ukraine conflict. For the Chinese economy, the unresolved real estate crisis may dampen confidence and future private investment amid government stimulus measures, particularly in manufacturing. Additionally, accelerated export efforts in low-price goods aimed at exporting deflation are expected. However, attention should be given to geopolitical tensions, especially the Israel-Iran conflict, which could escalate widely and impact the global supply chain, potentially causing to higher commodity prices.

According to the S&P Global's report in May 2024, global oil demand in 2024 is expected to increase by 1.7 MMBD, reaching to 104.7 MMBD. The growth in demand aligns with the continuing global economic expansion. Meanwhile, geopolitical tensions continue to linger. The market remains focus to production control policies from the OPEC+, which is set to end production cuts in 2Q2024. However, supplies from non-OPEC+ countries are consistently increasing. In 2Q2024, Dubai crude oil price is expected to average at US\$ 82 - 92 per barrel, and Singapore GRM is expected to average at US\$ 4.7 - 5.7 per barrel.

The prices of **petrochemical products** are expected to increase in 2Q2024 as demand for Olefins is likely to rise after the Lunar New Year holidays, while supply is projected to decrease due to scheduled maintenance of several plants in the Asia region. Similarly, Aromatics price in 2Q2024 are also expected to increase following rising crude oil and Naphtha prices, along with steadily increasing demand from China and the US. However, the incoming regional new capacity may exert downward pressure on prices in the near term.

- **Olefins price in 2Q2024** are expected to slightly increase from 1Q2024, HDPE and PP prices are anticipated to fluctuate within the range of \$1,014 – 1,114 per ton and \$976 – 1,076 per ton respectively, supported by seasonal maintenance schedule of petrochemical plants in the Asia region. However, persistent lower demand from end-product consumers continue to be a significant factor limiting substantial increase in market prices.
- **Aromatics price in 2Q2024** are projected rise compared to 1Q2024, with prices of BZ and PX moving within range of \$988 – 1,088 per ton and \$1,000 – 1,100 per ton respectively. This increase follows the upward trend in crude oil and Naphtha prices, as well as the rising demand from downstream markets during summer. However, the new upcoming capacity in the region will exert downward pressure on

Aromatics price. Additionally, limited export volume from Asia to the US due to high freight costs amid conflict in the Red Sea area will further contribute to this downward pressure.

The price of Propane in 2Q2024, compared to 1Q2024, is anticipated to trend downwards, with Propane prices expected to fluctuate within the range of US\$540 – 640 per ton. This decline follows the onset of the summer season, which reduces the demand for Propane as a heating fuel, along with the normalization of supplies from the Middle East following maintenance shutdown completed in the first quarter. However, the market remains supported by rising crude oil prices due to escalating tensions in the Middle East and decision by the OPEC+ to extend oil production cuts until the end of the second quarter.

The Thai economy growth in 2Q2024 is expected to accelerate from 1Q2024, by continuous supports from tourism sector, private consumption, and private investment. Government spending is expected to rebound, with the government likely to accelerate its investment budget disbursements following the enactment of the 2024 Budget Bill early in 2Q2024. While merchandise exports are expected to keep growing in line with the gradual recovery of global trade, challenges persist due to deteriorating competitiveness and overcapacity issues from China. However, Thai economy expansion remains uncertain and face potential downside risks, including heightened and uncertain drought conditions due to El Niño and potential energy price shock amid ongoing conflicts in the Middle East.

Major Project Plan

Gas Business Group: The progress of major projects

Pipelines Transmission Projects

Total project progress of the 5th Transmission Pipeline (Rayong - Sai Noi - North/South Bangkok power plants) as of March 2024 was at 98.25% (Including 3 phases construction).

Total project progress of the natural gas pipeline system of Bang Pakong to South Bangkok Power Plants as of March 2024 was at 36.95%.

Gas Separation Plant Unit 7 (GSP#7)

PTT is constructing the Gas Separation Plant Unit 7 (GSP#7) in Map Ta Phut Industrial Estate, Rayong Province to replace Gas Separation Plant Unit 1 (GSP#1) and to increase the efficiency of the gas separation plant's production process. The GSP #7 is designed to have a maximum capacity of 460 MMSCFD.

Gas Separation Plant Unit 8 (GSP#8)

Project Progress as of March 2024: PTT has completed the Front-End Engineering Design and has been in the process of negotiating contract terms with customers. Then, the process of contractor bidding will be the next step.

LNG Project:

LNG Receiving Terminal Project (LNG Receiving Terminal 3) is a joint venture company between PTT Tank Terminal Co., Ltd. (PTT Tank) and Gulf Energy Development Public Co., Ltd. (GULF) with shareholding of 30%, and 70%, respectively. The project is to proceed land reclamation with the investment cost of approximately Baht 12,900 million which is expected to be completed by 2024, as well as having the right to construct LNG terminal 3 phase 1 with the capacity not less than 5 MTA. The LNG terminal 3 phase 1 has an investment cost approximately Baht 28,000 million which is expected to be completed in 2028.

Summary Planned Shutdown for Gas Separation Plants in 2024

Plant	1Q2024	2Q2024	3Q2024	4Q2024
GSP #1			SD (20 - 31 Jul.: 12 Days)	
GSP #5	TD 50% (22 - 31 Mar. : 10 Days)	TD 50% (1 - 30 Apr. / 13 - 19 May : 37 Days)		
GSP #6		TD 50% (10 - 30 Jun. : 21 Days)	TD 50% (1 - 15 Jul. : 15 Days)	

NOTE: TD: Turndown

SD: Shutdown

Appendix

Exploration and Production Business is of PTT Exploration and Production Public Co., Ltd. (PTTEP)

Natural Gas Business consists of PTT natural gas business unit, PTT Natural Gas Distribution Co., Ltd. (PTTNGD), PTT LNG Co., Ltd (PTTLNG) and PTT Global Management Co., Ltd. (PTTGM)

Oil and Retail Business is PTT Oil and Retail Business Public Co., Ltd. (OR)

International Trading Business consists of PTT international business unit, PTT International Trading Pte. Ltd. (PTTT), PTT International Trading London Ltd. (PTTT LDN) and PTT International Trading USA Incorporated (PTTT USA)

Petrochemical and Refinery Business consists of PTT Global Chemical Public Co., Ltd. (GC), Thai Oil Public Co., Ltd. (TOP), IRPC Public Co., Ltd. (IRPC), and PTT Tank Terminal Co., Ltd. (PTT TANK)

New Business and Infrastructure Business consists of PTT New Business and Infrastructure business unit, Global Power Synergy Public Co., Ltd. (GPSC), PTT Energy Solution Co., Ltd. (PTTES), Energy Complex Co., Ltd. (EnCo), PTT Digital Solutions Co., Ltd. (PTT DIGITAL) and PTT Global Management Co., Ltd. (PTTGM)

Other Business consists of Business Services Alliance Co., Ltd. (BSA), PTT Green Energy Pte. Ltd. (PTTGE), PTT Treasury Center Co., Ltd. (PTT TCC), PTT Energy Resources Co., Ltd. (PTTER) and PTT Global Management Co., Ltd. (PTTGM)

Note: PTTGM, a holding company, owns shares in many companies which operate in various businesses such as Natural Gas Business, New Business and Infrastructure Business, Other Business (that included performance of Coal Business that was divested in 1Q2023). PTTES and PTTER have registered its dissolution and currently in the process of liquidation.

Appendix

The key of non-recurring items (PTT's portion after tax) in 1Q2024 compared with 1Q2023 and 4Q2023 are summarized as follows:

Unit: Million Baht

Business	Item	1Q2023	4Q2023	1Q2024
Exploration and Production business	Impairment loss on Mozambique Area 1 project		~ (2,800)	
	Write-off project AC/RL12 (Oliver)		~ (1,200)	
	Write off asset from the end of concession of Bongkot project	~ (500)		
	Gain on divestment of AC/RL7 (Cash-Maple)		~ 1,700	
Petrochemical and Refining business	Gain on change in status of investment of GC		~1,400	
	Gain on disposal of subsidiary of GC		~ 600	
New Business and Infrastructure	Impairment of asset under PTTGM		~ (100)	~ (80)
	Gain on disposal of AMOLH			~ 4,500

Note: In 1Q2024, Gas business adjusted the shortfall from the gulf of Thailand to calculate a discount on the pool gas price according to the ERC's directive amounting to Baht 3,400 million (after tax) which including in EBITDA.