

Bangchak Corporation Plc.

Management Discussion & Analysis of Business Operation

For the 2nd quarter period ended June 30th, 2022



CONTENTS

03

Executive Summary

07

Other importance events in this quarter

08

Statement of Income

11

Business Performance

11 - Refinery and Oil Trading Business Group

14 - Marketing Business Group

17 - Power Plant Business Group

18 - Bio-Based Product Business Group

20 - Natural Resources Business and New Business Development Group

21

Statement of Financial Position

23

Statement of Cash Flows

24

Financial Ratios

26

Management Outlook towards the Economy and Crude Oil Price in Q3/2022

Executive Summary

Summary of the company and its subsidiaries' operating result for the 2nd quarter period ended 30th June 2022

| Unit: THB Million | Q2/2022 | Q1/2022 | QoQ | Q2/2021 | YoY | 6M2022 | 6M2021 | YoY |
|---|---------------|---------------|------------|---------------|-------------|----------------|---------------|-------------|
| Total Revenue | 83,796 | 69,055 | 21% | 43,775 | 91% | 152,852 | 85,006 | 80% |
| Accounting EBITDA | 12,572 | 13,714 | -8% | 4,269 | 195% | 26,286 | 9,006 | 192% |
| <i>Refinery and Trading Business^{1/}</i> | 6,506 | 5,021 | 30% | 1,976 | 229% | 11,527 | 4,388 | 163% |
| <i>Marketing Business^{2/}</i> | 1,468 | 1,118 | 31% | 827 | 78% | 2,585 | 1,797 | 44% |
| <i>Power Plant Business^{3/}</i> | 1,112 | 3,075 | -64% | 997 | 12% | 4,187 | 1,976 | 112% |
| <i>Bio-Based Products Business^{4/}</i> | 93 | 343 | -73% | 296 | -68% | 437 | 717 | -39% |
| <i>Natural Resources Business and New Business Development^{5/}</i> | 3,541 | 4,251 | -17% | 276 | >1000% | 7,792 | 307 | >1000% |
| <i>Others</i> | (148) | (94) | -58% | (103) | -44% | (242) | (179) | -35% |
| Profit attributable to owners of the Company | 5,276 | 4,356 | 21% | 1,765 | 199% | 9,633 | 4,048 | 138% |
| Earnings per share (Baht) | 3.79 | 3.12 | | 1.21 | | 6.91 | 2.80 | |

Note: 1/ EBITDA from Refinery and Trading Business of the company (BCP), BCP Trading Pte. Ltd. (BCPT), Bangchak Fuel Pipeline and Logistic Co.,Ltd. (BFPL) and others

2/ EBITDA from Marketing Business of the company (BCP), Bangchak Green Net Co.,Ltd. (BGN), Bangchak Retail Co., Ltd., (BCR) and others

3/ EBITDA from Power Plant Business of BCPG Plc. (BCPG Group)

4/ EBITDA from Bio-Based Products Business of BBGI Plc. (BBGI Group)

5/ EBITDA from Natural Resources Business and New Business Development of OKEA ASA (OKEA), BTSG Co., Ltd. (BTSG), BCP Innovation Pte. Ltd. (BCPI) and others

As for performance of the first 6 months of 2022, Bangchak Corporation Plc. ("the company") and its subsidiaries generated revenues from sales and rendering of services of THB 152,852 million (+80% YoY) and EBITDA of THB 26,286 million (+192% YoY). The increase in performance was partially supported by the change in accounting treatment regarding OKEA consolidation since Q3/2021. With the rest of the increase coming from the **Refinery and Trading Business Group** where performance was supported by a significant rise in crude oil and finished products prices. Due to demand recovery as COVID-19 preventive measures are eased, resulting in economic and travel activities recovery. While the oil supplies remain tight from the on-going conflict between Russia and Ukraine. In addition, OPEC+ inability to raise oil production to meet target level. Average Dubai crude oil price in 1H/2022 was 102.17 \$/BBL, an increase of 38.55 \$/BBL from 1H/2021 (+61%YoY). This led the company group recording an inventory gain of THB 8,451 million which increased from 1H/2021. In addition, crack spread increased significantly in line with market mechanism which fluctuate based on demand and supply. This has resulted in a significant increase in Operating GRM as well as a supporting factor for the refinery to increase average crude run in 1H/2022 to 122.3 KBD. Due to high crack spread situation, the company realized higher loss from crude and product oil price forward contracts compared to 1H/2021, mainly from the fair value measurements in accordance with accounting standards. The **Marketing Business Group's** performance was supported by higher sales volume as COVID-19 situation improved. While total net marketing margin per unit decreased slightly, due to freeze domestic diesel retail price in Q1/2022. As a result, the company was unable to adjust retail price at service station according to market conditions. However, during Q2/2022, net marketing margin began to recover as the government's policy ceiling price of diesel was relaxed to be more in line with global oil price situation. The **Power Plant Business Group** realize higher revenue from increase in sales of electricity



Executive Summary

mainly from the COD of 3 solar power projects in Japan with PPA of 65 MW as well as from the recognition of gain from the disposal of the whole investment in Star Energy Group Holdings Pte. Ltd. (“SEGHPL”) of THB 2,031 million. The **Bio-Based Products Business Group** realized an increase in revenue mainly from the increase in biodiesel (B100) price in line with crude palm oil price. While gross profit declined due to lower sales volume from both biodiesel and ethanol business. In addition, costs of raw materials used in production increased from the same period last year. The **Natural Resources Business and New Business Development Group** benefited from significantly higher energy price, especially natural gas price increased 192% YoY. Leading to **the first 6 months of 2022** recorded **net profit attributable to owners of parent at THB 9,633 million** (+138% YoY), representing **Earnings per share of THB 6.91**.

Financial Position as of 30th June 2022, the company group had cash and cash equivalents of THB 34,544 million and **total assets of THB 231,914 million**, an increase of THB 30,128 million when compared to 31st December 2021, mainly due to inventories, trade accounts receivable and other current receivables increased in line with the increase in price and volume of crude oil and finished products. The oil fuel fund subsidies receivable increased due to the government policy. Short-term investments increased while investments in associate companies decreased due to the sale of investment in SEGHPL. The company group had **total liabilities of THB 149,453 million**, an increase of THB 17,227 million, mainly from an increase in trade accounts payable and derivative liabilities. The increase in trade accounts payable was due to crude oil and finished products which experienced both price and purchase volume increase. **Total equity of THB 82,460 million**, an increase of THB 12,901 million, mainly from net profit during 1H/2022 in the amount of THB 10,993 million.

As for performance in Q2/2022, the company and its subsidiaries recorded revenue from sales and rendering of services in amount of THB 83,796 million (+21% QoQ), EBITDA of THB 12,572 million (-8% QoQ). EBITDA declined due to BCPG’s recognition of profit from the disposal of the whole investment in SEGHPL of THB 2,031 million in the previous quarter. Excluding the item, EBITDA increased THB 889 million (+8% QoQ), mainly from **the Refinery and Trading Business Group** which was positively impact by the significant increase in Operating GRM that help alleviate the performance of **the Natural Resources Business Group**. Of which, it was affected by a large decline in natural gas price sold to the UK as well as the depreciation of the Norwegian Krone (NOK) against the US dollar. Leading to this quarter realized **net profit attributable to owners of the parent at THB 5,276 million** (+21% QoQ), representing **Earnings per share of THB 3.79**. With performance for each business group were as follows.

Refinery and Trading Business Group saw its performance increased 30% QoQ and 229% YoY as this quarter Operating GRM increased significantly to 24.42 \$/BBL. This was due to crack spreads of all products increased in line with global market conditions. Especially, a significant increase in Diesel and Dubai crack spread (GO-DB) which is the largest product yield of the Bangchak refinery. Moreover, crude oil price continued to increase resulting in Inventory Gain of THB 3,868 million in this quarter which is similar to Q1/2022 but increased significantly when compared to Q2/2021. Due to the continue increase in crack spreads from last quarter, Bangchak refinery maintained high average crude run at 122.5 KBD or 102% utilization rate. However, as high crack spread situation, resulting in higher loss from crude and product oil price forward contracts compared to Q1/2022 and Q2/2021. As for the Oil Trading business,



Executive Summary

BCPT's performance increased, due to higher profit per unit of Gasoline/Naphtha products group and the recognition of gains from entering crude and product oil price forward contracts.

Marketing Business Group saw its performance increased 31% QoQ and 78% YoY. The performance in QoQ improved mainly from the increase in net marketing margin by 60% QoQ. The increase was attributed by the government's adjustment of domestic retail diesel price ceiling. As a result, the retail price at the service station better reflected costs of finished products than the previous quarter. As for the increased performance in YoY was attributed mainly to sales volume of marketing business increase of 24% YoY. This was due to the government's loosening of measures as the COVID-19 outbreaks situation improved which was supported jet fuel sales to increase as much as 157% YoY. In addition, Bangchak expanded sales channel for jet fuel which start entering into-plane jet fuel business at Don Mueang and Suvarnabhumi airports. Due to the continued increase in finished product prices, resulting in this quarter still has Inventory Gain which increased from Q2/2021. The company's cumulative retail sales volume market share during January - June 2022 was 16.2% (data from the Department of Energy Business). At the end of Q2/2022, there were 1,301 service stations with 54 Unique Design Service Stations. In addition, the Marketing Business Group continues to focus on non-oil business. At the end of Q2/2022, there were 886 Inthanin coffee branches. Also, sales through the storefront and online delivery platforms continued to grow, resulting in this quarter's sales to record new high. As for Dakasi pearl milk tea business, this quarter marks the one year anniversary in which BCR has purchased the rights to expand Dakasi stores in Bangchak service station. At the end of Q2/2022, there were Dakasi pearl milk tea branches in 47 service stations. In addition, Bangchak continues to expand partnerships with leading restaurants and street food vendors to support the modern consumer lifestyle who enjoy more convenient and quick services. Furthermore, Bangchak continued to expand the number of EV charging service stations to across the country. As a result, EV Chargers are available at 107 service stations covering 39 provinces.

Power Plant Business Group saw performance declined 64% QoQ but improved 12% YoY, due to BCPG's recognition of gains from the disposal of the whole investment in SEGHPL. Excluding the disposal, performance improved both QoQ and YoY, due to an increase in revenue from electricity sales in line with total electricity sales. Although, there was no recognition of share of profit from SEGHPL in this quarter. However, total electricity sales increased, mainly from the commercial operations (COD) of 3 additional Solar Power Plant projects in Japan, namely Yabuki (PPA 20 MW) in Q2/2022, Komagane (PPA 25 MW) in late Q1/2022 and Chiba 1 (PPA 20 MW) in late Q4/2021. Regarding to this commercial operation, BCPG has 79.7 MW of total operated solar power plant in Japan.

Bio-Based Products Business Group saw its performance declined by 73% QoQ and 68% YoY. BBGI recorded a decline in gross profit of 88% QoQ and 84% YoY, mainly from the decline of ethanol sales volume in accordance with the sales management plan for maximum benefit of BBGI. This was due to the cost of raw materials used to produce ethanol has climbed significantly. In this quarter, the ethanol production plant of BBGI Bioethanol Plc. has adjusted the molasses cost higher following the average initial price of molasses sold domestically in 2021/22. In addition, there was expenses related to major annual maintenance shutdowns at BBGI Bioethanol Plc.'s plants in Bo Ploy, Kanchanaburi Province and at Nam Phong, Khon Kaen Province also occurred in this quarter. Moreover, the biodiesel business was pressured by the decrease in crude palm oil and B100 prices at end of Q2/2022. Resulting in recognition

Executive Summary

of net realizable value (NRV). **High Value Products (HVP) Business**, in this quarter BBGI has signed a joint venture agreement with Biom Co., Ltd. (“Biom”), a first startup spun off from the Faculty of Science, Chulalongkorn University, in order to expand the value of research in Biotechnology to commercial use. In addition, BBGI as the first company, has obtained the right to take research results to commercially develop products, especially the research on biological products that uses Synthetic Biology technology and other biological products. Moreover, WIN Ingredients Co., Ltd. (BBGI holds 51% of shares) established a subsidiary named WIN Ingredients Singapore Pte. Ltd., with the objective of developing bio-products and providing technical and commercial support.

Natural Resource Business Group and New Business Development saw performance declined 17% QoQ but >1,000% YoY. In this quarter, OKEA's sales revenue declined 19% QoQ, mainly due to a decrease in gas prices sold to the UK, which is OKEA's main market, where prices declined by 54% QoQ. Although average liquid price remained highly volatile at elevated level and increased 12% QoQ. In addition, sales volume increased 3% QoQ, mainly from Yme and Draugen fields. While operating results increased >1000% YoY, mainly from the Company Group change of recording of OKEA investment to a subsidiary since 1st July 2021. By itself, OKEA's EBITDA increased 205% YoY, mainly attributed to higher crude oil and gas prices in the global market as well as the increase in sales volume by 22% YoY, mainly from Gjøa and Yme fields. This quarter, OKEA entered into an agreement to purchase three North Sea petroleum fields from Wintershall Dea Norge AS (35.2% in Brage, 6.5% in Ivar Aasen, and 6.0% in Nova). The transaction is expected to complete in Q4/2022 and will increase OKEA's petroleum production in 2022 by approximately 5,000 – 6,000 boepd. Due to the positive factors supporting energy price, OKEA has strong financial position with net debt free and has begun dividend payment to shareholders this quarter. Also, OKEA pays additional dividends in Q3/2022 and plans to pay dividends again in Q4/2022. Furthermore, OKEA has announced a full voluntary redemption of OKEA02 bond with the remaining outstanding of USD 100 million.

Oil price is expected to decline in 2H/2022, due to dampened demand from global recession concerns as inflation rose relatively quickly. Resulting, central banks around the world are tightening monetary policy by raising interest rates to control inflation. While the on-going war between Russia and Ukraine continues to support oil price. In addition, OPEC+ has not been able to raise oil production to meet target. However, Bangchak will continue to monitor and closely assess oil price situation in order to adjust business plan accordingly. In addition, the company places importance to the management of working capital to ensure capital sufficiency for business operations and investment plans. Bangchak plan to issues debentures during Q3/2022, to ensure its readiness and ability to cope with Thai economic situation and volatile oil price.



Other importance events in this quarter

June

- The company notified the Stock Exchange of Thailand in regards to the disposition of shares in the subsidiary company, registered capital, and change in the company name, as the Board of Directors approved an investment in land loan and consignment business to extend the Mee Tee Mee Ngern Project, to increase liquidity for those affecting from COVID-19 pandemic and solve informal debt problems. The company has negotiated with business partners, Government Savings Bank and Dhipaya Group Holdings Public Company Limited (“TIPH”) as follows:

- BCV Biobased Co., Ltd. (BCVB) (a wholly-owned subsidiary of the company and registered capital THB 20 million) will be a joint venture company. Also, BCVB will register the change of the company name to Mee Tee Mee Ngern Co., Ltd.
- The company will sell its shares in BCVB to the Government Savings Bank and TIPH. Consequently, the company, Government Savings Bank and TIPH will hold 20%, 49% and 31% of Mee Tee Mee Ngern Co., Ltd.’s shares respectively. After that, BCVB will increase the registered capital to THB 1,000 million in proportion, resulting in Mee Tee Mee Ngern Co., Ltd. become an associate of the company. It is expected that the registration will be completed within the Q3/2022.

- The company notified the Stock Exchange of Thailand in regards to the investment of the company, as the Board of Directors has approved the Digital Business Transformation Plan By applying digital technology to achieve the goal of business growth, the company therefore negotiated with its business partner, MFEC Public Company Limited (“MFEC”) and reached an agreement as follows:

- The company jointly invested in Data Cafe Company Limited (“DC”), which increase the registered capital to THB 12,307,700 and is an associate held by MFEC, operating IT consulting services, research, and analysis of all types of business data, as well as providing IT service to business enterprise.
- The transaction resulted that the Company holding 35% shares in DC and DC becoming an associate of the company.

Statement of Income

| Consolidated Statement of Income (THB Million) | Q2/2022 | Q1/2022 | QoQ | Q2/2021 | YoY | 6M2022 | 6M2021 | YoY% |
|---|---------------|---------------|--------------|--------------|-------------|---------------|--------------|-------------|
| Revenue from sale of goods and rendering of services | 83,796 | 69,055 | 21% | 43,775 | 91% | 152,852 | 85,006 | 80% |
| Cost of sale of goods and rendering of services | (65,579) | (56,801) | 15% | (40,032) | 64% | (122,380) | (76,658) | 60% |
| Gross Profit | 18,218 | 12,254 | 49% | 3,744 | 387% | 30,472 | 8,348 | 265% |
| Other income | 477 | 350 | 36% | 176 | 171% | 826 | 317 | 160% |
| Selling and administrative expenses | (2,074) | (1,669) | 24% | (1,590) | 30% | (3,743) | (3,034) | 23% |
| Exploration and evaluation expenditures | (95) | (346) | -73% | (38) | 151% | (441) | (39) | >1,000% |
| Loss from derivatives | (6,422) | (1,320) | N/A | (202) | N/A | (7,741) | (630) | N/A |
| Gain (loss) on foreign exchange | (516) | 60 | N/A | 181 | N/A | (456) | 223 | N/A |
| Gain (loss) from sale of investment | - | 2,031 | N/A | - | N/A | 2,031 | (2) | N/A |
| Reversal of loss from impairment of assets | 4 | 563 | N/A | 13 | N/A | 567 | 413 | N/A |
| Profit from operating activities | 9,592 | 11,923 | -20% | 2,283 | 320% | 21,515 | 5,596 | 284% |
| Finance costs | (1,043) | (836) | 25% | (518) | 101% | (1,879) | (982) | 91% |
| Impairment loss determined in accordance with TFRS 9 | (20) | (384) | N/A | (8) | N/A | (404) | (1) | N/A |
| Share of profit (loss) of associates and joint ventures accounted for using equity method | (6) | 148 | N/A | 512 | N/A | 141 | 706 | N/A |
| Profit before income tax expense | 8,522 | 10,851 | -21% | 2,269 | 276% | 19,373 | 5,319 | 264% |
| Tax expense | (3,033) | (5,347) | -43% | (195) | >1,000% | (8,380) | (603) | >1,000% |
| Profit for the period | 5,489 | 5,504 | -0.3% | 2,074 | 165% | 10,993 | 4,716 | 133% |
| Owners of parent | 5,276 | 4,356 | 21% | 1,765 | 199% | 9,633 | 4,048 | 138% |
| Non-controlling interests | 213 | 1,147 | | 309 | | 1,360 | 668 | |
| Basic earnings per share (Baht) | 3.79 | 3.12 | | 1.21 | | 6.91 | 2.80 | |



Statement of Income

Performance in Q2/2022, the company and its subsidiaries recorded a profit for the period THB 5,489 million, of which the net profit attributable to the owners of the parent was THB 5,276 million, an increase of 21% QoQ and 199% YoY, representing earning per shares of THB 3.79. The company group has changed the record of OKEA performance from share of profit (loss) to consolidated financial statement method since 1st July 2021. The difference of items in consolidated statement of income compared YoY was significantly affected by the change as below.

| Items in consolidated statement of income (THB Million) | Difference of consolidated statement of income Q2/2022 compared to Q2/2021 (A) | OKEA's contribution in Q2/2022 (B) | % (B) / (A) |
|--|--|--|----------------|
| Other income | 301 | 310 | 103% |
| Selling and administrative expenses | 483 | 235 | 49% |
| Exploration and evaluation expenditures | 57 | 95 | 166% |
| Loss on foreign exchange | 697 | 646 | 93% |
| Finance costs | 524 | 367 | 70% |
| Tax expense | 2,838 | 1,921 | 68% |

Factors which effected to consolidated statement of income as the following reasons:

- 1) Revenue from sale of goods and rendering of services THB 83,796 million, an increase of 21% QoQ, mainly due to petroleum related businesses. The company's revenue increased from the average selling price per unit increased by 19% QoQ in line with rising crude oil prices in the global market. In addition, the company's total product sales volume increased by 5% QoQ, mainly from diesel export. In addition, BCPT's sales revenue increased from the average selling price per unit and sales volume with trading partners outside the company group. While OKEA's revenue from crude oil and gas sales declined 19% QoQ, mainly due to a decrease in gas price of 54% QoQ, although crude oil and gas sales volume increased 3% QoQ.

When compared to Q2/2021, revenue increased 91% YoY with mostly from petroleum related businesses where average selling price per unit and overall product sales volume increased.

- 2) Gross profit THB 18,218 million, an increase of 49% QoQ, mainly from petroleum related businesses. The Refinery Business's Operating GRM was 24.42 \$/BBL, an increase of 17.58 \$/BBL compared to Q1/2022 as crack spread for every product increased in line with global market conditions. In addition, the Marketing Business's marketing margin was 0.94 baht per liter, an increase of 60% QoQ. While, OKEA's gross profit declined 31% QoQ, due to lower gas price.

When compared to Q2/2021, gross profit increase 387% YoY, mainly from the Refinery Business with higher Operating GRM which increase by as much as 20.24 \$/BBL. In addition, the company group realized inventory gain of THB 4,337 million in Q2/2022, an increase of THB 3,038 million compared to Q2/2021.



Statement of Income

- 3) Selling and administrative expenses THB 2,074 million, an increase of 24% QoQ, mainly from the company's employee expenses, advertising expenses and rental expenses. For OKEA, expenses increase from employee expenses and consulting fees expenses related to the purchase of petroleum fields from Wintershall Dea Norge AS. When compared to Q2/2021, expenses increased 30% YoY with OKEA contributing 49% of the increase and the remaining (excluding OKEA) increased from employee expenses and transportation expenses of the company.
- 4) Exploration and evaluation expenditures THB 95 million, a decrease of 73% QoQ as in Q1/2022 OKEA had exploration and evaluation expenditures of a dry well on the Ginny field, while expenses increased 151% YoY from OKEA. As during Q2/2021, exploration and evaluation expenditures incurred by NIDO Petroleum Pty. Ltd. group.
- 5) Loss from derivatives were recorded at THB 6,422 million, mostly from the fair value measurement for crude and product oil price hedging contract according to accounting standards.
- 6) Loss on foreign exchange THB 516 million, mainly from OKEA's borrowing in foreign currency as Norwegian Krone (NOK) depreciated against the US dollar.
- 7) Finance costs THB 1,043 million, an increase of 25% QoQ, mainly due to the company's interest on lease liabilities increasing and BCPG's expenses related to loan prepayment. When compared to Q2/2021, finance costs increased 101% YoY, with OKEA contributing 70% while the remaining businesses (excluding OKEA) increased mainly from the company's interest on lease liabilities and long-term loans. In addition, the transfer of financial costs to project costs decreased.
- 8) Tax expense was recorded at THB 3,033 million, a decrease of THB 2,314 million compared to Q1/2022, mainly from OKEA's lower operating profit and last quarter BCPG incurred tax expenses on sale of investment in SEGHPL. While tax expenses increased by THB 2,838 million compared to Q2/2021, with OKEA contributing 68% of the increase and the rest mainly from the company's increased operating profit.



Performance by Business Group

1) Refinery and Oil Trading Business Group

| Crude Oil Price (\$/BBL) | Q2/2022 | Q1/2022 | QoQ | Q2/2021 | YoY | 6M | 6M | YoY |
|-----------------------------|---------|---------|-------|---------|-------|--------|-------|-------|
| | AVG | AVG | +/- | AVG | +/- | 2022 | 2021 | +/- |
| Dubai (DB) | 108.22 | 96.21 | 12.01 | 67.02 | 41.20 | 102.17 | 63.62 | 38.55 |
| Dated Brent (DTD) | 113.93 | 102.23 | 11.70 | 68.97 | 44.96 | 107.94 | 64.98 | 42.96 |
| DTD-DB | 5.71 | 6.02 | -0.31 | 1.95 | 3.76 | 5.77 | 1.36 | 4.41 |

Average Dubai crude price in Q2/2022 increased by 12.01 \$/BBL compared to Q1/2022 and increased by 41.20 \$/BBL compared to Q2/2021, driven by recovering demand from easing of COVID-19 preventive measures by removal of travel restriction in many countries around the world which resulted in increased economic and travel activities. While oil supply was impacted by the conflicts between Russia and Ukraine, together with the international sanctions of Russian oil. In addition, OPEC+ was unable to increase oil production as targeted. Moreover, productions from Libya and Ecuador were hit by labor protests.

Average Dated Brent and Dubai spread (DTD-DB) in Q2/2022 declined 0.31 \$/BBL compared to Q1/2022, due to the increase in US crude oil export to Europe leading to the rise in Dated Brent price at lower level than Dubai price. The average Dated Brent and Dubai spread (DTD-DB) in Q2/2022 rose 3.76 \$/BBL compared to Q2/2021, from tight supply of light crude due to production problems in Libya. While global oil demand increase in line with economic activities. In addition, Europe increase its supply of crude from the North Sea which is light crude after announcing sanction on Russia oil import.

Crack Spread Situation

| Crack Spreads (\$/BBL) | Q2/2022 | Q1/2022 | QoQ | Q2/2021 | YoY | 6M | 6M | YoY |
|---------------------------|---------|---------|-------|---------|-------|-------|------|-------|
| | AVG | AVG | +/- | AVG | +/- | 2022 | 2021 | +/- |
| UNL95-DB | 35.14 | 17.82 | 17.32 | 9.89 | 25.25 | 26.41 | 8.54 | 17.87 |
| IK-DB | 39.62 | 16.53 | 23.09 | 4.49 | 35.13 | 27.98 | 3.86 | 24.12 |
| GO-DB | 43.60 | 19.87 | 23.74 | 5.24 | 38.37 | 31.64 | 4.97 | 26.67 |
| LSFO-DB | 24.80 | 13.97 | 10.83 | (5.81) | 30.61 | 19.34 | 7.61 | 11.73 |

Gasoline and Dubai crack spread (UNL95-DB) average in Q2/2022 increased compared to Q1/2022 and Q2/2021. The increase was supported by strong demand recovery in Asia as travel restrictions eased and continued increase in demand for driving in the US. While Supply in region remained low as many refineries in the region underwent annual maintenance as well as the decrease in China's export of refined products. In addition, Gasoline inventories in the US continued to decline. As for **Jet (Kerosene) and Dubai crack spread (IK-DB)** average in Q2/2022 increased when compared to Q1/2022 and Q2/2021, due to the continued recovery of aviation demand from the lifting of travel restrictions in many countries and the countries open for foreign tourists. While supply remain low as refineries increased product yield of diesel in response to tightness of diesel supply. As for **Diesel and Dubai crack spread (GO-DB)** average in Q2/2022 increased when compared to Q1/2022 and Q2/2021. The increase was supported by supply tightness in the region, due to the EU's sanction of oil import from Russia which is the major diesel supplier to

Performance by Business Group

Europe. Additionally, overall supply in every region remained low and refinery in Asia underwent annual maintenance. While demand recovered in line with economic activities as easing of COVID-19 control measures. As for **Low Sulphur Fuel oil and Dubai crack spread (LSFO-DB)** average in Q2/2022 increased when compared to Q1/2022 and Q2/2021, supported by the US procurement of fuel oil from other sources for replacing import from Russia. This led to reducing Middle East's export of fuel oil to Asia. In addition, annual maintenance of refineries in the region and limited export quota of Chinese fuel oil contributed to lower supply.

Refinery and Oil Trading Business Group Performance

| Refinery and Oil Trading Business Group Performance | Q2/2022 | Q1/2022 | QoQ | Q2/2021 | YoY | 6M2022 | 6M2021 | YoY |
|---|--------------|--------------|-------------|--------------|--------------|---------------|--------------|-------------|
| EBITDA (THB Million) | 6,506 | 5,021 | 30% | 1,976 | 229% | 11,527 | 4,388 | 163% |
| Average crude run (KBD) | 122.5 | 122.1 | 0.4% | 107.0 | 15% | 122.3 | 86.1 | 42% |
| Utilization rate (%) | 102% | 102% | | 89% | | 102% | 72% | |
| Average FX (THB/USD) | 34.56 | 33.23 | | 31.53 | | 33.90 | 30.98 | |
| <i>(Unit: \$/BBL)</i> | | | | | | | | |
| Operating GRM | 24.42 | 6.84 | 17.58 | 4.18 | 20.24 | 15.87 | 3.85 | 12.01 |
| Oil hedging | (16.83) | (3.32) | -13.51 | (0.40) | -16.44 | (10.26) | (0.27) | -9.99 |
| Inventory gain/ (loss) ^{1/} | 10.04 | 9.77 | 0.27 | 3.81 | 6.22 | 9.91 | 6.94 | 2.97 |
| Total GRM | 17.63 | 13.29 | 4.34 | 7.60 | 10.02 | 15.52 | 10.53 | 4.99 |
| Total sales volume in each market category of the Company ^{2/} (Million Liters) | | | | | | | | |
| Marketing business | 1,470 | 1,408 | 4% | 1,183 | 24% | 2,878 | 2,422 | 19% |
| Petroleum traders in accordance with section 7 | 152 | 189 | -19% | 171 | -11% | 341 | 315 | 8% |
| Export | 501 | 421 | 19% | 294 | 70% | 923 | 522 | 77% |
| Total sales volume | 2,124 | 2,018 | 5% | 1,648 | 29% | 4,142 | 3,259 | 27% |

Note: 1/ Inventory gain/(loss) in the table included (reversal of) losses on inventories devaluation (NRV)

2/ Sales volume excluded oil swaps between petroleum traders in accordance with section 7 and sales of crude oil

Performance for Q2/2022, the Refinery and Oil Trading Business Group recorded EBITDA of THB 6,506 million, an increase of THB 1,486 million when compared to Q1/2022, with factors affecting performance as follows:

1. This quarter crack spread for all products continued to be high from the previous quarter. As a result, Bangchak refinery's average crude run remained high at 122.5 KBD or 102% utilization rate which is a similar rate to the previous quarter.

2. During this quarter, the refinery's Total Gross Refinery Margin (Total GRM) was 17.63 \$/BBL, an increase of 4.34 \$/BBL when compared to the previous quarter, due to the following reasons:

- Operating GRM was recorded at 24.42 \$/BBL, an increase of 17.58 \$/BBL, due to the increase in crack spread of all products in line with global markets where global oil demand continued to increase. While supply remained tight from the conflict between Russia and Ukraine, together with the EU's sanctions of



Performance by Business Group

Russian oil. Due to a significant increase in Diesel and Dubai crack spread (GO-DB) which is the largest product yield of the Bangchak refinery resulted in Operating GRM rose significantly compared to the previous quarter.

- While loss from crude and product oil price forward contract is recognized at 16.83 \$/BBL, mainly from the fair value measurements in accordance with accounting standards as crack spreads continue to rise. Whereas, the previous quarter recorded a loss of 3.32 \$/BBL.
- This quarter the refinery business recorded Inventory Gain of THB 3,868 million (equivalent to 10.04 \$/BBL), an increase from Q1/2022 where Inventory Gain was THB 3,566 million (equivalent to 9.77 \$/BBL). The gain is attributed to the continue increase in global crude oil price from the previous quarter.

3. BCPT conducted total trade transaction of crude and finished products of 7.30 million barrels, an increase of 0.54 million barrels (+8%) compared to the previous quarter. The increase was attributed mainly from the transaction of diesel and Gasoline/Naphtha products group. Also, gross profit increased mainly from the profit per unit of Gasoline/Naphtha group, due to increase demand as approaching the driving season in the US and petrochemical plants in Asia resumed production after maintenance shutdown during the previous quarter. While supply remained tight, due to sanctions against Russia. In addition, BCPT recognized gains from entering crude and product oil price forward contracts. As a result, this quarter BCPT's EBITDA increased compared to Q1/2022.

Performance for Q2/2022, the Refinery and Oil Trading Business Group recorded an increase in EBITDA of THB 4,530 million when compared to Q2/2021, with the following factors affecting performance:

1. Bangchak refinery's average crude run increased 15% YoY, due to high crack spreads during this quarter and domestic oil demand recovery which led the refinery to maintain crude run at high level.
2. Total GRM increased 10.02 \$/BBL compared to Q2/2021, mainly due to the following reasons:
 - Operating GRM increased by as much as 20.24 \$/BBL, due to the significant increase in crack spread (as stated above). In addition, product yield of UCO increased to 2 times compared to Q2/2021 which helped to support GRM.
 - On the other hand, the refinery business recorded loss from crude and oil product forward contract 16.83 \$/BBL while in Q2/2021 recorded a loss of 0.40 \$/BBL.
 - The refinery business recorded an Inventory Gain of THB 3,868 million (equivalent to 10.04 \$/BBL), due to this quarter the crude oil price increase at higher rate compared to Q2/2022. As a result, this quarter Inventory Gain increase THB 2,697 million compared to Q2/2021.
3. BCPT recorded a decline in trade transactions of crude oil and finished product by 0.56 million barrels (-7%) compared to Q2/2021. The proportion that declined mainly from trading of crude oil to partners outside of Bangchak Group (Out-Out), due to crude oil supply tightness after sanctions of Russian oil by many countries. However,



Performance by Business Group

procurement of crude oil for Bangchak refinery has not been disrupted. While gross profit increased mainly from the trading of Gasoline/Naphtha products group (as stated above). In addition, BCPT realized gains from entering crude and product oil price forward contracts, resulting in higher EBITDA compared to Q2/2021.

2) Marketing Business Group

| Marketing Business Performance | Q2/2022 | Q1/2022 | QoQ | Q2/2021 | YoY | 6M2022 | 6M2021 | YoY |
|---|--------------|--------------|------------|--------------|------------|--------------|--------------|------------|
| EBITDA (THB Million) | 1,468 | 1,118 | 31% | 827 | 78% | 2,585 | 1,797 | 44% |
| Net marketing margin (Baht / Liter) | 0.94 | 0.59 | 60% | 0.88 | 7% | 0.77 | 0.82 | -6% |
| Sales volume (Million Liters) | | | | | | | | |
| Retail | 1,170 | 1,122 | 4% | 996 | 18% | 2,292 | 2,049 | 12% |
| Industrial | 300 | 286 | 5% | 187 | 60% | 586 | 373 | 57% |
| Total | 1,470 | 1,408 | 4% | 1,183 | 24% | 2,878 | 2,422 | 19% |
| Sales volume in each product category only Marketing Business (Million Liters) | | | | | | | | |
| LPG | 26 | 25 | 2% | 26 | 0% | 51 | 43 | 18% |
| Gasoline | 5 | 5 | -0% | 8 | -30% | 11 | 16 | -32% |
| Gasohol | 416 | 388 | 7% | 354 | 18% | 804 | 736 | 9% |
| Jet fuel | 88 | 88 | -0% | 34 | 157% | 176 | 70 | 153% |
| Diesel | 884 | 849 | 4% | 713 | 24% | 1,733 | 1,461 | 19% |
| Fuel oil and others | 51 | 53 | -4% | 49 | 4% | 103 | 97 | 6% |
| Total | 1,470 | 1,408 | 4% | 1,183 | 24% | 2,878 | 2,422 | 19% |

Note: Net Marketing Margin of Bangchak only (excluding inventory gain/(loss) and NRV)

Performance for Q2/2022 performance, the Marketing Business Group recorded EBITDA of THB 1,468 million, an increase of THB 350 million compared to Q1/2022, with the following factors affecting performance:

1. Total sales volume of the Marketing Business Group increased 4%QoQ, due to the improvement in COVID-19 situation domestically. The government announced the easing of various measures, especially measures to open the country's borders. In addition, schools resumed on-site learning which further induce consumers to go out in their daily lives and continue to increase in domestic consumption. However, sales volume was pressured by the continual rise in oil price, resulting in consumers responded by reducing unnecessary travels.

2. Net marketing margin per unit increased by 60% QoQ, even though the company continue to cooperate with the government's policy to freeze domestic diesel retail prices. However, this quarter the government adjusted the ceiling price of diesel to be more in line with global oil price situation. As a result, the retail prices at service stations better reflected cost of finished products than the previous quarter. In addition, the demand for diesel fuel in the industrial sector continued to recover after COVID-19 situation has eased, while the supply of domestic diesel fuel is quite tight. In addition, power plants and industrial plants have switch fuel from liquefied natural gas (LNG) to diesel and fuel oil to avoid using expensive LNG. As a result, net marketing margin of the industrial market increased. Also, the continue increase in the price of finished oil products, this quarter still has inventory gain.



Performance by Business Group

3. Bangchak continues to expand the number of service stations, with goals to develop services stations into destinations that can fulfill customer's wide-ranging needs and desires under the "Greenovative Destination" and Unique Design concepts. This quarter the company opened 11 new service stations. At the end of Q2/2022, the company has a total of 1,301 service stations with 54 Unique Design Service Stations. The cumulative retail sales volume market share between January - June 2022 was 16.2% (data from the Department of Energy Business). This quarter, Bangchak joined the "Winsafe" project, which alleviate the impact on gasoline prices for motorcycle taxis. The government subsidized fuel expenses for 3 months (May - July 2022) through the "Paotang" application. In addition, the company initiative "one baht per liter" project to provide discount on all gasohol products through newspaper coupons. Of which, it can be used at all Bangchak service station throughout the country to reduce the cost of living for consumers during the rising global energy prices.

4. Marketing Business Group continues to focus on developing and expanding the non-oil business with potential as well as develop into community within a service station. This quarter, 41 Inthanin coffee branches were opened, resulting in the total number was 886 branches at the end of Q2/2022. In order to support Inthanin's branch expansion plans, the proportion of branches located outside the services stations was increased by opening Inthanin coffee shop in commercial buildings near communities and in partners' locations such as Mini Big C, B-Quik and Tops daily. Also, branches expansion, product development and sales promotions, resulting in Inthanin coffee's sales through storefront and online delivery platforms continued to grow. In addition, Inthanin coffee was able to increase sales during the Songkran festival which push this quarter's sales to record new high. For the Dakasi pearl milk tea shop business, this quarter marks one year anniversary in which BCR has purchased the right to expand Dakasi stores in Bangchak service stations. Moreover, BCR has begun to sell franchise of Dakasi stores to service station operators. At the end of Q2/2022, there were Dakasi pearl milk tea branches in 47 service stations. Moreover, Bangchak continues to expand partnerships with leading restaurants and street food vendors to support the modern consumer lifestyle who enjoy more convenient and quick services. Currently, Bangchak opened additional restaurants in service stations, namely GON EXPRESS, Som Tam Jae Daeng, Subway, Jones Salad, Khao Man Kai Ton Pratunam, and Khao Kaeng Chan Thong. In addition, Bangchak continues to expand the number of EV charging service stations. As a result, EV Chargers are available at 107 service stations covering 39 provinces across the country.

Performance comparison between Q2/2022 and Q2/2021, the Marketing Business Group recorded EBITDA increase of THB 641 million, with factors affecting operations as follow:

1. Total sales volume of marketing business increased 24% YoY, attributed to the sold through retail and industrial markets increasing 18% and 60% YoY, respectively. This was due to less severe in COVID-19 outbreak situation. In addition, most of the population have immunity from COVID-19 vaccination which can help reduce the severity of the disease. As a result, the government announced the easing of various measures which led to economic activities in the country has begun to recover while people return to living in the new normal. Moreover, the government relaxed restrictions on international travel and issued measures to stimulate domestic tourism which led to the increase of jet fuel sales by as much as 157% YoY. Whereas, during Q2/2021 was impacted by severe COVID-19 outbreak



Performance by Business Group

throughout the quarter. This led the government announces intensive measures to control the spread of the virus, resulting in lower domestic oil demand than this quarter.

2. Net marketing margin per unit increased 7% YoY, mainly from the increase in industrial net marketing margin, due to the increase in demand for diesel in the industrial sector (as stated above). While net marketing margin of the retail market was pressured by the rising cost of finished oil products in line with global market conditions and the company's cooperation with the government to freeze domestic diesel retail prices. However, the company has implemented cost and expense management policy which helped net marketing margin of the retail market to increase compared to the same period last year. Due to the higher in finished oil product prices than Q2/2021, the company realized higher inventory gain this quarter.

3. The company's cumulative retail sales volume market share during January - June 2022 was 16.2% while cumulative retail sales volume market share during January - June 2021 was 15.9% (data from the Department of Energy Business). From the end of Q2/2021 to the end of this quarter, there were 64 new service stations and 204 new Inthanin coffee branches.



Performance by Business Group

3) Power Plant Business Group

| Power Plant Business Performance (THB Million) | Q2/2022 | Q1/2022 | QoQ | Q2/2021 | YoY | 6M2022 | 6M2021 | YoY |
|---|---------------|---------------|-------------|---------------|------------|---------------|---------------|-------------|
| EBITDA | 1,112 | 3,075 | -64% | 997 | 12% | 4,187 | 1,976 | 112% |
| Revenue from sale and rendering of services | 1,436 | 1,158 | 24% | 1,088 | 32% | 2,595 | 2,135 | 22% |
| Share of profit (loss) from associated companies* | (9) | 142 | -106% | 157 | -106% | 133 | 297 | -55% |
| Electricity sales (GWh) | | | | | | | | |
| Solar Power Plant - Thailand (173.5 MW) | 85.90 | 84.23 | 2% | 80.05 | 7% | 170.14 | 161.63 | 5% |
| Wind Power Plant - Thailand (9.0 MW) | 1.93 | 3.22 | -40% | 2.44 | -21% | 5.15 | 6.13 | -16% |
| Solar Power Plant - Japan (79.7 MW) | 35.62 | 14.90 | 139% | 4.55 | 684% | 50.51 | 8.56 | 490% |
| Hydropower Plant - Lao PDR (114.0 MW) | 100.98 | 76.91 | 31% | 102.02 | -1% | 177.89 | 170.14 | 5% |
| Total electricity sales | 224.43 | 179.26 | 25% | 189.06 | 19% | 403.69 | 346.47 | 17% |

*In March 2022, BCPG disposed the whole investment in SEGHPL, which invests in geothermal projects in Indonesia

Performance for Q2/2022, the Power Plant Business Group recorded EBITDA of THB 1,112 million, a decline of THB 1,962 million compared to Q1/2022, mainly due to BCPG's recognition of gains from the disposal of the whole investment in Star Energy Group Holdings. Pte. Ltd. ("SEGHPL") THB 2,031 million. Excluding the item, the performance increased compared to Q1/2022, from the increase in revenue from electricity sales in this quarter of THB 1,436 million, an increase of 24% QoQ, mainly from **Solar Power Plant projects in Japan** realized full quarter operation from the Komagane solar power plant (PPA 25 MW) which commenced the commercial operation (COD) in March 2022 and the COD of Yabuki solar power plant (PPA 20 MW) in April 2022. In addition, **Hydro Power Plant project in Lao PDR** start entering high season at the end of second quarter. However, this quarter BCPG recognized share of loss from investment in associated company THB 9 million, a decrease of THB 151 million from the previous quarter, mainly from no recognition of share of profit from the geothermal power plant business in Indonesia. This was due to BCPG's disposal all investment in the projects in March 2022. In addition, the wind power business in the Philippines recorded lower revenue as the country enters the low season of the monsoon and no revenue was recognized from retroactive adjustments, while such items were recognized in Q1/2022.

Performance comparison between Q2/2022 and Q2/2021, the Power Plant Business Group recorded EBITDA increase of THB 115 million, due to an increase in electricity sales revenue by 32% YoY, mainly from **Solar Power Plant projects in Japan** where 3 additional projects commenced commercial operations (COD) with PPA of 65 MW, namely Chiba 1, Komagane and Yabuki. However, this quarter the company received lower share of profit from associated company THB 166 million compared to the same quarter last year, mainly due to no recognition of profit sharing from the geothermal power plant business in Indonesia (as mentioned above).



Performance by Business Group

4) Bio-Based Product Business Group

| Bio-Based Products Business Performance (THB Million) | Q2/2022 | Q1/2022 | QoQ | Q2/2021 | YoY | 6M2022 | 6M2021 | YoY |
|---|-----------|------------|-------------|------------|-------------|------------|------------|-------------|
| EBITDA | 93 | 343 | -73% | 296 | -68% | 437 | 717 | -39% |
| BBGI Performance | | | | | | | | |
| Sales revenue | 3,413 | 3,740 | -9% | 3,539 | -4% | 7,153 | 6,936 | 3% |
| Gross profit | 37 | 320 | -88% | 231 | -84% | 357 | 599 | -40% |
| Selling and administrative expenses | (68) | (85) | -20% | (59) | 15% | (153) | (125) | 22% |
| Sales volume (Million Liters) | | | | | | | | |
| Ethanol | 27.12 | 38.19 | -29% | 49.76 | -45% | 65.31 | 83.66 | -22% |
| Biodiesel | 46.59 | 51.08 | -9% | 63.08 | -26% | 97.67 | 127.58 | -23% |

As for the performance of the Bio-Based Product Business Group in Q2/2022, total EBITDA was recorded THB 93 million, a decrease of THB 250 million and THB 202 million compared to Q1/2022 and Q2/2021, respectively, with the following factors affecting operations:

- Sales Revenue was THB 3,413 million, a decrease of 9% QoQ and 4% YoY
 - Revenue from production and distribution of ethanol business was THB 696 million, a decrease of 29% QoQ and 46% YoY, mainly from the decline of ethanol sales volume in accordance with the sales management plan for maximum benefit of BBGI. This was due to the cost of raw materials used to produce ethanol, such as molasses and cassava, has climbed significantly. The cassava price rose from an increase of China import demand for cassava to replace a shortage of corn being used in the ethanol and animal feeds industry. The molasses price escalated, due to the fact that sugarcane production had been continued at a low level since 2019/20.
 - Revenue from production and distribution of biodiesel (B100) business was THB 2,717 million, a decrease of 1% QoQ. Reduction in sales volume of B100 caused to the decline in revenue, due to an announcement of the Committee on Energy Policy Administration (CEPA) to reduce the proportion of B100 blend from 7% (B7) to 5% (B5) during 5th February 2022 - 30th September 2022. Whereas, the revenue recorded an increase of 20% YoY, mainly from an escalation of the price of B100 according to the significant rise in CPO price. This was due to Russia-Ukraine crisis and the drought in South America, causing a shortage of oil crops around the world. In addition, on 28th April 2022, Indonesia, which is the world's largest producer and exporter of palm oil, announced to ban palm oil export causing an increasing of Thailand's exports of palm oil. However, Indonesia has cancelled the restriction palm oil export since 23rd May 2022.
 - Revenue from high value bio-based products was THB 0.5 million, from the sale of pharmaceutical-grade hand-washing alcohol products including and food supplement products "ASTA-IMMU" and "ASTA-ViS".



Performance by Business Group

In addition, BBGI has released an additional dietary supplement, “Calcium-LT plus UC-II”, under the brand B nature+ in April 2022.

2. Gross profit was THB 37 million, a decrease of 88% QoQ and 84% YoY, mainly due to a decline of the sales volume of ethanol as mentioned above. Besides, in Q2/2022, the ethanol production plant of BBGI Bioethanol Plc. (Formerly named KSL Green Innovation Plc.) has adjusted the molasses cost higher following the average initial price of molasses sold domestically in 2021/22. In addition, there was expenses related to major annual maintenance shutdowns at BBGI Bioethanol Plc. plant in Bo Ploy, Kanchanaburi Province and at Nam Phong, Khon Kaen Province also occurred in this quarter. Moreover, the biodiesel business was pressured by the decrease in crude palm oil and B100 prices at end of Q2/2022. Resulting in recognition of net realizable value (NRV) in the amount of THB 54 million.
3. Selling and administrative expenses was THB 68 million, a decrease of 20% QoQ, mainly from expenses related to the issuance and initial public offering (IPO) and listing on the stock exchange of Thailand in Q1/2022. While an increase of 15% YoY because BBGI has more expenses related to the promotion of high value bio-based products, development of new products and employee expenses.



Performance by Business Group

5) Natural Resources Business and New Business Development Group

| Natural Resources Business and New Business Development Group | Q2/2022 | Q1/2022 | QoQ | Q2/2021 | YoY | 6M2022 | 6M2021 | YoY |
|---|---------|---------|------|---------|---------|--------------|------------|-------------------|
| EBITDA* (THB Million) | 3,541 | 4,251 | -17% | 276 | >1,000% | 7,792 | 307 | >1,000% |
| Share of profit (loss) OKEA* (THB Million) | N/A | N/A | N/A | 333 | N/A | N/A | 371 | N/A |
| OKEA Performance | | | | | | | | |
| EBITDA (THB Million) | 3,557 | 4,276 | -17% | 1,165 | 205% | 7,833 | 2,019 | 288% |
| Revenue from crude oil and gas sales (THB Million) | 4,577 | 5,661 | -19% | 2,225 | 106% | 10,239 | 4,133 | 148% |
| Production volume - Net to OKEA (Kboepd) | 16.04 | 14.91 | 8% | 13.21 | 21% | 15.48 | 14.87 | 4% |
| Sales volume - Net to OKEA (Kboepd) | 15.96 | 15.44 | 3% | 13.05 | 22% | 15.70 | 14.12 | 11% |
| Realized liquids price (USD/BBL) | 100.30 | 89.60 | 12% | 63.80 | 57% | 94.98 | 56.69 | 68% |
| Realized gas price (USD/MMBTU) | 14.68 | 31.73 | -54% | 9.07 | 62% | 23.16 | 7.94 | 192% |

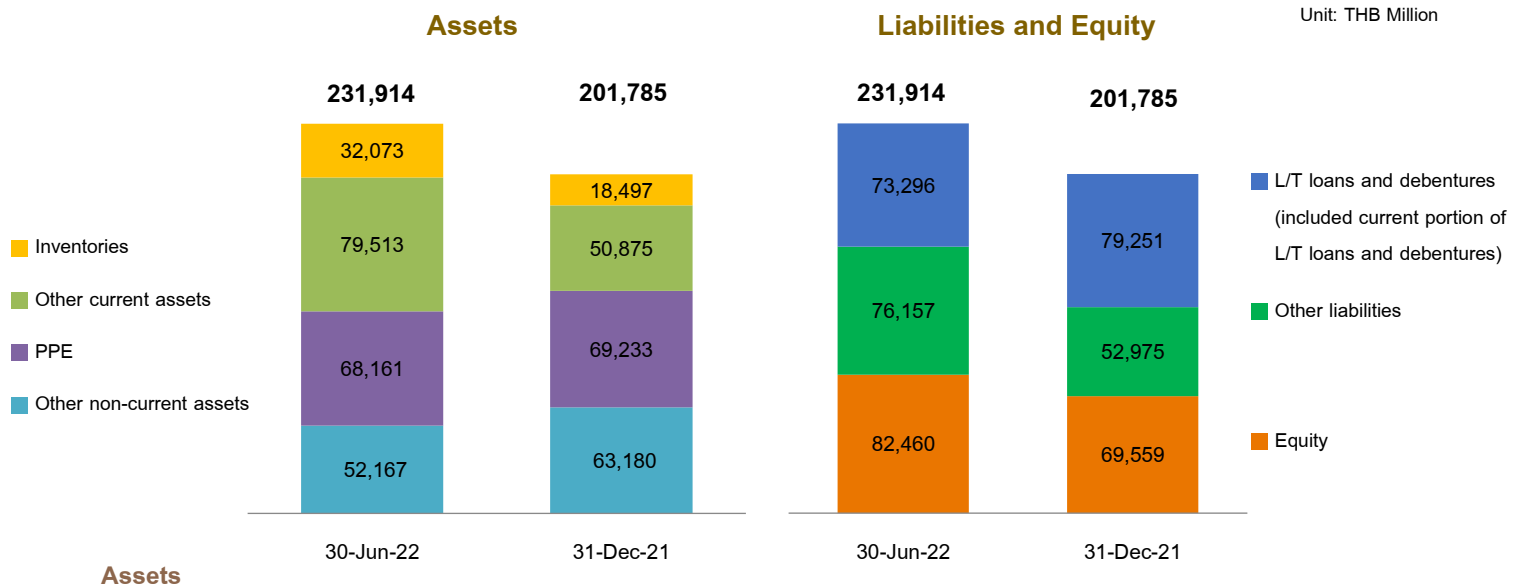
* Natural Resources Business Group changed the recording of OKEA's performance from share of profit (loss) to consolidated method since Q3/2021.

Performance of the Natural Resources Business Group in Q2/2022 recorded an EBITDA of THB 3,541 million, a decline of THB 710 million compared to Q1/2022, due to lower OKEA's performance. This was mainly attributed to a decline 54% QoQ in price of gas sold to the United Kingdom, which is the main market for OKEA. Of which price was in line with the price of natural gas sold in the United Kingdom. As a result, OKEA's revenue declined by 19% QoQ. Although average liquid prices remained highly volatile in this quarter and price increased 12% QoQ. Also, sales volume increased 3% QoQ, mainly from Yme and Draugen fields.

The performance of the Natural Resources Business Group in Q2/2022 increased in EBITDA of THB 3,265 million when compared to Q2/2021, mainly from the company group's change in recording method of investment in OKEA from associated company to subsidiary resulting in recognition of operating results through consolidated financial statements from 1st July 2021. As a result, Natural Resources Business Group's EBITDA for Q2/2022 increased significantly. However, when considering only OKEA's operating results, EBITDA increased 205% YoY, mainly from the increase in liquid and gas prices due to tight supply conditions from ongoing conflict between Russia and Ukraine as well as higher global energy demand following the easing of COVID-19 measures in many countries. Moreover, sales volume increased by 22% YoY, mainly from the Gjøa and Yme field. Of which Yme field started production since the end of October 2021.



Statement of Financial Position



Assets

As of 30th June 2022, the company and its subsidiaries had total assets in the amount of THB 231,914 million, an increase of THB 30,128 million when compared to 31st December 2021, changes in assets are as follow:

- Inventories increased by THB 13,576 million, mainly from the company as the increase in crude and product volume and cost of oil inventory per unit.
- Other current assets increased by THB 28,638 million, mainly from
 - Cash and cash equivalents increased by THB 2,522 million, Details are stated in analysis of the Cash Flow Statement.
 - Short-term investments increased THB 7,235 million, mostly from BCPG and BBGI's fixed deposit.
 - Trade and other current receivables increased THB 10,016 million, mainly from an increase in trade account receivable of the company and BCPT as sales volume and average selling price of refined oil product increased. Also, other current receivables increased from cash collateral deposits which was due to loss from fair value measurement of crude and product oil price hedging contract and receivable from Revenue Department related to VAT.
 - Oil fuel fund subsidies receivable increased THB 8,721 million, mainly from the government's increase in diesel subsidy rate.
- Property, plant and equipment net decreased by THB 1,072 million from (1) investment during the period of THB 3,013 million, mainly from (1.1) Power Plant Business invested in solar power plant projects in Japan by THB 1,251 million and (1.2) OKEA invested in Draugen, Hasselmuus and Yme field, and also increasing stake in Ivar Aasen field of THB 1,217 million (2) reversal of asset impairment of THB 761 million (3) effect of financial statement translation resulting in decrease in asset value of THB 1,504 million and (4) depreciation for the period was THB 3,349 million.



Statement of Financial Position

4. Other non-current assets main items consist of right of use assets, intangible assets and indemnification assets. Other non-current assets decreased by THB 11,013 million, mainly from BCPG's disposal of the whole investment in SEGHPL in Q1/2022.

Liabilities

As of 30th June 2022, the company and its subsidiaries had total liabilities THB 149,453 million, an increase of THB 17,227 million, changes in liabilities are as follow:

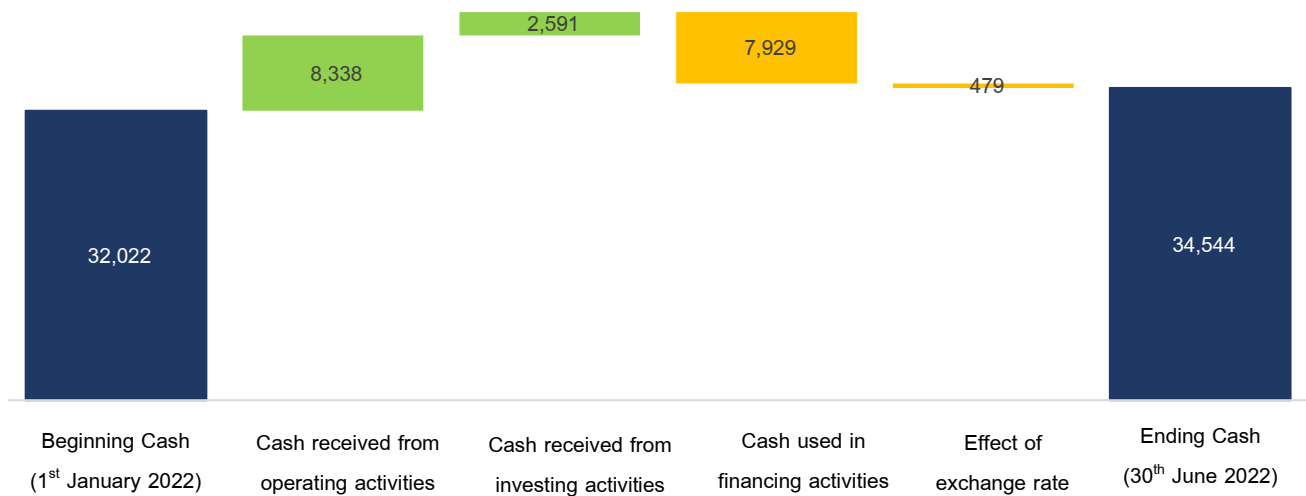
1. Long-term loans and debentures (included current portion of long-term loans and debentures) decreased by THB 5,954 million from (1) the company's debenture repayment of THB 4,000 million (2) OKEA's bond buy-back of THB 1,445 million (3) loan repayment of THB 3,878 million (4) additional loan drawdown of THB 2,823 million and (5) impact of exchange rate resulting in higher liability of THB 1,059 million.
2. Other liabilities increased by THB 23,182 million, mainly occurred from
 - Trade and other current payables rose by THB 13,218 million, mainly from the company and BCPT's trade accounts payable from high purchase volume as well as average purchase price.
 - Other current financial liabilities increased by THB 5,905 million, mainly due to loss from derivatives of the company.
 - Deferred tax liabilities increased by THB 2,007 million, mainly from OKEA as a result of Norway's Special Petroleum Tax amendment since 1st January 2022.

Equity

As of 30th June 2022, the company and its subsidiaries had Total Equity in the amount of THB 82,460 million, an increase of THB 12,901 million. Mainly from (1) the profit for the period of THB 10,993 million (2) changes in ownership interests in subsidiaries of THB 4,005 million (3) dividend paid by THB 1,872 million and (4) coupon payment on perpetual subordinated debentures by THB 249 million. Total equity attributable to owners of the parent was THB 62,042 million, and book value per share (excluded perpetual subordinated debentures) was THB 38.38.

Statement of Cash Flows

Unit: THB Million



As of 30th June 2022, the company and its subsidiaries had Cash and cash equivalents in the amount of THB 34,544 million, details of each activity are as follows:

Net cash received from operating activities in the amount of THB 8,338 million which was derived from (1) profit for the period by THB 10,993 million (2) adjustments the net gain transactions by THB 19,515, in which the main activities that affected (2.1) an increase in cash flow items were tax expense by THB 8,380 million, unrealized loss from derivatives by THB 5,119 million, depreciation and amortization by THB 4,741 million, finance costs by THB 1,879 million and unrealised loss on foreign exchange by THB 1,467 million (2.2) a decrease in cash flow item was gain from sale of investment in associated company by THB 2,031 million (3) change in net operating assets and operating liabilities resulted in cash flow by THB 19,808 million, and (4) taxes paid by THB 2,362 million.

Net cash received from investing activities of THB 2,591 million, mainly due to cash received from sales investment associates of THB 14,551 million while, cash paid for (1) short-term investments of THB 7,273 million and (2) property, plant and equipment of THB 2,908 million which details are aforementioned in assets section (3) intangible assets of THB 553 million (4) business acquisition of THB 503 million and (5) right-of-use assets of THB 459 million.

Net cash used in financing activities of THB 7,929 million, mostly from cash paid for (1) repayment of short-term and long-term loans from financial institutions by THB 5,130 million (2) redemption of debentures by THB 5,117 million (3) dividends paid by THB 1,872 million and (4) finance costs by THB 1,493 million while cash received from (1) subsidiaries' share capital by THB 3,991 million and (2) long-term loans from financial institutions by THB 2,816 million.

Financial Ratios

| | Q2/2022 | Q1/2022 | Q2/2021 | 6M2022 | 6M2021 |
|---------------------------------|---------|---------|---------|--------|--------|
| Profitability Ratios (%) | | | | | |
| Gross Profit Margin | 21.74% | 17.75% | 8.55% | 19.94% | 9.82% |
| EBITDA Margin | 15.00% | 19.86% | 9.75% | 17.20% | 10.59% |
| Net Profit Margin | 6.55% | 7.97% | 4.74% | 7.19% | 5.55% |
| Return on Equity (ROE) | 23.40% | 17.96% | 7.67% | | |
| Efficiency Ratio (%) | | | | | |
| Return on Assets (ROA) | 16.66% | 13.45% | 5.26% | | |

| | 30 Jun 2022 | 31 Mar 2022 | 30 Jun 2021 |
|---|-------------|-------------|-------------|
| Liquidity Ratios (Times) | | | |
| Current Ratio | 1.97 | 2.19 | 1.94 |
| Quick Ratio | 1.19 | 1.46 | 1.07 |
| AR Turnover | 24.03 | 23.67 | 27.71 |
| Collection Period (Days) | 15 | 15 | 13 |
| AP Turnover | 14.67 | 16.71 | 25.74 |
| Payment Period (Days) | 25 | 22 | 14 |
| Leverage Ratios (Times) | | | |
| Debt to Equity | 1.81 | 1.78 | 1.32 |
| Interest bearing Debt to Equity | 1.03 | 1.11 | 1.06 |
| Net Interest-bearing Debt to Equity | 0.52 | 0.49 | 0.80 |
| Release of Debenture Ratio (Times) | | | |
| Net Debt to Equity | 0.47 | 0.45 | 0.66 |

Financial Ratios Calculation

Profitability Ratios

- Gross Profit Margin (%) = $\text{Gross Profit} / \text{Revenue from sale of goods and rendering of services}$
- EBITDA Margin (%) = $\text{EBITDA} / \text{Revenue from sale of goods and rendering of services}$
- Net Profit Margin (%) = $\text{Profit attributable to owners of the parent} / \text{Revenue from sale of goods and rendering of services}$
- Return on Equity (%) = $\text{Profit attributable to owners of the parent} / \text{Total Equity attributable to owners of the parent (Average)}$

Efficiency Ratio (%)

- Return on Assets (%) = $\text{EBIT} / \text{Total asset (Average)}$

Liquidity Ratios (Times)

- Current Ratio (Times) = $\text{Current asset} / \text{Current liabilities}$
- Quick Ratio (Times) = $(\text{Cash \& Equivalents} + \text{Short-term investments} + \text{Trade and other account receivable}) / \text{Current liabilities}$



Financial Ratios

- Accounts Receivable Turnover (Times) = $\frac{\text{Revenue from sale of goods and rendering of services}}{\text{Accounts receivable before doubtful debt (Average)}}$
- Collection Period (Days) = $365 / \text{Account receivable turnover}$
- Accounts Payable Turnover (Times) = $\frac{\text{Cost of sale of goods and rendering of services}}{\text{Accounts payable (Average)}}$
- Payment Period (Days) = $365 / \text{Account payable turnover}$

Financial Policy Ratios (Times)

- Debt to Equity (Times) = $\frac{\text{Total debt}}{\text{Equity}}$
- Interest Bearing Debt to Equity (Times) = $\frac{\text{Interest bearing debt}}{\text{Total equity}}$
- Net Interest Bearing Debt to Equity (Times) = $\frac{(\text{Interest bearing debt} - \text{Cash and cash equivalents} - \text{Short-term investments})}{\text{Total equity}}$

Issuance of Debenture Ratio (Times)

- Net Interest Bearing Debt to Net Equity (Times) = $\frac{(\text{Interest bearing debt} - \text{Cash and cash equivalents} - \text{Short-term investments})}{(\text{Total equity} - \text{Unrealized gain/loss from derivatives} - \text{Unrealized gain/loss on foreign exchange} - \text{Inventory gain/loss})}$

Note:

1/ Average total equity attributable to owners of the parent

- Yearly = $\frac{(\text{Total equity attributable to owners of the parent of the year before} + \text{Total Equity attributable to owners of the Company of this year})}{2}$
- Quarterly = $\frac{(\text{Total equity attributable to owners of the parent of the quarter of the year before} + \text{Total equity attributable to owners of the parent of the quarter this year})}{2}$

2/ Average total assets

- Yearly = $\frac{(\text{Total assets of the year before} + \text{Total assets of the Company of this year})}{2}$
- Quarterly = $\frac{(\text{Total assets of the quarter of the year before} + \text{Total assets of the quarter this year})}{2}$

3/ The numerator of ROE is defined as the Profit attributable to owners of the parent and have to be annualized.

4/ The numerator of ROA is defined as EBIT and have to be annualized.

5/ Average accounts receivable before doubtful debt

- Yearly = $\frac{(\text{Accounts receivable before doubtful debt of the year before} + \text{Accounts receivable before doubtful debt of the Company of this year})}{2}$
- Quarterly = $\frac{(\text{Accounts receivable before doubtful debt of the quarter of the year before} + \text{Accounts Receivable before doubtful debt of the quarter this year})}{2}$

6/ Average accounts payable

- Yearly = $\frac{(\text{Accounts payable of the year before} + \text{Accounts payable of the Company of this year})}{2}$
- Quarterly = $\frac{(\text{Accounts payable of the quarter of the year before} + \text{Accounts payable of the quarter this year})}{2}$

7/ Interest bearing debt defined as Short-term loans + Long-term loans (including current portion of long-term loans) + Debentures (including current portion of long-term debentures) + Lease liabilities (including current portion of lease liabilities)



Economic Outlook

The global economy is expected to slow in Q3/2022 with economic headwinds from rising inflation worldwide and signals from the US Federal Reserve to accelerate monetary policy tightening by hiking up policy rate which would increase the risk of a global recession. In addition, the IMF forecasts that high inflation will persist until 2023 and will start to ease once policy rate hikes of central banks around the world take effect. The IMF revised down its global economic forecast in 2022 to 3.6% from the previous forecast of 4.4%.

Thai economy in Q3/2022 will face inflationary pressures along with the global economy. Thailand's inflation rate in June stood at 7.7% up from 7.1% in the previous month. The Monetary Policy Committee views that the rise in inflation have been primarily caused by cost-push factors on the supply side and the Thai economy remain fragile; therefore, policy rate hike will be gradual to minimize pressures on the economic recovery. However, Thailand's export sector expanded well due to rising prices and the recovery of tourism sector due to the relaxation of border controls in Thailand. In addition, the depreciation of the baht is expected to help increase the number of foreign tourists toward the end of the year.

Crude Oil Price Outlook

The International Energy Agency (IEA) expects global crude oil demand in 2022 to reach 99.2 million barrels per day, an increase of 1.7 million barrel per day from 2021 which is lower than previous forecast of 1.9 million barrel per day due to demand destruction from high prices which lower demand for crude oil. However, the IEA expects global oil market to become over supplied as OPEC+ and the US gradually increase production during Q2-Q4 of 2022.

Average Dubai crude oil price is expected to move between 90 - 110 \$/BBL in Q3/2022. As excess supply in the second half of the year according to the IEA's forecast still faces uncertainties. Although Libya is restarting its oil exports and production, reserve production from OPEC+ remains at low level. Also, nuclear negotiations between the US and Iran have not reach a successful conclusion resulting supply from Iran is still unable to return to the market. In addition, refineries' utilization rate remains elevated to support high demand for refined oil products during summer travel season.

Average Dated Brent and Dubai spread (DTD - DB) is expected around 5.0-8.0 \$/BBL in Q3/2022, due to high utilization rate of refineries around the world. Meanwhile, European refineries are increasing their purchases of North Sea crude which is light crude for replacing purchases of Russian crude oil. In addition, the crude oil production rates in Libya is uncertain as the country started to bring production back. Moreover, demand for light crude is likely to increase after recovery in aviation demand from the easing of travel restrictions.

It is expected that Dubai crude cracking margin in Singapore is likely to decline from Q2/2022, due to the opening of new refineries and refineries that have been postponed opening to this year. In addition, refining capacity around the world remained high including Chinese refineries which received higher refined oil export quotas. On the demand side, gasoline demand has begun to be pressured by high oil prices. However, refining margins are expected to continue to be supported by crack spread of middle distillates (diesel, jet (kerosene)). If Russia cuts or stops gas supplies to Europe, European diesel demand will likely increase. In addition, demand for jet (kerosene) is likely to continue to recover, due to the resumption operation of the global aviation industry.

