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Bangchak Corporation Plc.

Management Discussion & Analysis of Business Operation

For the 2nd quarter period
ended June 30, 2024



S&P Global



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Statement of Financial Position,
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Executive Summary

Key Financial Data

Unit: (THB Million)	Q2/2023	Q1/2024	Q2/2024	QoQ	YoY	1H/2023	1H/2024	YoY
Total Revenue^{1/}	68,023	135,382	158,057	17%	>100%	148,561	293,438	98%
Accounting EBITDA	6,628	15,308	10,764	-30%	62%	17,620	26,072	48%
Refinery and Oil Trading Business	1,373	4,404	2,048	-53%	49%	5,402	6,452	19%
Marketing Business	553	1,899	2,196	16%	>100%	1,290	4,095	>100%
Clean Power Business	989	1,411	1,013	-28%	2%	1,841	2,424	32%
Bio-Based Product Business	138	284	209	-26%	51%	245	493	>100%
Natural Resources Business	3,701	7,404	5,670	-23%	53%	9,115	13,074	43%
Eliminations and others	(126)	(94)	(372)	<-100%	<-100%	(273)	(466)	-70%
Profit attributable to owners of the parent	458	2,437	1,824	-25%	>100%	3,199	4,261	33%
Earnings (Loss) per share (Baht)	0.24	1.68	1.23			2.16	2.91	

Key Performance by Business

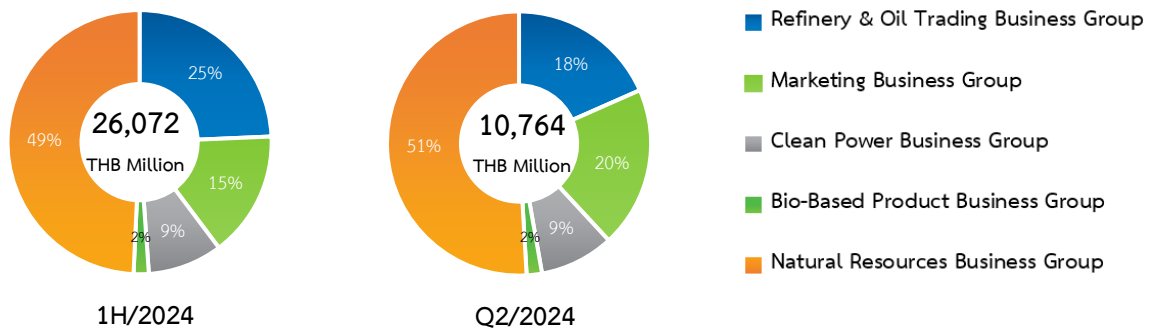
Refinery and Oil Trading Business Group	Q2/2023	Q1/2024	Q2/2024	QoQ	YoY	1H/2023	1H/2024	YoY
Average Crude Run (KBD)	118.6	271.7	230.4	-15%	94%	121.7	251.0	>100%
Utilization Rate (%)	40%	92%	78%			41%	85%	
Operating GRM (US\$/BBL)	4.67	6.08	2.62	(3.46)	(2.05)	8.10	4.47	(3.63)
Total GRM (US\$/BBL)	4.50	6.12	4.27	(1.85)	(0.23)	7.36	5.25	(2.11)
Marketing Business Group								
Sales Volume under Bangchak Group (Million Liters)	1,578	3,540	3,379	-5%	>100%	3,191	6,919	>100%
- Retail (via Service Stations)	1,181	2,156	2,080	-4%	76%	2,367	4,236	79%
- Industrial	397	1,384	1,299	-6%	>100%	824	2,683	>100%
Marketing Margin under Bangchak Group (Baht/Liter)	0.76	0.87	0.95	9%	24%	0.77	0.91	18%
No. of Service Station (Sites)	1,361	2,217	2,214	(3)	853	1,361	2,214	853
Clean Power Business Group								
Electricity Sales Volume (GWh)	393.5	1,682.5	1,816.5	8%	>100%	625.7	3,499.0	>100%
Bio-Based Product Business Group								
Sales Volume (Million Liters)	91.4	145.8	156.6	7%	71%	186.5	302.5	62%
- Ethanol	25.8	25.4	40.5	59%	57%	53.8	66.0	23%
- Biodiesel	65.6	120.4	116.1	-4%	77%	132.7	236.5	78%
Natural Resources Business Group								
Production Volume-Net to OKEA (kboepd)	22.78	46.58	33.29	-29%	46%	30.32	39.94	32%
Realized Liquids Price (US\$/BBL)	70.1	82.0	79.7	-3%	14%	75.1	80.9	8%
Realized Gas Price (US\$/BBL)	81.2	55.1	65.7	19%	-19%	98.3	60.4	-39%

Note: Bangchak Sriracha Plc. ("BSRC") consolidated since September 1, 2023.

1/ Elimination and others reflected transactions between Refinery and Marketing businesses

Executive Summary

Accounting EBITDA breakdown by business unit



In **1H/2024**, Bangchak Group reported record-high total revenue from sales and services of THB 293,438 million, surged by 98% YoY with an EBITDA of THB 26,072 million (+48% YoY). The **Refinery and Oil Trading Business Group** gained traction from a performance recognition of BSRC, which became part of the Bangchak Group since 1 Sep 2023. The average crude run significantly improved, attributed to Sriracha Refinery consistently achieving record-high average production capacity. This increased capacity offset a lower crude run in Phra Khanong Refinery, which underwent 27-day turnaround maintenance from 7 May to 2 Jun 2024. Meanwhile, geopolitical tensions in the Middle East and the potential escalation of the Russia-Ukraine war have fueled crude oil price surges—resulting in Bangchak Group’s inventory gain of THB 438 million (including NRV). This gain helped counterbalance a decline in operating GRM, compared to 1H/2023, caused by lower crack spreads across all products amidst somber global demand and economic slowdown. The **Marketing Business Group** achieved a record-high total sales volume across all channels, reaching 6,919 million liters and marking a growth of over 100% YoY. The company remains committed to delivering premium products and services to customers through a nationwide network of 2,214 service stations. The **Bio-Based Business Group**’s performance was driven by higher sales volume, consistent with the Marketing Business Group’s expansion. The **Clean Power Business Group** reported increased revenue from electricity sales and a full half-year performance recognition of investments in the four USA natural gas power plants (Carrol County, South Field, Hamilton Liberty, and Patriot), with a combined production capacity of 857 megawatts. Additionally, the company invested in oil terminals, seaports, and fuel pipelines in Petchaburi province. These activities helped mitigate impacts from the conclusion of Thailand’s Adder program for solar power plants. Furthermore, the group recognized gains from the sale agreement of nine solar power plants in Japan (after tax), totaling THB 2,159 million. The **Natural Resource Business Group** continued to expand its investments, reporting a full half-year performance recognition of the Statfjord field—acquired by OKEA on 29 Dec 2023—and the Hasselmus field that commenced commercial operations (COD) in October 2023. These yielded a **total profit attributable to owners of the parent of THB 4,261 million** (+33% YoY) and **earnings per share of THB 2.91**.

In **Q2/2024**, Bangchak Group recorded total revenue from sales and services of THB 158,057 million (+17% QoQ, +>100%YoY) and an EBITDA of THB 10,764 million (-30% QoQ, +62% YoY). The **Refinery and Oil Trading Business Group** faced challenges from declining product prices, as weak economic conditions hampered global demand, leading to a contraction in operating GRM. The average crude run also shrank due to a turnaround maintenance at Phra Khanong Refinery. Still, Sriracha Refinery’s record-high production capacity of 154.2 KBD helped bolster the overall production

Executive Summary

capacity of Bangchak Group. Meanwhile, geopolitical conflicts continued to drive up crude oil prices, resulting in the group's inventory gains of THB 810 million (including NRV). The total sales volume of the **Marketing Business Group** slightly weakened, yet marketing margins improved QoQ, as the company strategically chose to sell products through channels with competitive marketing margins during Phra Khanong Refinery's turnaround maintenance. Although the sales volume of the **Bio-Based Business Group** increased, there were pressures from the spread between selling prices and the cost of raw materials, which have softened. The **Natural Resource Business Group** experienced a reduction in sales volume owing to lower sales than contracted production capacity (Underlift) and a 60-day scheduled maintenance at Statfjord A. Apart from that, the **Clean Power Business Group** recognized gains (after tax) of THB 2,159 million from the sale of nine solar power plants in Japan. This resulted in **THB 1,824 million in total profit attributable to owners of the parent** (-25% QoQ, +>100% YoY) and **THB 1.23 in earnings per share**.

Over the past years, Bangchak Group has strengthened its business via investments in high-potential projects and by forging synergies with a wide array of businesses. This strategy has yielded outstanding investment returns. Particularly in **1H/2024, Bangchak Group recognized an accumulated synergy from performance totaling THB 3,000 million**, already achieving the EBITDA synergy target of no less than THB 2,500 million in 2024. Looking ahead, we aspire to continue improving to meet the annual EBITDA synergy target of THB 3,000 million over the coming years.

This success not only highlights Bangchak Group's robust performance but also remarkable growth potential. The company was recognized among **Asia-Pacific Climate Leaders 2024 by Financial Times** and Statista, becoming the first and only Thai company in the energy and utilities sector to be assessed and included in the ranking. Apart from that, Bangchak was ranked among **the Fortune Southeast Asia 500** and was selected for inclusion in the **SET50** Index during 1 Jul - 31 Dec 2024, reflecting stakeholders' positive sentiment towards Bangchak Group's long-term growth prospects. This achievement is attributed to collective efforts and strategies to strengthen the company through investment diversification, formulation of strategies that cater to each business segment, and pioneering the new energy business. Apart from that, Bangchak received the **Best Employer Thailand 2024** award, the first and only company in Thailand's Oil Industry to receive the honor, as it progresses towards becoming Bangchak 100X (a sustainable organization for over 100 years), all while having in place our commitment to sustainable business practices.

To sum up the **Financial Position as of 30 June 2024**, Bangchak Group recorded **cash and cash equivalents of THB 45,284 million, total assets of THB 353,122 million**, (a THB 12,693 million increase from 31 December 2023) **Total liabilities of THB 248,715 million** (a THB 8,318 million increase). **Total equity of THB 104,407 million** (a THB 4,375 million increase). Total equity attributable to owners of the parent accounted for THB 75,397 million, whereas the Net Interest-Bearing Debt to Equity ratio remained solid at 0.84 times.

Other Important Events in Q2/2024 to present

April 2024

- On April 3, 2024, the Company and Sumitomo Corporation, a Chemical Solution Group, based in Japan, joined forces in a strategic partnership through a framework agreement for the purchase and sale of used cooking oil (UCO) and neat SAF. This inaugural strategic collaboration between the two companies seeks to establish a resilient and efficient UCO-to-SAF supply chain.
- On April 9, 2024, the subsidiary in Natural Resources Business Group, OKEA together with its partners made the Final Investment Decision to develop the Brasse petroleum field. It was anticipated to have petroleum reserves of approximately 24 million barrels of crude oil equivalent (MBOE), with OKEA's hold in a proportion of 39.2788%. As a result, OKEA's net 2P petroleum reserves have increased from approximately 83 MBOE to over 92 MBOE. This was anticipated to start production during 1H2027, with an estimated net production from this field at approximately 10,000 barrels of crude oil equivalent per day (BOEPD) within the first year of production. OKEA submitted a Plan for Development and Operation (PDO) to the Government authorities of Norway in April 2024 and renamed the petroleum field from "Brasse" to "Bestla" upon approval of the PDO.
- On April 11, 2024, the 2024 Annual General Meeting of Shareholders resolved to approve dividend payment for the second-half-year operations of 2023 at THB 1.50 per share, amounting to approximately THB 2,754 million. The dividend was paid on April 24, 2024. The total dividend payment for the year 2023 is THB 2.00 per share.
- On April 30, 2024, the subsidiary in Natural Resources Business Group, OKEA placed a new USD 125 million senior secured bond issue with a tenor of 4 years. The new bond will carry a fixed interest rate of 9.125% p.a.

May 2024

- On May 7, 2024, Phra Khanong Refinery was shut down for regular Turnaround Maintenance (TAM) from May 7, 2024, to June 2, 2024. The 27 day-period shutdown was the shortest TAM's duration, which was driven by the implementation of best practices, the integrating of experiences and experts from both Phra Khanong Refinery and Sriracha Refinery as well as the adoption of advanced technology and high-performance tools. Additionally, the Company expects to extend the frequency of TAM from every 2 year to every 4 year and the next regular TAM shall be scheduled in 2028.

June 2024

- On June 17, 2024, the Company was selected to become part of Thailand SET 50 Index (Top 50 stocks in terms of market capitalization) in the second half of 2024, which effective from July 1, 2024, onwards.
- On June 26, 2024, the subsidiary in Clean Power Business Group, BCPG collaborated with Kasikornbank PCL, issued unsubordinated and unsecured debentures without a debenture holder representative called Thailand's first "Bonds Plus Carbon Credit", offered to institutional investors, with total issuance of THB 2 billion. The debenture consists of 2 tranches: a 3-year debenture with an interest rate of 3.25% p.a. with a size of THB 1.2 billion and a 5-year debenture with an interest rate of 3.69% p.a. with a size of THB 0.8 billion. These debentures provide investors with an option to receive carbon credits certified by the

Other Important Events in Q2/2024 to present

Thailand Greenhouse Gas Management Organization (Public Organization) or renewable energy certificates certified by international organization, which can be used to offset greenhouse gas emissions, aiding in achieving carbon neutrality.

- On June 26, 2024, the subsidiary in Clean Power Business Group, BCPG fulfilled the conditions under the Sales and Purchase Agreements with Obton A/S's group to divest all of 9 solar power plant projects in Japan with a total installed capacity of 116.96 MW and already received the sales of shares and investments, including transferred the shares and investments to the Buyer.
- On June 28, 2024, the Company issued unsubordinated and unsecured debentures with a debenture holder representative, offered to institutional investors and/or high-net-worth investors, with total issuance of THB 10 billion. The debenture consists of 3 tranches: a 3-year debenture with an interest rate of 3.09% p.a. with a size of THB 2.5 billion, a 5-year debenture with an interest rate of 3.60% p.a. with a size of THB 2.5 billion, and a 10-year debenture with an interest rate of 4.03% p.a. with a size of THB 5 billion. These offered debentures attracted significant interest from investors with an overwhelming subscription more than 8 times of its initial target at THB 5 billion. The debentures were assigned a credit rating of "A" by TRIS Rating Co., Ltd.

July 2024

- On July 15, 2024, the subsidiary in Clean Power Business Group, BCPG completed the acquisition of shares in Pratumwan Smart District Cooling Company Limited ("PSDC") from Team Consulting Engineering and Management Public Company Limited. After completing the transaction, BCPG's shareholding increased from 44.00% to 51.16%. As a result, PSDC has changed its status to a subsidiary of BCPG.
- On July 31, 2024, the subsidiary in Refinery Business Group, BSRC issued its first debentures, unsubordinated and unsecured debentures without a debenture holder representative, offered to institutional investors, with total issuance of THB 4 billion. The debenture consists of 2 tranches: a 2-year zero-coupon debenture, with a yield of 3.14% p.a. with a par value of THB 2.5 billion, and a 3-year debenture with an interest rate of 3.16% p.a. with a size of THB 1.5 billion. These offered debentures attracted significant interest from investors with an overwhelming subscription more than 4 times of its initial target at THB 2 billion. The debentures were assigned a credit rating of "A" by TRIS Rating Co., Ltd.

August 2024

- On August 7, 2024, the subsidiary in Bio-Based Product Business Group, BBGI approved the purchase of 0.84 million shares in BBGI Biodiesel Co., Ltd. ("BBGI-BI"), representing 30% of the fully paid-up registered capital. The transaction is expected to be completed within the Q4/2024. Upon completion of the transaction, BBGI will hold 100% of the registered capital in BBGI-BI.

Crude Oil and Crack Spread Situation

Crude Oil and Crack Spread Situation

Crude Oil Price (US\$/BBL)	Q2/2023	Q1/2024	Q2/2024	QoQ	YoY	1H/2023	1H/2024	YoY
Dubai (DB)	77.59	81.22	85.34	4.12	7.75	78.92	83.26	4.34
Dated Brent (DTD)	78.05	83.16	84.97	1.81	6.92	79.66	84.06	4.40
DTD-DB	0.46	1.95	(0.37)	(2.32)	(0.83)	0.74	0.80	0.06
Crack Spread (US\$/BBL)	Q2/2023	Q1/2024	Q2/2024	QoQ	YoY	1H/2023	1H/2024	YoY
UNL95-DB	16.54	17.87	13.18	(4.69)	(3.36)	17.63	15.55	(2.09)
Jet (Kerosene)-DB	13.97	21.19	13.19	(8.00)	(0.78)	20.05	17.22	(2.83)
Gasoil (10 ppm)-DB	15.54	23.14	14.76	(8.38)	(0.78)	21.94	18.98	(2.96)
Low Sulfur Fuel Oil -DB	5.29	7.65	3.97	(3.68)	(1.32)	5.87	5.82	(0.05)

The average Dubai crude oil price in Q2/2024 rose by US\$4.12/BBL QoQ, driven by growing concerns over tightening global crude oil supply due to escalating conflicts in the Middle East. Israel's attack and Iran's retaliatory strike, coupled with the ongoing Russia-Ukraine war, have exacerbated market worries. Furthermore, the OPEC+ members decided to extend voluntary oil output cuts for another three months until the end of Q3/2024. Nonetheless, the crude oil and refined oil product reserves have been rising globally due to weak demand, resulting in a sharp drop in refining margin. Many refineries considered scaling down their crude run to ensure economic efficiency.

The average Dated Brent-Dubai spread (DTD-DB) in Q2/2024 plummeted by US\$2.32/BBL QoQ. The Dated Brent was pressured by weak refining margins, which weighed on crude run and crude oil demand. Meanwhile, the US continued to export crude oil to Europe, leading to an oversupply in the region. In contrast, the Dubai crude oil prices were supported by market concerns over heavy crude oil supply constraints, as OPEC+ extended its voluntary oil production cuts until the end of Q3/2024.

The spread between finished products and Dubai Price

- **Gasoline and Dubai crack spread** in Q2/2024, on average, declined QoQ. This was attributed to rising Chinese exports amidst a slowdown in domestic demand and falling Indonesian imports following the end of Ramadan. Furthermore, regional demand has been weak due to somber economic conditions and inflation observed in many countries, while refineries have maintained crude run at high levels.
- **Jet (Kerosene) and Dubai crack spread** in Q2/2024, on average, shrank QoQ. The decline was primarily due to higher supply from Asian refinery exports, particularly from China, while demand for aviation fuels remained stagnant.
- **Diesel and Dubai crack spread** in Q2/2024, on average, declined QoQ owing to an outstanding diesel supply in Asia, as subdued economic conditions and lower demand in Europe restrict diesel exports from Asian refineries.
- **Low-sulfur fuel oil and Dubai crack spread** in Q2/2024, on average, dropped QoQ. The lower crack spread was attributed to higher supply in Asia from low-sulfur fuel oil exports of refineries in Kuwait and Nigeria, while maritime demand for oil remained bleak. The weak gasoline market also hindered demand for low-sulfur fuel oil as a raw material for gasoline production.

Performance by Business Group



Refinery and Oil Trading Business Group

Refinery and Oil Trading Business Group Performance ^{1/}	Q2/2023	Q1/2024	Q2/2024	QoQ	YoY	1H/2023	1H/2024	YoY
Revenue (THB Million) ^{2/}	58,329	109,187	135,377	24%	>100%	124,303	244,564	97%
EBITDA (THB Million)	1,373	4,404	2,048	-53%	49%	5,402	6,452	19%
Average Crude Run (KBD)	118.6	271.7	230.4	-15%	94%	121.7	251.0	>100%
Utilization Rate (%)	40%	92%	78%			41%	85%	
Operating GRM (US\$/BBL)	4.67	6.08	2.62	(3.46)	(2.05)	8.10	4.47	(3.63)
- Operating GRM at Phra Khanong Refinery	4.67	7.39	2.44	(4.95)	(2.23)	8.10	5.43	(2.67)
- Operating GRM at Sriracha Refinery		5.03	2.71	(2.32)			3.84	
Oil Hedging (US\$/BBL)	1.85	0.46	0.61	0.15	(1.24)	2.50	0.53	(1.97)
Inventory Gain/(Loss) ^{3/} (US\$/BBL)	(2.02)	(0.42)	1.04	1.46	3.06	(3.23)	0.26	3.49
Total GRM (US\$/BBL)	4.50	6.12	4.27	(1.85)	(0.23)	7.36	5.25	(2.11)
Average FX (THB/USD)	34.64	35.82	36.87	1.05	2.23	34.36	36.35	1.99
Product Yield (%)								
LPG	2%	4%	5%	0.6%	3%	2%	4%	2%
Naphtha	0%	1%	1%	0.2%	0.9%	0%	1%	1%
Gasoline	19%	26%	26%	-0.6%	7%	19%	26%	7%
Jet (Kerosene)	11%	10%	10%	-0.3%	-1%	11%	10%	0%
Diesel	51%	43%	44%	0.7%	-8%	52%	43%	-8%
Non-Transportation fuels	0%	0%	0%	0%	0%	0%	0%	0%
Unconverted Oil (UO)	9%	4%	2%	-2%	-7%	9%	3%	-6%
Fuel Oil	8%	9%	10%	1%	2%	8%	10%	1%
Asphalt	0%	1%	1%	0.2%	1%	0%	1%	1%
Total Sales Volume by Market^{4/} (Million Liters)	2,002	4,358	4,071	-7%	>100%	4,091	8,429	>100%
Marketing Business	1,578	3,540	3,379	-5%	>100%	3,191	6,919	>100%
Petroleum traders in accordance with section 7	152	371	356	-4%	>100%	308	726	>100%
Export	273	448	337	-25%	24%	592	784	32%

Note: 1/ Business of Bangchak Sriracha Plc. ("BSRC") consolidated since September 1, 2023.

2/ Elimination and others reflected transactions between Refinery and Marketing businesses

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

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

In 1H/2024, the Refinery and Oil Trading Business Group recorded a total revenue of THB 244,564 million, an increase of 97% YoY. The EBITDA of THB 6,452 million, an increase 19% YoY, as a result of the following factors:

EBITDA +19% YoY

(+) Average crude run at Bangchak refineries significantly expanded to 251.0 KBD, thanks to the full half-year performance recognition of Sriracha Refinery, which continued to expand its crude run in 2024. This partially offset a shrinking average crude run at Phra Khanong Refinery due to a 27-day turnaround maintenance from 7 May to 2 Jun 2024.

Performance by Business Group

EBITDA +19% YoY

(+) Recognized an inventory gain of US\$0.26/BBL, equivalent to THB 438 million (including NRV). This gain was mainly attributed to rising crude oil prices in line with the global market in 1H/2024, as ongoing geopolitical conflicts in the Middle East and the potential escalation of the Russia-Ukraine war tightened the global crude oil supply. Furthermore, the global market prices were supported by the anticipated OPEC+ extension of voluntary oil output cuts into Q3/2024. In contrast, 1H/2023 saw an inventory loss of US\$3.23/BBL (equivalent to THB 2,443 million) due to easing crude oil supply and falling prices.

(-) Operating GRM decreased by US\$3.63/BBL to US\$4.47/BBL, mainly attributed to lower crack spreads across all products amidst bleak global market conditions. Concerns over the global economic slowdown have resulted in a weak rebound in oil demand, while increased outstanding supply emerged as another pressure since several refineries resumed operations after the maintenance shutdown.

(-) Recognized a lower gain from forward contracts of crude oil and oil products (including fair value measurement per the accounting standards) totaling US\$0.53/BBL, compared to a gain of US\$2.50/BBL in 1H/2023.

BCPT, a subsidiary in the Refinery and Oil Trading Business Group, reported a total trade volume of crude oil and refined oil products growing by 33.6 million barrels (+>100% YoY) to 53.4 million barrels. The growth was mainly driven by crude procurement for two refineries within the Bangchak Group. BCPT also signed a long-term purchase contract with foreign partners to ensure competitive sales volume despite challenging market conditions, thus resulting in a remarkable growth of 71% YoY in crude oil overseas trading (out-out). Apart from that, BCPT has consistently broadened its out-out sales networks—for crude and refined oil products—to accommodate business growth and diversification ahead.

In Q2/2024, the Refinery and Oil Trading Business Group recorded a total revenue of THB 135,377 million, an increase of 24% QoQ and +>100% YoY. The EBITDA of THB 2,048 million, a decline of 53% QoQ but an increase of 49% YoY, as a result of the following factors:

EBITDA -53% QoQ	EBITDA +49% YoY
<p>(-) Average crude run at Bangchak’s refineries plummeted to 251.0 KBD, owing to a 27-day turnaround maintenance at Phra Khanong Refinery. However, Sriracha Refinery achieved a record-high average crude run of 154.2 KBD, partially counterbalancing an overall decline.</p> <p>(-) Operating GRM dropped by US\$3.46/BBL to US\$2.62/BBL as crack spreads of all products weakened alongside the global market condition. The resumption of refinery operations post-maintenance season also led to higher supply and further weighed on crack spreads. Still, the cost</p>	<p>(+) Average crude run at Bangchak’s refineries significantly improved, thanks to the performance recognition of Sriracha Refinery—an entry not yet recorded in Q2/2023.</p> <p>(+) Recognized an inventory gain in Q2/2024 as market prices of crude oil increased, contrasting with an inventory loss of US\$2.02/BBL (equivalent to THB 757 million) in Q2/2023.</p>

Performance by Business Group

EBITDA -53% QoQ	EBITDA +49% YoY
<p>of crude premium over DTD declined from Q1/2024, partly mitigating these impacts.</p> <p>(+) Recognized an inventory gain of US\$1.04/BBL or equivalent to THB 810 million (including NRV), as escalating geopolitical tensions in the Middle East drove up concerns over tighter global supply. In contrast, Q1/2024 recognized an inventory loss since high purchasing prices in Q4/2023 heightened the cost of crude oil input.</p> <p>(+) Recognized a gain from forward contracts of crude oil and refined oil products (including fair value measurement per the accounting standards) totaling US\$0.61/BBL, as crack spreads of contracted products trended downward.</p>	<p>(-) Operating GRM ebbed from weak demand, as previously mentioned, while Bangchak refineries have maintained high production capacity.</p> <p>(-) Recognized a lower gain from forward contracts of crude oil and refined oil products (including fair value measurement per the accounting standards) at US\$0.61/BBL, compared to a US\$1.85/BBL gain in Q2/2023.</p>

Performance by Business Group



Marketing Business Group

Marketing Business Group Performance ^{1/}	Q2/2023	Q1/2024	Q2/2024	QoQ	YoY	1H/2023	1H/2024	YoY
Revenue (THB Million) ^{2/}	45,434	100,385	100,151	-0.2%	>100%	94,654	200,537	>100%
EBITDA (THB Million)	553	1,899	2,196	16%	>100%	1,290	4,095	>100%
Marketing Margin under Bangchak Group (Baht / liter)	0.93	0.89	0.89	0%	-4%	0.93	0.89	-4%
Net Marketing Margin under Bangchak Group ^{3/} (Baht / liter)	0.76	0.87	0.95	9%	25%	0.77	0.91	18%
Sales Volume under Bangchak Group (Million Liters)	1,578	3,540	3,379	-5%	>100%	3,191	6,919	>100%
- Retail (via Service Stations)	1,181	2,156	2,080	-4%	76%	2,367	4,236	79%
- Industrial	397	1,384	1,299	-6%	>100%	824	2,683	>100%
Sales Volume by Product (Million Liters)	1,578	3,540	3,379	-5%	>100%	3,191	6,919	>100%
LPG	29	145	144	0%	>100%	64	289	>100%
Gasoline	447	931	915	-2%	>100%	878	1,846	>100%
Jet Fuel	202	381	353	-7%	75%	369	735	99%
Diesel	849	1,895	1,803	-5%	>100%	1,778	3,698	>100%
Fuel Oil and Others	50	188	163	-13%	>100%	103	351	>100%
Unit: Sites								
Service Station	1,361	2,217	2,214	(3)	853	1,361	2,214	853
- under Bangchak operation	1,361	1,388	1,393	5	32	1,361	1,393	32
- under BSRC operation	-	829	821	(8)	821	-	821	821
EV Chargers	199	299	325	26	126	199	325	126
Inthanin Coffee Shop	1,023	1,003	1,005	2	(18)	1,023	1,005	(18)

Note: 1/ Business of Bangchak Sriracha Plc. ("BSRC") consolidated since September 1, 2023

2/ Elimination and others reflected transactions between Refinery and Marketing businesses

3/ Net Marketing Margin (including Inventory gain/(loss) and NRV)

In 1H/2024, the Marketing Business Group recorded a total revenue of THB 200,537 million (increased by >100% YoY) and EBITDA of THB 4,095 million (increased by >100% YoY), as a result of the following factors:

EBITDA +>100% YoY

(+) Total sales volume rose to 6,919 million liters (+>100% YoY) in line with the expanding networks of Bangchak service stations and broader industrial client base, supported by the full half-year performance recognition of BSRC in 2024. Additionally, Bangchak Group has adjusted its marketing strategies to effectively target all customer segments, thereby bolstering sales volume at service stations.

(+) Bangchak Group's net marketing margins increased to THB 0.91/liter, despite the turnaround maintenance at Phra Khanong Refinery from 7 May to 2 June 2024. During the maintenance period, the company strategically selected products and sales channels with competitive marketing margins, thus contributing to the improved figures. This improvement also resulted from an inventory gain in 1H/2024, contrasting with an inventory loss in 1H/2023.

Performance by Business Group

In Q2/2024, the Marketing Business Group recorded a total revenue of THB 100,151 million (-0.2% QoQ, +>100% YoY) and EBITDA of THB 2,196 million (+16% QoQ and +>100% YoY), as a result of the following factors:

EBITDA +16% QoQ	EBITDA +>100% YoY
<p>(+) Bangchak Group's net marketing margins improved to THB 0.95/liter, mainly attributed to a strategic focus on selecting products and sales channels with competitive margins during the refinery maintenance. Higher margins were also driven by this quarter's inventory gain, in contrast to an inventory loss in Q1/2024.</p>	<p>(+) Total sales volume rose by >100% YoY, with increases observed in both retail and industrial segments, which mostly reflected the recognition of sales from BSRC. Also, the retail segment consistently implemented sales strategies, service station expansion, and marketing promotions.</p>
<p>(-) Total sales volume of the Marketing Business Group receded by 5% QoQ to 3,379 million liters as oil demand weakened with the onset of rainy season. Sales volume in the industrial segment also shrank due to lower aviation fuel sales from seasonal factors.</p>	<p>(+) Net marketing margins rose by 25% YoY, benefiting from strategic management as previously mentioned and the recognition of an inventory gain, in contrast to an inventory loss in Q2/2023.</p>

Bangchak Group is committed to delivering high-quality oil products and enhancing the retail experience through an in-depth understanding of our clients, steered by the vision of becoming the **“Greenovative Destination for Intergeneration.”** The company aims to offer a diverse range of products and premium services, making Bangchak stations the preferred destination for every customer segment. In May 2024, Bangchak Group partners with leading companies to launch pet retail services under the brand ‘PET ALL MY LOVE.’ This store serves as a pet wellness center, offering a variety of products and services for pets, including a pharmacy with veterinarians available for consultation. With the ‘Love-Centric Experience’ concept, Bangchak strives to provide convenience close to home for pet lovers and bring new experiences through premium products and services centered around the needs of pets and pet parents, along with wide-ranging services at Bangchak stations.



As of the end of Q2/2024, Bangchak Group operates a total of 2,214 service stations and 325 EV chargers nationwide. The Marketing Business Group emphasizes delivering high-quality products, including Premium 97 and Premium Diesel, while also expanding non-oil businesses, such as Inthanin Coffee branches, to accommodate the needs of our clients. Aside from that, we seek to diversify product offerings, broaden the coverage of convenience stores and partner outlets at Bangchak service stations, and increase the market share of FURiO motor oil in the lubricants market.

Performance by Business Group



Clean Power Business Group

Clean Power Business Performance (THB Million)	Q2/2023	Q1/2024	Q2/2024	QoQ	YoY	1H/2023	1H/2024	YoY
Revenue from sales and rendering of services	1,053	1,194	1,083	-9%	3%	2,110	2,277	8%
EBITDA (including share of profit from investment)	989	1,411	1,013	-28%	2%	1,841	2,424	32%
- Share of profit (loss) from associated companies	(20)	447	(158)	<-100%	<-100%	20	289	>100%
Contracted Capacity (Equity MW)								
Solar Power Plant - Thailand	174.7	175.9	183.9	5%	5%	174.7	183.9	5%
Wind Power Plant - Thailand	9.0	9.0	9.0	0%	0%	9.0	9.0	0%
Solar Power Plant - Japan ^{1/}	79.7	79.7	-	N/A	N/A	79.7	-	N/A
Hydropower Plant - Lao PDR	114.0	114.0	114.0	0%	0%	114.0	114.0	0%
Wind Power Plant - Philippines	14.4	14.4	14.4	0%	0%	14.4	14.4	0%
Natural Gas Power Plants - USA	151.0	857.0	857.0	0%	>100%	151.0	857.0	>100%
Total	542.8	1,250.0	1,178.3	-6%	>100%	542.8	1,178.3	>100%
Electricity Sales (GWh)								
Solar Power Plant - Thailand	84.1	83.8	86.3	3%	3%	168.6	170.1	1%
Wind Power Plant - Thailand	2.2	3.2	2.2	-31%	0%	5.3	5.4	2%
Solar Power Plant - Japan	35.0	23.7	34.1	44%	-3%	60.2	57.9	-4%
Hydropower Plant - Lao PDR	24.5	66.2	77.8	18%	>100%	24.5	144.0	>100%
Wind Power Plant - Philippines	4.4	14.8	6.2	-58%	41%	17.9	21.0	17%
Natural Gas Power Plants - USA	243.3	1,490.8	1,609.9	8%	>100%	349.6	3,100.0	>100%
Total	393.5	1,682.5	1,816.5	8%	>100%	625.7	3,499.0	>100%
Terminal and Pipeline throughput Capacity (Million Liters)								
Volume Through Oil Tank Terminal	704.7	694.1	705.4	2%	0.1%	704.7	699.8	-0.7%
Volume Through Pipeline	176.7	353.5	208.9	-41%	18%	176.7	281.2	59%

Note: 1/ On June 26, 2024, the Clean Power Business Group successfully divested all nine solar power plants in Japan, with a total contracted production capacity of 89.7 MW.

In 1H/2024, the Clean Power Business Group's revenue was THB 2,277 million, an increase of 8% YoY. The EBITDA was THB 2,424 million, an increase of 32% YoY, with factors affecting operations as follows:

EBITDA +32% YoY

(+) Recognized the share of profit from investments in associated companies totaling THB 289 million, marking a significant growth from 1H/2023. The increase was primarily due to the full half-year shared profits from the total operation of four natural gas power plants in the USA (857 MW). Meanwhile, 1H/2023 recorded the share of profit based on the shareholding ratio amounting to 151 MW from the Carroll County and South Field facilities. In 1H/2024, the company recognized extraordinary items related to refinancing the Liberty and Patriot facilities, totaling THB 525.3 million. This transaction helped enhance financial management efficiency, enabling earlier-than-scheduled dividend payments. Excluding these extraordinary items, the Clean Power Business Group recorded a share of profit from USA power plants totaling THB 804 million.

Performance by Business Group

EBITDA +32% YoY

(+) Electricity sales volume of hydropower plants in the Lao PDR rose by >100% YoY, thanks to a full half-year performance recognition. In 1H/2023, there was a temporary shutdown in preparation for electricity transmission to Vietnam Electricity (EVN). The plants commenced commercial operation and distributed electricity in June 2023, in alignment with the Power Purchase Agreement with EVN.

(+) Oil terminals and seaports in Thailand began recognizing revenue in June 2023.

(-) Revenue from solar power plants in Thailand decreased due to the expiry of the adder tariff program and a lower fuel adjustment charge (Ft). However, electricity' sales volume saw a slight increase, thanks to the additional operation of rooftop solar projects, solar panel enhancements, and higher electricity generation from three new solar power plants. These new plants were acquired on 30 Apr 2024, with a total contracted capacity of 8.0 MW.

(-) Revenue from wind power plants in Thailand shrank due to a lower fuel adjustment charge (Ft). Nonetheless, stronger winds helped increase electricity sales volume by 2% YoY, partially offsetting the revenue contraction.

(-) Electricity sales volume of solar power plants in Japan dropped by 4% YoY owing to lower solar irradiance. On 26 Jun 2024, the company successfully divested all nine solar power plants in Japan, with a total contracted production capacity of 89.7 MW.

In Q2/2024, the Clean Power Business Group's revenue was THB 1,083 million, a decrease of 9% QoQ but an increase of 3% YoY. The EBITDA was THB 1,013 million (-28% QoQ, +2% YoY), with factors affecting operations as follows:

EBITDA -28% QoQ	EBITDA +2% YoY
<p>(-) Recognized the share of loss from investments in associated companies totaling THB 158 million, contrasting with the share of profit recorded in Q1/2024. The loss primarily stemmed from extraordinary items related to refinancing USA natural gas power plants, as previously mentioned. Excluding these items, the company recognized a share of profit from the operation of USA natural power plants totaling THB 362.4 million. Meanwhile, the performance of wind power plants in the Philippines weakened due to weaker winds from seasonal factors.</p> <p>(-) Revenue from solar power plants in Thailand plummeted following the expiry of the adder tariff program. However, sales volume expanded alongside higher electricity generation and solar irradiance from</p>	<p>(-) Recognized the share of loss from investments in associated companies totaling THB 158 million, mainly attributed to extraordinary items from USA natural gas power plants, as previously mentioned.</p> <p>(-) Revenue from solar power plants in Thailand declined, mainly due to the expiry of the adder tariff program.</p> <p>(-) Electricity sales volume from wind power plants in Thailand shrank compared to Q2/2023, as winds grew slightly weaker.</p> <p>(-) Electricity sales volume from solar power plants in Japan tumbled by 3% YoY due to lower solar irradiance.</p> <p>(+) Oil terminals and seaports in Thailand began recognizing revenue in June 2023.</p>

Performance by Business Group

EBITDA -28% QoQ	EBITDA +2% YoY
<p>seasonal factors, coupled with increased electricity production of three new solar power plants.</p> <p>(-) Electricity sales volume from wind power plants in Thailand declined by 31% QoQ due to weaker winds.</p> <p>(-) Revenue from oil terminals and seaports in Thailand slightly dropped due to weaker demand for oil transportation via pipelines. In contrast, demand for oil storage tanks increased in Q2/2024.</p> <p>(+) Electricity sales volume from solar power plants in Japan increased by 44% QoQ due to higher solar irradiance from seasonal factors.</p> <p>(+) Electricity sales volume from hydropower plants in the Lao PDR rose by 18% QoQ, thanks to higher rainfall from seasonal factors.</p>	<p>(+) Electricity sales volume from hydropower plants in the Lao PDR significantly expanded by >100% YoY owing to a full-quarter operation. This contrasts with Q2/2023, when the plants temporarily halted operations in preparation for electricity transmission to Vietnam Electricity (EVN), as previously mentioned.</p>

Performance by Business Group



Bio-Based Product Business Group

Bio-Based Products Business Performance (THB Million)	Q2/2023	Q1/2024	Q2/2024	QoQ	YoY	1H/2023	1H/2024	YoY
Sales Revenue	3,049	4,958	5,209	5%	71%	5,991	10,167	70%
EBITDA	138	284	209	-26%	51%	245	493	>100%
Performance								
Gross Profit/(loss)	57	239	147	-38%	>100%	132	386	>100%
Selling and Administrative expenses	(115)	(82)	(84)	2%	-27%	(205)	(166)	-19%
Sales Volume (Million Liters)	91.4	145.8	156.6	7%	71%	186.5	302.5	62%
<i>Ethanol</i>	25.8	25.4	40.5	59%	57%	53.8	66.0	23%
<i>Biodiesel</i>	65.6	120.4	116.1	-4%	77%	132.7	236.5	78%

In 1H/2024, the Bio-Based Product Business Group recorded revenue of THB 10,167 million, an increase of 70% YoY. EBITDA was recorded at THB 493 million, an increase of >100% YoY. These resulted from the following factors:

EBITDA +>100% YoY

(+) Ethanol business experienced an increase in sales revenue and gross profit as sales volume grew YoY and the average selling price of ethanol rose, aligning with the corresponding rise in raw material costs. Compared to 1H/2023, sugarcane output to be milled throughout Thailand has been declining due to the severe drought brought by El Niño.

(+) Biodiesel business (B100) reported higher gross profit. Sales volume rose remarkably by 78% YoY, mainly driven by demand from BSRC as BSRC became part of the Bangchak Group since September 1, 2023.

In Q2/2024, the Bio-Based Product Business Group recorded revenue of THB 5,209 million, an increase of 5% QoQ and 71% YoY. EBITDA was recorded at THB 209 million, a decline of 26% QoQ but an increase of 51% YoY. These were resulted from the following factors:

EBITDA -26% QoQ

(-) Ethanol business experienced a decline in gross profit due to rising raw material costs. Additionally, the average selling price of ethanol dropped as stocks in Thailand remained high in Q2/2024.

(-) Biodiesel business (B100) recorded a decline in sales revenue and gross profit. Sales volume dipped slightly by 4% QoQ, owing to lower demand from seasonal factor.

EBITDA +51% YoY

(+) Ethanol business witnessed improving performance with a 57% YoY increase in sales volume. This growth was in line with the sales management plan, coupled with an increase in the average selling price, which matched the rise in raw material costs attributed to the above-mentioned factors.

(+) Biodiesel business (B100) reported higher sales revenue and gross profit with sales volume growing by 77% YoY, thanks to an increasing demand from BSRC.

Performance by Business Group



Natural Resources Business Group

Natural Resources Business (THB Million)	Q2/2023	Q1/2024	Q2/2024	QoQ	YoY	1H/2023	1H/2024	YoY
Revenue	5,219	11,595	8,337	-28%	60%	14,991	19,931	33%
EBITDA	3,701	7,404	5,670	-23%	53%	9,115	13,074	43%
OKEA Performance								
Revenue from crude oil and gas sales	5,283	11,595	8,327	-28%	58%	14,991	19,921	33%
EBITDA	3,709	7,416	5,772	-22%	56%	9,125	13,188	45%
Production volume – Net to OKEA (kboepd)	22.26	42.11	38.36	-9%	72%	22.33	40.23	80%
Sales volume – Net to OKEA (kboepd)	22.78	46.58	33.29	-29%	46%	30.32	39.94	32%
Realized liquids price (US\$/BBL)	70.1	82.0	79.7	-3%	14%	75.1	80.9	8%
Realized gas price (US\$/BBL)	81.2	55.1	65.7	19%	-19%	98.3	60.4	-39%

In 1H/2024, Natural Resources Business Group's revenue was THB 19,931 million, an increase of 33% YoY. The EBITDA was THB 13,074 million, an increase of 43% YoY. The factors impacting the performance are as follows.

EBITDA +43% YoY

(+) Production capacity and sales volume rose by 80% YoY and 32% YoY, respectively. The increase was mainly driven by higher sales volume from a performance recognition of the Statfjord field, of which the acquisition was completed on 29 Dec 2023. Furthermore, the Brage field, acquired from the Wintershall Dea in Q4/2022 and now operated by OKEA, has doubled its production capacity. The full half-year performance recognition from the Hasselmus field that began commercial operations in Oct 2023 also contributed to improved performance.

(+) Average selling price of oil and gas (Liquid price) expanded by 8% YoY, owing to concerns over escalating geopolitical tensions in the Middle East. The Russia-Ukraine war will likely intensify and further exacerbate global crude oil supply disruptions. Meanwhile, the selling price of natural gas (Gas price) plummeted by 39% YoY as warmer weather reduced natural gas demand compared to 1H/2023.

In Q2/2024, Natural Resources Business Group's revenue was THB 8,337 million, decreased by 28% QoQ but increased by 60% YoY. The EBITDA was THB 5,670 million, a decline of 23% QoQ but an increase of 53% YoY. The factors impacting the performance are as follows.

EBITDA -23% QoQ

(-) Production capacity and sales volume of OKEA shrank by 9% and 29% QoQ, respectively. The decline was mainly attributed to lower sales volume than the contracted production capacity (Underlift) and a 60-day scheduled maintenance shutdown at Statfjord A.

EBITDA +53% YoY

(+) Production capacity and sales volume expanded by 72% YoY and 46% YoY, respectively. The increase was driven by higher sales volume from the performance recognition of the Statfjord field and the Hasselmus field.

Performance by Business Group

EBITDA -23% QoQ	EBITDA +53% YoY
<p>(+) Average selling price of natural gas rose by 19% QoQ, outpacing a 13% QoQ increase in market prices. The increase was attributed to forward prices in the sale and purchase agreement, coupled with higher global market prices due to tighter supply following the maintenance shutdown of a large natural gas field in Norway. Meanwhile, the average selling price of oil (Liquid Price) slightly ebbed by 3% QoQ.</p>	<p>(+) Average selling price of oil rose by 14% YoY, owing to concerns over tightening supply as geopolitical tensions escalated. In contrast, the average selling price of natural gas dropped by 19% YoY as demand for natural gas weakened.</p>

In Q2/2024, the group incurred losses from the impairment of assets from the Statfjord field (ineligible for tax deduction). Based on the shareholding ratio, this after-tax impairment totaled NOK 56 million (equivalent to THB 191 million). Taking into account the reversing entry of the Yme field's after-tax asset impairment, the net loss amounted to THB 56 million based on the shareholding ratio.

Statement of Income

Statement of Income

Unit: THB Million	Q2/2023	Q1/2024	Q2/2024	QoQ	YoY	1H/2023	1H/2024	YoY
Revenue from sale and services	68,023	135,382	158,057	17%	>100%	148,561	293,438	98%
Gain (loss) from derivatives	210	(662)	140	>100%	-34%	1,436	(522)	<-100%
Accounting EBITDA	6,628	15,308	10,764	-30%	62%	17,620	26,072	48%
Gain (loss) on foreign exchange	239	84	505	>100%	>100%	531	589	11%
Reversal of (loss) from impairment of assets*	(966)	(536)	279	>100%	>100%	(1,379)	(257)	-81%
Finance costs	(1,000)	(1,709)	(1,784)	4%	78%	(2,032)	(3,492)	72%
Tax expense	(1,406)	(4,544)	(3,819)	-16%	>100%	(5,095)	(8,363)	64%
Profit (loss) for the period	709	2,790	2,794	0.2%	>100%	4,079	5,584	37%
Owners of the parent	458	2,437	1,824	-25%	>100%	3,199	4,261	33%
Basic earnings per share (Baht)	0.24	1.68	1.23			2.16	2.91	
Core Profit (excluding extraordinary items)	1,072	3,428	32	-99%	-97%	4,004	3,462	-14%
Extraordinary items (before tax)	(1,697)	(1,652)	3,930	>100%	>100%	(2,193)	2,278	>100%
<i>Main item as follows:</i>								
Inventory Gain (loss) (including reversal of/ loss on NRV)	(1,036)	(416)	988	>100%	>100%	(2,952)	572	>100%
Gain (loss) from unrealized of derivatives	4	(565)	66	82%	<-100%	1,436	(498)	<-100%
Gain (loss) on foreign exchange	239	84	505	>100%	>100%	531	589	11%
Gain from sale of investment (after tax)	-	-	2,159	N/A	N/A	-	2,159	N/A
- based on the shareholding ratio (after tax)	-	-	1,248	N/A	N/A	-	1,248	N/A
Reversal of (loss) from impairment of assets*	(966)	(536)	279	>100%	>100%	(1,379)	(257)	-81%
- based on the shareholding ratio (after tax)*	(98)	(366)	(450)	23%	>100%	(294)	(816)	>100%

Performance in 1H/2024 compared to 1H/2023

Total revenue from sales and services was THB 293,438 million, surged by 98%. This growth was attributed to the Refinery and Oil Trading Business Group from the performance recognition of BSRC. Also, the revenue of the Natural Resources Business Group reached its record high as its production capacity significantly grew.

Accounting EBITDA rose by 48% to THB 26,072 million, mainly driven by the Refinery and Oil Trading Business Group from performance recognition of BSRC, which continued to expand its crude run and achieved a record-high average crude run in Q2/2024. Also, the Company recognized an inventory gain, contrasting with an inventory loss in 1H/2023. The Natural Resources Business Group also saw an increase in production capacity and sales volume, resulting from performance recognitions of the Statfjord field and Hasselmus field.

Extraordinary items

- **Inventory Gain (including reversal of/ loss on NRV)** for Bangchak Group stood at THB 572 million, mainly attributed to rising crude oil prices in line with the global market in 1H/2024. The impact of high purchasing

Statement of Income

prices on the cost of crude oil input was lower compared to 1H/2023 as well as the global market prices were supported by OPEC+, leading to an Inventory Gain.

- **Loss from unrealized derivatives** was THB 498 million, due to a loss on fair value from the forward contracts of foreign exchange on account of the weakening Thai Baht. Meanwhile, the Company recognized a lower gain on fair value from forward contracts of crude oil and oil products.
- **Gain on foreign exchange** increased to THB 589 million, due to the depreciation of the Thai baht in 1H/2024 (34.36 in 1H/2023 to 36.35 in 1H/2024). As a result, the Clean Power Business Group, which has assets in U.S. dollars, experienced increased foreign exchange gains, while the Refinery and Oil Trading Business Group saw a decrease in foreign exchange gains.
- **Gain from sale of investment** was recorded at THB 2,159 million, thanks to the divestment of whole investment in solar power plants in Japan, or amounting to THB 1,248 million, after tax and based on the shareholding ratio.
- **Loss on impairment of assets** of THB 257 million was mainly due to the Clean Power Business Group's assets—the solar power projects in Thailand and Taiwan, as well as assets in relation to the Natural Resources Business Group—Statfjord field and Yme field.

Tax expense of THB 8,363 million, rose by 64%, mainly from the higher operating profits contributions from Natural Resources Business. Also, an entry related to impairment of technical goodwill of Statfjord field, ineligible for tax deduction, recorded in 1H/2024, resulted in a higher effective tax rate compared to 1H/2023.

Net profit attributable to the owners of the parent was THB 4,261 million, representing the earnings per share of THB 2.91.

Net profit from normal operations (excluding extraordinary items) stood at THB 3,462 million, declined by 14% YoY. As 1H/2024 recorded an extraordinary item—gain on sale of investment related to the divestment of solar power plants in Japan, amounting to THB 1,248 million, after tax and based on the shareholding ratio.

Performance in Q2/2024 compared to Q1/2024

Total revenue from sales and services was THB 158,057 million, an increase of 17%, due mainly to the revenue contribution from the Refinery and Oil Trading Business Group as average selling prices of refined products rose.

Accounting EBITDA declined by 30% to THB 10,764 million, owing to a lower contribution from the Refinery and Oil Trading Business Group. This was attributed to a decline in Operating GRM QoQ, as crack spreads of all products weakened alongside the global market condition. Phra Khanong Refinery also underwent 27-day turnaround maintenance in Q2/2024. The Natural Resources Business saw a decline in production and sales volume, resulting from a 60-day scheduled maintenance shutdown at Statfjord A.

Extraordinary items

- **Inventory Gain (including reversal of/ loss on NRV)** for Bangchak Group was reported at THB 988 million in Q2/2024, due to rising crude oil prices as escalating geopolitical tensions in the Middle East drove up concerns

Statement of Income

over tighter global supply. Also, the impact of high purchasing prices on the cost of crude oil input was less significant compared to the previous quarter.

- **Gain from unrealized derivatives** was THB 66 million, owing to a gain on fair value from forward contracts of crude oil and oil products.
- **Gain on foreign exchange** rose to THB 505 million as the Natural Resources Business Group, which has liabilities in U.S. dollars, experienced foreign exchange gains due to the strengthening Norwegian Krone. At the same time, the depreciation of Thai Baht led to foreign exchange gains for the Clean Power Business Group, which has assets in U.S. dollars.
- **Gain from sale of investment** was reported at THB 2,159 million, as mentioned earlier.
- **Reversal of impairment of assets** of THB 279 million was primarily from the reversal of previous impairment for Yme field.

Tax expense amounted to THB 3,819 million (-16%), attributed to the lower asset impairment from the Natural Resources Business (Goodwill impairment of Statfjord field is ineligible for tax deduction), resulting in an effective tax rate of 60%, a decline from 62% in Q1/2024.

Net profit attributable to the owners of the parent stood at THB 1,824 million, representing the earnings per share of THB 1.23.

Net profit from normal operations (excluding extraordinary items) was reported at THB 32 million, dropped by 99%.

Performance of Q2/2024 compared to Q2/2023

Total revenue from sales and services amounted to THB 158,057 million (+>100%), primarily driven by higher revenue contributions from oil-related business thanks to the performance recognition of BSRC.

Accounting EBITDA rose to THB 10,764 million, an increase of 62%. This increase was attributed to the Refinery and Oil Trading Business Group which recognized an inventory gain as escalating geopolitical tensions in the Middle East drove up concerns over tighter global supply. Moreover, the Natural Resource Business Group saw an increase in production capacity and sales volume from the performance recognition of the Statfjord field and the Hasselmus field. The total sales volume of the Marketing Business Group also improved thanks to the consolidation of BSRC.

Tax expense of THB 3,819 million, surged by >100%. This increase was driven by the improved performance of Natural Resources Business, which led to the rising effective tax rate.

Net gain attributable to the owners of the parent increased by >100% to THB 1,824 million, representing the gain per share of THB 1.23, rose from THB 0.24 in Q2/2023.

Net profit from normal operations (excluding extraordinary items) dropped by 97% to THB 32 million.

Statement of Financial Position, Statement of Cash Flows, and Financial Ratios

As of June 30, 2024, Bangchak Group recorded total assets in the amount of THB 353,122 million, an increase of THB 12,693 million compared to the end of 2023, owing to an increase in cash and cash equivalents. Total liabilities increased by THB 8,318 million to THB 248,715 million, due to an increase in debentures while long-term loans and corporate income tax payable saw a decline. Bangchak Group's total equity amounted to THB 104,407 million, an increase of THB 4,375 million compared to the end of 2023, representing the book value per share of THB 47.54.

Bangchak Groups had cash and cash equivalents in the amount of THB 45,284 million, reflecting an increase primarily attributable to higher net cash receipt from operating activities compared to net cash payment in investing and financing activities. Net Interest-bearing Debt to Equity was healthy at 0.84 times. TRIS Rating affirmed the company rating and the ratings on its outstanding senior unsecured debentures at "A" with "stable" rating outlook.

Statement of Financial Positions

(Unit : THB Million)	2023	% to total assets	1H/2024	% to total assets	% change
Cash and cash equivalents	36,754	11%	45,284	13%	23%
Inventories	47,840	14%	53,250	15%	11%
Other current assets	37,287	11%	42,067	12%	13%
PPE	119,374	35%	116,022	33%	-3%
Investments in associates and joint ventures	28,349	8%	29,275	8%	3%
Other non-current assets	70,825	21%	67,224	19%	-5%
Total assets	340,429		353,122		4%
AP and Other AP	41,287	12%	46,090	13%	12%
L/T loans and debentures (included current portion of L/T loans and debentures)	114,914	34%	117,334	33%	2%
Decommissioning	31,905	9%	31,936	9%	0.1%
Other liabilities	52,291	15%	53,354	15%	2%
Equity	100,032	29%	104,407	30%	4%
Total liabilities and equity	340,429		353,122		4%

Statement of Cash Flows

(Unit : THB Million)	2023	1H/2024	change
Profit for the period	11,908	5,585	(6,324)
Adjustment for depreciation and amortization expenses	14,370	10,358	(4,012)
Other adjustments	8,317	631	(7,686)
Changes in operating assets and liabilities	10,909	(4,814)	(15,723)
Net cash receipts (payments) from operating activities	45,504	11,760	(33,744)
Net cash receipts (payments) in investing activities	(72,900)	(5,736)	67,164
Net cash receipts (payments) for financing activities	18,755	1,829	(16,926)
Net increase (decrease) in cash and cash equivalent	(8,641)	7,852	16,493
Cash and cash equivalents – opening balance (1 January 2023)	45,932	36,754	(9,178)
Exchange gain (loss) on cash and cash equivalents	(537)	678	1,215
Cash and cash equivalents (net bank overdraft) – closing balance	36,754	45,284	8,530

Statement of Financial Position, Statement of Cash Flows, and Financial Ratios

Financial Ratio

	Q2/2023	Q1/2024	Q2/2024	1H/2023	1H/2024
Profitability Ratios (%)					
Gross Profit Margin	7.93%	9.37%	5.42%	9.23%	7.22%
EBITDA Margin	9.74%	11.97%	7.03%	11.87%	9.27%
Net Profit Margin	1.04%	2.18%	1.82%	2.75%	1.99%
Return of Equity (ROE)	9.70%	18.39%	20.42%	9.70%	20.42%
Efficiency Ratio (%)					
Return on Assets (ROA)	9.34%	9.02%	10.80%	9.34%	10.80%

	30 Jun 2023	31 Mar 2024	30 Jun 2024
Liquidity Ratios (Times)			
Current Ratio	2.49	1.38	1.60
Quick Ratio	1.67	0.70	0.96
AR Turnover	39.53	23.99	29.04
Collection Period (days)	9	15	13
AP Turnover	16.47	16.28	23.87
Payment Period (days)	22	22	15
Leverage Ratios (Times)			
Net Interest-bearing Debt to Equity	0.42	0.91	0.84

Economic and Crude Oil Price Outlook in Q3/2024

Economic Outlook

In its July outlook update, the International Monetary Fund (IMF) projects a 3.2% global economic growth in 2024. The growth will be driven by a consumption rebound in Europe and signs of recovery in the industrial sector as businesses worldwide scale up their investments. Central banks in many developed economies started to lower their policy rates in Q2/2024 as inflation cooldown became more apparent. Meanwhile, the Fed's June 2024 dot plot suggests one potential rate cut later this year, given a solid labor market—as evident in a low unemployment rate—and inflation still hovering above the 2% target.

The Thai economy is expected to fare better in Q3/2024. We anticipate a rebound in the service sector, bolstered by a visa-free entry scheme for 93 countries designed to attract foreign tourists during the low season. Private consumption will gradually improve alongside domestic demand recovery, whereas exports exhibited signs of a more robust rebound, yet the pace remained slow in many sectors. Inflation is expected to edge up in Q3/2024 before reaching the target range in the following quarter as government energy subsidies conclude and the digital wallet scheme is set to launch by the end of 2024.

Oil Price Outlook

Based on our assessment, the average Dubai crude oil price in Q3/2024 will rise from Q2/2024 to US\$80-85/BBL, thanks to impetus from seasonal high crude runs. This will help strengthen crude oil demand amid growing uncertainties over prolonged geopolitical conflicts that have constrained global crude oil supply. However, crude oil prices are facing headwinds from a potential global economic deceleration and the OPEC+ group's decision to ease oil output cuts starting from Q4/2024, which will bolster the global crude oil supply.

The Dated Brent-Dubai (DTD-DB) spread in Q3/2024 is expected to settle between US\$1.0-1.5/BBL. The Dated Brent will gain impetus from increasing crude runs as refineries resume operations after seasonal maintenance, thus bolstering European demand for crude oil.

In Q3/2024, we expect the refining margin of cracking refineries in Singapore to expand from Q2/2024, buoyed by a supply slowdown after Asian refineries reduced their production capacity in Q2/2024 due to lower refining margins. Given higher European demand during summer, we also anticipate increased exports from Asia to Europe. Nonetheless, the improved refining margins will be hampered by seasonal low demand in Asia and slower-than-expected demand recovery in China.

Appendix

Refinery and Oil Trading Business Group

Refinery and Oil Trading Business Group Performance						1H/2023	1H/2024	YoY
	Q2/2023	Q1/2024	Q2/2024	QoQ	YoY			
Revenue (THB Million)^{1/}	58,329	109,187	135,377	24%	>100%	124,303	244,564	97%
EBITDA (THB Million)	1,373	4,404	2,048	-54%	49%	5,402	6,452	19%
- under Bangchak operation ^{2/}	1,373	2,685	1,404	-48%	2%	5,402	4,089	3%
- under BSRC operation ^{2/}	-	1,531	1,003	-34%	N/A	0	2,535	N/A
Refinery Business								
Average Crude Run (KBD)	118.6	271.7	230.4	-15%	94%	121.7	251.0	>100%
Utilization Rate (%)	40%	92%	78%			41%	85%	
Operating GRM (US\$/BBL)	4.67	6.08	2.62	(3.46)	(2.05)	8.10	4.46	(3.63)
- Oil Hedging (US\$/BBL)	1.85	0.46	0.61	0.15	(1.24)	2.50	0.53	(1.97)
- Inventory Gain/ (Loss) ^{3/} (US\$/BBL)	(2.02)	(0.42)	1.04	1.46	3.06	(3.23)	0.26	3.49
Total GRM (US\$/BBL)	4.50	6.12	4.27	(1.85)	(0.23)	7.36	5.25	(2.11)
Average FX (THB/USD)	34.64	35.82	36.87	1.05	2.23	34.36	36.35	1.99
Phra Khanong Refinery								
Average Crude Run (KBD)	118.6	121.4	76.2	-37%	-36%	121.68	98.78	-19%
Utilization Rate (%)	99%	101%	63%	-	-	101%	82%	
Operating GRM (US\$/BBL)	4.67	7.39	2.44	(4.95)	(2.23)	8.10	5.43	(2.67)
- Oil Hedging (US\$/BBL)	1.85	0.74	1.27	0.53	(0.58)	2.50	0.95	(1.55)
- Inventory Gain/ (Loss) ^{3/} (US\$/BBL)	(2.02)	(0.84)	2.62	3.46	4.64	(3.23)	0.52	3.75
Total GRM (US\$/BBL)	4.50	7.29	6.33	(0.96)	(1.83)	7.36	6.89	(0.47)
Sriracha Refinery^{4/}								
Average Crude Run (KBD)	-	150.3	154.2	3%	N/A	-	152.2	N/A
Utilization Rate (%)	-	86%	89%	-	N/A	-	87%	N/A
Operating GRM (US\$/BBL)	-	5.03	2.71	(2.32)	N/A	-	3.84	N/A
- Oil Hedging (US\$/BBL)	-	0.23	0.28	0.05	N/A	-	0.25	N/A
- Inventory Gain/ (Loss) ^{3/} (US\$/BBL)	-	(0.08)	0.26	0.34	N/A	-	0.10	N/A
Total GRM (US\$/BBL)	-	5.17	3.25	(1.92)	N/A	-	4.19	N/A
Product Yield (%)								
Refinery Business								
LPG	2%	4%	5%	0.6%	3%	2%	4%	2%
Naphtha	0%	1%	1%	0.2%	1%	0%	1%	1%
Gasoline	19%	26%	26%	-0.6%	7%	19%	26%	7%
Jet (Kerosene)	11%	10%	10%	-0.3%	-1%	11%	10%	0%
Diesel	51%	43%	44%	0.7%	-8%	52%	43%	-8%
Non-Transportation fuels	0%	0%	0%	0%	0%	0%	0%	0%
Unconverted Oil (UO)	9%	4%	2%	-2%	-7%	9%	3%	-6%
Fuel Oil	8%	9%	10%	1%	2%	8%	10%	1%
Asphalt	0%	1%	1%	0.2%	1%	0%	1%	1%
Phra Khanong Refinery								
LPG	2%	2%	2%	-0.1%	0.1%	2%	2%	-0.1%
Gasoline	19%	22%	15%	-7%	-4%	19%	18%	-0.5%
Jet (Kerosene)	11%	14%	15%	1%	4%	11%	14%	4%
Diesel	51%	47%	48%	1%	-4%	52%	47%	-5%
Non-Transportation fuels	0.1%	0.1%	0.3%	0.1%	0.1%	0.1%	0.2%	0.1%
Unconverted Oil (UO)	9%	8%	6%	-2%	-2%	9%	7%	-1%
Fuel Oil	8%	7%	12%	5%	4%	8%	10%	2%

Appendix

Product Yield (%)	Q2/2023	Q1/2024	Q2/2024	QoQ	YoY	1H/2023	1H/2024	YoY
Sriracha Refinery^{4/}								
LPG	-	6%	6%	0.4%	N/A	-	6%	N/A
Naphtha	-	1%	1%	0.1%	N/A	-	1%	N/A
Gasoline	-	30%	31%	0.9%	N/A	-	31%	N/A
Jet (Kerosene)	-	7%	8%	0.1%	N/A	-	8%	N/A
Diesel	-	40%	42%	2%	N/A	-	41%	N/A
Fuel Oil	-	10%	9%	-2%	N/A	-	10%	N/A
Asphalt	-	2%	2%	0%	N/A	-	2%	N/A
Total Sales Volume by Market^{5/} (Million Liters)								
Marketing Business	1,578	3,540	3,379	-5%	>100%	3,191	6,919	>100%
Petroleum traders in accordance with section 7	152	371	356	-4%	>100%	308	726	>100%
Export	273	448	337	-25%	24%	592	784	32%
Total Sales Volume	2,002	4,358	4,071	-7%	>100%	4,091	8,429	>100%

Note: 1/ Elimination and others reflected transactions between Refinery and Marketing businesses

2/ EBITDA before eliminations and others

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

4/ Business of Bangchak Sriracha Plc. ("BSRC") consolidated since September 1, 2023.

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

Marketing Business Group

Marketing Business Group Performance	Q2/2023	Q1/2024	Q2/2024	QoQ	YoY	1H/2023	1H/2024	YoY
Revenue (THB Million)^{1/}	45,434	100,385	100,151	-0.2%	>100%	94,654	200,537	>100%
EBITDA (THB Million)	553	1,899	2,196	16%	>100%	1,290	4,095	>100%
- under Bangchak operation ^{2/}	596	1,210	1,247	3%	>100%	1,334	2,457	84%
- under BSRC operation ^{2/}	-	459	623	36%	N/A	-	1,082	N/A
Marketing Margin (Baht / liter)								
Marketing Margin under Bangchak Group	0.93	0.89	0.89	0%	-4%	0.93	0.89	-4%
- under Bangchak operation	0.93	0.92	0.92	0%	-1%	0.93	0.92	-1%
- under BSRC operation	-	0.84	0.85	1%	N/A	-	0.85	N/A
Net Marketing Margin (Baht / liter)^{3/} (Baht / liter)								
Net Marketing Margin under Bangchak Group	0.76	0.87	0.95	9%	25%	0.77	0.91	18%
- under Bangchak operation	0.76	0.90	1.01	12%	32%	0.77	0.96	24%
- under BSRC operation	-	0.84	0.86	2%	N/A	-	0.85	N/A
Sales Volume (Million Liters)								
Sales Volume under Bangchak Group	1,578	3,540	3,379	-5%	>100%	3,191	6,919	>100%
- Retail	1,181	2,156	2,080	-4%	76%	2,367	4,236	79%
- Industrial	397	1,384	1,299	-6%	>100%	824	2,683	>100%
Sales Volume under Bangchak	1,578	1,899	2,014	6%	28%	3,191	3,913	23%
- Retail	1,181	1,269	1,208	-5%	2%	2,367	2,477	5%
- Industrial	397	630	806	28%	>100%	824	1,436	74%
Sales Volume under BSRC	-	1,653	1,375	-17%	N/A	-	3,028	N/A
- Retail	-	887	872	-2%	N/A	-	1,759	N/A
- Industrial	-	766	503	-34%	N/A	-	1,269	N/A

Appendix

Sales Volume (Million Liters)	Q2/2023	Q1/2024	Q2/2024	QoQ	YoY	1H/2023	1H/2024	YoY
Sales Volume under Bangchak Group								
LPG	29	145	144	0%	>100%	64	289	>100%
Gasoline	447	931	915	-2%	>100%	878	1,846	>100%
Jet Fuel	202	381	353	-7%	75%	369	735	99%
Diesel	849	1,895	1,803	-5%	>100%	1,778	3,698	>100%
Fuel Oil and Others	50	188	163	-13%	>100%	103	351	>100%
Sales Volume under Bangchak								
LPG	29	111	127	14%	>100%	64	238	>100%
Gasoline	447	476	499	5%	12%	878	975	11%
Jet Fuel	202	250	241	-4%	19%	369	491	33%
Diesel	849	1,009	1,099	9%	29%	1,778	2,108	19%
Fuel Oil and Others	50	53	48	-9%	-5%	103	101	-2%
Sales Volume under BSRC								
LPG	-	34	17	-49%	N/A	-	51	N/A
Gasoline	-	461	421	-9%	N/A	-	882	N/A
Jet Fuel	-	132	112	-15%	N/A	-	244	N/A
Diesel	-	891	709	-20%	N/A	-	1,600	N/A
Fuel Oil and Others	-	135	115	-15%	N/A	-	250	N/A
Unit: Sites								
Service Station	1,361	2,217	2,214	(3)	853	1,361	2,214	853
- under Bangchak operation	1,361	1,388	1,393	5	32	1,361	1,393	32
- under BSRC operation	-	829	821	(8)	821	-	821	821
EV Chargers	199	299	325	26	126	199	325	126
Inthanin Coffee Shop	1,023	1,003	1,005	2	(18)	1,023	1,005	(18)

Note: 1/ Elimination and others reflected transactions between Refinery and Marketing businesses

2/ EBITDA before eliminations and others

3/ Net Marketing Margin (including Inventory gain/(loss) and NRW)

Financial Ratios Calculation

Profitability Ratios

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

Efficiency Ratio

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

Liquidity Ratios

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

Appendix

- 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) = $365 / \text{Accounts Payable Turnover}$

Leverage Ratios

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

Note:

1/ Average total equity attributable to owners of the parent

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

2/ Average total assets

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

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

6/ Average accounts payable

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

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)