



**IRPC Public Company Limited**

# **Management Discussion and Analysis**

**Operating Results for the Second Quarter  
and the First Six Months of 2023**



MEMBER OF  
**Dow Jones  
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**World Members in Oil & Gas Refining and Marketing Sector for 9<sup>th</sup> Consecutive Year**



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## Management Discussion and Analysis (MD&A)

### IRPC Public Company Limited and its subsidiaries

### Operating Results for the Second Quarter and the First Six Months of 2023

#### Executive Summary

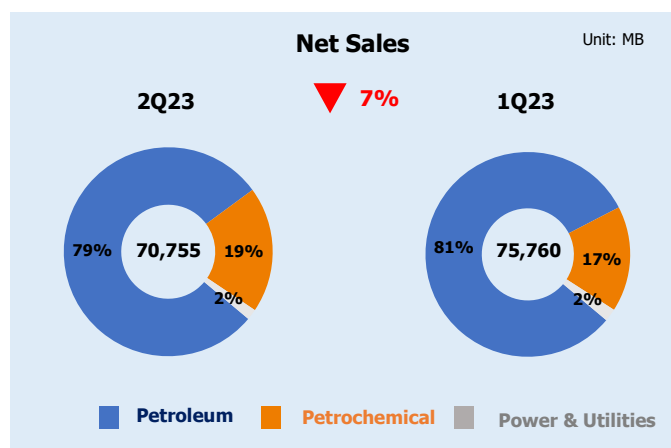
	Unit	Quarter			Change		1H		YoY
		2Q23	1Q23	2Q22	QoQ	YoY	2023	2022	
Crude Intake	Million bbl	17.66	17.63	18.03	0.2%	(2%)	35.29	35.48	(1%)
Sales <sup>[1]</sup>	Million Baht	76,915	81,430	98,951	(6%)	(22%)	158,345	178,383	(11%)
Net Sales <sup>[2]</sup>	Million Baht	70,755	75,760	99,395	(7%)	(29%)	146,515	176,003	(17%)
Market GIM <sup>[3]</sup>	Million Baht	4,168	7,084	12,562	(41%)	(67%)	11,252	16,667	(32%)
	USD/bbl	6.81	11.80	20.15	(42%)	(66%)	9.28	13.85	(33%)
Accounting GIM	Million Baht	3,207	5,342	11,264	(40%)	(72%)	8,549	21,155	(60%)
	USD/bbl	5.23	8.90	18.07	(41%)	(71%)	7.06	17.58	(60%)
EBITDA	Million Baht	110	2,020	8,021	(95%)	(99%)	2,130	14,621	(85%)
Net Profit	Million Baht	(2,246)	301	3,833	N.A.	(159%)	(1,945)	5,334	(136%)

Note: <sup>[1]</sup> **Sales** include (1) Petroleum Sales (2) Petrochemical Sales (3) Power and Utilities Sales  
(4) Sales of tank farm and port service, etc

<sup>[2]</sup> **Net Sales** include (1) Petroleum Sales (excluding excise tax) (2) Petrochemical Sales (3) Power and Utilities Sales

<sup>[3]</sup> **Market GIM per bbl** : [(Market GIM / Crude Intake)/Exchange Rate]

**The operating results in the second quarter of 2023 (2Q23) compared to those in the first quarter of 2023 (1Q23):** In 2Q23, the Company registered net sales of Baht 70,755 million decreasing by Baht 5,005 million or by 7% from that in 1Q23. This attributed to a 6% decrease in average selling prices following lower crude oil price as well as a 1% decrease in sales volume. The average crude intake was 194,000 barrels per day that dropped by 1%.



The Market Gross Integrated Margin (Market GIM) was Baht 4,168 million or USD 6.81 per barrel declining by 41% following a significant decrease in petroleum products spreads, especially Diesel spread.

The crude oil price in 2Q23 decreased from USD 80.32 per barrel in 1Q23 to USD 77.78 per barrel. This was mainly due to the recession concerns following a raise in benchmark interest rate by The Federal

Reserve, so OPEC and allies had reached an agreement to extend the addition output cuts of 1.66 million barrels per day into the end of 2024 in order to uphold crude oil prices. This led to the net inventory loss of Baht 961 million or USD 1.58 per barrel including the stock loss of Baht 1,068 million or USD 1.75 per barrel against the realized gain from oil hedging of Baht 92 million or USD 0.15 per barrel and a reversal on Net Realizable Value (NRV) of Baht 15 million or USD 0.02 per barrel. Therefore, the Accounting Gross Integrated Margin (Accounting GIM) was Baht 3,207 million or USD 5.23 per barrel that dropped by Baht 2,135 million or USD 3.67 per barrel. The operating expenses were Baht 3,162 million decreasing by 4%. These resulted in the earnings before interest, tax, depreciation and amortization (EBITDA) of Baht 110 million deescalating by Baht 1,910 million or by 95%. In this quarter, the Company recorded a loss on financial derivatives amounting to Baht 184 million compared to a gain on financial derivatives of Baht 23 million in 1Q23. Furthermore, there was a loss on foreign exchange from US Dollar – borrowings of Baht 150 million in 2Q23 owing to the Thai Baht depreciation compared to a gain on foreign exchange from US Dollar - borrowings of Baht 47 million in 1Q23. Moreover, the Company had a corporate income tax benefit of Baht 580 million compared to a corporate income tax of Baht 70 million in 1Q23, mainly because of the decreasing operating results. All previously mentioned resulted in the net loss of Baht 2,246 million versus the net profit of Baht 301 million in 1Q23.

**The operating results in the second quarter of 2023 (2Q23) compared to those in the operating results in the second quarter of 2022 (2Q22):** The Company's net sales decreased by Baht 28,640 million or by 29% from that in 2Q22 due to a 35% decrease in average selling prices following lower crude oil price versus a 6% increase in sales volume. The average crude intake was 194,000 barrels per day dropping by 2%. The Market GIM decreased by Baht 8,394 million or by 67%, mainly from the significant decrease in petroleum products spreads while a decline in the cost of crude premium. There was a net inventory loss of Baht 961 million in 2Q23 diminishing by Baht 337 million. These led to Accounting GIM decline by Baht 8,057 million or by 72%. Meanwhile, the operating expenses increased by 1%. Therefore, EBITDA was Baht 110 million reducing by Baht 7,911 million or by 99%. Furthermore, the Company recorded an unrealized loss on oil hedging that decreased by Baht 500 million or by 91%, while a gain on investment dropped by Baht 65 million or by 36%. Offsetting with a corporate income tax benefit of Baht 580 million, the performance in 2Q23 resulted in the net loss of Baht 2,246 million compared to the net profit of Baht 3,833 million in 2Q22.

**The operating results in the first six months of 2023 (1H23) compared to those in the first six months of 2022 (1H22):** The Company registered net sales of Baht 146,515 million in 1H23 decreasing by 17% from that in 1H22. This attributed to a 26% decrease in average selling prices following lower crude oil price versus a 9% increase in sales volume. The average crude intake was 195,000 barrels per day, down by 1%. The Market GIM was Baht 11,252 million or USD 9.28 per barrel that dropped by 32% following a reduction in petroleum products spreads versus a decrease in cost of crude premium.

The crude oil price significantly dropped as a result of the recession concerns. This led to the net inventory loss of Baht 2,703 million or USD 2.22 per barrel including the stock loss of Baht 4,831 million against a reversal on NRV of Baht 2,036 million and the realized gain from oil hedging of Baht 92 million compared to the net stock gain of Baht 4,488 million or USD 3.73 per barrel in the same period last year. Therefore, the Accounting GIM was Baht 8,549 million or USD 7.06 per barrel decreasing by Baht 12,606 million or USD 10.52 per barrel. The operating expenses were Baht 6,453 million increasing by 5%. These resulted in EBITDA of Baht 2,130 million decreasing by Baht 12,491 million or by 85%.

The net finance cost was Baht 995 million increasing by 21% due to higher interest rate from the long-term borrowing and the debentures issuance with the new contracts. Meanwhile, there was an unrealized gain on oil hedging of Baht 13 million compared to an unrealized loss on oil hedging of Baht 3,247 million in the same period last year. Furthermore, there was a gain on impairment and disposal of assets amounting to Baht 825 million, which rose by Baht 826 million mainly owing to the reversal impairment on spare part. When the Company recorded a corporate income tax benefit of Baht 510 million, the performance in 1H23 resulted in the net loss of Baht 1,945 million compared to the net profit of Baht 5,334 million in 1H22.

### Key incidents in 2Q23

- **The issuance of debentures**

On 31 May 2023, the Company has completed fund raising from the issuance of unsubordinated, unsecured debentures with debenture holder representative in 8 tranches in the total amount of Baht 12,000 million including;

**Tranche 1 - 4:** The debenture is offered to Public Offering in the amount of Baht 10,000 million with tenor of 3 -10 years. The debenture has a fixed coupon rate of 3.20% - 4.20% per annum.

**Digital Debenture:** The debenture is offered to Public Offering in the amount of Baht 2,000 million with tenor of 3 -10 years. The debenture has a fixed coupon rate of 3.20% - 4.20% per annum.



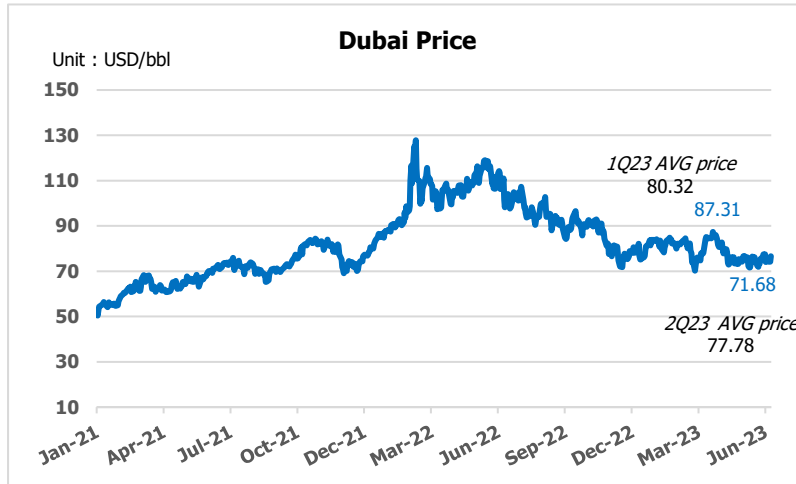
**Operating Performance**

**1. Operating Performance by Business Units**

**1.1 Petroleum business unit**

**1.1.1 Petroleum Market Overview**

**Crude oil situation in the second quarter of 2023 (2Q23):** The global oil consumption was 101.4 million barrels per day rising by 0.8 million barrels per day from 1Q23 oil consumption of 100.6 million



barrels per day. The Dubai price in 2Q23 moved between USD 71.68 per barrel and USD 87.31 per barrel, with an average of USD 77.78 per barrel decreasing by USD 2.54 per barrel from USD 80.32 per barrel in 1Q23. The crude oil price slumped due to

The Federal Reserve (FED)'s announcement to escalate the benchmark interest rate. In 2Q23, the FED hiked the benchmark interest rate once in May by 0.25% to the range of 5.00 to 5.25% and maintained such rate through June. Besides, banking crises in the U.S. and Europe blew recession concerns amongst the market. Furthermore, the U.S. debt ceiling issues built uncertainties in the midst of market and economy. The aforementioned factors caused OPEC and allies to additionally cut the production by 1.66 million barrels per day, hence a total production cut of 3.66 million barrels per day being effective from May 2023 to end-2024 (initially set to expire in end-2023) for crude oil price stabilization.

**Crude oil outlook in the third quarter of 2023 (3Q23):** The global oil consumption is foreseen to enhance from that last quarter, mainly thanks to China reopening as well as summer travel activities in Northern Hemisphere countries. Meanwhile, there might be some incidents hampering oil demand including inflation and the FED's benchmark interest rate upsurge.

By considering oil supply, Saudi Arabia's announcement to voluntarily cut the addition oil output of 1 million barrels per day starting from July 2023 encompasses a total OPEC and allies' production cut of 4.66 million barrels per day. In addition, Russia and Algeria tend to cut more production starting from August 2023, which is supposed to tighten oil supply potentially soaring the crude oil price.

### 1.1.2 Crude Intake and Capacity

Petroleum	Quarter			% Change		1H		YoY
	2Q23	1Q23	2Q22	QoQ	YoY	2023	2022	
<b>Crude Intake</b>								
Million barrels	17.66	17.63	18.03	0.2%	(2%)	35.29	35.48	(1%)
KBD	194	196	198	(1%)	(2%)	195	196	(1%)
<b>Utilization Rate</b>								
Refinery	90%	91%	92%	(1%)	(2%)	91%	91%	0%
RDCC	113%	111%	120%	2%	(7%)	112%	111%	1%
Lube Base Oil	90%	94%	83%	(4%)	7%	92%	82%	10%

Remark: Crude intake capacity is 215,000 barrels per day



*In 2Q23, crude intake was 17.66 million barrels or 194,000 barrels per day. Refinery utilization rate was 90%.*



In 2Q23, crude intake was 17.66 million barrels or 194,000 barrels per day (194 KBD). Refinery utilization rate was 90% being approximate to that last quarter, while being down by 2% from that in 2Q22.

The utilization rate of RDCC plant in 2Q23 was 113%, up by 2% from that in 1Q23, while down by 7% from that in 2Q22 owing to the production adjustment to align with the market conditions.

The utilization rate of Lube Base Oil plant in 2Q23 was 90% declining by 4%, QoQ, owing to the production adjustment to align with the market conditions. On the contrary, the utilization rate rose by 7%, YoY.

### 1.1.3 Petroleum Sales

Products	Sales Volume (Million Barrel)					Sales Value (Million Baht)				
	Quarter			1H		Quarter			1H	
	2Q23	1Q23	2Q22	2023	2022	2Q23	1Q23	2Q22	2023	2022
Refinery	15.68	16.21	14.21	31.89	27.57	49,123	54,678	71,045	103,801	121,519
Lube Base Oil	1.90	1.99	1.66	3.89	3.39	6,686	7,095	6,953	13,781	12,738
<b>Total</b>	<b>17.58</b>	<b>18.20</b>	<b>15.87</b>	<b>35.78</b>	<b>30.96</b>	<b>55,809</b>	<b>61,773</b>	<b>77,998</b>	<b>117,582</b>	<b>134,257</b>

*In 2Q23, net sales of petroleum businesses softened by 10%, QoQ, due to a 7% decline in average selling prices following the slumped crude oil price and a 3% decrease in sales volume.*

In 2Q23, net sales of petroleum businesses were Baht 55,809 million softening by Baht 5,964 million or by 10% from that in 1Q23. This was mainly due to a 7% decline in average selling prices following the slumped crude oil price and a 3% decrease in sales volume, from 18.20 million barrels to 17.58 million barrels. Most of the decrease was contributed from Naphtha and Fuel Oil.

By comparing YoY, the net sales of petroleum businesses shrank by Baht 22,189 million or by 28%, mainly from a 39% contraction in average selling prices following the lessened crude oil price. On the other hand, sales volume improved by 11% from entire key product groups mainly including Naphtha, Diesel and Gasoline. The proportion of domestic and export of petroleum products in 2Q23 was 62% and 38%, respectively and most of the exported products were shipped to Singapore, Cambodia and Laos.

For 1H23, the net sales of petroleum businesses were Baht 117,582 million going down by Baht 16,675 million or by 12% from that in 1H22, mainly owing to a 28% decrease in average selling prices following the plunged crude oil price versus a 16% enhancement in sales volume from entire key product groups mainly including Naphtha, Diesel and Gasoline. The proportion of domestic and export of petroleum products in 1H23 was 63% and 37%, respectively and most of the exported products were shipped to Singapore, Cambodia and Laos.

#### 1.1.4 Crude Price and Petroleum Products Spread

	Quarter			% Change		1H		YoY
	2Q23	1Q23	2Q22	QoQ	YoY	2023	2022	
Dubai Crude Oil (USD/bbl)	77.78	80.32	108.05	(3%)	(28%)	79.05	101.81	(22%)
<b>Petroleum (USD/bbl)</b>								
Naphtha – Dubai	(14.6)	(6.5)	(16.2)	(125%)	10%	(10.5)	(7.5)	(40%)
ULG95 – Dubai	16.6	18.6	35.0	(11%)	(53%)	17.6	26.4	(33%)
Gas Oil 0.05%S - Dubai	14.6	25.2	43.1	(42%)	(66%)	19.9	31.3	(36%)
FO 180 3.5%S - Dubai	(8.7)	(16.3)	(3.2)	47%	(172%)	(12.5)	(5.8)	(116%)
<b>Lube Base Oil (USD/MT)</b>								
500SN - FO 180 3.5%S	588	640	608	(8%)	(3%)	614	565	9%
150BS - FO 180 3.5%S	789	888	762	(11%)	4%	838	777	8%
Asphalt - FO 180 3.5%S	31	88	(98)	(65%)	132%	60	(90)	167%



## The spread between petroleum products and raw material

### The spread between petroleum products and Dubai

- **Naphtha Spread - Lower:** Naphtha - Dubai spread in 2Q23 was USD -14.6 per barrel slipping by 125% from USD -6.5 per barrel in 1Q23. This was because China's economy recovered less than market expectation, hence still-sluggish petrochemical demand and low Naphtha - Dubai spread. In addition, Naphtha demand was curbed by seasonal shutdowns of Naphtha crackers during May and June. By comparing with 2Q22 of USD -16.2 per barrel, the spread climbed by 10%.

- **ULG95 Spread - Lower:** ULG95 - Dubai spread in 2Q23 was USD 16.6 per barrel declining by 11% from USD 18.6 per barrel in 1Q23 as China announced the second batch of petroleum product export quota for 2023 of 9 million tons reflecting that oil demand in China recovered less than market expectation. Meanwhile, Gasoline demand in the U.S. boosted thanks to the driving season, which helped maintain Gasoline spread. By comparing with 2Q22 of USD 35.0 per barrel, the spread shrank by 53%.

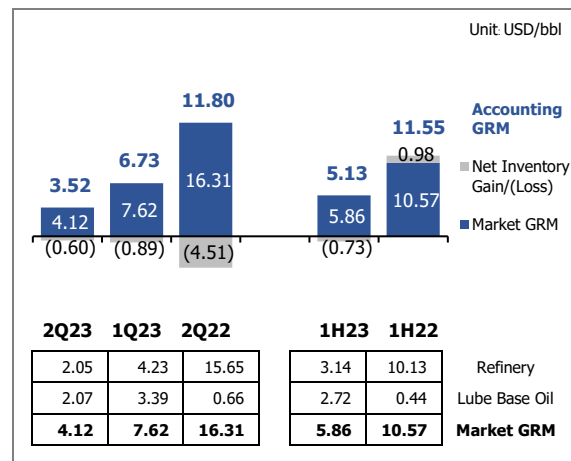
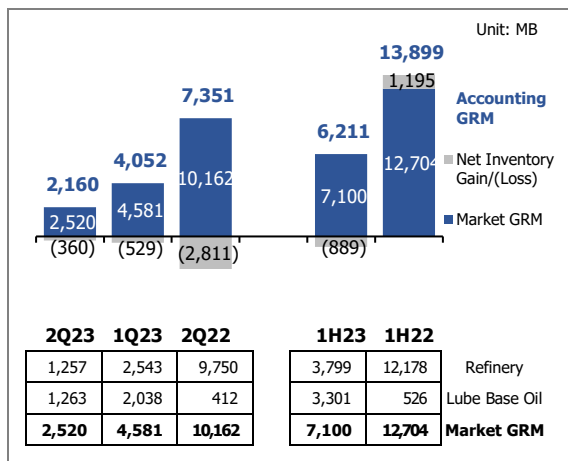
- **Gas Oil Spread - Lower:** Gas Oil - Dubai spread in 2Q23 was USD 14.6 per barrel being down by 42% from USD 25.2 per barrel in 1Q23 as Diesel demand eased after winter waned, while Diesel supply was pressured by China's export quota and Russia's supply to the market. Reduced natural gas and coal prices also pulled Diesel price down. By comparing with 2Q22 of USD 43.1 per barrel, the spread decreased by 66%.

- **Fuel Oil Spread - Higher:** HSFO - Dubai spread in 2Q23 was USD -8.7 per barrel climbing by 47% from USD -16.3 per barrel in 1Q23 as Fuel Oil demand for power generation in South Asia seasonally escalated thanks to summer in such area. Besides, OPEC and allies' production cut limited crude oil supply, thus lower Fuel Oil output. By comparing with 2Q22 of USD -3.2 per barrel, the spread decreased by 172%.

### The spread between Lube Base Oil products and Fuel Oil

- **500SN Spread - Lower:** 500SN - Fuel Oil spread in 2Q23 was USD 588 per ton being down by 8% from USD 640 per ton in 1Q23 as China imported Lube Base Oil last quarter to stockpile and get ready for China reopening. However, the remaining Lube Base Oil stocks curbed China's import activities in 2Q23, while Lube Base Oil demand in China lessened because of sluggish industrial activities. By comparing with 2Q22 of USD 608 per ton, the spread dropped by 3%.

- **Asphalt Spread - Lower:** Asphalt - Fuel Oil spread in 2Q23 was USD 31 per ton decreasing by 65% from USD 88 per ton in 1Q23 because Asphalt demand in both domestic and overseas dampened following low season of Asphalt market. China's Asphalt procurement activity was stagnant, partly due to sluggish economic conditions. By comparing with 2Q22 of USD -98 per ton, the spread rose by 132%.

**1.1.5 Gross Refining Margin**


*In 2Q23, Market GRM was Baht 2,520 million or USD 4.12 per barrel decreasing by Baht 2,061 million or USD 3.50 per barrel, QoQ, mainly owing to the lessened petroleum products spreads, while cost of crude premium slightly dropped.*



reduced refined products spreads, especially those of Diesel spread and Gasoline spread, while the cost of crude premium significantly decelerated.

In 2Q23, there was a net inventory loss equaling Baht 360 million or USD 0.60 per barrel comprising of a stock loss of Baht 452 million versus a gain on realized oil hedging of Baht 92 million. This entailed the Accounting Gross Refining Margin (Accounting GRM) equaling Baht 2,160 million or USD 3.52 per barrel declining by Baht 1,892 million or USD 3.21 per barrel, QoQ, and by Baht 5,191 million or USD 8.28 per barrel, YoY.

For 1H23, the Market GRM was Baht 7,100 million or USD 5.86 per barrel decreasing by Baht 5,604 million or USD 4.71 per barrel from that in the same period last year. This was mainly owing to dampened refined products spreads. The Company's net inventory loss was Baht 889 million or USD 0.73 per barrel comprising of a stock loss of Baht 2,469 million versus a reversal of Net Realizable Value (NRV) of Baht 1,488 million and a gain on realized oil hedging of Baht 92 million. These led to the Accounting GRM of Baht 6,211 million or USD 5.13 per barrel shrinking by Baht 7,688 million or USD 6.42 per barrel from that in the same period last year.

The Gross Refining Margin (Market GRM) in 2Q23 was Baht 2,520 million or USD 4.12 per barrel decreasing by Baht 2,061 million or USD 3.50 per barrel, QoQ, mainly owing to the lessened petroleum products spreads, especially that of Diesel spread, whereas the cost of crude premium slightly declined. Also, by comparing YoY, Market GRM slumped by Baht 7,642 million or USD 12.19 per barrel, mainly from

## 1.2 Petrochemical business unit

### 1.2.1 Petrochemical Market Overview

**Petrochemical market situation in 2Q23:** The demand for petrochemical products remained sluggish as demand recovery in China was lower than the market expectation. According to data released by Bank of China, China's Consumer Price Index (CPI) was 0.2% in June being stable compared to that in the same period last year and lower than the 0.2% expansion in May. Additionally, China's Producer Price Index (PPI) declined by 5.4% in June. This indicated that the manufacturing and domestic consumption sectors were still at low levels and Chinese economy was facing a significant slowdown. Long holidays of many countries in the region, along with global economic uncertainties including the U.S. and Europe's banking crisis, inflation and rising interest rates, affected consumer confidence and spending, especially those in real estate and various durable goods such as electronics and electrical appliances. This built concerns about economic recession that made most end-product producers refrain from increasing stock levels and opt to arrange purchases only when necessary to avoid risks from subdued demand and fluctuating costs. On the supply side, trends continued to rise consistently, particularly in China, driven by both new capacity and certain previous producers who gradually resumed operations. This included existing PDH producers of which capacity were gradually increasing after the price of Propane, their raw material, showed a decreasing trend. According to sluggish demand and increasing new capacity, sellers in China tended to focus more on selling to other markets, which pressured market prices in Southeast Asia.

**Petrochemical market situation in 3Q23:** The demand for petrochemical products is expected to remain stable. This is because the demand from China, which is a major market for the petrochemical business, is gradually recovering, while there is a risk of a deflation crisis in China causing most purchasers to adopt a wait-and-see approach or to reorder only when necessary. It is forecasted that petrochemical products spreads may be affected by rising crude oil price after Saudi Arabia announced a voluntary addition oil output cut of 1 million barrels per day from July 2023 onwards, whereas the impact of the new capacity that is expected to increase gradually from China and Vietnam may put pressure on the prices of petrochemical products in Asia. Nevertheless, there may be signs of improvement around the end of this quarter as the industry enters the Manufacturing Season, driven by increased demand for end products before the year-end festivities.

### 1.2.2 Petrochemical Capacity

Products	Quarter			% Change		1H		YoY
	2Q23	1Q23	2Q22	QoQ	YoY	2023	2022	
<b>Utilization Rate</b>								
Olefins Group	78%	54%	87%	24%	(9%)	66%	89%	(23%)
Aromatics and Styrenics Group	77%	77%	96%	0%	(19%)	77%	102%	(25%)

In 2Q23, the utilization rate of Olefins group was 78% improving by 24%, QoQ, thanks to operation resumption from a planned maintenance shutdown in 1Q23. On the other hand, the utilization rate dropped by 9%, YoY, due to production adjustment to align with market situations.

The utilization rate of Aromatics and Styrenics group was 77%, unchanged QoQ, while decreased by 19%, YoY, due to production adjustment to align with market situations.

### 1.2.3 Petrochemical Sales

Products	Sales Volume (KMT)					Sales Value (MB)				
	Quarter			1H		Quarter			1H	
	2Q23	1Q23	2Q22	2023	2022	2Q23	1Q23	2Q22	2023	2022
Olefins Group	217	180	265	397	532	7,997	6,925	12,200	14,922	23,478
Aromatics and Styrenics Group	149	149	168	298	351	5,767	5,763	8,140	11,530	16,312
<b>Total</b>	<b>366</b>	<b>329</b>	<b>433</b>	<b>695</b>	<b>883</b>	<b>13,764</b>	<b>12,688</b>	<b>20,340</b>	<b>26,452</b>	<b>39,790</b>

Remark : Included sales of Trading business (iPolymer) and New S-Curve business (Rakpasak)



*In 2Q23, the net sales of petrochemical businesses rose by 8%, QoQ, mainly owing to an 11% increase in sales volume.*



In 2Q23, the net sales of petrochemical businesses amounted to Baht 13,764 million rising by Baht 1,076 million or by 8%, QoQ. This was mainly because sales volume rose by 37,000 tons or by 11% of which a major contributor was PP in Olefins group.

By comparing YoY, the net sales of petrochemical businesses decreased by Baht 6,576 million or by 32% because of a 17% decrease in average selling prices and a 15% slump in sales volume equaling 67,000 tons. A key product contributing the lower sales volume included PP in Olefins group. The proportion of domestic and export of petrochemical products in 2Q23 was 63% and 37%, respectively and most of the exported products were shipped to Singapore, India and Indonesia.

For 1H23, net sales of petrochemical businesses were Baht 26,452 million being down by Baht 13,338 million or by 34% from that in the same period last year, mainly from a 21% contraction in sales volume equaling 188,000 tons of entire key product groups and a 13% downturn in average selling prices. The proportion of domestic and export of petrochemical products in 1H23 was 66% and 34%, respectively and most of the exported products were shipped to Singapore, Hong Kong and India.

### 1.2.4 The spread between key petrochemical products and raw material

Average Price (USD/MT)	Quarter			%Change		1H		YoY
	2Q23	1Q23	2Q22	QoQ	YoY	2023	2022	
Naphtha	601	689	875	(13%)	(31%)	645	876	(26%)
<b>Olefins</b>								
HDPE - Naphtha	543	466	517	17%	5%	505	483	5%
PP - Naphtha	396	435	450	(9%)	(12%)	415	469	(12%)
<b>Aromatics</b>								
BZ - Naphtha	269	241	368	12%	(27%)	255	283	(10%)
TOL - Naphtha	264	185	236	43%	12%	225	127	77%
MX - Naphtha	326	257	325	27%	0.3%	291	213	37%
<b>Styrenics</b>								
ABS - Naphtha	666	694	1,032	(4%)	(35%)	680	1,055	(36%)
PS (GPPS) - Naphtha	600	603	806	(0.5%)	(26%)	601	791	(24%)

#### The spread between petrochemical products and raw material

##### The spread between Polyolefins group and Naphtha

- **HDPE Spread - Higher:** HDPE - Naphtha spread was USD 543 per ton increasing by 17% from USD 466 per ton in 1Q23. This resulted from relatively tight supply after several manufacturers arranged annual maintenance shutdowns, especially those from the Middle East. However, inflationary pressures and rising interest rates impacted on the demand for construction purposes in late-2Q23, so buyers opted to wait-and-see and delay their purchasing decisions. When compared with 2Q22 of USD 517 per ton, the spread increased by 5%.

- **PP Spread - Lower:** PP - Naphtha spread was USD 396 per ton decreasing by 9% from USD 435 per ton in 1Q23 due to sluggish demand and no signs of recovery in the Chinese market leading to still-subdued production and consumption within China. Also, the increasing new production capacity prompted sellers in China and other countries to prioritize selling to other markets, hence a pressure on market prices. When compared with 2Q22 of USD 450 per ton, the spread decreased by 12%.

##### The spread between Aromatics group and Naphtha

- **TOL and MX Spread - Higher:** Toluene - Naphtha spread was USD 264 per ton increasing by 43% from USD 185 per ton in 1Q23 and Mixed Xylene - Naphtha spread was USD 326 per ton increasing by 27% from USD 257 per ton in 1Q23. This was because Naphtha price decreased following significantly reduced demand for petrochemical products, while Toluene and Mixed Xylene prices slightly decreased as they were upheld by demand for Gasoline blending in China and the U.S. to support commuting demand amid the driving season. Toluene - Naphtha spread, when compared with





In 2Q23, the Company recorded a net inventory loss of the petrochemical business of Baht 601 million or USD 0.98 per barrel comprising of a stock loss of Baht 616 million versus an NRV reverse of Baht 15 million. Hence, the Company obtained an Accounting Product to Feed Margin (Accounting PTF) equaling Baht 427 million or USD 0.70 per barrel declining by Baht 329 million or by USD 0.58 per barrel, QoQ, and by Baht 2,949 million or USD 4.71 per barrel, YoY.

For 1H23, the Market PTF was Baht 2,998 million or USD 2.47 per barrel enhancing by Baht 130 million or USD 0.10 per barrel from that in the same period last year, mainly from the improved petrochemical products spreads, especially that of HDPE spread. The Company reported a net inventory loss of Baht 1,814 million or USD 1.49 per barrel comprising of a stock loss of Baht 2,362 million versus an NRV reverse of Baht 548 million. These led to the Accounting PTF of Baht 1,184 million or USD 0.98 per barrel being down by Baht 4,977 million or USD 4.14 per barrel from that in the same period last year.

### 1.3 Power Plant and Utility business units Capacity and Sales

	Quarter			% Change		1H		YoY
	2Q23	1Q23	2Q22	QoQ	YoY	2023	2022	
<b>Utilization Rate</b>								
Electricity	68%	61%	66%	7%	2%	64%	68%	(4%)
Steam	61%	60%	61%	1%	0%	61%	61%	0%
<b>Sales (Baht million)</b>								
Electricity	658	754	531	(13%)	24%	1,412	1,028	37%
Steam	460	483	457	(5%)	1%	943	800	18%
Others	64	62	69	3%	(7%)	126	128	(2%)
<b>Total</b>	<b>1,182</b>	<b>1,299</b>	<b>1,057</b>	<b>(9%)</b>	<b>12%</b>	<b>2,481</b>	<b>1,956</b>	<b>27%</b>

In 2Q23, the utilization rate of Electricity was 68% increasing by 7% QoQ and by 2% YoY. The utilization rate of Steam was 61% being approximate to that in 1Q23 while unchanged YoY.

In 2Q23, the Company recorded the net sales of power and utility businesses equaling Baht 1,182 million, down by Baht 117 million or by 9%, QoQ, mainly from decreasing average selling prices of Electricity. On the contrary, by comparing with 2Q22, the net sales climbed by Baht 125 million or by 12%, mainly owing to increasing average selling prices of Electricity.

In 1H23, the Company recorded the net sales of power and utility businesses of Baht 2,481 million improving by Baht 525 million or by 27% from that in the same period last year, mainly from increasing average selling prices of Electricity and Steam.

## 2. Total Operating Performance

Total Operating Performance of IRPC and its subsidiaries for 2Q23 and 1H23 are as follows;

	Unit : Million Baht					Unit : USD per barrel				
	Quarter			1H		Quarter			1H	
	2Q23	1Q23	2Q22	2023	2022	2Q23	1Q23	2Q22	2023	2022
Average FX (THB/USD)	34.64	34.07	34.56	34.36	33.89					
Total Crude Intake (Mbbbl)	17.66	17.63	18.03	35.29	35.48					
Average Crude (USD/bbl) <sup>(1)</sup>	82.02	85.1	115.83	83.53	109.24					
Sales <sup>(2)</sup>	76,915	81,430	98,951	158,345	178,383	125.73	135.57	158.80	130.59	148.35
Net Sales <sup>(3)</sup>	70,755	75,760	99,395	146,515	176,003	115.66	126.13	159.51	120.83	146.37
Variable Cost (Raw Material - Market Price)	(66,587)	(68,676)	(86,833)	(135,263)	(159,336)	(108.85)	(114.33)	(139.36)	(111.55)	(132.52)
<b>Market GIM</b>	<b>4,168</b>	<b>7,084</b>	<b>12,562</b>	<b>11,252</b>	<b>16,667</b>	<b>6.81</b>	<b>11.80</b>	<b>20.15</b>	<b>9.28</b>	<b>13.85</b>
Stock Gain (Loss)	(1,068)	(3,763)	3,974	(4,831)	10,373	(1.75)	(6.26)	6.38	(3.98)	8.63
Net Realizable Value (NRV)	15	2,021	-	2,036	54	0.02	3.36	-	1.68	0.04
Realized Gain (Loss) on Oil Hedging	92	-	(5,272)	92	(5,939)	0.15	-	(8.46)	0.08	(4.94)
<b>Net Inventory Gain (Loss)</b>	<b>(961)</b>	<b>(1,742)</b>	<b>(1,298)</b>	<b>(2,703)</b>	<b>4,488</b>	<b>(1.58)</b>	<b>(2.90)</b>	<b>(2.08)</b>	<b>(2.22)</b>	<b>3.73</b>
<b>Accounting GIM</b>	<b>3,207</b>	<b>5,342</b>	<b>11,264</b>	<b>8,549</b>	<b>21,155</b>	<b>5.23</b>	<b>8.90</b>	<b>18.07</b>	<b>7.06</b>	<b>17.58</b>
Other Incomes <sup>(4)</sup>	384	352	380	736	732	0.63	0.59	0.61	0.61	0.61
Selling Expenses	(319)	(383)	(506)	(702)	(1,131)	(0.52)	(0.64)	(0.81)	(0.58)	(0.94)
<b>Accounting GIM and Other Incomes</b>	<b>3,272</b>	<b>5,311</b>	<b>11,138</b>	<b>8,583</b>	<b>20,756</b>	<b>5.34</b>	<b>8.85</b>	<b>17.87</b>	<b>7.09</b>	<b>17.25</b>
OPEX	(3,162)	(3,291)	(3,117)	(6,453)	(6,135)	(5.17)	(5.47)	(5.00)	(5.33)	(5.10)
<b>EBITDA</b>	<b>110</b>	<b>2,020</b>	<b>8,021</b>	<b>2,130</b>	<b>14,621</b>	<b>0.17</b>	<b>3.38</b>	<b>12.87</b>	<b>1.76</b>	<b>12.15</b>
Depreciation	(2,157)	(2,105)	(2,015)	(4,262)	(4,023)	(3.53)	(3.50)	(3.23)	(3.51)	(3.35)
<b>EBIT</b>	<b>(2,047)</b>	<b>(85)</b>	<b>6,006</b>	<b>(2,132)</b>	<b>10,598</b>	<b>(3.36)</b>	<b>(0.12)</b>	<b>9.64</b>	<b>(1.75)</b>	<b>8.80</b>
Net Finance Cost	(499)	(496)	(427)	(995)	(825)	(0.82)	(0.83)	(0.69)	(0.82)	(0.69)
Gain (Loss) on Financial Derivatives	(184)	23	(162)	(161)	38	(0.30)	0.04	(0.26)	(0.13)	0.03
Gain (Loss) on Foreign Exchange from Borrowing	(150)	47	(280)	(103)	(261)	(0.25)	0.08	(0.45)	(0.08)	(0.22)
Unrealized Gain (Loss) on Oil Hedging	(48)	61	(548)	13	(3,247)	(0.08)	0.10	(0.88)	0.01	(2.70)
Gain (Loss) on Impairment and Disposal of Assets	-	825	(1)	825	(1)	-	1.37	-	0.68	-
Gain (Loss) on Investment	114	10	179	124	308	0.18	0.02	0.29	0.10	0.25
Other Expenses	(11)	(11)	(6)	(22)	(7)	(0.02)	(0.02)	(0.01)	(0.02)	(0.01)
<b>Net Profit (Loss) before Income Tax</b>	<b>(2,825)</b>	<b>374</b>	<b>4,762</b>	<b>(2,451)</b>	<b>6,604</b>	<b>(4.65)</b>	<b>0.64</b>	<b>7.64</b>	<b>(2.01)</b>	<b>5.46</b>
Income Tax	580	(70)	(927)	510	(1,265)	0.95	(0.12)	(1.49)	0.42	(1.05)
Gain (Loss) on non-controlling interests	(1)	(3)	(2)	(4)	(5)	-	-	-	-	-
<b>Net Profit (Loss)</b>	<b>(2,246)</b>	<b>301</b>	<b>3,833</b>	<b>(1,945)</b>	<b>5,334</b>	<b>(3.70)</b>	<b>0.52</b>	<b>6.15</b>	<b>(1.59)</b>	<b>4.41</b>
<b>Earning per share (EPS) (Baht/Share)</b>	<b>(0.11)</b>	<b>0.01</b>	<b>0.19</b>	<b>(0.10)</b>	<b>0.26</b>					

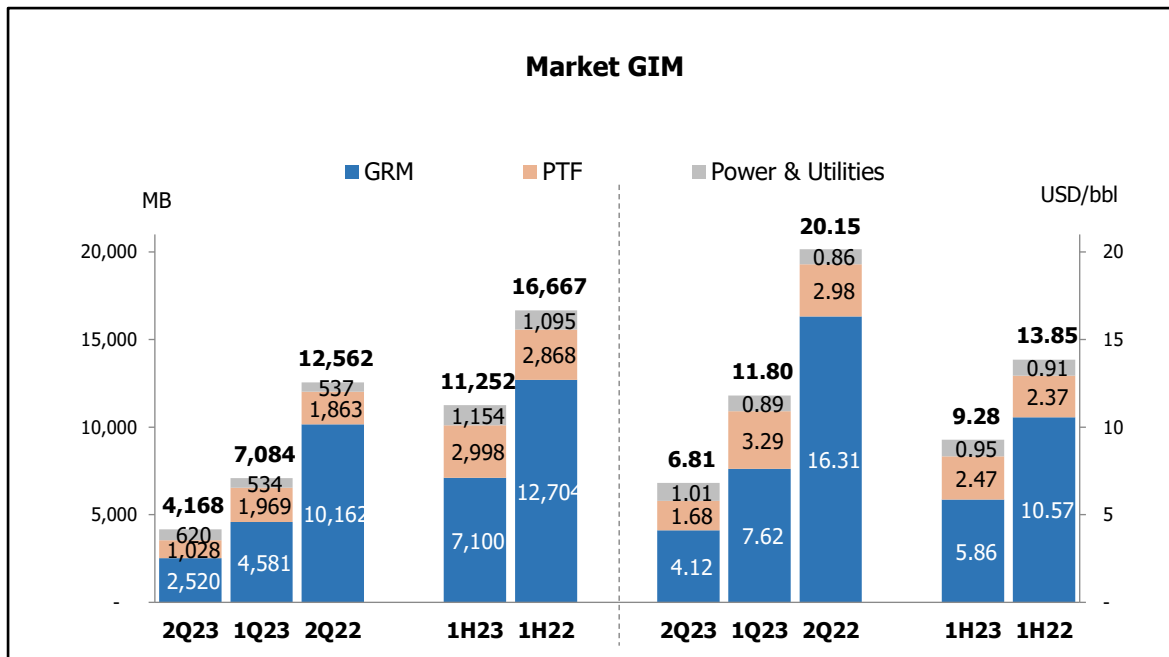
Note : <sup>(1)</sup> Average market prices of crude used in the production process

<sup>(2)</sup> Sales include (1) Petroleum Sales (2) Petrochemical Sales (3) Power and Utilities Sales (4) Sales of tank farm and port service, etc.

<sup>(3)</sup> Net Sales include (1) Petroleum Sales (excluding excise tax) (2) Petrochemical Sales (3) Power and Utilities Sales

<sup>(4)</sup> Other Incomes include land, tank farm and port service etc.

## 2.1 Market Gross Integrated Margin (Market GIM)

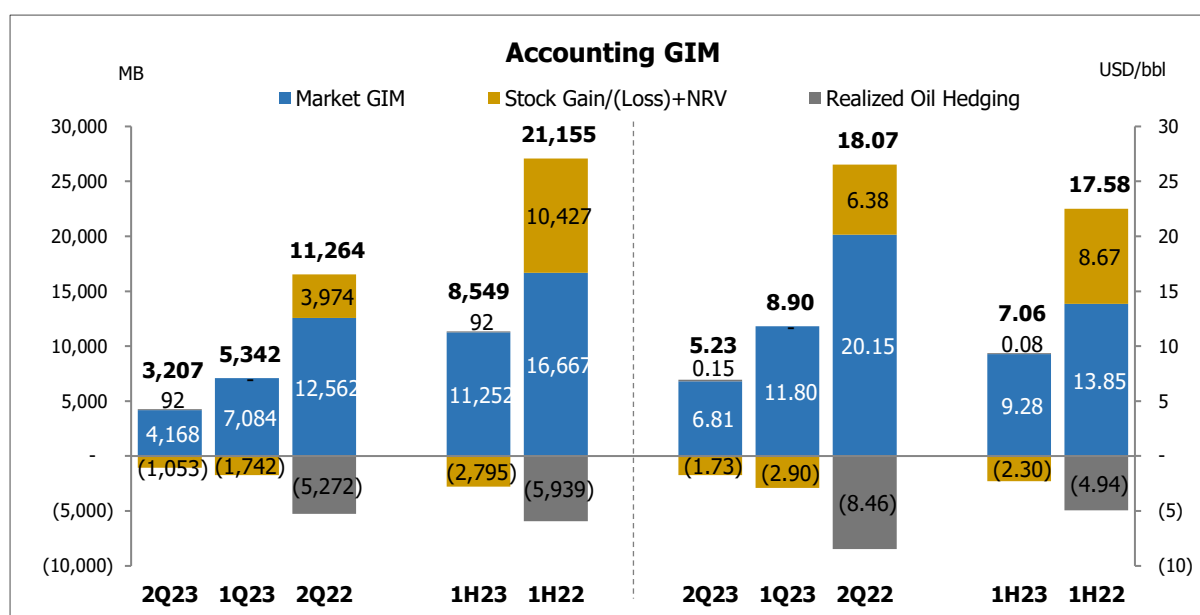


The Market Gross Integrated Margin (Market GIM) in 2Q23 was Baht 4,168 million or USD 6.81 per barrel moving down by Baht 2,916 million or USD 4.99 per barrel from that in the prior quarter. This was mainly from the softened spreads of petroleum products, especially that of Diesel, along with the slumped spreads of petrochemical products, especially those of PP spread and Styrenics spread, which were pressured by inflation control policies, buying demand in China not recovering as expected and rising supply from new capacity operating in China.

By comparing with 2Q22 of Baht 12,562 million or USD 20.15 per barrel, the Market GIM shrank by Baht 8,394 million or USD 13.34 per barrel, mainly owing to drastically dropped spreads of petroleum products, especially those of Diesel spread and Gasoline spread. This was because petroleum products spreads in 2Q22 were uncommonly high due to energy sanctions on Russia tightening the supply. Nevertheless, in 2Q23, the supply from China and Russia entered the market more than in 2Q22, hence pressured petroleum products prices, despite significantly lower cost of crude premium.

In 1H23, the Market GIM was Baht 11,252 million or USD 9.28 per barrel being down by Baht 5,415 million or USD 4.57 per barrel from that in the same period last year, mainly from the reduced spreads of refined products due to recession concerns, interest rate hikes and supply from China entering Asia, despite significantly lower cost of crude premium.

## 2.2 Accounting Gross Integrated Margin (Accounting GIM)



Note : Net Inventory Gain (Loss) = Stock Gain (Loss) + NRV + Realized Oil Hedging

The Accounting Gross Integrated Margin (Accounting GIM) in 2Q23 was Baht 3,207 million or USD 5.23 per barrel decreasing by Baht 2,135 million or USD 3.67 per barrel, QoQ. This was mainly because the Market GIM dropped by Baht 2,916 million or USD 4.99 per barrel, while the net inventory loss declined by Baht 781 million or USD 1.32 per barrel. The net inventory loss in 2Q23 was Baht 961 million or USD 1.58 per barrel comprising of a stock loss amounting to Baht 1,068 million or USD 1.75 per barrel versus a reversal on Net Realizable Value (NRV) of Baht 15 million or USD 0.02 per barrel and a gain on realized oil hedging of Baht 92 million or USD 0.15 per barrel.

By comparing with the 2Q22 Accounting GIM of Baht 11,264 million or USD 18.07 per barrel, the Accounting GIM was down by Baht 8,057 million or by USD 12.84 per barrel as the Market GIM decreased by Baht 8,394 million or USD 13.34 per barrel, while the net inventory loss moved down by Baht 337 million or USD 0.50 per barrel.

In 1H23, the Accounting GIM was Baht 8,549 million or USD 7.06 per barrel decreasing by Baht 12,606 million or USD 10.52 per barrel from that in the same period last year. This was because the Company obtained the net inventory loss of Baht 2,703 million or USD 2.22 per barrel in 1H23, while recorded the net inventory gain of Baht 4,488 million or USD 3.73 per barrel. Also, the Market GIM softened by Baht 5,415 million or USD 4.57 per barrel.

## 2.3 Other Incomes

Other incomes consist of port and tank farm services and other services. In 2Q23, the Company had other incomes of Baht 384 million increasing by Baht 32 million, QoQ, and by Baht 4 million, YoY. In 1H23, the Company had other incomes of Baht 736 million rising by Baht 4 million from that in the same period last year, mainly owing to improved incomes from port and tank farm services.

## 2.4 Operating Expenses

In 2Q23, the Company had operating expenses of Baht 3,162 million decreasing by Baht 129 million from that in the prior quarter, mainly from maintenance expenses. On the other hand, by comparing YoY, the operating expenses rose by Baht 45 million, mainly from employee expenses. In 1H23, the Company recorded the operating expenses of Baht 6,453 million increasing by Baht 318 million from those in the same period last year, mainly from employee expenses and maintenance expenses.

## 2.5 Depreciation expense

In 2Q23, the depreciation expense was Baht 2,157 million increasing by Baht 52 million, QoQ and by Baht 142 million, YoY. In 1H23, the Company recorded the depreciation expense equaling Baht 4,262 million rising by Baht 239 million from that in the same period last year, mainly from increased asset value following the 4Q22 major turnaround.

## 2.6 Net Finance Cost

In 2Q23, the net finance cost was Baht 499 million increasing by Baht 3 million, QoQ, and by Baht 72 million, YoY. In 1H23, the net finance cost was Baht 995 million rising by Baht 170 million from that in the same period last year, due to increased borrowings and interest rates.

## 2.7 Gain (Loss) on Financial Derivatives

In 2Q23, there was a loss on financial derivatives amounting to Baht 184 million, mainly from a loss on Cross Currency Swap (CCS) due to less appreciated Thai Baht compared to a gain on financial derivatives of Baht 23 million in 1Q23. Still, by comparing YoY, the loss was up by Baht 22 million.

In 1H23, there was a loss on financial derivatives equaling Baht 161 million, mainly from a loss on CCS compared to a gain on financial derivatives of Baht 38 million in the same period last year.

## 2.8 Gain (Loss) on Foreign Exchange from Borrowing

In 2Q23, the Company recorded a loss on foreign exchange (FX) from U.S. dollar-borrowings of Baht 150 million compared to a FX gain of Baht 47 million in 1Q23 due to less appreciated Thai Baht. The FX moved from 34.26 Baht per USD at the end of 1Q23 to 35.75 Baht per USD at the end of 2Q23. In the meantime, by comparing YoY, the FX loss dropped by Baht 130 million.

In 1H23, the company had a loss on FX from U.S. dollar-borrowings of Baht 103 million. The loss was down by Baht 158 million from that in the same period last year owing to less depreciated Thai Baht.

## 2.9 Unrealized Gain (Loss) on Oil Hedging

In 2Q23, the Company recorded an unrealized loss on oil hedging of Baht 48 million compared to a gain of Baht 61 million in 1Q23. Nevertheless, by comparing YoY, the loss decreased by Baht 500

million. In 1H23, there was an unrealized gain on oil hedging of Baht 13 million compared to a loss of Baht 3,247 million in the same period last year.

### **2.10 Gain (Loss) on Impairment and Disposal of Assets**

In 2Q23, the Company had no gain (loss) on impairment and disposal of assets compared to a gain of Baht 825 million in 1Q23 being mainly from a reverse on spare part impairment resulting from adjustment of impairment principal, from time-based to condition-based, while compared to a loss of Baht 1 million in 2Q22.

In 1H23, the Company obtained a gain on impairment and disposal of assets of Baht 825 million compared to a loss of Baht 1 million in the same period last year, mainly owing to a reverse on spare part impairment in 1Q23.

### **2.11 Gain (Loss) on Investments**

In 2Q23, the Company recorded a gain on investments of Baht 114 million rising by Baht 104 million, QoQ, mainly from improved profit sharing from investments in associates and joint ventures. Meanwhile, by comparing YoY, the gain dropped by Baht 65 million. In 1H23, there was a gain on investments of Baht 124 million dropping by Baht 184 million from that in the same period last year, mainly from lessened profit sharing from investments in associates and joint ventures.

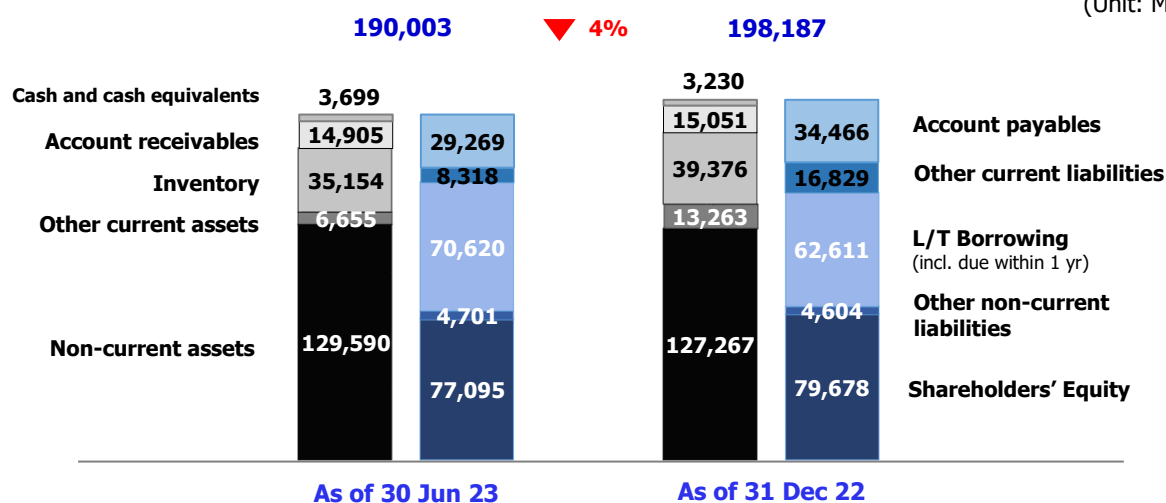
### **2.12 Corporate Income Tax**

In 2Q23, the Company recorded a corporate income tax benefit of Baht 580 million compared to a corporate income tax of Baht 70 million in the prior quarter and a corporate income tax of Baht 927 million in 2Q22. In 1H23, the Company recorded a corporate income tax benefit of Baht 510 million compared to a corporate income tax of Baht 1,265 million, mainly due to softened performance.



**Financial Positions as of 30 June 2023**

(Unit: MB)


**Assets**

As of June 30, 2023, the Company had total assets of Baht 190,003 million decreasing by Baht 8,184 million or 4% from that on December 31, 2022. It was due to the following reasons:

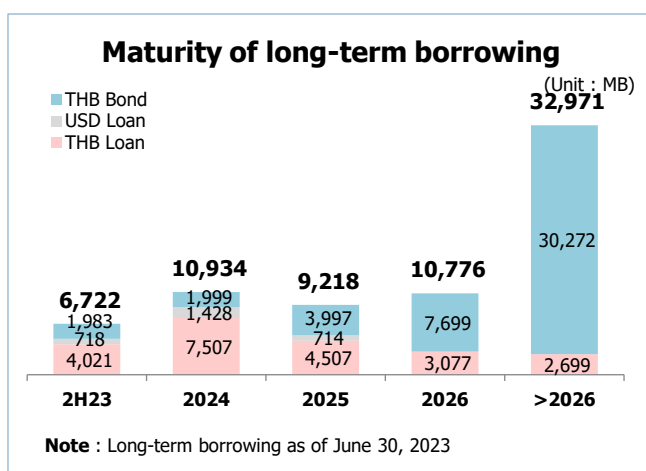
- **Cash and cash equivalents:** increased by Baht 469 million or 15% from that at the end of 2022, mainly owing to the increase of net cash flow from operations after investment and loan repayment.
- **Trade receivables:** decreased by Baht 146 million or 1% from that at the end of 2022, mainly due to a drop in selling prices. The Company's credit term policy is about 7 - 120 days and most customers made payment on schedule. The average collection period was 17 days increasing by 1 day from that at the end of 2022.
- **Inventory:** decreased by Baht 4,222 million or 11% from that at the end of 2022, mainly due to a 13% decrease in the crude oil price and products prices following market situations as well as a 4% decrease in inventory volume. The average inventory period was 43 days increasing by 1 day from that at the end of 2022.
- **Other current assets:** decreased by Baht 6,608 million or 50% from that at the end of 2022. This was mainly attributed to a decrease in other receivables by Baht 5,118 million, mainly from account receivables – Oil Fund, and a decrease in refundable value-added tax by Baht 1,276 million.
- **Non-current assets:** increased by Baht 2,323 million or 2% from that at the end of 2022, mainly due to a rise in investments in fixed assets by Baht 1,979 million and an increase in deferred tax assets by Baht 534 million.

## Liabilities

As of June 30, 2023, the Company had total liabilities of Baht 112,908 million decreasing by Baht 5,601 million or 5% from what was stated as of December 31, 2022. It was due to the following reasons:

- **Trade payables:** decreased by Baht 5,197 million or 15% compared to that at the end of 2022. It was mainly due to a decrease in crude procurement payable amount. The average payment period was 37 days being equivalent to that at the end of 2022.

- **Other current liabilities:** decreased by Baht 8,511 million or 51% compared to that at the end of 2022, mainly due to a drop in short – term borrowing from financial institutions by Baht 6,000 million and a decline in other payables by Baht 1,702 million, mainly from account payables - Ready Made Assets.



- **Long-term borrowing including current portion within one year:** increased by Baht 8,009 million or 13% compared to that at the end of 2022, mainly due to the issuance of debentures of Baht 12,000 million in May 2023 while the repayment of borrowing maturity of Baht 4,088 million.

The details of long-term borrowings are shown below;

(Unit: MB)

	Jun 30, 2023	Dec 31, 2022	Change
Thai Baht Bonds	45,949	33,963	11,986
USD Loan*	2,860	3,467	(607)
Thai Baht Loan	21,811	25,181	(3,370)
<b>Total Long-term Borrowing</b>	<b>70,620</b>	<b>62,611</b>	<b>8,009</b>
Less current portion of long-term borrowing	(13,434)	(10,762)	(2,672)
<b>Net Outstanding Long-term Borrowing</b>	<b>57,186</b>	<b>51,849</b>	<b>5,337</b>

Note : \* The Company obtained USD loan of USD 100 million at the end of 2022 and USD 80 million as of June 30, 2023.

## Shareholders' Equity

As of June 30, 2023, shareholders' equity amounted to Baht 77,095 million, which decreased from what was stated as of December 31, 2022 by Baht 2,583 million or 3%. This was mainly from the net loss amounting to Baht 1,945 million in 1H23 and a dividend amount of Baht 612 million.

**Statement of Cash Flow**

(Unit : MB)

	Jan – Jun 23	Jan – Jun 22
Net cash flows from (used in) operating activities	5,828	1,497
Net cash flows from (used in) investing activities	(5,495)	(2,196)
Net cash flows from (used in) financing activities	136	3,342
<b>Net increase (decrease) in cash</b>	<b>469</b>	<b>2,643</b>
Beginning cash	3,230	11,236
<b>Ending cash</b>	<b>3,699</b>	<b>13,879</b>

As of June 30, 2023, the ending cash was Baht 3,699 million. Net cash flow increased by Baht 469 million, which was mainly contributed from the following items:

- **Net cash inflow from operating activities:** of Baht 5,828 million. The cash inflow was mainly from EBITDA of Baht 2,130 million, a decrease in inventory of Baht 7,067 million and a decrease in other receivables of Baht 5,117 million. Nevertheless, the cash outflow was mainly from a decrease in trade payables of Baht 5,201 million, a decrease in other payables of Baht 1,975 million and a drop in advanced receipt for goods of Baht 162 million.

- **Net cash outflow from investing activities:** of Baht 5,495 million, mainly from an investment in Ultra Clean Fuel (UCF) Project and the capitalized major turnaround expenses in late-2022.

- **Net cash inflow from financing activities:** of Baht 136 million, mainly from the issuance of debentures amounting to Baht 12,000 million. Nevertheless, the cash outflow mainly comprised of the repayment of short-term borrowing from financial institutions of Baht 6,000 million, long-term loans repayment of Baht 4,088 million, interest payment of Baht 1,134 million, and dividend payment of Baht 612 million.

## Key Financial Ratios

	Unit	Quarter			1H	
		2Q23	1Q23	2Q22	2023	2022
<b>Profitability Ratios</b>						
EBITDA Margin	%	0.14	2.48	8.11	1.35	8.20
Net Profit Margin	%	(2.92)	0.37	3.87	(1.23)	2.99
Earnings per share	Baht/share	(0.11)	0.01	0.19	(0.10)	0.26
Return on Equity*	%	(4.98)	1.51	12.02	(4.98)	12.02
<b>Liquidity Ratios</b>						
Current Ratio	time	1.18	1.14	1.45	1.18	1.45
Quick Ratio	time	0.36	0.33	0.51	0.36	0.51
<b>Financial Policy Ratios</b>						
Net Interest Bearing Debt to Equity	time	0.91	0.84	0.61	0.91	0.61
Net Interest Bearing Debt to EBITDA*	time	16.29	8.42	1.79	16.29	1.79

**Note:** \*Annualized

## Liquidity and Capital Structure

In 2Q23, current ratio was 1.18 times increasing by 0.04 times from that in 1Q23 of 1.14 times. This was mainly owing to a drop in short-term borrowing from financial institutions and trade payables. Thus, the Company has sufficient liquidity for its operations.

At the end of 2Q23, net interest bearing debt to equity ratio was 0.91 times increasing by 0.07 times from that in 1Q23 of 0.84 times. This was mainly due to a decline in shareholders' equity from 2Q23 performance. The Company could complete all payments on due date and comply with all of the Financial Covenants.

### Note:

Account Receivable Turnover	=	Sales / Average Account Receivable before Doubtful Account [average]
Collection Period	=	365 / Account Receivable Turnover
Inventory Turnover	=	Cost of Goods Sold / Average Inventory [average]
Inventory Period	=	365 / Inventory Turnover
Account Payable Turnover	=	Cost of Goods Sold / Average Account Payable [average]
Payment Period	=	365 / Account Payable Turnover
EBITDA Margin	=	EBITDA / Revenue from Sales
Net Profit Margin	=	Net Profit (Owner of the Parent) / Revenue from Sales
Return on Equity	=	Net Profit (Owner of the Parent) / Average Shareholders' Equity (Owner of the Parent)
Current Ratio	=	Current Assets / Current Liabilities
Quick Ratio	=	(Cash + Marketable Securities + Account Receivable) / Current Liabilities
Net Interest Bearing Debt to Equity	=	(Interest Bearing Debt – Cash) / Total Equity
Net Interest Bearing Debt to EBITDA	=	(Interest Bearing Debt – Cash) [average] / EBITDA