



**IRPC Public Company Limited**

# **Management Discussion and Analysis**

**Operating Results for the Third Quarter  
and the Nine-Month Period of 2023**



MEMBER OF  
**Dow Jones  
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In Collaboration with RobecoSAM

**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 Third Quarter and the Nine-Month Period of 2023

#### Executive Summary

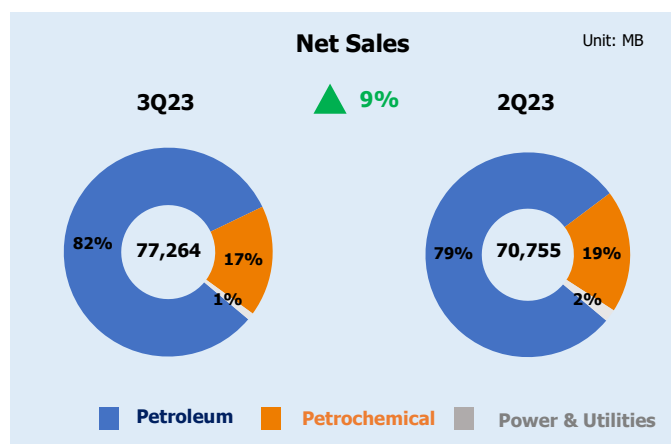
	Unit	Quarter			Change		9M		YoY
		3Q23	2Q23	3Q22	QoQ	YoY	2023	2022	
Crude Intake	Million bbl	17.17	17.66	17.40	(3%)	(1%)	52.47	52.89	(1%)
Sales <sup>[1]</sup>	Million Baht	81,642	76,915	89,410	6%	(9%)	239,988	267,793	(10%)
Net Sales <sup>[2]</sup>	Million Baht	77,264	70,755	87,312	9%	(12%)	223,779	263,314	(15%)
Market GIM <sup>[3]</sup>	Million Baht	5,373	4,168	4,485	29%	20%	16,625	21,152	(21%)
	USD/bbl	8.87	6.81	7.05	30%	26%	9.14	11.50	(21%)
Accounting GIM	Million Baht	8,939	3,207	465	179%	N.A.	17,488	21,620	(19%)
	USD/bbl	14.76	5.23	0.73	182%	N.A.	9.62	11.75	(18%)
EBITDA	Million Baht	5,880	110	(2,798)	N.A.	310%	8,010	11,823	(32%)
Net Profit	Million Baht	2,439	(2,246)	(2,549)	209%	196%	494	2,785	(82%)

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 third quarter of 2023 (3Q23) compared to those in the second quarter of 2023 (2Q23):** In 3Q23, the Company registered net sales of Baht 77,264 million increasing by Baht 6,509 million or by 9% from that in 2Q23. This attributed to a 14% increase in average selling prices following higher crude oil price versus a 5% decrease in sales volume. The average crude intake was 187,000 barrels per day that dropped by 4%.



The Market Gross Integrated Margin (Market GIM) was Baht 5,373 million or USD 8.87 per barrel rising by 29% following a significant increase in petroleum products spreads, especially Diesel spread.

The crude oil price in 3Q23 increased from USD 77.78 per barrel in 2Q23 to USD 86.74 per barrel. This was mainly because OPEC and allies reached an agreement to extend the additional production cut to end-2024 and Saudi Arabia announced to maintain voluntary production cut till end-2023. Although, there

were concerns over the global economic recession and China's property crisis. The Company recorded the net inventory gain of Baht 3,566 million or USD 5.89 per barrel including the stock gain of Baht 3,807 million or USD 6.28 per barrel and a reversal on Net Realizable Value (NRV) of Baht 132 million or USD 0.22 per barrel against the realized loss from oil hedging of Baht 373 million or USD 0.61 per barrel. Therefore, the Accounting Gross Integrated Margin (Accounting GIM) was Baht 8,939 million or USD 14.76 per barrel that rose by Baht 5,732 million or USD 9.53 per barrel. The operating expenses were Baht 3,059 million decreasing by 3%. These resulted in the earnings before interest, tax, depreciation and amortization (EBITDA) of Baht 5,880 million escalating by Baht 5,770 million. In this quarter, the Company recorded a loss on financial derivatives amounting to Baht 106 million decreasing by 42%. Furthermore, there was a loss on foreign exchange from US Dollar – borrowings of Baht 75 million in 3Q23 declining by 50% owing to the Thai Baht depreciation from 35.75 Baht per USD at the end of 2Q23 to 36.72 Baht per USD at the end of 3Q23. Moreover, the Company had a corporate income tax of Baht 598 million compared to a corporate income tax benefit of Baht 580 million in 2Q23, mainly because of the raising operating results. All previously mentioned resulted in the net profit of Baht 2,439 million versus the net loss of Baht 2,246 million in 2Q23 increasing by 209%.

**The operating results in the third quarter of 2023 (3Q23) compared to those in the operating results in the third quarter of 2022 (3Q22):** The Company's net sales decreased by Baht 10,048 million or by 12% from that in 3Q22 due to a 17% decrease in average selling prices following lower crude oil price versus a 5% increase in sales volume. The average crude intake was 187,000 barrels per day dropping by 1%. The Market GIM increased by Baht 888 million or by 20%, mainly from a significant decline in the cost of crude premium as well as the increase in petroleum product spreads. There was a net inventory gain of Baht 3,566 million in 3Q23 compared to the net inventory loss of Baht 4,020 million in 3Q22. These led to the Accounting GIM rise by Baht 8,474 million. Meanwhile, the operating expenses decreased by 1%. Therefore, EBITDA was Baht 5,880 million compared to the loss on EBITDA of Baht 2,798 million in 3Q22. Furthermore, the Company recorded an unrealized loss on oil hedging of Baht 29 million compared to an unrealized gain on oil hedging of Baht 2,426 million in 3Q22. Offsetting with a corporate income tax of Baht 598 million, the performance in 3Q23 resulted in the net profit of Baht 2,439 million compared to the net loss of Baht 2,549 million in 3Q22.

**The operating results in the nine-month period of 2023 (9M23) compared to those in the nine-month period of 2022 (9M22):** The Company registered net sales of Baht 223,779 million in 9M23 decreasing by 15% from that in 9M22. This attributed to a 23% decrease in average selling prices following lower crude oil price versus an 8% increase in sales volume. The average crude intake was 192,000 barrels per day, down by 1%. The Market GIM was Baht 16,625 million or USD 9.14 per barrel that dropped by 21% following a reduction in petroleum product 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 gain of Baht 863 million or USD 0.48 per barrel, rising by 84% when compared to 9M22.

Net inventory gain in 9M23 included the stock loss of Baht 1,024 million or USD 0.56 per barrel and the realized loss from oil hedging of Baht 281 million or USD 0.15 per barrel against a reversal on NRV of Baht 2,168 million or USD 1.19 per barrel. Therefore, the Accounting GIM was Baht 17,488 million or USD 9.62 per barrel decreasing by Baht 4,132 million or USD 2.13 per barrel. The operating expenses were Baht 9,512 million increasing by 3%, mainly from employee expenses. These resulted in EBITDA of Baht 8,010 million decreasing by Baht 3,813 million or by 32%.

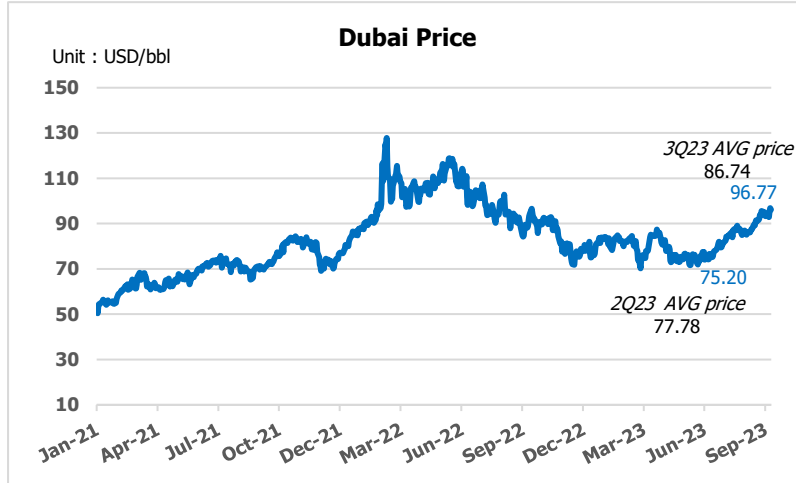
The net finance cost was Baht 1,533 million increasing by 16% due to higher interest rate from the short-term and long-term borrowing and the debentures issuance with the new contracts. Meanwhile, there was an unrealized loss on oil hedging of Baht 16 million dropping by 98%. Furthermore, there was a 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 of Baht 88 million, the performance in 9M23 resulted in the net gain of Baht 494 million declining by 82% compared to that in the same period last year.

**Operating Performance**

**1. Operating Performance by Business Units**

**1.1 Petroleum business unit**

**Crude oil situation in the third quarter of 2023 (3Q23):** The global oil consumption was 103.6 million barrels per day rising by 2.2 million barrels per day from 2Q23 oil consumption of 101.4 million barrels



per day. The Dubai price in 3Q23 moved between USD 75.20 per barrel and USD 96.77 per barrel, with an average of USD 86.74 per barrel increasing by USD 8.96 per barrel from USD 77.78 per barrel in 2Q23. The crude oil price escalated because in June 2023, OPEC and allies announced to extend their crude oil production

cut of 1.66 million barrels per day to end-2024 (initially set to expire in end-2023). Saudi Arabia also announced in June 2023 to voluntarily cut the production of 1 million barrels per day starting July 2023. Subsequently, in early-September 2023, Saudi Arabia decided to maintain their voluntary cut until end-2023. The aforementioned occurrences caused the crude oil price to surge gradually and to reach its maximum value of USD 96.77 per barrel in late-September 2023. Meanwhile, the market was still gloomed by China’s property sector crisis that may scale up to an economic crisis.

**Crude oil outlook in the fourth quarter of 2023 (4Q23):** It is foreseen that one of key factors affecting the oil demand and the crude oil price trend is the policy interest rate altering the USD value and energy costs respectively. As of end-3Q23, the federal funds rate was 5.25 - 5.50% and was expected to rise in late-4Q23, which probably entails approximate demand when compared QoQ. In the meantime, the crude oil price is seen to slightly climb from that last quarter owing to OPEC and allies and Saudi Arabia’s production cuts, along with a conflict between Israel and Hamas.

### 1.1.2 Crude Intake and Capacity

Petroleum	Quarter			% Change		9M		YoY
	3Q23	2Q23	3Q22	QoQ	YoY	2023	2022	
<b>Crude Intake</b>								
Million barrels	17.17	17.66	17.40	(3%)	(1%)	52.47	52.89	(1%)
KBD	187	194	189	(4%)	(1%)	192	194	(1%)
<b>Utilization Rate</b>								
Refinery	87%	90%	88%	(3%)	(1%)	89%	90%	(1%)
RDCC	101%	113%	97%	(12%)	4%	108%	106%	2%
Lube Base Oil	83%	90%	90%	(7%)	(7%)	89%	85%	4%

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



*In 3Q23, crude intake was 17.17 million barrels or 187,000 barrels per day. Refinery utilization rate was 87%.*



In 3Q23, crude intake was 17.17 million barrels or 187,000 barrels per day (187 KBD). Refinery utilization rate was 87% being down by 3% from that last quarter due to the production adjustment to align with the market conditions, and being approximate to that in 3Q22.

The utilization rate of RDCC plant in 3Q23 was 101%, down by 12% from that in 2Q23 owing to the production adjustment to align with the market conditions, while up by 4% from that in 3Q22 because of HYVAHL unit's planned annual maintenance shutdown in 3Q22.

The utilization rate of Lube Base Oil plant in 3Q23 was 83% declining by 7%, both QoQ and YoY, owing to the production adjustment to align with the market conditions.

### 1.1.3 Petroleum Sales

Products	Sales Volume (Million Barrel)				
	Quarter			9M	
	3Q23	2Q23	3Q22	2023	2022
Refinery	14.87	15.68	13.60	46.76	41.18
Lube Base Oil	1.73	1.90	1.73	5.62	5.12
<b>Total</b>	<b>16.60</b>	<b>17.58</b>	<b>15.33</b>	<b>52.38</b>	<b>46.30</b>

Products	Sales Value (Million Baht)				
	Quarter			9M	
	3Q23	2Q23	3Q22	2023	2022
Refinery	57,403	49,123	60,818	161,204	182,337
Lube Base Oil	5,755	6,686	7,527	19,536	20,264
<b>Total</b>	<b>63,158</b>	<b>55,809</b>	<b>68,345</b>	<b>180,740</b>	<b>202,601</b>

*In 3Q23, net sales of petroleum businesses rose by 13%, QoQ, thanks to a 19% upsurge in average selling prices following the crude oil price trend versus a 6% decline in sales volume.*

In 3Q23, net sales of petroleum businesses were Baht 63,158 million rising by Baht 7,349 million or by 13% from that in 2Q23. This was mainly due to a 19% upsurge in average selling prices following the escalated crude oil price versus a 6% decline in sales volume, from 17.58 million barrels to 16.60 million barrels. Most of the decrease was contributed from Diesel and Asphalt.

By comparing YoY, the net sales of petroleum businesses shrank by Baht 5,187 million or by 8%, mainly from a 16% contraction in average selling prices following the lessened crude oil price. On the contrary, sales volume improved by 8%, mainly from Naphtha and Gasoline. The proportion of domestic and export of petroleum products in 3Q23 was 69% and 31%, respectively and most of the exported products were shipped to Singapore, Cambodia and Laos.

For 9M23, the net sales of petroleum businesses were Baht 180,740 million decelerating by Baht 21,861 million or by 11% from that in 9M22, mainly owing to a 24% decrease in average selling prices following the plunged crude oil price versus a 13% 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 9M23 was 65% and 35%, 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		9M		YoY
	3Q23	2Q23	3Q22	QoQ	YoY	2023	2022	
Dubai Crude Oil (USD/bbl)	86.74	77.78	96.88	12%	(10%)	81.61	100.16	(19%)
<b>Petroleum (USD/bbl)</b>								
Naphtha – Dubai	(17.9)	(14.6)	(23.4)	(23%)	24%	(13.0)	(12.8)	(2%)
ULG95 – Dubai	18.9	16.6	13.2	14%	43%	18.1	22.0	(18%)
Gas Oil 0.05%S - Dubai	26.9	14.6	35.2	84%	(24%)	22.2	32.6	(32%)
FO 180 3.5%S - Dubai	(5.3)	(8.7)	(22.3)	39%	76%	(10.1)	(11.3)	11%
<b>Lube Base Oil (USD/MT)</b>								
500SN - FO 180 3.5%S	442	588	798	(25%)	(45%)	557	643	(13%)
150BS - FO 180 3.5%S	575	789	901	(27%)	(36%)	751	819	(8%)
Asphalt - FO 180 3.5%S	(63)	31	94	(303%)	(167%)	19	(28)	168%



### The spread between petroleum products and raw material price

#### The spread between petroleum products and Dubai crude oil price

- **Naphtha Spread - Lower:** Naphtha - Dubai spread in 3Q23 was USD -17.9 per barrel slipping by 23% from USD -14.6 per barrel in 2Q23. This was because China's economy recovered less than market expectation, hence still-sluggish petrochemical demand. Naphtha crackers kept curbing their utilization rates to align with market conditions, whereas LPG price was significantly lower than Naphtha price. Thus, certain petrochemical producers decided to use LPG as a raw material instead of Naphtha. By comparing with 3Q22 of USD -23.4 per barrel, the spread climbed by 24%.

- **ULG95 Spread - Higher:** ULG95 - Dubai spread in 3Q23 was USD 18.9 per barrel surging by 14% from USD 16.6 per barrel in 2Q23 as China announced the third batch of petroleum product export quota for 2023 in September delaying from initially scheduled in July. This grew Gasoline supply concerns in the market as 3Q23 was a driving season for countries in Northern Hemisphere normally shooting Gasoline demand up. By comparing with 3Q22 of USD 13.2 per barrel, the spread increased by 43%.

- **Gas Oil Spread - Higher:** Gas Oil - Dubai spread in 3Q23 was USD 26.9 per barrel growing by 84% from USD 14.6 per barrel in 2Q23 as there were Diesel supply concerns due to shutdowns of several refineries during May and June, along with protests in France affecting refinery operations. Furthermore, China issued the third batch of petroleum product export quota for 2023 later than scheduled and Russia announced a ban of petroleum product export in late-3Q23. By comparing with 3Q22 of USD 35.2 per barrel, the spread dropped by 24%.

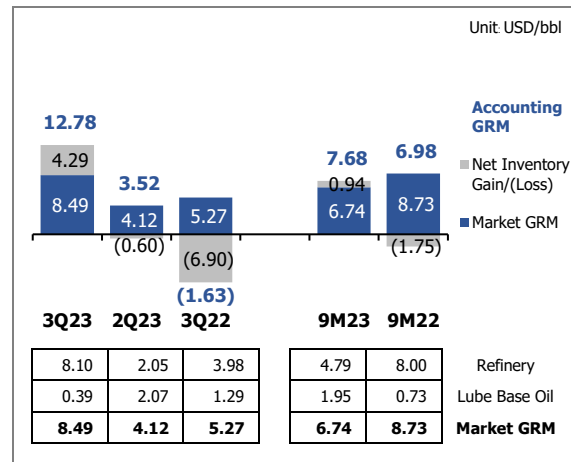
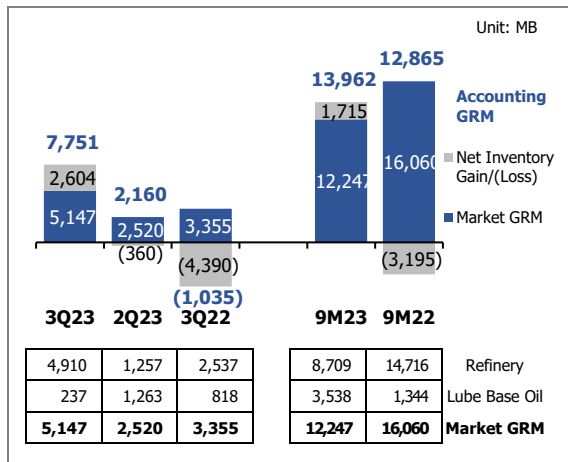
- **Fuel Oil Spread - Higher:** HSFO - Dubai spread in 3Q23 was USD -5.3 per barrel climbing by 39% from USD -8.7 per barrel in 2Q23 as Fuel Oil demand for power generation in South Asia seasonally escalated thanks to summer in such area. Besides, OPEC and allies' production cut limited crude oil supply, thus lower Fuel Oil output. By comparing with 3Q22 of USD -22.3 per barrel, the spread improved by 76%.

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

- **500SN Spread - Lower:** 500SN - Fuel Oil spread in 3Q23 was USD 442 per ton being down by 25% from USD 588 per ton in 2Q23 as Lube Base Oil price increased at a lower rate than that of Fuel Oil price, which skyrocketed following the crude oil price. In addition, Lube Base Oil demand was pressured by sluggish market conditions. By comparing with 3Q22 of USD 798 per ton, the spread dropped by 45%.

- **Asphalt Spread - Lower:** Asphalt - Fuel Oil spread in 3Q23 was USD -63 per ton decreasing by 303% from USD 31 per ton in 2Q23 because of floods in several countries including China and Vietnam, which hampered construction and road maintenance activities. By comparing with 3Q22 of USD 94 per ton, the spread slumped by 167%.

### 1.1.5 Gross Refining Margin



*In 3Q23, Market GRM was Baht 5,147 million or USD 8.49 per barrel increasing by Baht 2,627 million or USD 4.37 per barrel, QoQ, mainly owing to improvements in most refinery product spreads.*



The Gross Refining Margin (Market GRM) in 3Q23 was Baht 5,147 million or USD 8.49 per barrel increasing by Baht 2,627 million or USD 4.37 per barrel, QoQ, mainly owing to improvements in most refinery product spreads, especially Diesel spread. Also, by comparing YoY, Market GIM was up by Baht 1,792 million or USD 3.22 per barrel, mainly from the escalated refinery product spreads, especially Fuel Oil spread, while the cost of crude premium declined significantly.

In 3Q23, there was a net inventory gain equaling Baht 2,604 million or USD 4.29 per barrel comprising of a stock gain of Baht 2,977 million versus a loss on realized oil hedging of Baht 373 million. This entailed the Accounting Gross Refining Margin (Accounting GRM) equaling Baht 7,751 million or USD 12.78 per barrel developing by Baht 5,591 million or USD 9.26 per barrel, QoQ, and compared to an Accounting GRM loss of Baht 1,035 million or USD 1.63 per barrel in 3Q22.

For 9M23, the Market GRM was Baht 12,247 million or USD 6.74 per barrel decreasing by Baht 3,813 million or USD 1.99 per barrel from that in the same period last year. This was mainly owing to dampened refinery product spreads. The Company's net inventory gain was Baht 1,715 million or USD 0.94 per barrel comprising of a stock gain of Baht 508 million and a reversal of Net Realizable Value (NRV) of Baht 1,488 million versus a loss on realized oil hedging of Baht 281 million. These led to the Accounting GRM of Baht 13,962 million or USD 7.68 per barrel escalating by Baht 1,097 million or USD 0.70 per barrel from that in the same period last year.

## 1.2 Petrochemical business unit

### 1.2.1 Petrochemical Market Overview

**Petrochemical market situation in 3Q23:** Petrochemical product demand continued to be soft. One of the reasons was, downstream manufacturers continued to postpone their purchases due to their inability to pass on higher costs to end customers after the surge in Naphtha price being in parallel with crude oil price. Although there were signs of increasing inventory during early-3Q23 as end manufacturers anticipated that prices had reached their annual lows and started showing signs of price recovery, the profit margin narrowed as plastic pellet prices increased at a lower rate than that of production costs. Plus, China's property crisis and global economic uncertainty continued to exert pressure on both manufacturers and customers in the market necessitating cautiousness on their purchasing decisions, particularly those in construction sector and electrical and electronics appliances, in which demand remained sluggish. Additionally, domestic demand in construction sector continued to be stagnant due to delays in forming a new government resulting in slowed budget considerations, especially those for large-scale public projects. Meanwhile, on supply side, there is a persistent pressure from new capacities both in the region and in China being planned to start the operations in 2H23.

**Petrochemical market outlook in 4Q23:** The demand for petrochemical products is seen to be relatively stable with slight improvements as it enters the traditional peak phase of the petrochemical business cycle, driven by the demand for end products during the year-end festivities. It is expected that the demand from China, which is a major market for the petrochemical industry, will begin to show signs of recovery to align with anticipated economic growth activities. Furthermore, semiconductor shortage issues are returning to normalcy thanks to China's rapid development of advanced chip manufacturing being fruited from efforts towards technological self-sufficiency. This potentially result in higher end-product demand in electrical and electronics appliances. However, the pressure from the increases in new production capacity and the Israel-Hamas conflict remain the crucial factors to monitor since they could impact the global economy as well as petrochemical product demand and transportation in case the situations escalate.

### 1.2.2 Petrochemical Capacity

Products	Quarter			% Change		9M		YoY
	3Q23	2Q23	3Q22	QoQ	YoY	2023	2022	
<b>Utilization Rate</b>								
Olefins Group	82%	78%	92%	4%	(10%)	72%	90%	(18%)
Aromatics and Styrenics Group	69%	77%	85%	(8%)	(16%)	74%	97%	(23%)

In 3Q23, the utilization rate of Olefins group was 82% improving by 4%, QoQ, while decelerating by 10%, YoY, owing to production adjustment to align with market situations.

The utilization rate of Aromatics and Styrenics group was 69% softening by 8%, QoQ, and by 16%, YoY, due to production adjustment to align with market situations.

### 1.2.3 Petrochemical Sales

Products	Sales Volume (KMT)					Sales Value (MB)				
	Quarter			9M		Quarter			9M	
	3Q23	2Q23	3Q22	2023	2022	3Q23	2Q23	3Q22	2023	2022
Olefins Group	237	217	247	634	778	7,986	7,997	10,334	22,908	33,813
Aromatics and Styrenics Group	135	149	162	433	513	5,267	5,767	7,529	16,797	23,840
<b>Total</b>	<b>372</b>	<b>366</b>	<b>409</b>	<b>1,067</b>	<b>1,291</b>	<b>13,253</b>	<b>13,764</b>	<b>17,863</b>	<b>39,705</b>	<b>57,653</b>

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



*In 3Q23, the net sales of petrochemical businesses dropped by 4%, QoQ, owing to a 6% decrease in average selling prices versus a 2% increase in sales volume.*

In 3Q23, the net sales of petrochemical businesses amounted to Baht 13,253 million dropping by Baht 511 million or by 4%, QoQ. This was mainly because average selling prices decreased by 6%, while sales volume increased by 6,000 tons or by 2% of which a major contributor was PP in Olefins group.



By comparing YoY, the net sales of petrochemical businesses decreased by Baht 4,610 million or by 26% because of a 17% decrease in average selling prices and a 9% slump in sales volume equaling 37,000 tons. A key product contributing the lower sales volume included Mixed Xylene in Aromatics group. The proportion of domestic and export of petrochemical products in 3Q23 was 65% and 35%, respectively and most of the exported products were shipped to Singapore, India and Hong Kong.

For 9M23, net sales of petrochemical businesses were Baht 39,705 million being down by Baht 17,948 million or by 31% from that in the same period last year from a 17% contraction in sales volume equaling 224,000 tons, which mainly included PP in Olefins group, and a 14% drop in average selling prices. The

proportion of domestic and export of petrochemical products in 9M23 was 66% and 34%, respectively and most of the exported products were shipped to Singapore, India and Hong Kong.

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

Average Price (USD/MT)	Quarter			%Change		9M		YoY
	3Q23	2Q23	3Q22	QoQ	YoY	2023	2022	
Naphtha	648	601	714	8%	(9%)	646	822	(21%)
<b>Olefins</b>								
HDPE - Naphtha	457	543	421	(16%)	9%	489	462	6%
PP - Naphtha	323	396	367	(18%)	(12%)	384	435	(12%)
<b>Aromatics</b>								
BZ - Naphtha	253	269	266	(6%)	(5%)	254	277	(8%)
TOL - Naphtha	306	264	256	16%	20%	252	170	48%
MX - Naphtha	339	326	290	4%	17%	307	239	28%
<b>Styrenics</b>								
ABS - Naphtha	608	666	799	(9%)	(24%)	656	970	(32%)
PS (GPPS) - Naphtha	529	600	738	(12%)	(28%)	577	773	(25%)

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

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

- **HDPE Spread – Lower:** HDPE - Naphtha spread was USD 457 per ton decreasing by 16% from USD 543 per ton in 2Q23 as demand for end products remained sluggish due to extremely hot weather and rainfall in China, along with the monsoon season in the region. This was compounded by the slowdown in construction sector investments due to China's upscaling property crisis. Additionally, challenges were posed by inflation and higher interest rates. On the supply side, most manufacturers reduced production to align with softened demand. When compared with 3Q22 of USD 421 per ton, the spread increased by 9%.

- **PP Spread - Lower:** PP - Naphtha spread was USD 323 per ton decreasing by 18% from USD 396 per ton in 2Q23. This was caused by Naphtha prices surging in parallel with crude oil prices. Although there were signs of increased inventories in early-3Q23 after buyers anticipated that prices had reached their bottoms and began showing signs of recovery, most manufacturers were unable to adjust their end-product prices, which resulted in narrowing profit margins as plastic pellet prices increased at a lower rate than that of production costs. When compared with 3Q22 of USD 367 per ton, the spread decreased by 12%.

### The spread between Aromatics group and Naphtha price

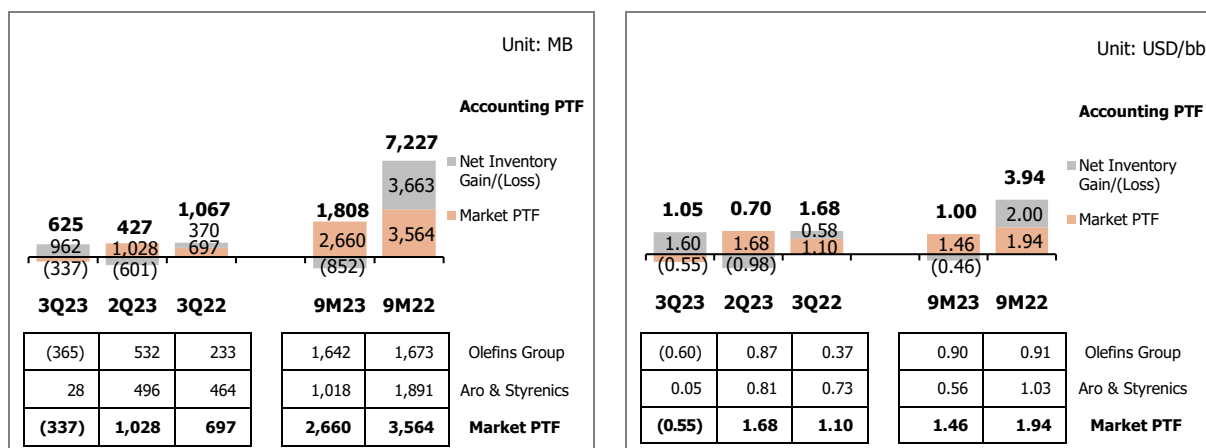
- **TOL and MX Spreads - Higher:** Toluene - Naphtha spread was USD 306 per ton increasing by 16% from USD 264 per ton in 2Q23 and Mixed Xylene - Naphtha spread was USD 339 per ton increasing by 4% from USD 326 per ton in 2Q23. This was resulted from increased demand for using Toluene and Mixed Xylene in Gasoline blending, especially in China and the U.S. When compared Toluene - Naphtha spread with 3Q22 figure of USD 256 per ton, the spread increased by 20%, and when compared Mixed Xylene - Naphtha spread when with 3Q22 figure of USD 290 per ton, the spread increased by 17%.

### The spread between Polystyrenics group and Naphtha price

- **ABS Spread - Lower:** ABS - Naphtha spread was USD 608 per ton decreasing by 9% from USD 666 per ton in 2Q23. This was caused by stagnant demand from electrical appliances and electronics, despite traditional peak phase of the petrochemical business to produce finished goods for serving demand amid year-end festivities, along with the Chinese government's economic stimulus policy able to build market confidence. Meanwhile, global economic uncertainty and rising inflation rates eroded purchasing power of some buyers. Additionally, the market witnessed more pressure from increased new capacity in China. When compared with 3Q22 of USD 799 per ton, the spread decreased by 24%.

- **PS Spread - Lower:** PS - Naphtha spread was USD 529 per ton decreasing by 12% from USD 600 per ton in 2Q23. The demand improved slightly in early-3Q23 since manufacturers increased their inventories. However, the demand began to recede due to continuously rising raw material prices driven by crude oil price. Consequently, most manufacturers could not pass their increased costs to the end market resulting in decreased profit margins. When compared with 3Q22 of USD 738 per ton, the spread decreased by 28%.

### 1.2.5 Product to Feed Margin (Product to Feed : PTF)\*



Remark : \* Included Trading business (iPolymer) and New S-Curve business (Rakpasak)



*In 3Q23, the Company recorded a loss on the Market PTF of Baht 337 million being pressured by global economic conditions and a property crisis in China.*



economic conditions and a property crisis in China pressuring demand for petrochemical products, while overall petrochemical supply was high compared to the demand.

In 3Q23, the Company recorded a net inventory gain of the petrochemical business of Baht 962 million or USD 1.60 per barrel comprising of a stock gain of Baht 830 million and an NRV reverse of Baht 132 million. Hence, the Company obtained an Accounting Product to Feed Margin (Accounting PTF) equaling Baht 625 million or USD 1.05 per barrel rising by Baht 198 million or by USD 0.35 per barrel, QoQ. On the other hand, by comparing YoY, the Accounting PTF dropped by Baht 442 million or by USD 0.63 per barrel.

For 9M23, the Market PTF was Baht 2,660 million or USD 1.46 per barrel decelerating by Baht 904 million or USD 0.48 per barrel from that in the same period last year, mainly from the decreased petrochemical product spreads, especially ABS spread. The Company reported a net inventory loss of Baht 852 million or USD 0.46 per barrel comprising of a stock loss of Baht 1,532 million versus an NRV reverse of Baht 680 million. These led to the Accounting PTF of Baht 1,808 million or USD 1.00 per barrel being down by Baht 5,419 million or by USD 2.94 per barrel from that in the same period last year.

In 3Q23, the Company recorded a loss on the Market Product to Feed Margin (Negative Market PTF) of Baht 337 million or USD 0.55 per barrel compared to the 2Q23 Market PTF of Baht 1,028 million or USD 1.68 per barrel and 3Q22 Market PTF of Baht 697 million or USD 1.10 per barrel. This was due to global

### 1.3 Power Plant and Utility business units

#### Capacity and Sales

	Quarter			% Change		9M		YoY
	3Q23	2Q23	3Q22	QoQ	YoY	2023	2022	
<b>Utilization Rate</b>								
Electricity	62%	68%	67%	(6%)	(5%)	38%	67%	(29%)
Steam	57%	61%	59%	(4%)	(2%)	36%	61%	(25%)
<b>Sales (Baht million)</b>								
Electricity	523	658	605	(21%)	(14%)	1,935	1,633	18%
Steam	272	460	438	(41%)	(38%)	1,215	1,238	(2%)
Others	58	64	61	(9%)	(5%)	184	189	(3%)
<b>Total</b>	<b>853</b>	<b>1,182</b>	<b>1,104</b>	<b>(28%)</b>	<b>(23%)</b>	<b>3,334</b>	<b>3,060</b>	<b>9%</b>

In 3Q23, the utilization rate of Electricity was 62% decreasing by 6%, QoQ and by 5%, YoY. The utilization rate of Steam was 57% softening by 4%, QoQ and by 2%, YoY.

In 3Q23, the Company recorded the net sales of power and utility businesses equaling Baht 853 million, down by Baht 329 million or by 28%, QoQ, mainly from decreasing sales volume and average selling prices of Steam. Also, by comparing YoY, the net sales slumped by Baht 251 million or by 23%, mainly owing to decreasing sales volume of Steam.

In 9M23, the Company recorded the net sales of power and utility businesses of Baht 3,334 million improving by Baht 274 million or by 9% from that in the same period last year, mainly from increasing average selling prices of Electricity.



## 2. Total Operating Performance

Total Operating Performance of IRPC and its subsidiaries for 3Q23 and 9M23 are as follows;

	Unit : Million Baht					Unit : USD per barrel				
	Quarter			9M		Quarter			9M	
	3Q23	2Q23	3Q22	2023	2022	3Q23	2Q23	3Q22	2023	2022
Average FX (THB/USD)	35.33	34.64	36.58	34.68	34.79					
Total Crude Intake (Mbbbl)	17.17	17.66	17.40	52.47	52.89					
Average Crude (USD/bbl) <sup>(1)</sup>	90.62	82.02	106.59	85.89	108.27					
Sales <sup>(2)</sup>	81,642	76,915	89,410	239,988	267,793	134.59	125.73	140.47	131.89	145.54
Net Sales <sup>(3)</sup>	77,264	70,755	87,312	223,779	263,314	127.37	115.66	137.18	122.98	143.10
Variable Cost (Raw Material - Market Price)	(71,891)	(66,587)	(82,827)	(207,154)	(242,162)	(118.50)	(108.85)	(130.13)	(113.84)	(131.60)
<b>Market GIM</b>	<b>5,373</b>	<b>4,168</b>	<b>4,485</b>	<b>16,625</b>	<b>21,152</b>	<b>8.87</b>	<b>6.81</b>	<b>7.05</b>	<b>9.14</b>	<b>11.50</b>
Stock Gain (Loss)	3,807	(1,068)	(2,163)	(1,024)	8,210	6.28	(1.75)	(3.40)	(0.56)	4.46
Net Realizable Value (NRV)	132	15	(496)	2,168	(442)	0.22	0.02	(0.78)	1.19	(0.24)
Realized Gain (Loss) on Oil Hedging	(373)	92	(1,361)	(281)	(7,300)	(0.61)	0.15	(2.14)	(0.15)	(3.97)
<b>Net Inventory Gain (Loss)</b>	<b>3,566</b>	<b>(961)</b>	<b>(4,020)</b>	<b>863</b>	<b>468</b>	<b>5.89</b>	<b>(1.58)</b>	<b>(6.32)</b>	<b>0.48</b>	<b>0.25</b>
<b>Accounting GIM</b>	<b>8,939</b>	<b>3,207</b>	<b>465</b>	<b>17,488</b>	<b>21,620</b>	<b>14.76</b>	<b>5.23</b>	<b>0.73</b>	<b>9.62</b>	<b>11.75</b>
Other Incomes <sup>(4)</sup>	363	384	303	1,099	1,035	0.60	0.63	0.48	0.60	0.56
Selling Expenses	(363)	(319)	(481)	(1,065)	(1,612)	(0.60)	(0.52)	(0.76)	(0.59)	(0.88)
<b>Accounting GIM and Other Incomes</b>	<b>8,939</b>	<b>3,272</b>	<b>287</b>	<b>17,522</b>	<b>21,043</b>	<b>14.76</b>	<b>5.34</b>	<b>0.45</b>	<b>9.63</b>	<b>11.43</b>
OPEX	(3,059)	(3,162)	(3,085)	(9,512)	(9,220)	(5.04)	(5.17)	(4.85)	(5.22)	(5.01)
<b>EBITDA</b>	<b>5,880</b>	<b>110</b>	<b>(2,798)</b>	<b>8,010</b>	<b>11,823</b>	<b>9.72</b>	<b>0.17</b>	<b>(4.40)</b>	<b>4.41</b>	<b>6.42</b>
Depreciation	(2,175)	(2,157)	(2,014)	(6,437)	(6,037)	(3.59)	(3.53)	(3.16)	(3.54)	(3.28)
<b>EBIT</b>	<b>3,705</b>	<b>(2,047)</b>	<b>(4,812)</b>	<b>1,573</b>	<b>5,786</b>	<b>6.13</b>	<b>(3.36)</b>	<b>(7.56)</b>	<b>0.87</b>	<b>3.14</b>
Net Finance Cost	(538)	(499)	(496)	(1,533)	(1,321)	(0.89)	(0.82)	(0.78)	(0.84)	(0.72)
Gain (Loss) on Financial Derivatives	(106)	(184)	(81)	(267)	(43)	(0.17)	(0.30)	(0.13)	(0.15)	(0.02)
Gain (Loss) on Foreign Exchange from Borrowing	(75)	(150)	(312)	(178)	(573)	(0.12)	(0.25)	(0.49)	(0.10)	(0.31)
Unrealized Gain (Loss) on Oil Hedging	(29)	(48)	2,426	(16)	(821)	(0.05)	(0.08)	3.81	(0.01)	(0.45)
Gain (Loss) on Impairment and Disposal of Assets	-	-	-	825	(1)	-	-	-	0.45	-
Gain (Loss) on Investment	89	114	67	213	375	0.15	0.18	0.11	0.11	0.20
Other Expenses	(7)	(11)	6	(29)	(1)	(0.01)	(0.02)	0.01	(0.02)	(0.00)
<b>Net Profit (Loss) before Income Tax</b>	<b>3,039</b>	<b>(2,825)</b>	<b>(3,203)</b>	<b>588</b>	<b>3,401</b>	<b>5.04</b>	<b>(4.65)</b>	<b>(5.03)</b>	<b>0.31</b>	<b>1.84</b>
Income Tax	(598)	580	655	(88)	(610)	(0.99)	0.95	1.03	(0.05)	(0.33)
Gain (Loss) on non-controlling interests	(2)	(1)	(1)	(6)	(6)	-	-	-	-	-
<b>Net Profit (Loss)</b>	<b>2,439</b>	<b>(2,246)</b>	<b>(2,549)</b>	<b>494</b>	<b>2,785</b>	<b>4.05</b>	<b>(3.70)</b>	<b>(4.00)</b>	<b>0.26</b>	<b>1.51</b>
<b>Earning per share (EPS) (Baht/Share)</b>	<b>0.12</b>	<b>(0.11)</b>	<b>(0.12)</b>	<b>0.02</b>	<b>0.14</b>					

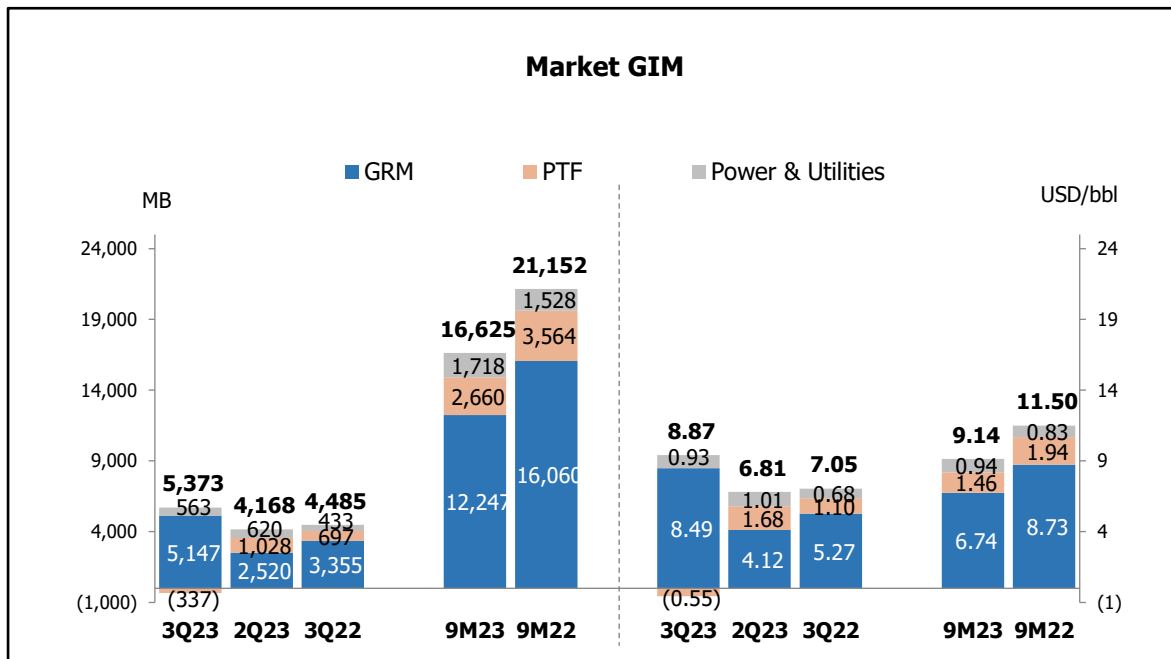
Note : <sup>(1)</sup> Average market prices of crude used in the production process

<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)

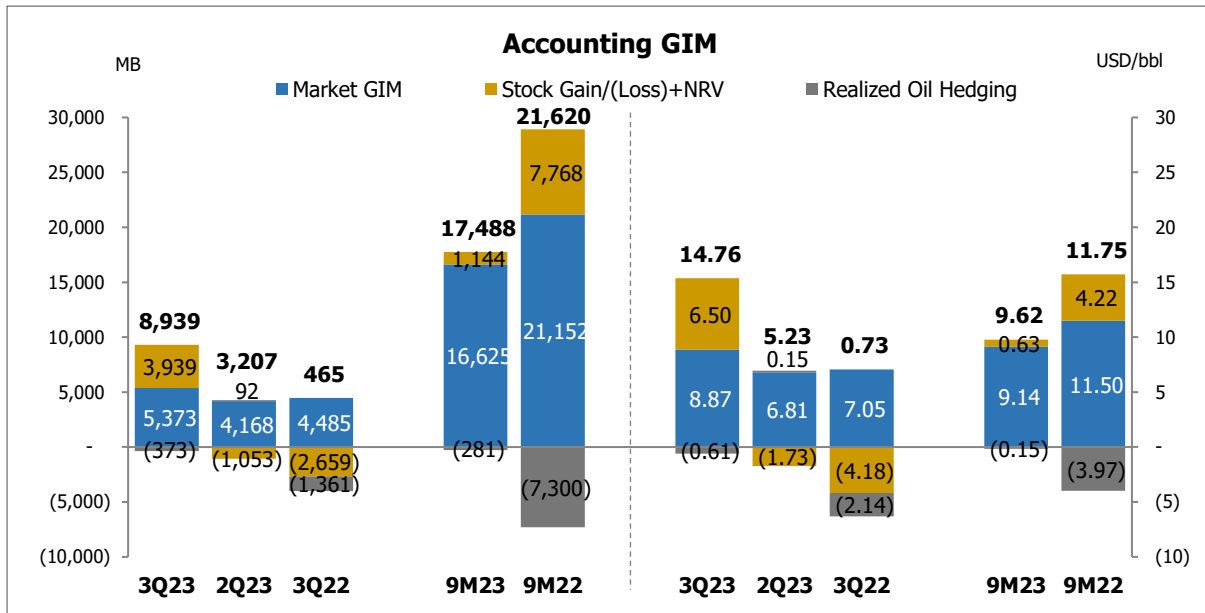


The Market Gross Integrated Margin (Market GIM) in 3Q23 was Baht 5,373 million or USD 8.87 per barrel moving up by Baht 1,205 million or USD 2.06 per barrel from that in the prior quarter. This was mainly from the increases of most refinery product spreads, especially Diesel spread, according to supply concerns being formed by OPEC and allies’ production cut, Saudi Arabia’s voluntary production cut and Russia’s ban on petroleum product export. On the contrary, most petrochemical product spreads dropped, especially Olefins product spreads. Even though petrochemical product prices escalated following skyrocketed raw material prices, the profit margins had a downward trend because of several factors including seasonal demand sluggishness as well as most converters’ retarded purchasing activities due to their inability to pass the rising costs to end products.

By comparing with 3Q22 of Baht 4,485 million or USD 7.05 per barrel, the Market GIM surged by Baht 888 million or USD 1.82 per barrel, mainly owing to drastically dropped cost of crude premium and enhanced refinery product spreads. Still, Olefins and Styrenics product spreads moved down.

In 9M23, the Market GIM was Baht 16,625 million or USD 9.14 per barrel being down by Baht 4,527 million or USD 2.36 per barrel from that in the same period last year, mainly from the reduced petroleum and petrochemical product spreads due to recession concerns, interest rate hikes and a property crisis in China. Meanwhile, the cost of crude premium drastically decelerated.

## 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 3Q23 was Baht 8,939 million or USD 14.76 per barrel improving by Baht 5,732 million or USD 9.53 per barrel, QoQ. This was mainly because the Market GIM rose by Baht 1,205 million or USD 2.06 per barrel. Besides, there was the net inventory gain in 3Q23 of Baht 3,566 million or USD 5.89 per barrel comprising of a stock gain of Baht 3,807 million or USD 6.28 per barrel and an NRV reverse of Baht 132 million or USD 0.22 per barrel versus a loss on realized oil hedging of Baht 961 million or USD 1.58 per barrel.

By comparing with the 3Q22 Accounting GIM of Baht 465 million or USD 0.73 per barrel, the Accounting GIM was up by Baht 8,474 million or USD 14.03 per barrel as the Market GIM increased by Baht 888 million or USD 1.82 per barrel, along with the net inventory gain of Baht 3,566 million or USD 5.89 per barrel compared to the net inventory loss of Baht 4,020 million or USD 6.32 per barrel.

In 9M23, the Accounting GIM was Baht 17,488 million or USD 9.62 per barrel decreasing by Baht 4,132 million or USD 2.13 per barrel from that in the same period last year. This was because the Market GIM moved down by Baht 4,527 million or USD 2.36 per barrel, while the net inventory gain improved by Baht 395 million or USD 0.23 per barrel.

## 2.3 Other Incomes

Other incomes consist of port and tank farm services and other services. In 3Q23, the Company had other incomes of Baht 363 million decreasing by Baht 21 million, QoQ, mainly from softened income from port service. Still, by comparing YoY, the other incomes was up by Baht 60 million. In 9M23, the Company had other incomes of Baht 1,099 million rising by Baht 64 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 3Q23, the Company had operating expenses of Baht 3,059 million decreasing by Baht 103 million from that in the prior quarter, mainly from employee expenses and consulting expenses. In addition, by comparing YoY, the operating expenses slumped by Baht 26 million, mainly from consulting expenses. In 9M23, the Company recorded the operating expenses of Baht 9,512 million increasing by Baht 292 million from those in the same period last year, mainly from employee expenses.

## 2.5 Depreciation expense

In 3Q23, the depreciation expense was Baht 2,175 million increasing by Baht 18 million, QoQ and by Baht 161 million, YoY. In 9M23, the Company recorded the depreciation expense equaling Baht 6,437 million rising by Baht 400 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 3Q23, the net finance cost was Baht 538 million increasing by Baht 39 million, QoQ, and by Baht 42 million, YoY. In 9M23, the net finance cost was Baht 1,533 million rising by Baht 212 million from that in the same period last year, mainly due to increased interest rates.

## 2.7 Gain (Loss) on Financial Derivatives

In 3Q23, there was a loss on financial derivatives amounting to Baht 106 million, mainly from a loss on Cross Currency Swap (CCS) due to less appreciated Thai Baht. The loss decreased by Baht 78 million; however, by comparing YoY, the loss was up by Baht 25 million.

In 9M23, there was a loss on financial derivatives equaling Baht 267 million, mainly from a loss on CCS. The loss increased by Baht 224 million from that in the same period last year.

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

In 3Q23, the Company recorded a loss on foreign exchange (FX) from U.S. dollar-borrowings of Baht 75 million decreasing by Baht 75 million, QoQ, and by Baht 237 million, YoY, due to less depreciated Thai baht by comparing both QoQ and YoY.

In 9M23, the company had a loss on FX from U.S. dollar-borrowings of Baht 178 million. The loss was down by Baht 395 million from that in the same period last year owing to less depreciated Thai Baht.

## 2.9 Unrealized Gain (Loss) on Oil Hedging

In 3Q23, the Company recorded an unrealized loss on oil hedging of Baht 29 million. The loss softened by Baht 19 million, QoQ, while compared to a gain of Baht 2,426 million in 3Q22. In 9M23, there was an unrealized loss on oil hedging of Baht 16 million decreasing by Baht 805 million from that in the same period last year.

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

In 3Q23, the Company had no gain (loss) on impairment and disposal of assets, similar to those in 2Q23 and 3Q22.

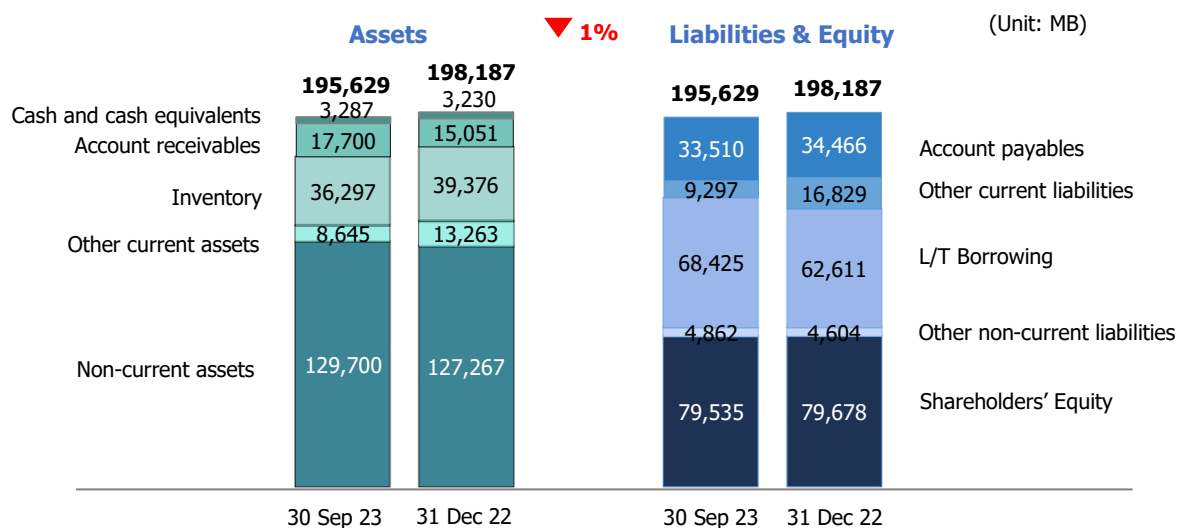
In 9M23, the Company obtained a gain on impairment and disposal of assets of Baht 825 million compared to a loss of Baht 1 million in the same period last year, mainly owing to a reverse on spare part impairment in 1Q23 following adjustment of impairment principal, from time-based to condition-based.

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

In 3Q23, the Company recorded a gain on investments of Baht 89 million decreasing by Baht 25 million, QoQ, while increasing by Baht 22 million, YoY. In 9M23, there was a gain on investments of Baht 213 million dropping by Baht 162 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 3Q23, the Company recorded a corporate income tax of Baht 598 million compared to a corporate income tax benefit of Baht 580 million in the prior quarter and a corporate income tax benefit of Baht 655 million in 3Q22 thanks to improved performance. In 9M23, the Company recorded a corporate income tax of Baht 88 million moving down by Baht 522 million from that in the same period last year, mainly owing to softened performance.

**Financial Positions as of 30 September 2023**

**Assets**

As of September 30, 2023, the Company had total assets of Baht 195,629 million decreasing by Baht 2,558 million or by 1% from that on December 31, 2022. It was due to the following reasons:

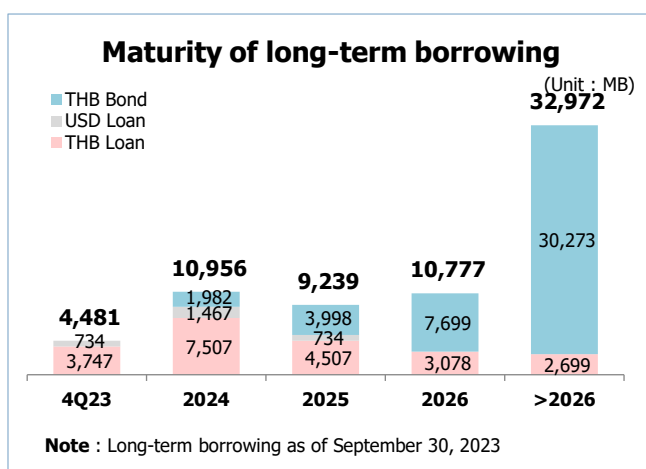
- **Cash and cash equivalents:** increased by Baht 57 million or by 2% from that at the end of 2022, mainly owing to the increase of net cash flow from operations after investment and loan repayment.
- **Trade receivables:** increased by Baht 2,649 million or by 18% from that at the end of 2022, mainly due to a rise 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 19 days increasing by 3 days from that at the end of 2022.
- **Inventory:** decreased by Baht 3,079 million or by 8% from that at the end of 2022, mainly due to a 6% decrease in the crude oil price and products prices following market situations as well as a 10% decrease in inventory volume. The average inventory period was 44 days increasing by 2 days from that at the end of 2022.
- **Other current assets:** decreased by Baht 4,618 million or by 35% from that at the end of 2022. This was mainly attributed to a decrease in other receivables by Baht 4,793 million, mainly from account receivables – Oil Fund.
- **Non-current assets:** increased by Baht 2,433 million or by 2% from that at the end of 2022, mainly due to a rise in investments in fixed assets by Baht 2,651 million versus a decrease in prepaid fixed assets by Baht 255 million.

## Liabilities

As of September 30, 2023, the Company had total liabilities of Baht 116,094 million decreasing by Baht 2,415 million or by 2% from what was stated as of December 31, 2022. It was due to the following reasons:

- **Trade payables:** decreased by Baht 956 million or by 3% 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 40 days increasing by 3 days from that at the end of 2022.

- **Other current liabilities:** decreased by Baht 7,532 million or by 45% compared to that at the end of 2022, mainly due to the repayment of short-term borrowing from financial institutions by Baht 5,500 million and a decline in other payables by Baht 1,766 million, mainly from account payables - Ready Made Assets.



- **Long-term borrowing including current portion within one year:** increased by Baht 5,814 million or by 9% 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 6,364 million.

The details of long-term borrowings are shown below;

(Unit: MB)

	Sep 30, 2023	Dec 31, 2022	Change
Thai Baht Bonds	43,952	33,963	9,989
USD Loan*	2,935	3,467	(532)
Thai Baht Loan	21,538	25,181	(3,643)
<b>Total Long-term Borrowing</b>	<b>68,425</b>	<b>62,611</b>	<b>5,814</b>
Less current portion of long-term borrowing	(11,474)	(10,762)	(712)
<b>Net Outstanding Long-term Borrowing</b>	<b>56,951</b>	<b>51,849</b>	<b>5,102</b>

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

## Shareholders' Equity

As of September 30, 2023, shareholders' equity amounted to Baht 79,535 million, which decreased from what was stated as of December 31, 2022 by Baht 143 million or 0.2%. This was mainly from a dividend payment amount of Baht 612 million versus the net profit amounting to Baht 493 million in 9M23.

**Statement of Cash Flow**

(Unit : MB)

	Jan – Sep 23	Jan – Sep 22
Net cash flows from (used in) operating activities	10,548	(2,951)
Net cash flows from (used in) investing activities	(8,269)	(4,604)
Net cash flows from (used in) financing activities	(2,222)	650
<b>Net increase (decrease) in cash</b>	<b>57</b>	<b>(6,905)</b>
Beginning cash	3,230	11,236
<b>Ending cash</b>	<b>3,287</b>	<b>4,331</b>

As of September 30, 2023, the ending cash was Baht 3,287 million. Net cash flow increased by Baht 57 million, which was mainly contributed from the following items:

- **Net cash inflow from operating activities:** of Baht 10,548 million. The cash inflow was mainly from EBITDA of Baht 8,010 million and a decrease in inventory of Baht 6,054 million. Nevertheless, the cash outflow was mainly from an increase in trade receivables of Baht 2,595 million.

- **Net cash outflow from investing activities:** of Baht 8,269 million, mainly from an investment in Ultra Clean Fuel (UCF) Project and the capitalized major turnaround expenses in late-2022.

- **Net cash outflow from financing activities:** of Baht 2,222 million, mainly from the repayment of long-term loans repayment of Baht 6,364 million, short-term borrowing from financial institutions of Baht 5,500 million, interest payment of Baht 1,569 million, and dividend payment of Baht 612 million. Nevertheless, the cash inflow mainly comprised of the issuance of debentures amounting to Baht 12,000 million.



**Key Financial Ratios**

	Unit	Quarter			9M	
		3Q23	2Q23	3Q22	2023	2022
<b>Profitability Ratios</b>						
EBITDA Margin	%	7.20	0.14	(3.13)	3.34	4.42
Net Profit Margin	%	2.99	(2.92)	(2.85)	0.21	1.04
Earnings per share	Baht/share	0.12	(0.11)	(0.12)	0.02	0.14
Return on Equity*	%	0.83	(4.98)	4.27	0.83	4.27
<b>Liquidity Ratios</b>						
Current Ratio	time	1.21	1.18	1.46	1.21	1.46
Quick Ratio	time	0.39	0.36	0.36	0.39	0.36
<b>Financial Policy Ratios</b>						
Net Interest Bearing Debt to Equity	time	0.87	0.91	0.72	0.87	0.72
Net Interest Bearing Debt to EBITDA*	time	6.44	16.29	3.57	6.44	3.57

**Note:** \*Annualized

**Liquidity and Capital Structure**

In 3Q23, current ratio was 1.21 times increasing by 0.03 times from that in 2Q23 of 1.18 times. This was mainly owing to a rise in trade receivables. Thus, the Company has sufficient liquidity for its operations.

At the end of 3Q23, net interest bearing debt to equity ratio was 0.87 times decreasing by 0.04 times from that in 2Q23 of 0.91 times. This was mainly due to an increase in shareholders' equity from 3Q23 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