



RATCH Group Public Company Limited

Management Discussion and Analysis

For the 1st Quarter Ended March 31, 2023

Abbreviation

The Company	RATCH Group Public Company Limited
The Group	RATCH Group Public Company Limited and its subsidiaries
PEA	Provincial Electricity Authority
EGAT	Electricity Generating Authority of Thailand
COD	Commercial Operation Date
EBITDA	Earnings before Interest, Tax, Depreciation and Amortization
FX	Foreign Exchange Rate
IPP	Independent Power Producer
PPA	Power Purchase Agreement
SPP	Small Power Producer

Projects/Companies

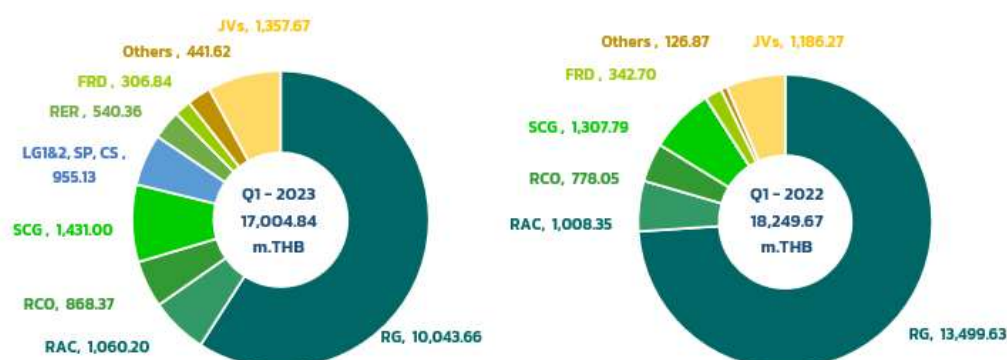
BAFS	Bangkok Aviation Fuel Services Public Company Limited, a direct associate in proportion of 15.53 percent
CS	Coc San Hydroelectric Power Plant, operated by Lao Cai Renewable Energy Stock Company, a wholly-owned indirect subsidiary
FRD	Asahan-1 Hydroelectric Power Plant, operated by Fareast Renewable Development Pte. Ltd., RHIS in proportion of 90 percent
LG1&2	Lincoln Gap 1&2 Wind Farm Project, operated by Lincoln Gap Wind Farm Pty Ltd., a wholly-owned indirect subsidiary
HKP	Hin Kong Combined-Cycle Power Plants, operated by Hin Kong Power Company Limited, a direct joint venture in proportion of 51 percent
HPC	Hongsa Thermal Power Plants, operated by Hongsa Power Company Limited, an indirect joint venture in proportion of 40 percent
NNEG	Nava Nakorn Power Plant, operated by Nava Nakorn Electricity Generating Company Limited, an indirect joint venture in proportion of 40 percent
PNPC	Xe-Pian Xe-Namnoy Hydroelectric Power Plant, operated by Xe-Pian Xe-Namnoy Power Company Limited, a direct joint venture in proportion of 25 percent
RAC	RATCH-Australia Corporation Pty Ltd, a wholly-owned indirect subsidiary
RCO	RATCH Cogeneration Power Plant, operated by RATCH Cogeneration Company Limited, a wholly-owned subsidiary
RER	RATCH Energy Rayong Power Plant, operated by RATCH Energy Rayong Co.,Ltd. (previous name : “Nexif RATCH Energy Rayong Co.,Ltd”), a subsidiary
RG	Ratchaburi Power Plants, operated by Ratchaburi Electricity Generating Company Limited, a wholly-owned subsidiary
RHIS	RH International (Singapore) Corporation Pte Ltd, a wholly-owned indirect subsidiary
SCG	Sahacogen (Chonburi) Public Company Limited, a subsidiary in proportion of 51.67 percent
SP	Snapper Point Gas-Fired Power Plant, operated by Port Adelaide Energy Pty Ltd., a wholly-owned indirect subsidiary

Executive Summary

Unit : Million THB

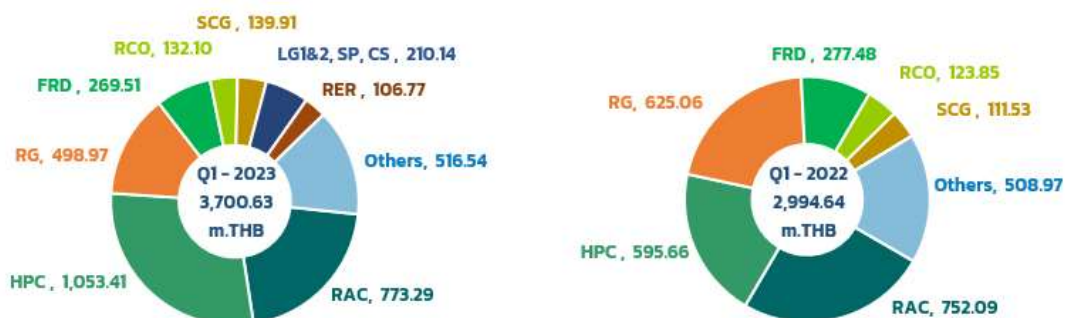
	Quarter 1		Increase (Decrease)	%
	2023	2022		
Total revenues	17,004.84	18,249.67	(1,244.83)	(6.8)
EBITDA	3,700.63	2,994.64	705.99	23.6
Profit to owner of the Company	1,447.67	1,579.35	(131.69)	(8.3)
Profit before FX	1,624.76	1,166.38	458.38	39.3

Total Revenues



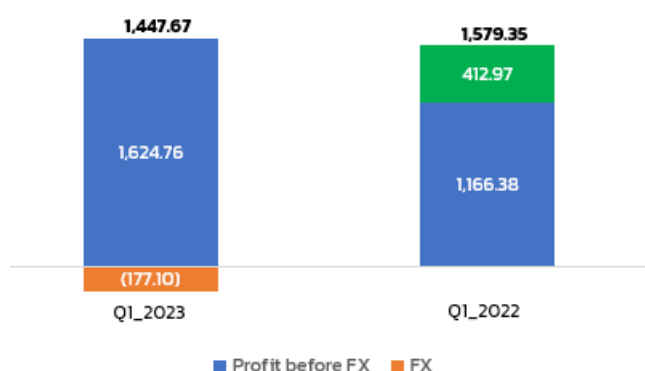
- In the 1st quarter 2023, the total revenues decreased by 6.8 percent as the Energy Payment of RG decreased due to lower electricity generation, corresponding to lower dispatch instruction by EGAT. However, due to the acquisition by RHIS on December 20, 2022, the revenue from sales of LG1&2, SP and CS has been consolidated. In addition, the revenue from sale of RER has been consolidated due to status change from a joint venture to a subsidiary.
- In the 1st quarter 2023, the HPC share of profit increased due to the increase in Availability Payment and the share of profit of NNEG increased due to the rise in Ft. In addition, the share of profit of BAFS increased due the increase in flight and refueling volume.

EBITDA



- In the 1st quarter 2023, the EBITDA increased by 23.6 percent because the EBITDA of LG1&2, SP, CS and RER has been consolidated. Furthermore, the share of profit from JV increased as previously mentioned.

Profit to Owner of the Company



- In the 1st quarter of 2023, by excluding the effect of FX, the operating result increased by THB 458.38 million or 39.3 percent. The main reason was the acquisition of LG1&2, SP, CS and RER power plants, which are in commercial operation. As a result, this enhanced the profit of the Company. While the Company had the loss on FX from loan to related parties in AUD. As AUD depreciated in relative to USD, the asset value in AUD decreased, the Company had the profit in the 1st quarter of 2023 in the amount of THB 1,447.67 million.

1. Significant Events of the 1st Quarter of 2023

1.1 Commercial operation of RATCH Cogeneration SPP Power Plant (Expansion)

On February 1, 2023, RATCH Cogeneration SPP Power Plant (Expansion) with the installed power generating capacity of 31.2 megawatts and steam generating capacity of 7.15 ton per hour, has officially commenced commercial operation. The power plant, operated by RCO, has power and steam purchase agreement with industrial users.

1.2 Progress on the purchasing of ordinary shares to invest in Thermal Power Plant in the Republic of Indonesia

RHIS has reached an arrangement that it will be acquiring 36.26 percent of power plant business in PT Paiton Energy and in Minejesa Capital B.V. and will be acquiring 65 percent in IPM Asia Pte. Ltd., which undertakes power plant operations and maintenance business. This arrangement is in line with the Company's commercial objectives and this investment will deliver consistent returns to the Company. This is also a part of the process to complete conditions precedent of Sale and Purchase Agreement which RHIS has signed on June 22, 2021.

Paiton power plant is the coal-fired thermal power plant with total capacity of 2,045 megawatts located in Paiton Power Generation Complex in the Republic of Indonesia.

Progress of Projects under Construction (as of March 31, 2023)



MRT Pink Line Project	
Technology	Monorail
Route	Khae Rai–Min Buri
Ownership	10%
Contract Term	30 Years
COD	Year 2024
Progress	Civil Works = 95.80% Railway System = 96.09%



MRT Yellow Line Project	
Technology	Monorail
Route	Lad Prao–Sam Rong
Ownership	10%
Contract Term	30 Years
COD	Year 2023
Progress	Civil Works = 98.75% Railway System = 98.73%



Hin Kong Power Plant (HKP)	
Type of Power Plant	IPP
Type of Fuel	Natural Gas
Install Capacity (MW)	1,540
Location	Ratchaburi Province
Ownership	51%
PPA	25 Years with EGAT
COD	Year 2024 and 2025
Progress	82%



Thanh Phong Wind-Turbine Power Plant (ECOWIN)	
Install Capacity (MW)	29.7
Location	Ben Tre Province, Vietnam
Ownership	51%
PPA	20 Years with Vietnam Electricity
COD	Year 2023
Progress	95.77%



R E N Korat Energy Power Plant (R E N)	
Type of Power Plant	Cogeneration IPS Power Plant
Type of Fuel	Natural Gas
Install Capacity (MW)	31.2
Location	Nakhon Ratchasima Province
Ownership	40%
Customers	Industrial Promotion Zone, Nakhon Ratchasima Province
COD	Year 2024
Progress	25.64%



Calabanga Power Plant	
Type of Power Plant	Solar Power Plant
Install Capacity (MW)	74.1
Location	Luzon Island , Philippines
Ownership	46.23%
COD	Year 2024
Progress	Under Construction



Song Giang 1 Power Plant	
Type of Power Plant	Hydroelectric Power Plant
Install Capacity (MW)	12
Location	Khanh Hoa Province , Vietnam
Ownership	46.23%
COD	Year 2024
Progress	Under Construction

2. Operation Performance according to Consolidated Financial Statement

Analysis of Revenues

Unit : Million THB

	Quarter 1		Increase (Decrease)	%
	2023	2022		
Revenue from sales and rendering of services	14,492.92	16,182.43	(1,689.51)	(10.4)
<i>RG</i>	9,689.45	13,045.60	(3,356.15)	(25.7)
<i>RAC</i>	1,005.11	1,000.15	4.96	0.5
<i>RCO</i>	868.09	778.05	90.04	11.6
<i>SCG</i>	1,426.15	1,304.07	122.08	9.4
<i>LG1&2, SP and CS</i>	934.52	-	934.52	-
<i>RER</i>	540.36	-	540.36	-
<i>Others</i>	29.25	54.56	(25.31)	(46.4)
Revenue from leases contracts	627.14	732.77	(105.63)	(14.4)
Share of profit of associates and joint ventures	1,357.67	1,186.27	171.40	14.4
<i>IPPs</i>	1,108.67	792.78	315.88	39.8
<i>SPPs</i>	92.66	191.72	(99.06)	(51.7)
<i>Hydro Power Plants</i>	(0.76)	43.31	(44.06)	(101.7)
<i>Renewable Power Plants</i>	103.08	109.96	(6.87)	(6.2)
<i>Infrastructure and Others</i>	54.02	48.50	5.51	11.4
Other incomes	527.11	148.19	378.92	255.7
<i>Management service income</i>	64.92	67.89	(2.97)	(4.4)
<i>Interest income</i>	407.25	47.10	360.15	764.7
<i>Other income</i>	54.94	33.20	21.74	65.5
Total revenues	17,004.84	18,249.67	(1,244.83)	(6.8)

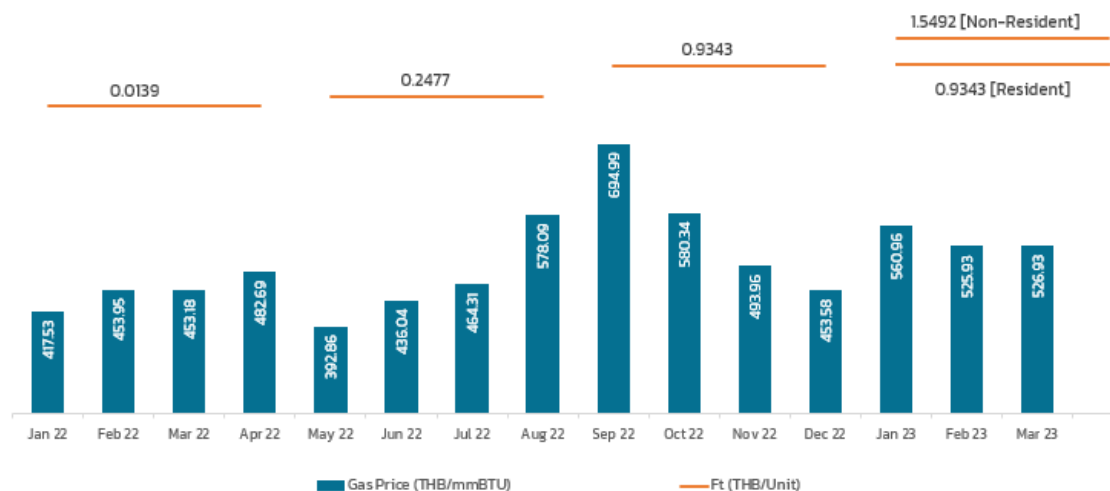
Revenue from Sales and Rendering of Services

- **RG Power Plant**

Key Revenue Drivers	Quarter 1		Increase (Decrease)	%
	2023	2022		
Electricity Sale Volume to EGAT (GWh)				
Natural Gas	2,012.11	3,250.70	(1,238.59)	(38.1)
Heavy Oil	388.84	311.10	77.74	25.0
Diesel Oil	0.71	15.34	(14.63)	(95.4)
	2,401.66	3,577.14	(1,175.48)	(32.9)
Average Fuel Price				
Natural Gas (THB/mmBTU)	493.35	447.76	45.59	10.2
Heavy Oil (THB/Litre)	15.59	18.57	(2.98)	(16.0)
Diesel (THB/Litre)	27.98	24.80	3.18	12.8

Revenue from sales decreased. The main reason was the lower electricity generation using natural gas and diesel than that of the previous year, corresponding to lower dispatch instruction by EGAT. Whereas the price of natural gas and diesel has increased.

- **RCO & SCG Power Plants**



Revenue from sales increased due to the increase in Ft. In addition, the average gas price increased, resulting in higher Energy Payment.

- **LG1&2, SP, CS and RER Power Plants**

Due to the acquisition by RHIS on December 20, 2022, the revenue from sales of LG1&2, SP and CS has been consolidated. In addition, the revenue from sale of RER has been consolidated due to status change from a joint venture to a subsidiary.

Share of Profit of Associates and Joint Ventures

IPPs

- Hongsa Thermal Powerplants (HPC)

Key Revenue Drivers	Quarter 1		Increase (Decrease)	%
	2023	2022		
Commercial Equivalent Availability Factor (% C-EAF)	96.05	76.72	19.33	25.2
EGAT Dispatch Factor (% DF)	102.46	101.65	0.81	0.8
EDL Dispatch Factor (% DF)	117.29	109.93	7.36	6.7
Average Fx (THB/USD)	34.01	33.15	0.86	2.6

Planned Maintenance	Quarter 1 , 2023	Quarter 1 , 2022
Power Plant - Unit 1	-	-
Power Plant - Unit 2	-	January 14 – February 26, 2022 (44 days)
Power Plant - Unit 3	-	-

In the 1st quarter 2023, the share profit of HPC increased as the power plants had higher Availability Payment because of the major overhaul of unit 2 in the 1st quarter 2022. In addition, THB depreciation in the 1st quarter 2023 resulted in higher Availability Payment.

SPPs

- Nava Nakorn SPP Power Plant (NNEG)

The share profit of NNEG increased due to the increase in Ft as per the details in the graph above.

Hydro Power Plants

- Xe-Pian Xe-Namnoy Hydro Power Plant (PNPC)

The share profit of PNPC decreased as there was major overhaul of unit 1&3.

Planned Maintenance	Quarter 1 , 2023	Quarter 1 , 2022
Power Plant - Unit 1	February 4 - March 4, 2023 (29 days)	-
Power Plant - Unit 2	-	-
Power Plant - Unit 3	February 19 - March 4, 2023 (14 days)	-

Infrastructure and Others

- The operating result of BAFS increased due to the increase in flight volume and refueling volume after the relief of COVID-19 situation.

Analysis of EBITDA and Profit to Owner of the Company

Unit : Million THB

	Quarter 1		Increase (Decrease)	%
	2023	2022		
Total Revenue	17,004.84	18,249.67	(1,244.83)	(6.8)
Cost of Sales (Excl. Depreciation and Amortization)	12,737.76	14,811.20	(2,073.44)	(14.0)
<i>RG</i>	<i>9,504.94</i>	<i>12,833.40</i>	<i>(3,328.46)</i>	<i>(25.9)</i>
<i>RAC</i>	<i>176.66</i>	<i>166.38</i>	<i>10.28</i>	<i>6.2</i>
<i>RCO</i>	<i>727.11</i>	<i>646.36</i>	<i>80.75</i>	<i>12.5</i>
<i>SCG</i>	<i>1,243.27</i>	<i>1,153.00</i>	<i>90.27</i>	<i>7.8</i>
<i>LG1&2, SP and CS</i>	<i>629.30</i>	-	<i>629.30</i>	-
<i>RER</i>	<i>433.90</i>	-	<i>433.90</i>	-
<i>RL</i>	<i>22.57</i>	<i>12.06</i>	<i>10.51</i>	<i>87.1</i>
Administrative expenses (Excl. Depreciation and Amortization)	566.44	443.82	122.62	27.6
Total Expenses	13,304.21	15,255.02	(1,950.82)	(12.8)
EBITDA	3,700.63	2,994.64	705.99	23.6
Less Depreciation and Amortization	1,092.08	740.94	351.14	47.4
(Gain) Loss on Fair Value Adjustment of Derivatives	(218.51)	25.49	(244.00)	(957.3)
Finance Costs	1,024.57	808.32	216.25	26.8
Tax Expense	107.67	468.57	(360.90)	(77.0)
Profit before Fx	1,694.82	951.32	743.50	78.2
Gain (Loss) on Fx	(177.10)	412.97	(590.07)	(142.9)
Profit for the Period	1,517.73	1,364.29	153.43	11.2
Non-Controlling Interests	70.06	(215.06)	285.12	132.6
Profit to Owner of the Company	1,447.67	1,579.35	(131.69)	(8.3)
Effect of Gain (Loss) on Fx	(177.10)	412.97	(590.07)	(142.9)
Profit to Owner of the Company before Fx	1,624.76	1,166.38	458.38	39.3

In the 1st quarter 2023, EBITDA was THB 3,700.63 million, increasing by THB 705.99 million from THB 2,994.64 million in 2022. The main reasons were the decrease in the total revenue, as described above, while cost of sales also decreased. The main reasons were as follows:

Cost of Sales

- **RG Power Plant** - Cost of sales decreased as the power plants generated lower electricity using natural gas and diesel than that of the previous year, corresponding to lower dispatch instruction by EGAT.
- **LG1&2, SP, CS and RER Power Plants** – The Company has consolidated the cost of sales of LG1&2, SP, CS and RER.
- **RCO & SCG Power Plant** - Cost of sales increased as the fuel price increased.

As the increase in EBITDA as described above, in the 1st quarter 2023, the Company also received gain from fair value adjustment of derivatives and the decrease in tax expense. However, the Company had higher depreciation and amortization, finance costs, and loss on FX. As a result, profit to owner of the Company was THB 1,447.67 million, decreasing by THB 131.69 million from the previous year. The details were as follows:

Depreciation and amortization

The depreciation and amortization increased as the Company has consolidated the depreciation and amortization of LG1&2, SP, CS and RER.

The effect of fair value adjustment of derivatives

In the 1st quarter 2023, the Company recorded gain on fair value adjustment of PPA derivatives of LG1&2. However, the 1st quarter 2022, the Company recorded loss on fair value adjustment of cross currency swap contract between JPY and AUD currencies to manage the exposure of fluctuations in foreign exchange risk on borrowings.

Finance Costs

- The Company and RHIS – The finance cost increased from loan drawdown from financial institutions during the period for the purpose of investment in projects.
- The Company has consolidated the finance cost of LG1&2, SP, CS and RER.

Tax Expense

In the 1st quarter of 2022, FRD recorded the deferred tax expense due to tax rate change of its subsidiary in Indonesia in the amount of THB 337.70 million. This item was the accounting transaction, which had no impact on cash flow of the Group.

The Effect of FX

In the 1st quarter 2023, There was the loss on FX in the amount THB 177.10 million due mainly to the loss on FX from loan to related parties in AUD. As AUD depreciated in relative to USD, the asset value in AUD decreased. While, in the 1st quarter 2022, the Company recorded gain on FX. The main reason was JPY depreciated in relative to USD. Therefore, the liability value in JPY decreased.

3. Analysis of Statement of Financial Position



Assets

 Assets decreased in the amount of THB 5,078.15 million. The main reasons were as follows:

- Trade accounts receivable from related parties of RG decreased in the amount of THB 6,577.31 million. As at March 31, 2023, the receivable consisted of electricity sale in March 2023; whereas, as at December 31, 2022, the receivable consisted of electricity sale in November and December 2022.
- Lease receivables decreased in the amount of THB 711.27 million.
- Property, plant and equipment decreased in the amount of THB 977.63 million due mainly to the depreciation during the period.
- Investments in joint ventures and associates decreased in the amount of THB 452.11 million. The main reasons were from dividend received from joint ventures and associates in the amount of THB 1,103.88 million. In addition, there were the FX adjustment in the amount of THB 624.86 million and share of profits of joint ventures and associated during the period in the amount of THB 1,357.67 million.

Liabilities and Equity

 Liabilities decreased in the amount of THB 4,139.50 million. The main reasons were as follows:

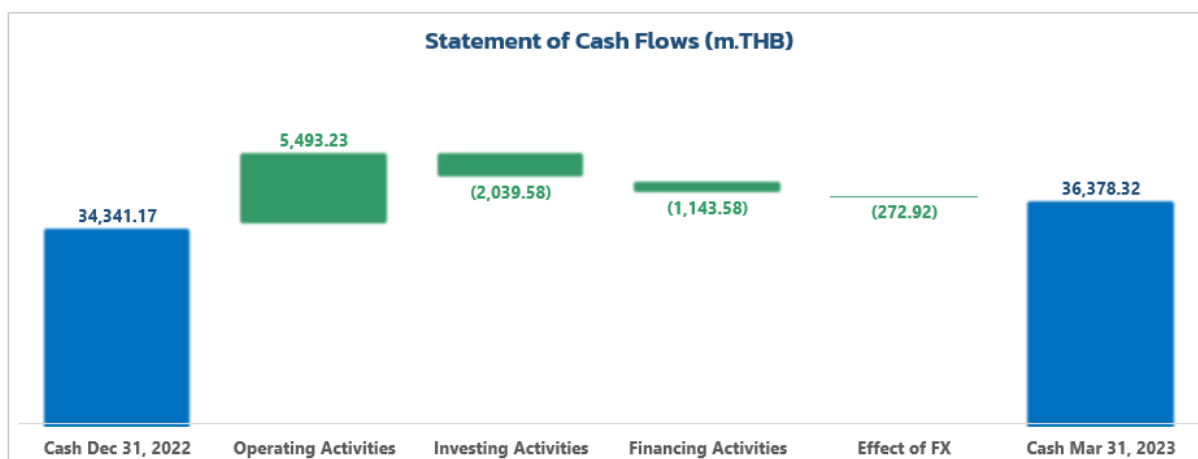
- Trade accounts payable of RG decreased by THB 2,263.72 million as the electricity generation in February and March 2023 were lower than that in November and December 2022. This resulted in the decrease in fuel consumption.
- Loan from financial institutions and debentures decreased in the amount of THB 1,057.07 million due mainly to the depreciation of USD in relative to THB, which resulted in the decrease in value of loan from financial institutions and debentures.

 Equity decreased in the amount of THB 938.65 million. The main reasons were as follows:


- The Company had the profit of the 1st quarter 2023 in the amount of THB 1,447.67 million.
- Other components of equity decreased in the amount of THB 2,401.56 million. The main


reasons were due to translation reserve in the amount of THB 1,027.72 million, cash flow hedge reserve in the amount of THB 756.88 million, and share of other comprehensive expense of joint ventures and associates in the amount of THB 518.37 million.

4. Analysis of Cash Flows




Cash and cash equivalents of the Company and its subsidiaries as at March 31, 2023 were THB 36,378.32 million, increasing by THB 2,037.15 million from THB 34,341.17 million on December 31, 2022. The details were summarized below:

 Net cash from operating activities increased cash flow in the amount of THB 5,493.23 million. The reason was the operating result of the 1st quarter 2023 improved cash position by THB 1,816.48 million, adjusted by the change in operating assets and liabilities in the amount of THB 3,676.75 million.

 Net cash used in investing activities decreased cash flow in the amount of THB 2,039.58 million. The main reasons were as follows:

- The Company had net cash outflow in other current financial assets in the amount of THB 2,384.07 million
- The Company paid for plant and equipment in the amount of THB 555.52 million.
- The Company received dividends in the total amount of THB 913.55 million.

 Net cash from financing activities decreased cash flow in the amount of THB 1,143.58 million due mainly to the interest expenses during the period in the amount of THB 1,187.79 million.

5. Significant financial ratios (excluded the effect of foreign exchange rate of the Company and its subsidiaries)

