

# **Analyst Meeting 2Q2023**

**28 August 2023**

# ●●● Agenda

1

**RATCH**  
Highlights

2

**Project**  
Progress

3

**Group**  
Performance

4

**Financial**  
Performance

5

**Appendix**







# **RATCH Highlights**



# Business Highlights

## Finance Performance (6 Months)

### EBITDA

**7,798 Million Baht (+11.8% YoY)**

### Normal Profit

**3,437 Million Baht (+1.6% YoY)**

### Net Profit

**3,573 Million Baht (-5.4% YoY)**

## Financial Position as of 30 June 2023

### Assets

**228,905**  
Million Baht

### Liabilities

**118,832**  
Million Baht

### Equity

**110,073 Million Baht**

## Financial ratios

### Debt to Equity

(times)

**1.08**

### ROE (%)

**5.81**

## Total Revenue

**30,137**

Million Baht

### Power Business

**29,035**

Million Baht  
(96%)

### Non-Power Business

**1,102**

Million Baht  
(4%)

Revenue  
Generating  
from  
**Renewable**  
Power Plants  
**13%**

Revenue  
Generating  
from  
**Conventional**  
Power Plants  
**87%**

# ● ● ● Business Highlights



**MRT Yellow line** has officially started the operation on **July 3, 2023.**

## Routes

**Lad Prao-Sam Rong,**  
30.4 km. 23 Stations

## Concession Period

**30 Years from COD**

## Concessioner

**Mass Rapid Transit  
Authority of Thailand**

## RATCH's stake

**10%**

## Trial Run

**19 June 2023**

## COD

**3 July 2023**





## ● ● ● Business Highlights

### RATCH has won “Best Value Creation Energy Infrastructure Company APAC 2023” Award from CFI.co Magazine



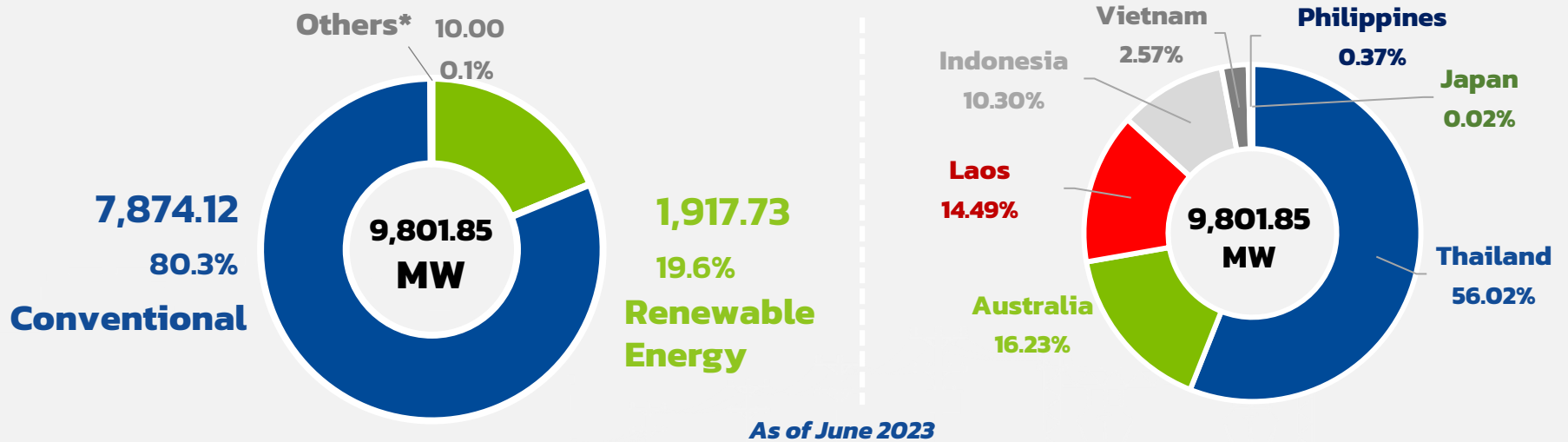
Each year, CFI.co seek out organizations that **contribute significantly to the convergence of economies and truly add value for all stakeholders.**




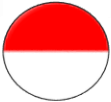










CFI.co realizes that best practice is to be found throughout the world, and the Awards Program aims to identify and reward excellence wherever it is found in the hope to inspire others for further improvement.

#### **CFI.co (Capital Finance International):**

a renowned print journal and online resource reporting on business, economics and finance, recognizes that the traditional distinction between emerging and developed markets is now far less meaningful as world economies.

# RATCH's Power Plant Portfolio



							
	Thailand	Australia	Laos	Indonesia	Vietnam	Philippines	Japan
Total MW	5,491.10 MW	1,590.89 MW	1,420.30 MW	1,009.72 MW	251.49 MW	36.33 MW	2.02 MW
Conventional	5,396.34 MW	703.20 MW	751.20 MW	886.67 MW	136.71 MW		
Renewable Energy	94.76 MW	877.69 MW	669.10 MW	123.05 MW	114.78 MW	36.33 MW	2.02 MW
							

\*Battery 10 MW in Australia





# Project Progress





## **Power Business** (Under Construction)

## **Hin Kong Power Plant Unit 1&2**

**785.40 MW**  
(51%)

**90.10%**  
Completion  
(As of Jun 2023)



**Attributable Capacity:**  
785.40 MW (51%)



**Located** in Ratchaburi  
Province



**25-Year** PPA with EGAT



**Signed Financial** Agreement  
31 Mar 2022



**Financial Close:** 19 August 2022  
(CP Completion & UR Submission)



**First Drawdown:**  
29 August 2022



**Expected COD:**  
• **Unit 1: 2024**  
• **Unit 2: 2025**

## Project Progress



### Power Business (Under Construction)

### Ecwin Wind-Turbine Power Plant

**15.16MW**  
(51.04%)



**96.77%**  
Completion  
(As of Jun 2023)



**Attributable Capacity:**  
15.16 MW (51.04%)



**20-Year** PPA with EVN



**On-shore wind farm located**  
in Ben Tre Province, approx.  
160 km from the south of Ho  
Chi Minh City, Vietnam



**Expected COD: 3Q23**





## **SPP** **Power** **Business**

### **R E N Korat (IPS)**

(Under Construction)

Attributable Capacity  
**12.48 MW (40%)**



- Nakhon Ratchasima province
- EPC signed and NTP: October 2022
- Started construction : November 2022
- Completion: **29.65%**
- **(As of Jun 2023)**
- Expected COD: 2024

### **Navanakorn Phase 3 Expansion**

(Under Development)

Attributable Capacity  
**12 MW (40%)**



- Pathumthani Province
- Construction period: 18 months
- Expected COD: 2024

## Power Business (Under Development)



### **Xekong 4A and 4B Hydroelectric Power Plant**

Attributable Capacity 213 MW (60%)




### **Sibundong Hydroelectric Power Plant**

Attributable Capacity 36.85 MW (50%)




#### Other Business Partner

-  Xekong Province, Lao PDR
- Completed Basic Design
- Preparing for PPA Negotiation with EGAT & CA Negotiation with Lao Government
- Expected COD: 2033



Through

**FRD\***

-  Sibundong River, North Sumatra Province, Indonesia
- Technology: Run-of-River
- Total investment: USD 13.89 million
- Updating Feasibility Study and to be completed by 3Q23
- Expected COD: 2029



# ● ● ● Project Progress: Nexif Project

## Calabanga Solar



**Plant Capacity**

**74.14 MW**

**Ownership**

**49%**

**Location**

Camarines Sur Province,  
South Luzon, The Philippines

**Technology**

**PV Solar Panel System**

**Status**

Completed financial loan deal in June 2023  
Completion (As of June 2023) : 2.25%

**COD**

**2024**



# ● ● ● Project Progress: Nexif Project

## Song Giang 1 Hydro



**Plant**

**12 MW**

**Ownership**

**46.23%**

**Location**

Khanh Hoa, Vietnam

**Technology**

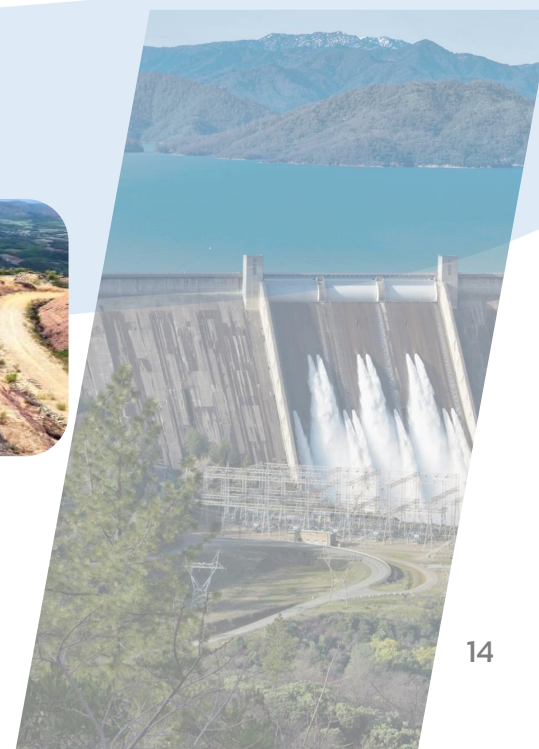
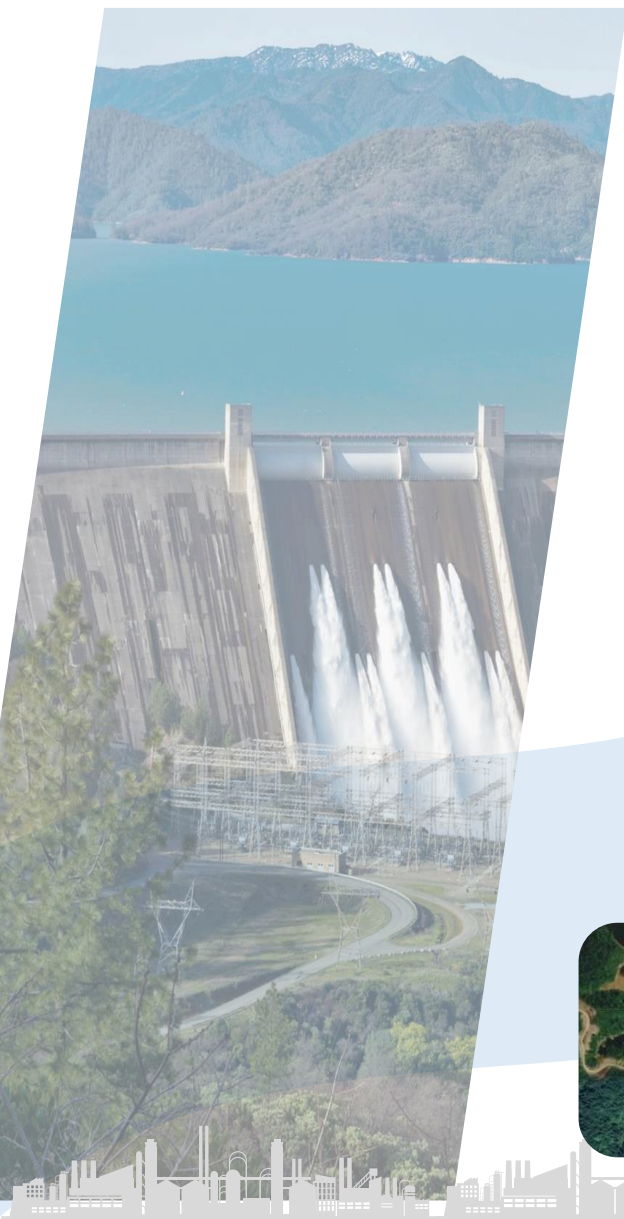
Run-off river with peak storage (5hr)

**Status**

Under construction

**COD**

2024





## Infrastructure Business

## Pink Line Monorail Project

- 1 **Routes** Khae Rai–Min Buri, 34.5 km. 30 Stations
- 2 **Concession Period** **30 Years from COD**
- 3 **Concessioner** **Mass Rapid** Transit Authority of Thailand
- 4 **RATCH's stake** **10%**

Detail	Pink Line (NBM)
<b>NTP</b>	29 June 18
<b>Construction Duration</b>	5 Years 2 months
<b>Contract Term</b>	30 ๓
<b>COD</b>	2024
<b>Progress (As of June 2023)</b>	Civil Works= 96.97% M&E Systems = 97.34% <b>Overall = 97.15%</b>



## Infrastructure Business

## Pink Line Extension

- |   |                          |                                                            |
|---|--------------------------|------------------------------------------------------------|
| 1 | <b>Routes</b>            | <b>Sirat Station to Muang Thong Thani Station (2.8 km)</b> |
| 2 | <b>Concession Period</b> | <b>30 Years from COD</b>                                   |
| 3 | <b>Concessioner</b>      | <b>Mass Rapid Transit Authority of Thailand</b>            |
| 4 | <b>RATCH's stake</b>     | <b>10%</b>                                                 |

Detail	Pink Line Extension (NBM)
NTP	29 June 18
Construction Duration	5 Years 2 months
Contract Term	30 �
COD	2024
Progress (As of June 2023)	Civil Works= 30.47% M&E Systems = 14.43% <b>Overall = 25.08%</b>





**Infrastructure Business**

**Intercity Motorway**



**Bang Pa-In –  
Nakhon Ratchasima**  
**M6 (196 km)**

**Bang Yai-  
Kanchanaburi**  
**M81 (96 km)**



**Investment Type**

**Expected COD**

**PPP Gross Cost**

**1Q2025**

**Scope of work:**

**Phase 1: Design & Construction (3 Years: starting in December 2021)**

- Toll Collection System
- Traffic Management and Control System
- Other Infrastructure

**Phase 2: O&M (30 Years)**



**Project Update**

- PPP for O&M Contracts signed in September 2021
- Credit Facilities Agreement signed in January 2022



**M6**



**M81**



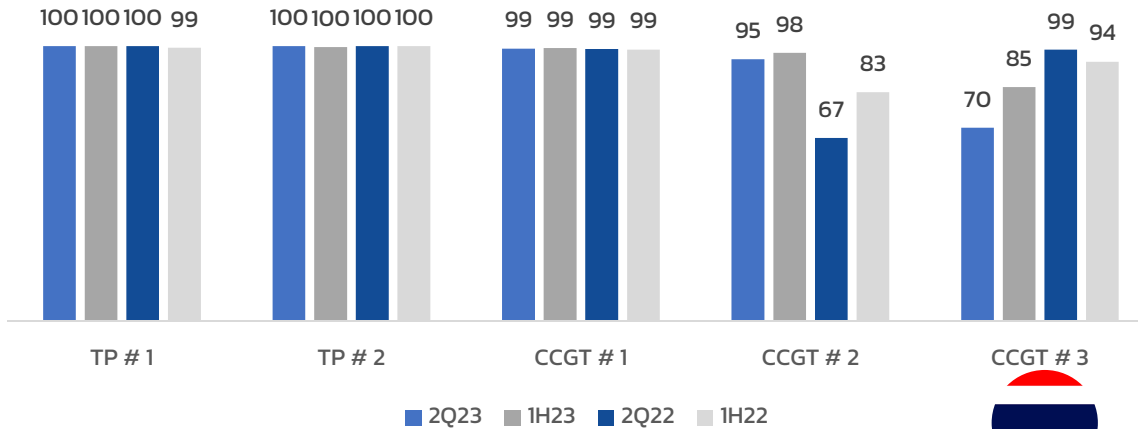


# Group Performance

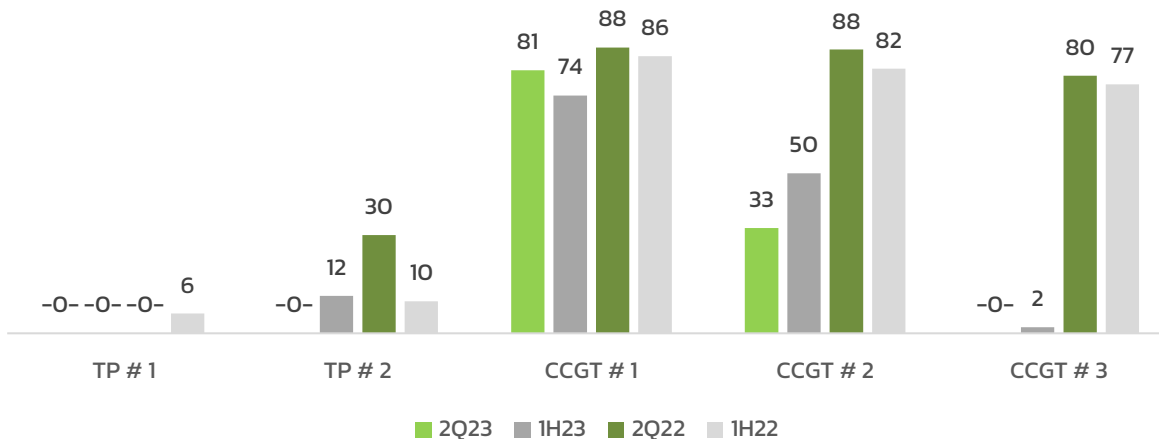


# ● ● ● Operation Performance : IPP Projects

## %Equivalent Availability Factor (EAF)



## %Dispatch Factor (DF)



**RATCHGEN**



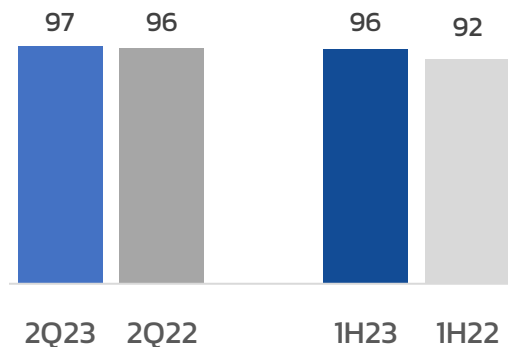


# ● ● ● Operation Performance : IPP Projects

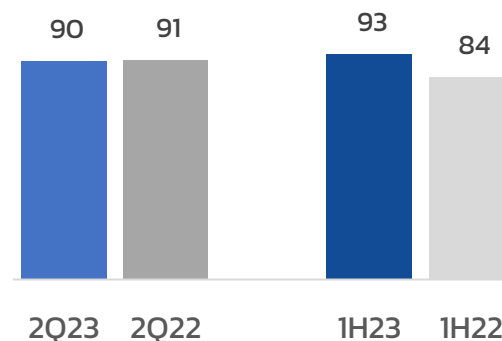
**%Equivalent  
Availability Factor  
(EAF)**



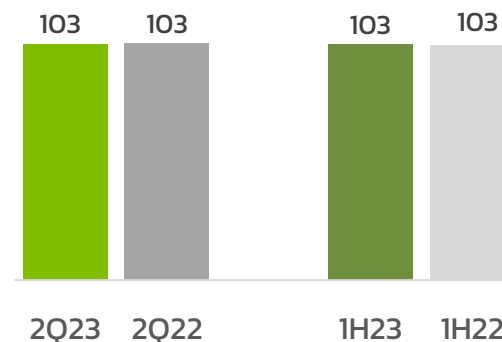
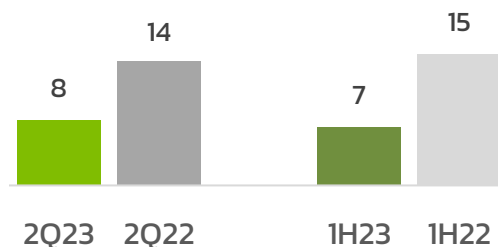
**RPCL**



**HPC**



**%Dispatch  
Factor  
(DF)**



# ● ● ● Operation Performance : SPP Projects

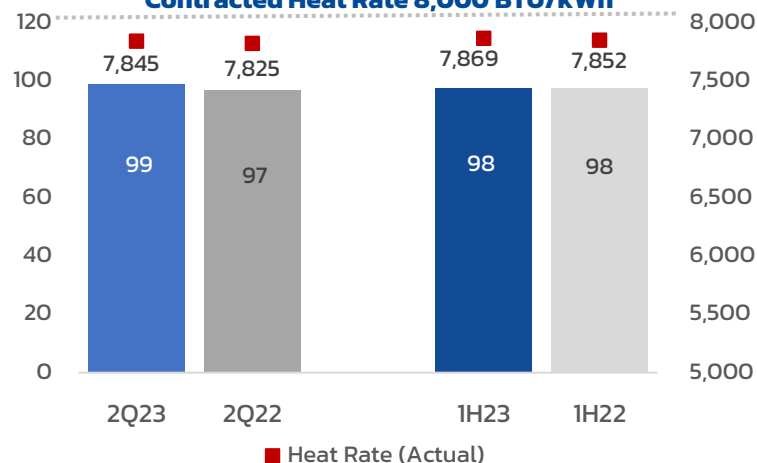


## RATCH Cogeneration

**Heat Rate:** Maintained below the Contracted Heat Rate

EAf (%)

**Contracted Heat Rate 8,000 BTU/kWh**

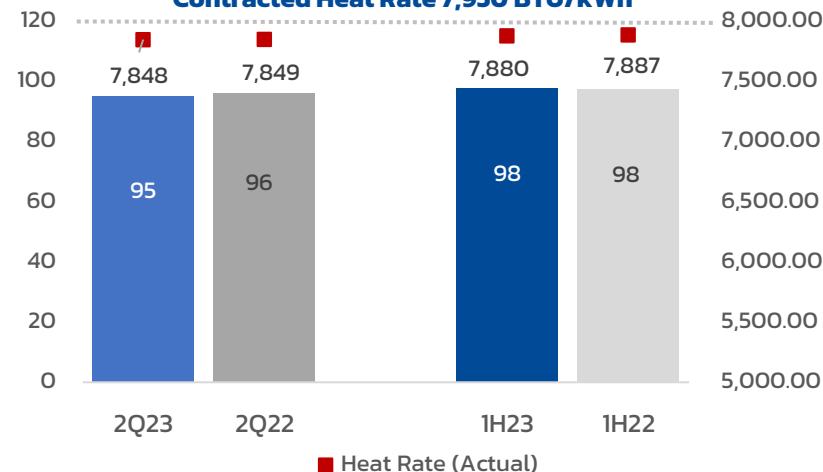


## RATCH WORLD Cogen Block 1-2

**Heat Rate:** Maintained below the Contracted Heat Rate

EAf (%)

**Contracted Heat Rate 7,950 BTU/kWh**





# Operation Performance : SPP Projects

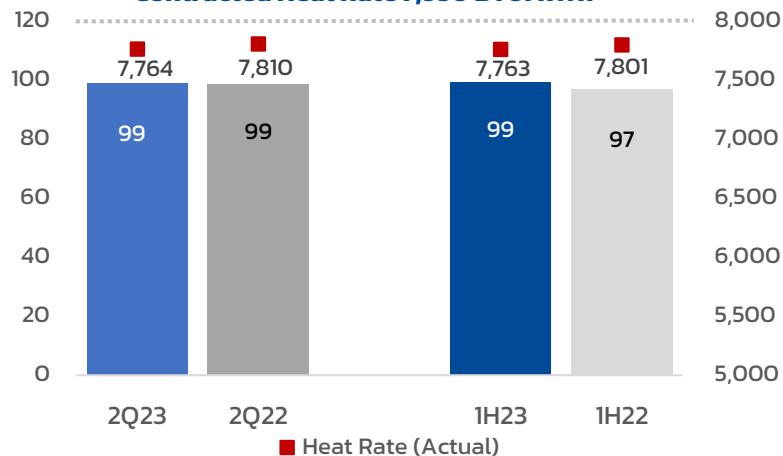


## NNEG

**Heat Rate:** Maintained below the Contracted Heat Rate

EAf (%)

Contracted Heat Rate 7,950 BTU/kWh

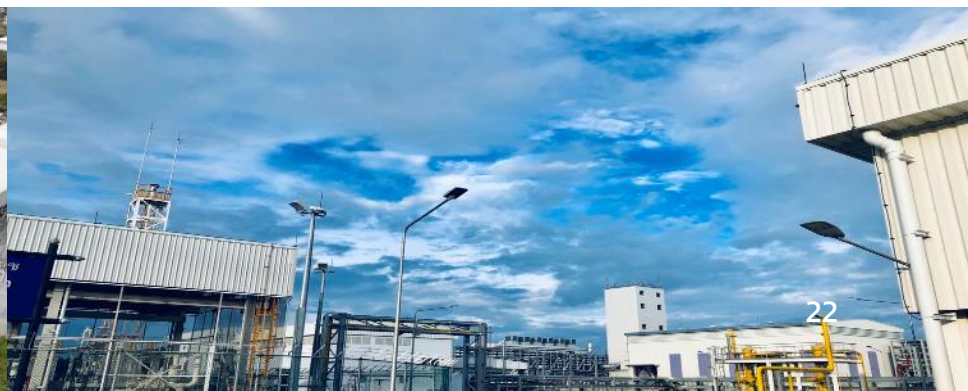
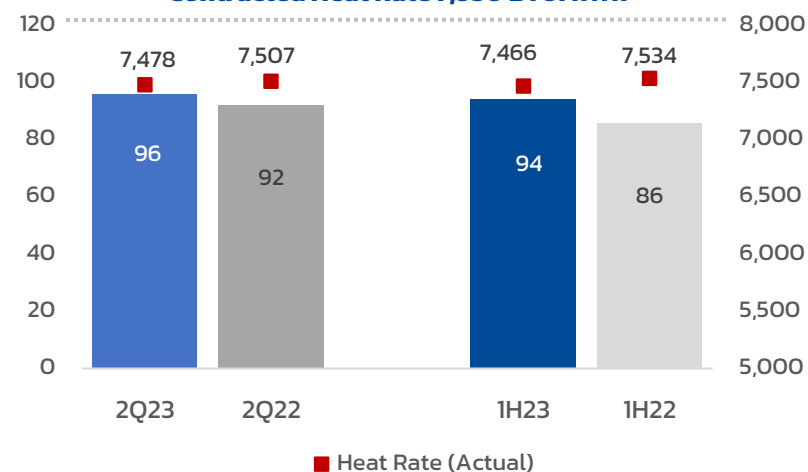


## Berkprai

**Heat Rate:** Maintained below the Contracted Heat Rate

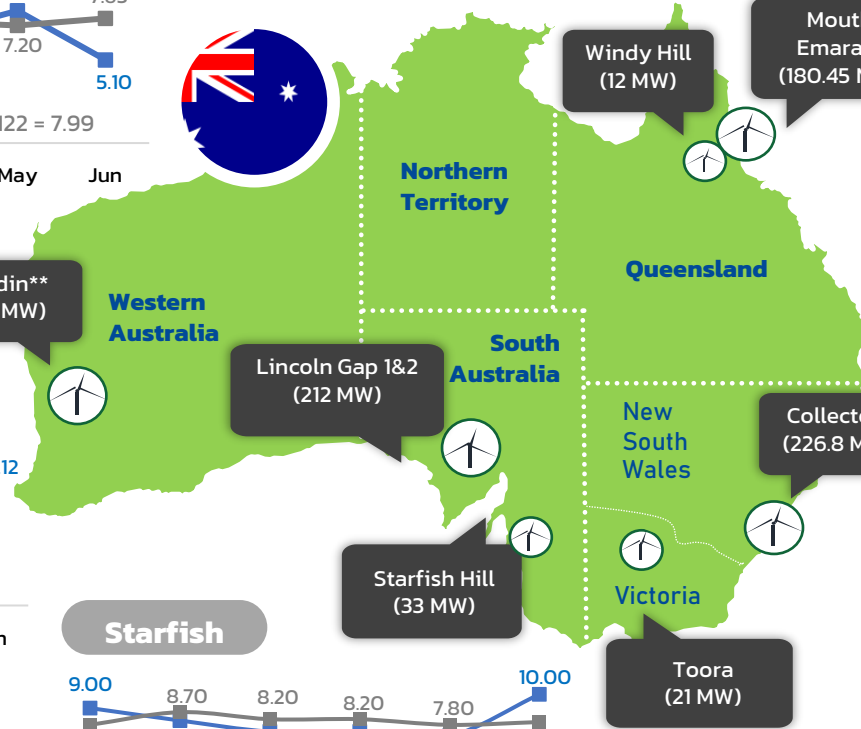
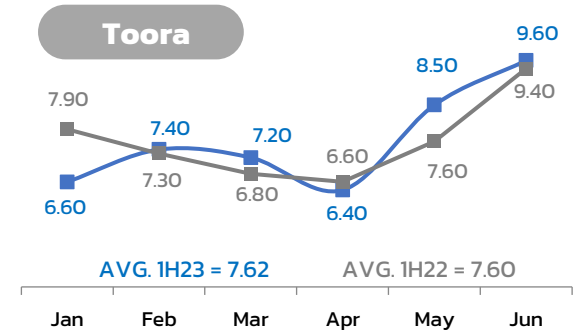
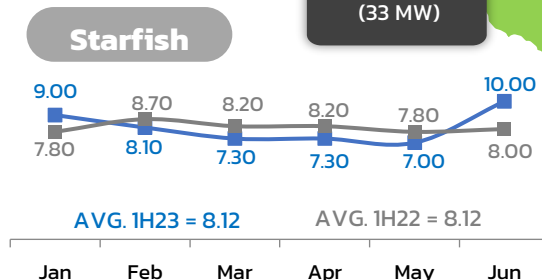
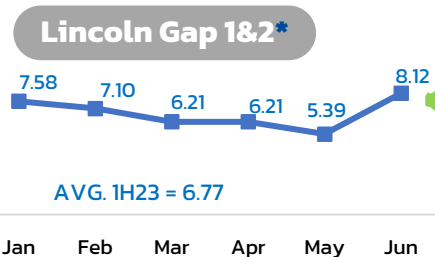
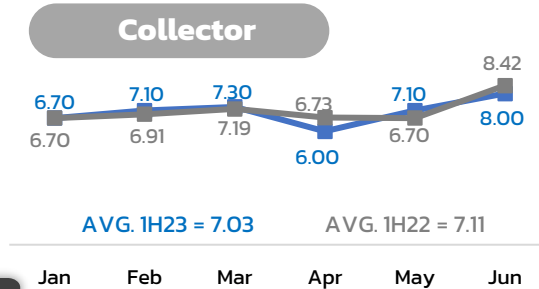
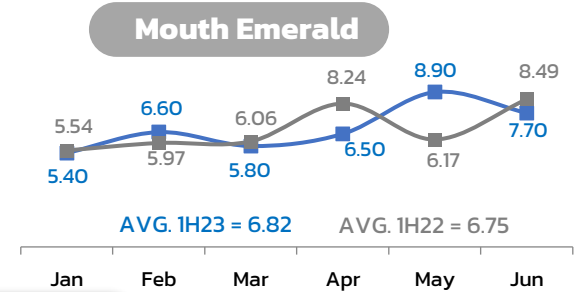
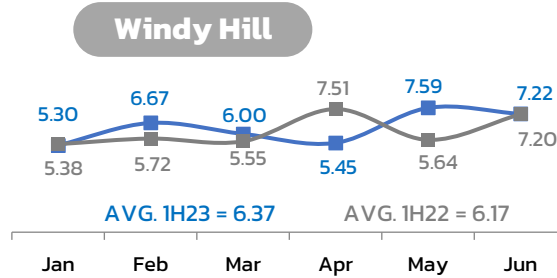
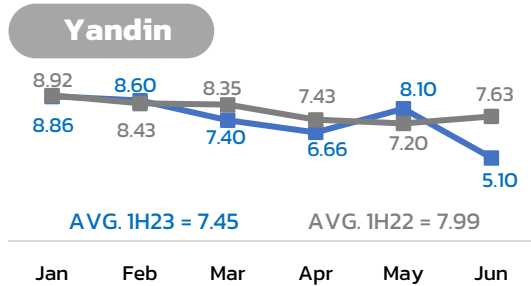
EAf (%)

Contracted Heat Rate 7,950 BTU/kWh



# Wind Farms

Wind Speed (m/s)



**Remark:** \* Lincoln Gap 1&2 have been acquired in December 2022.





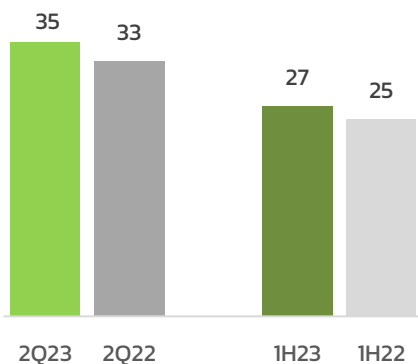
# Operation Performance : Renewable Energy

## Wind Farms

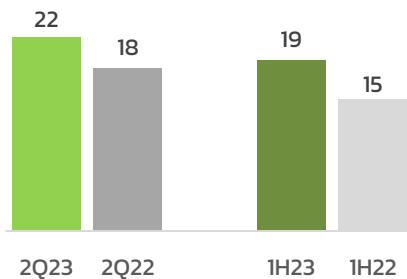
## %Capacity Factor (CF)



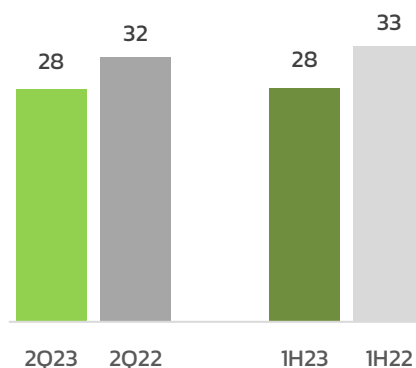
### Mount Emerald



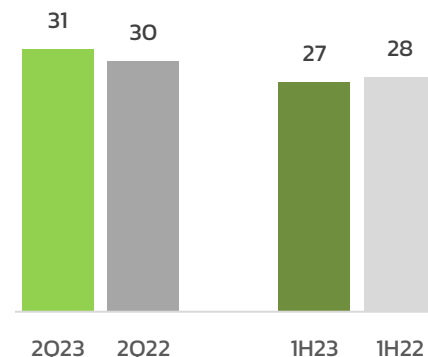
### Windy Hill



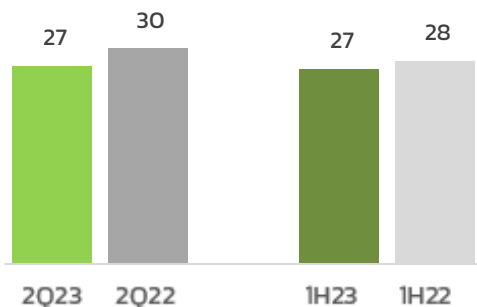
### Starfish Hill



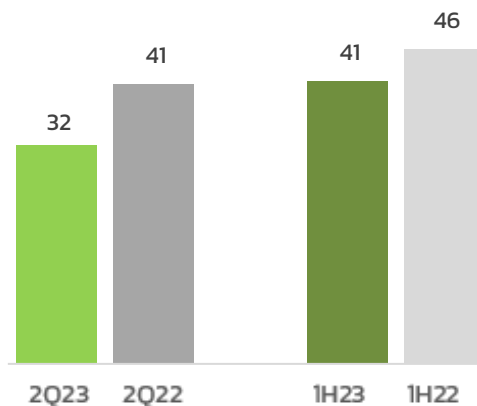
### Toora



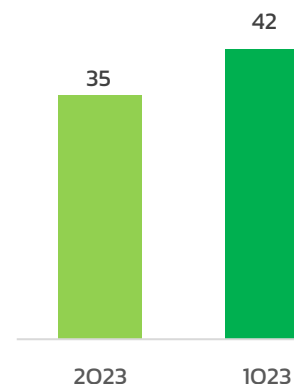
### Collector



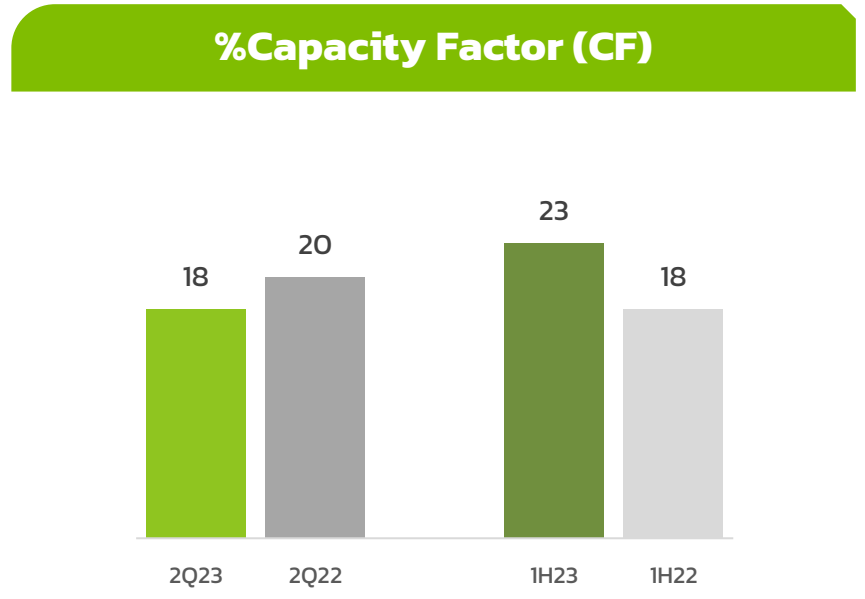
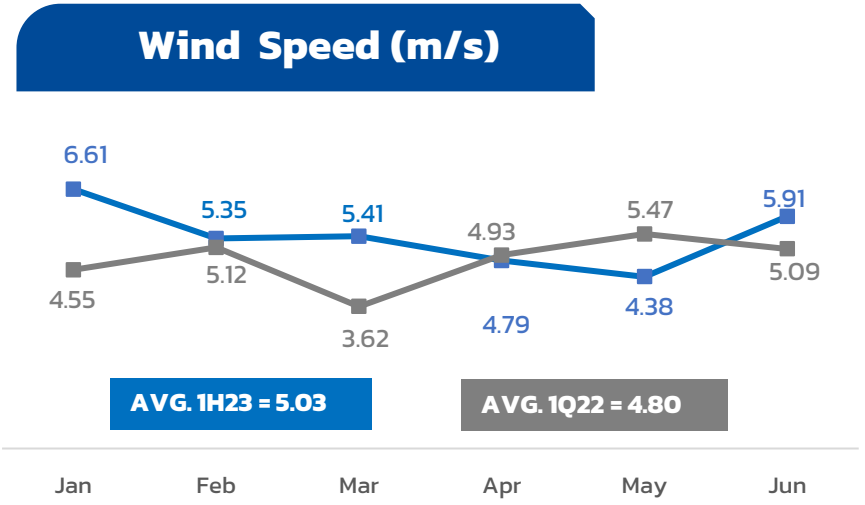
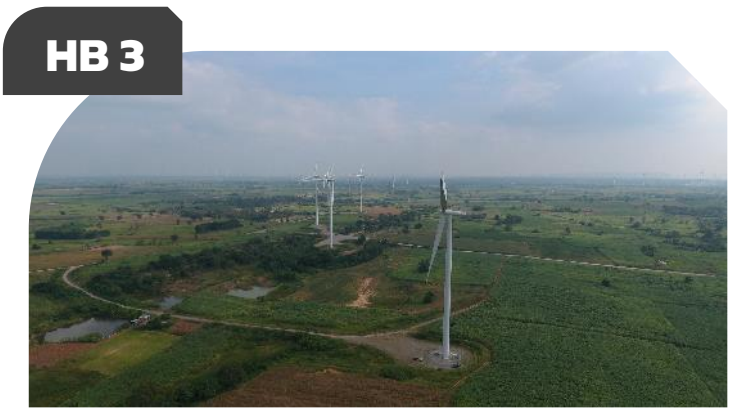
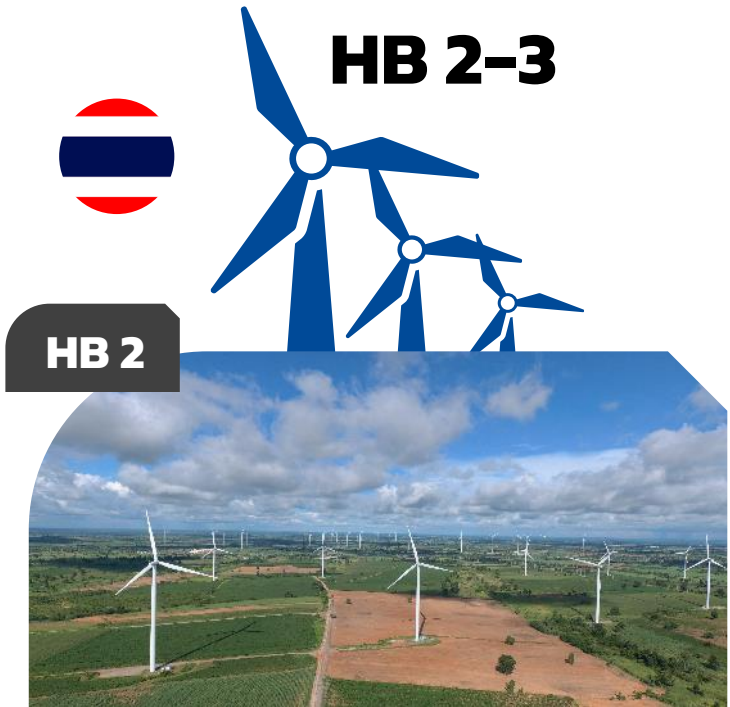
### Yandin



### Lincoln Gap 1&2\*



**Remark:** \* Lincoln Gap 1&2 have been acquired in December 2022.





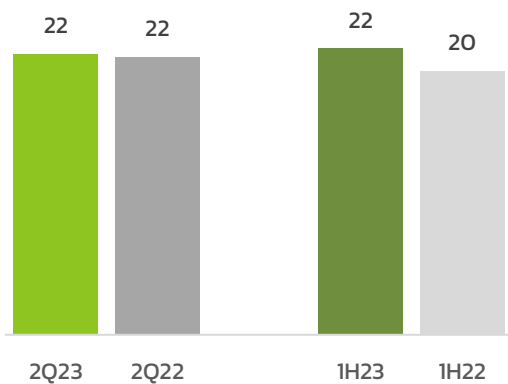
# Operation Performance : Renewable Energy

## Solar Farms

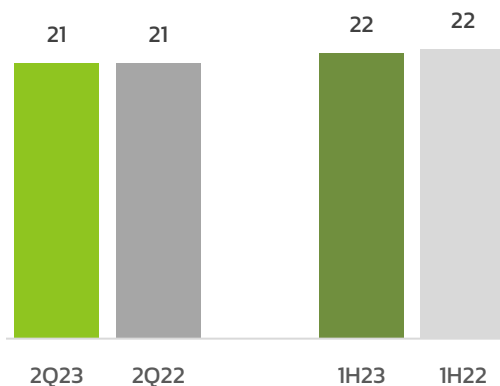
## %Capacity Factor (CF)



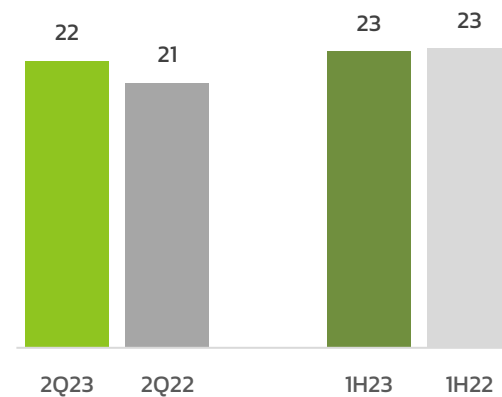
### Solarta



### KR 3 4 7



### Collinsville





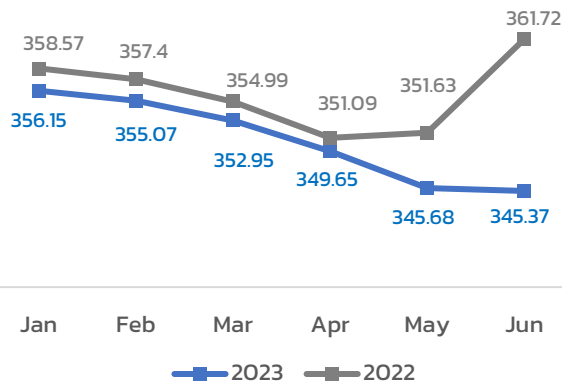


# Hydro Projects

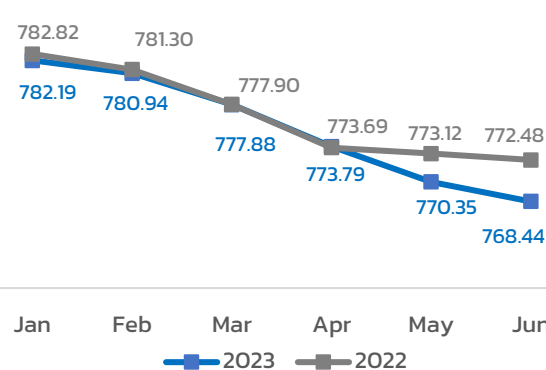
## Reservoir-based

### Water Level (m.asl.)

**NN2**



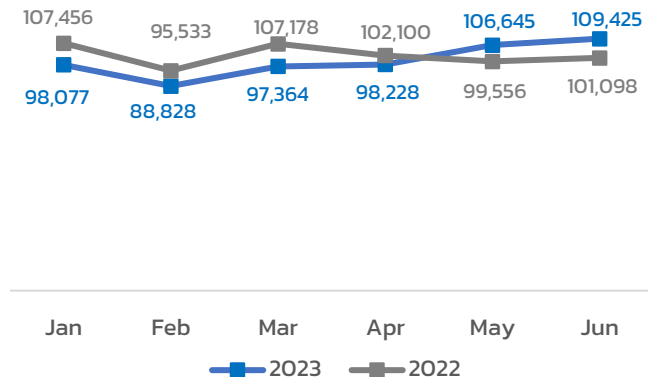
**PNPC**



## Run-of-the-River

### Net Production (MWh)

**Asahan -1 (FRD)**



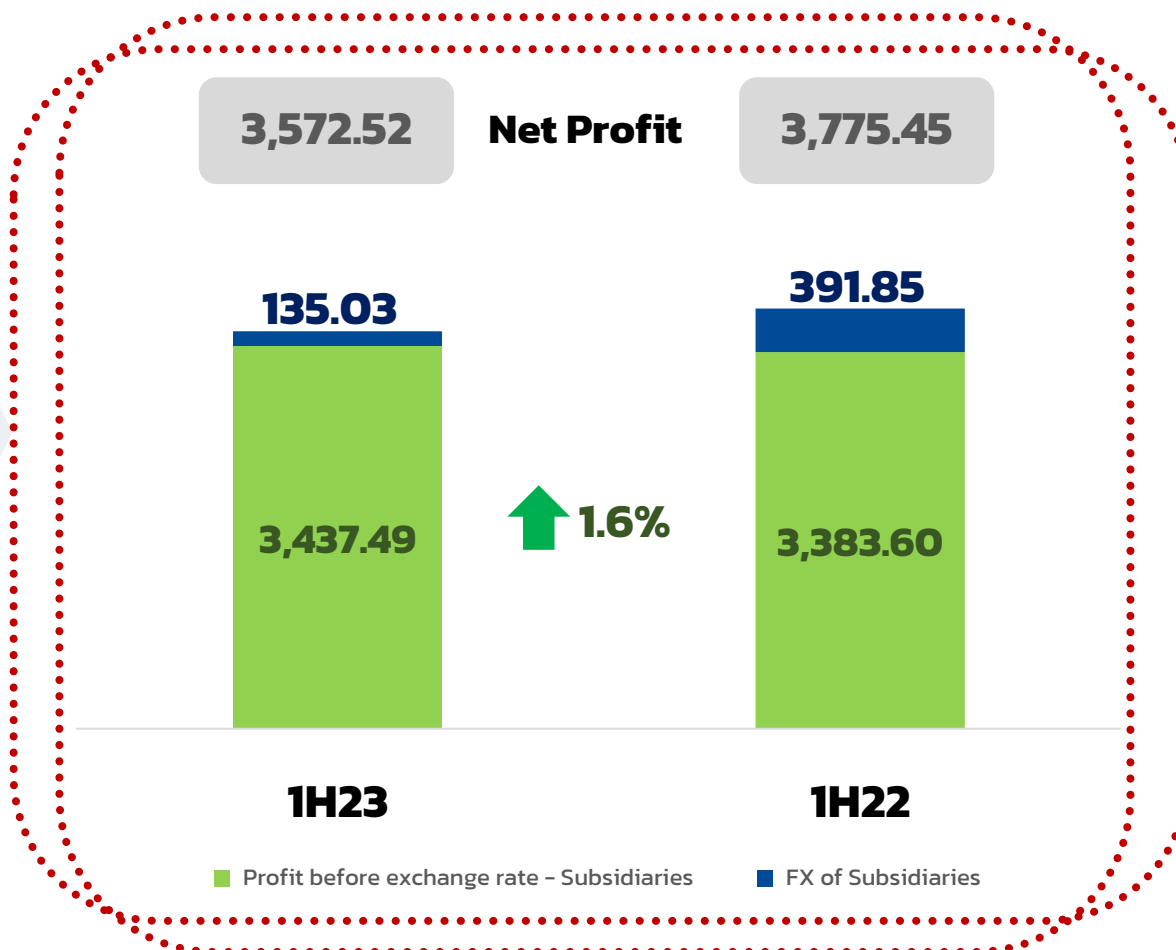


# Financial Performance

January February March April May June July August September October November December

**Profit for the period:  
Equity holders of the Company**

Unit: Million Baht

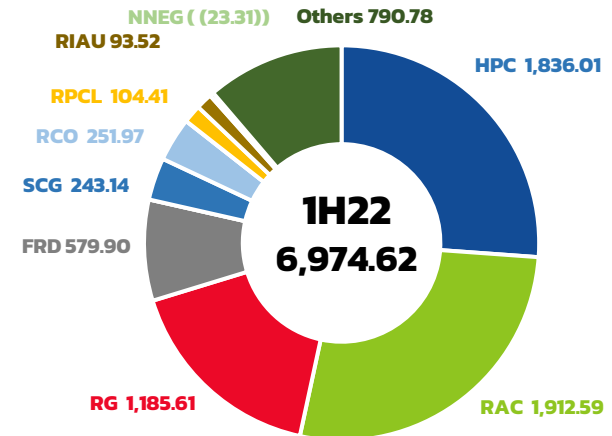
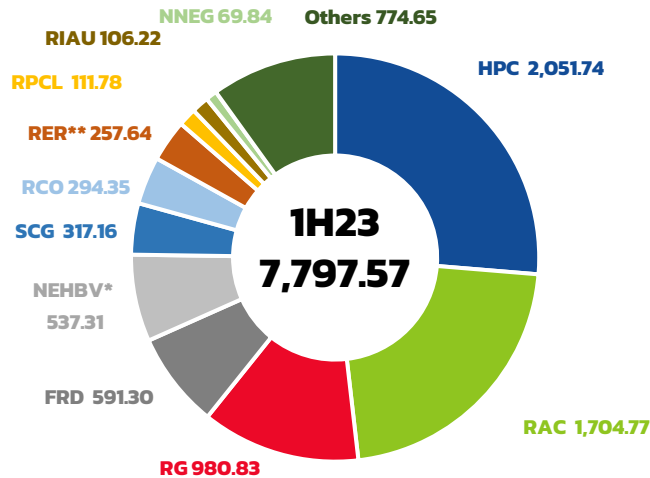




# Financial Performance

## EBITDA

Unit: Million Baht



\* NEHBV: Nexif Energy Holding B.V.

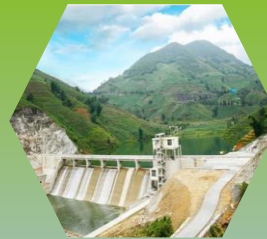
\*\* RER: RATCH Energy Rayong Co., Ltd. (previous name : "Nexif RATCH Energy Rayong Co., Ltd")

## 1H23 Main EBITDA Contributors



### HPC

High EAF of 93% in 1H23 compared to 84% in 1H22



### NEHBV & RER

Consolidated the EBITDA of NEHBV\* and RER\*\* since the acquisition in 4Q22

### SCG & RCO

Higher Ft in 1H23 than that of 1H22



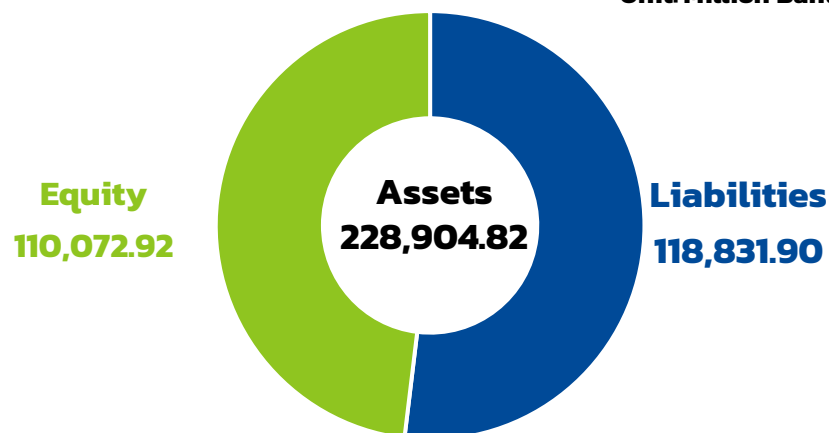
NEHBV, consisting of **Lincoln Gap 1&2** Wind Farm/**Snapper Point** Power Plant/**Nexif Ratch Energy Rayong** Power Plant/**Coc San** Hydro Power Plant/**Song Giang 2** Hydro Power Plant

# Statements of Financial Position

## Financial Position

As of 30 June 2023

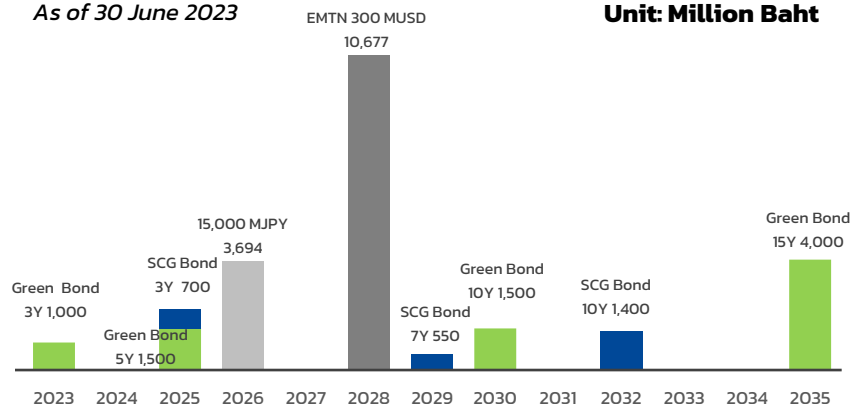
Unit: Million Baht



## Debenture Repayment Profile

As of 30 June 2023

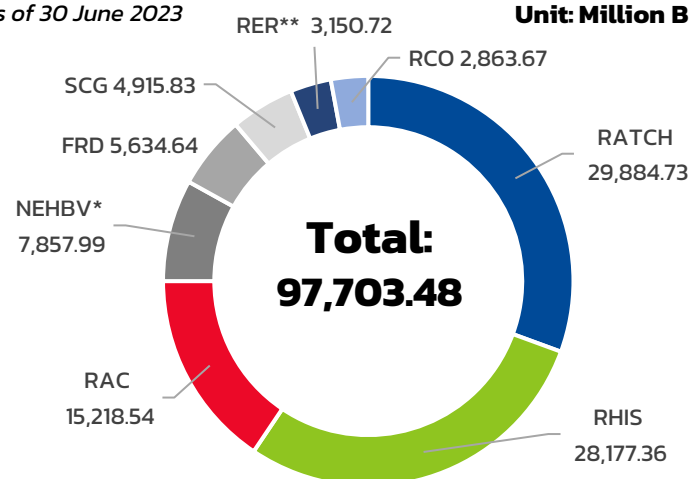
Unit: Million Baht



## Interest Bearing Debt

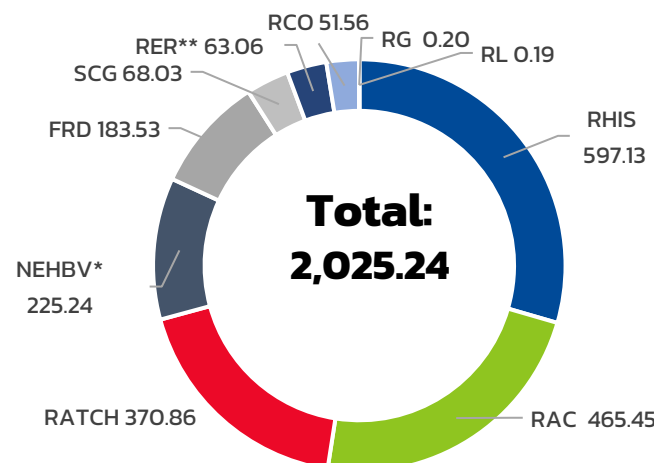
As of 30 June 2023

Unit: Million Baht



## Finance Cost 1H23 (6m)

Unit: Million Baht

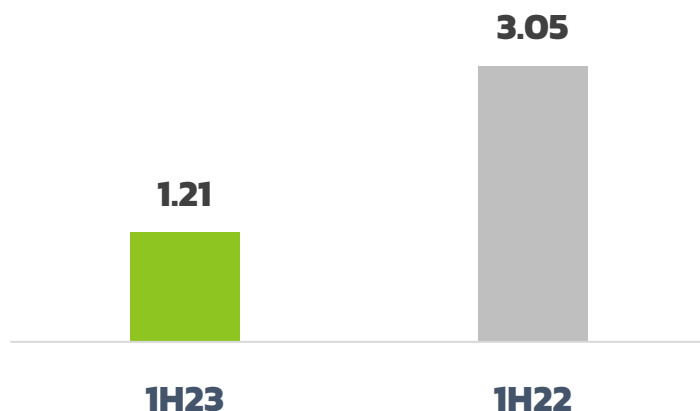


\* NEHBV: Nexif Energy Holding B.V.

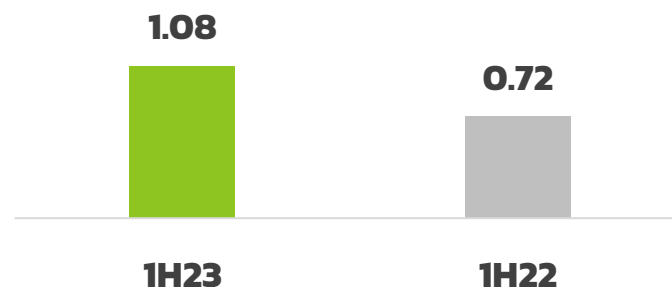
\*\* RER: RATCH Energy Rayong Co., Ltd. (previous name : "Nexif RATCH Energy Rayong Co., Ltd"),

# Financial Ratios

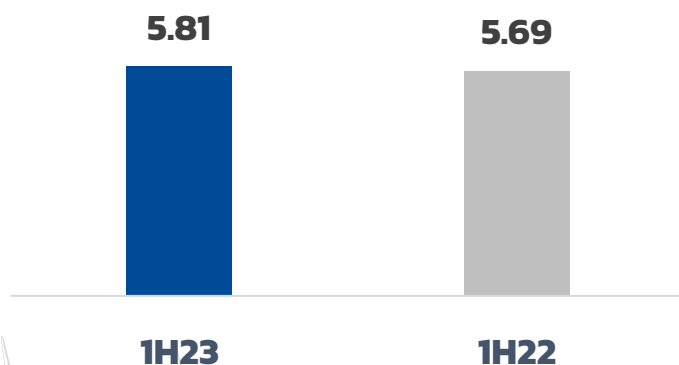
## Current ratio (times)



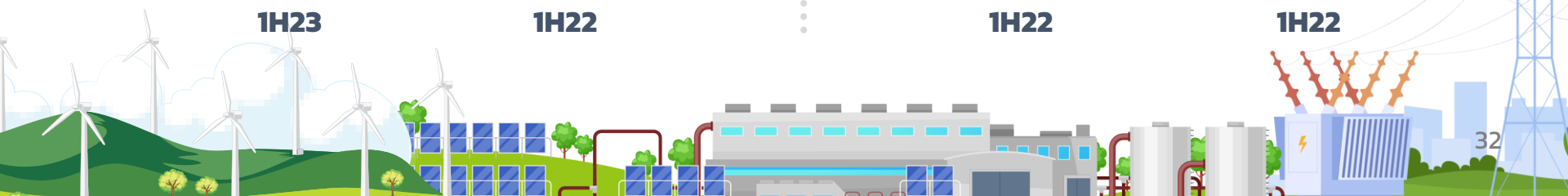
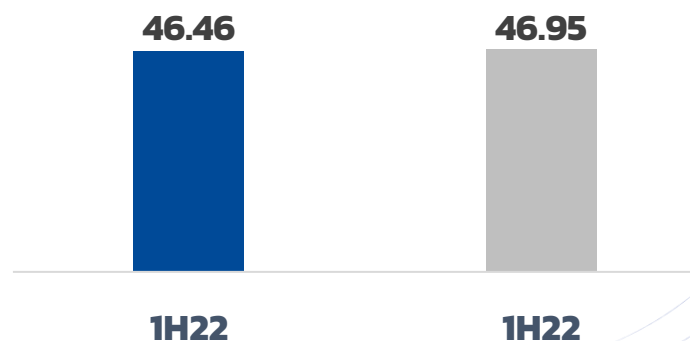
## Debt/Equity (times)



## ROE (%)



## Book Value per Share (Baht)







# Appendix



# **Income Statement : 2Q23 & 2Q22**

Unit : in Million Baht	2Q23	2Q22
Revenues	13,132.60	18,449.70
Costs & Expenses	(9,035.66)	(14,469.72)
<b>EBITDA</b>	<b>4,096.94</b>	<b>3,979.98</b>
Depreciation & Amortization – Cost*	(922.48)	(696.88)
Depreciation & Amortization – Admin	(67.95)	(53.63)
<b>EBIT</b>	<b>3,106.51</b>	<b>3,229.46</b>
Finance costs	(1,000.68)	(751.00)
Gain (loss) on fair value adjustment of derivatives	45.45	78.92
Income tax expense	(238.58)	(266.10)
<b>Profit for the period</b>	<b>1,912.72</b>	<b>2,291.27</b>
Non-controlling interests	(99.99)	(74.06)
<b>Profit for the period: Equity holders of the Company – before FX of subsidiaries</b>	<b>1,812.73</b>	<b>2,217.22</b>
Gain (Loss) on FX of subsidiaries	312.13	(21.12)
<b>Profit for the Company</b>	<b>2,124.85</b>	<b>2,196.10</b>

\* Included the revaluation of heavy oil and diesel oil prices in the total amount of -51.65 MB in 2Q23, -13.93 MB in 2Q22

# **Income Statement : 1H23 & 1H22**

Unit : in Million Baht	1H23	1H22
Revenues	30,137.44	36,699.36
Costs & Expenses	(22,339.86)	(29,724.75)
<b>EBITDA</b>	<b>7,797.57</b>	<b>6,974.62</b>
Depreciation & Amortization – Cost*	(1,961.00)	(1,380.10)
Depreciation & Amortization – Admin	(121.51)	(111.36)
<b>EBIT</b>	<b>5,715.07</b>	<b>5,483.16</b>
Finance costs	(2,025.24)	(1,559.32)
Gain (loss) on fair value adjustment of derivatives	263.96	53.43
Income tax expense	(346.25)	(734.67)
<b>Profit for the period</b>	<b>3,607.54</b>	<b>3,242.60</b>
Non-controlling interests	(170.05)	141.00
<b>Profit for the period: Equity holders of the Company – before FX of subsidiaries</b>	<b>3,437.49</b>	<b>3,383.60</b>
Gain (Loss) on FX of subsidiaries	135.03	391.85
<b>Profit for the Company</b>	<b>3,572.52</b>	<b>3,775.45</b>

\* Included the revaluation of heavy oil and diesel oil prices in the total amount of -182.37 MB in 1H23, -13.93 MB in 1H22



# 

Unit : in Million Baht	2Q23	1Q23	4Q22	3Q22	2Q22
Revenues	13,132.60	17,004.84	20,217.43	24,871.29	18,449.70
Costs & Expenses	(9,035.66)	(13,304.21)	(18,391.21)	(20,860.43)	(14,469.72)
<b>EBITDA</b>	<b>4,096.94</b>	<b>3,700.63</b>	<b>1,826.22</b>	<b>4,010.86</b>	<b>3,979.98</b>
Depreciation & Amortization – Cost*	(922.48)	(1,038.51)	(688.51)	(797.61)	(696.88)
Depreciation & Amortization – Admin	(67.95)	(53.57)	(57.03)	(54.32)	(53.63)
<b>EBIT</b>	<b>3,106.51</b>	<b>2,608.55</b>	<b>1,080.68</b>	<b>3,158.93</b>	<b>3,229.46</b>
Finance costs	(1,000.68)	(1,024.57)	(753.38)	(663.96)	(751.00)
Gain (loss) on fair value adjustment of derivatives	45.45	218.51	(309.19)	153.30	78.92
Income tax expense	(238.58)	(107.67)	(97.75)	(104.92)	(266.10)
<b>Profit for the period</b>	<b>1,912.72</b>	<b>1,694.82</b>	<b>(79.64)</b>	<b>2,543.35</b>	<b>2,291.27</b>
Non-controlling interests	(99.99)	(70.06)	(6.53)	(28.58)	(74.06)
<b>Profit for the period: Equity holders of the Company - before FX</b>	<b>1,812.73</b>	<b>1,624.76</b>	<b>(86.17)</b>	<b>2,514.77</b>	<b>2,217.22</b>
Gain (Loss) on foreign exchange of subsidiaries	312.13	(177.10)	(155.44)	(266.54)	(21.12)
<b>Profit for the Company</b>	<b>2,124.85</b>	<b>1,447.67</b>	<b>(241.61)</b>	<b>2,248.23</b>	<b>2,196.10</b>

\* Included the revaluation of heavy oil and diesel oil prices in the total amount of -51.65 MB in 2Q23, -13.93 MB in 2Q22

# ● ● ● Revenues: 2Q23 & 2Q22

Unit : in Million Baht	2Q23	2Q22	Diff	%
<b>Sales</b>	<b>10,363.36</b>	<b>15,602.63</b>	<b>(5,239.27)</b>	<b>(33.58)</b>
AP (RG)	841.63	636.19	205.44	32.29
EP (Fuel) – RG	5,000.22	11,431.83	(6,431.62)	(56.26)
RATCH Cogen (RCO)	822.27	810.54	11.73	1.45
RAC	1,184.44	1,421.86	(237.42)	(16.70)
NEHBV*	548.05	–	548.05	n.a.
RER**	626.53	–	626.53	n.a.
SCG	1,299.85	1,282.33	17.51	1.37
FRD	40.39	19.88	20.51	n.a.
<b>Revenue from leases – RG/FRD</b>	<b>614.77</b>	<b>718.52</b>	<b>(103.75)</b>	<b>(14.44)</b>
<b>Revenue from rendering of services</b>	<b>34.12</b>	<b>18.15</b>	<b>15.97</b>	<b>87.96</b>
<b>Management service income</b>	<b>64.85</b>	<b>63.14</b>	<b>1.71</b>	<b>2.71</b>
<b>Dividend income</b>	<b>17.35</b>	<b>26.51</b>	<b>(9.16)</b>	<b>(34.55)</b>
<b>Interest income</b>	<b>435.36</b>	<b>67.29</b>	<b>368.07</b>	<b>n.a.</b>
<b>Other incomes</b>	<b>279.85</b>	<b>31.01</b>	<b>248.83</b>	<b>n.a.</b>
<b>Share of profit from JVs &amp; Associates</b>	<b>1,322.94</b>	<b>1,922.44</b>	<b>(599.50)</b>	<b>(31.18)</b>
<b>Total Revenues</b>	<b>13,132.60</b>	<b>18,449.70</b>	<b>(5,317.10)</b>	<b>(28.82)</b>

\* NEHBV: Nexif Energy Holding B.V.

\*\* RER: RATCH Energy Rayong Co., Ltd. (previous name : “Nexif RATCH Energy Rayong Co., Ltd”)

# ● ● ● Revenues: 1H23 & 1H22

Unit : in Million Baht	1H23	1H22	Diff	%
<b>Sales</b>	<b>24,824.17</b>	<b>31,765.14</b>	<b>(6,940.97)</b>	<b>(21.85)</b>
AP (RG)	1,755.90	1,253.80	502.10	40.05
EP (Fuel) – RG	13,775.39	23,859.83	(10,084.44)	(42.27)
RATCH Cogen (RCO)	1,690.36	1,588.59	101.76	6.41
RAC	2,189.55	2,422.01	(232.46)	(9.60)
NEHBV*	1,482.57	–	1,482.57	n.a.
RER**	1,166.89	–	1,166.89	n.a.
SCG	2,725.99	2,586.40	139.59	5.40
FRD	37.52	54.50	(16.98)	(31.15)
<b>Revenue from leases – RG/FRD</b>	<b>1,241.91</b>	<b>1,451.29</b>	<b>(209.38)</b>	<b>(14.43)</b>
<b>Revenue from rendering of services</b>	<b>66.23</b>	<b>38.08</b>	<b>28.15</b>	<b>73.93</b>
<b>Management service income</b>	<b>129.77</b>	<b>131.03</b>	<b>(1.26)</b>	<b>(0.96)</b>
<b>Dividend income</b>	<b>17.35</b>	<b>26.51</b>	<b>(9.16)</b>	<b>(34.55)</b>
<b>Interest income</b>	<b>842.61</b>	<b>114.39</b>	<b>728.22</b>	<b>n.a.</b>
<b>Other incomes</b>	<b>334.78</b>	<b>64.21</b>	<b>270.57</b>	<b>n.a.</b>
<b>Share of profit from JVs &amp; Associates</b>	<b>2,680.61</b>	<b>3,108.71</b>	<b>(428.10)</b>	<b>(13.77)</b>
<b>Total Revenues</b>	<b>30,137.44</b>	<b>36,699.36</b>	<b>(6,561.93)</b>	<b>(17.88)</b>

\* NEHBV: Nexif Energy Holding B.V.

\*\* RER: RATCH Energy Rayong Co., Ltd. (previous name : “Nexif RATCH Energy Rayong Co., Ltd”)





## Share of profit from jointly-controlled entities : 2Q23 & 2Q22

### Included FX

Unit : in Million Baht	2Q23	2Q22	Diff	%
HPC	998.33	1,240.34	(242.01)	(19.51)
RIAU	71.84	7.08	64.77	n.a.
PNPC	64.60	180.36	(115.76)	(64.18)
RPCL	57.29	77.20	(19.91)	(25.79)
NNEG	47.26	(3.09)	50.35	n.a.
RW COGEN	46.23	52.99	(6.76)	(12.75)
Berk Prai	30.94	25.76	5.18	20.09
SEAN	14.94	65.60	(50.66)	(77.22)
Songkhla Biomass	10.04	8.61	1.43	16.60
KWINANA	6.82	4.55	2.27	49.88
KORAT 3,4,7	4.18	10.11	(5.93)	(58.66)
Impact Solar	3.34	0.46	2.88	n.a.
SOLARTA	1.64	48.19	(46.55)	(96.59)
FKW	0.42	4.79	(4.37)	(91.19)
KR2	0.08	3.78	(3.71)	(97.89)
RER	-	106.72	(106.72)	(100.00)
Others	(35.03)	88.96	(123.99)	n.a.
<b>Total Share of profit from jointly-controlled entities</b>	<b>1,322.94</b>	<b>1,922.44</b>	<b>(599.50)</b>	<b>(31.18)</b>



## Share of profit from jointly-controlled entities : 1H23 & 1H22

### Included FX

Unit : in Million Baht	1H23	1H22	Diff	%
HPC	2,051.74	1,836.01	215.73	11.75
RPCL	111.78	104.41	7.36	7.05
RIAU	106.22	93.52	12.70	13.58
RW COGEN	97.02	107.40	(10.38)	(9.66)
NNEG	69.84	(23.31)	93.14	n.a.
Berk Prai	58.08	43.12	14.96	34.70
PNPC	48.11	193.90	(145.79)	(75.19)
SEAN	36.87	95.37	(58.50)	(61.34)
Songkhla Biomass	16.74	11.30	5.44	48.14
Impact Solar	10.67	0.75	9.92	n.a.
KORAT 3,4,7	10.63	34.30	(23.68)	(69.02)
SOLARTA	7.76	98.97	(91.21)	(92.16)
KWINANA	6.84	4.40	2.44	55.45
KR2	6.53	5.44	1.10	20.24
FKW	4.62	7.15	(2.52)	(35.31)
RER	-	247.90	(247.90)	(100.00)
Others	37.17	248.08	(210.92)	(85.02)
<b>Total Share of profit from jointly-controlled entities</b>	<b>2,680.61</b>	<b>3,108.71</b>	<b>(428.10)</b>	<b>(13.77)</b>



## Share of profit from jointly-controlled entities : 2Q23 & 2Q22

### Excluded FX

Unit : in Million Baht	2Q23	2Q22	Diff	%
HPC	932.00	1,013.41	(81.41)	(8.03)
RIAU	72.13	8.66	63.48	n.a.
RPCL	57.36	77.55	(20.19)	(26.03)
RW COGEN	46.67	52.91	(6.24)	(11.79)
NNEG	45.71	(3.61)	49.32	n.a.
Berk Prai	30.94	25.76	5.18	20.09
PNPC	14.00	70.27	(56.27)	(80.08)
SEAN	10.07	60.70	(50.63)	(83.41)
Songkhla Biomass	10.04	8.61	1.43	16.60
KWINANA	6.82	4.55	2.27	49.88
KORAT 3,4,7	4.18	10.11	(5.93)	(58.66)
Impact Solar	3.34	0.46	2.88	n.a.
SOLARTA	1.64	48.19	(46.55)	(96.59)
FKW	0.40	4.79	(4.39)	(91.60)
KR2	0.07	3.77	(3.71)	(98.15)
RER	-	106.72	(106.72)	(100.00)
Others	(33.86)	136.65	(170.51)	n.a.
<b>Total Share of profit from jointly-controlled entities</b>	<b>1,201.53</b>	<b>1,629.53</b>	<b>(428.00)</b>	<b>(26.27)</b>



## Excluded FX

Unit : in Million Baht	1H23	1H22	Diff	%
HPC	1,978.07	1,614.15	363.92	22.55
RIAU	114.33	94.72	19.61	20.70
RPCL	111.65	104.46	7.18	6.87
RW COGEN	97.07	107.22	(10.15)	(9.47)
NNEG	67.64	(23.90)	91.53	n.a.
Berk Prai	58.08	43.14	14.94	34.64
SEAN	33.38	90.51	(57.13)	(63.12)
PNPC	27.42	143.39	(115.97)	(80.88)
Songkhla Biomass	16.74	11.30	5.44	48.14
Impact Solar	10.67	0.75	9.92	n.a.
KORAT 3,4,7	10.63	34.30	(23.68)	(69.02)
SOLARTA	7.76	98.97	(91.21)	(92.16)
KWINANA	6.84	4.40	2.44	55.45
KR2	6.52	5.43	1.10	20.27
FKW	4.60	7.14	(2.53)	(35.50)
RER	–	247.90	(247.90)	(100.00)
Others	13.94	282.99	(269.06)	(95.08)
<b>Total Share of profit from jointly-controlled entities</b>	<b>2,565.33</b>	<b>2,866.87</b>	<b>(301.54)</b>	<b>(10.52)</b>

## ● ● ● Costs and Expenses : 2Q23 & 2Q22

Unit : in Million Baht	2Q23	2Q22	Diff	%
<b>Cost of Sale and Rendering of Services</b>	<b>8,388.93</b>	<b>13,854.44</b>	<b>(5,465.51)</b>	<b>(39.45)</b>
– Fuel Cost : RG (Pass-through)	4,933.00	11,125.35	(6,192.35)	(55.66)
– Fuel Cost	1,964.12	1,536.68	427.44	27.82
– Operation & Maintenance	549.55	476.24	73.31	15.39
– Repairing Expense (CSA)	182.68	230.51	(47.83)	(20.75)
– Spare parts	108.44	116.10	(7.66)	(6.60)
– Others	651.14	369.55	281.58	76.20
<b>Selling and Admin- Expenses</b>	<b>646.72</b>	<b>615.29</b>	<b>31.44</b>	<b>5.11</b>
<b>Total Cost and Expenses*</b>	<b>9,035.66</b>	<b>14,469.72</b>	<b>(5,434.07)</b>	<b>(37.55)</b>

\* excluding depreciation & amortization

## ● ● ● Costs and Expenses : 1H23 & 1H22


Unit : in Million Baht	1H23	1H22	Diff	%
<b>Cost of Sale and Rendering of Services</b>	<b>21,126.69</b>	<b>28,665.64</b>	<b>(7,538.95)</b>	<b>(26.30)</b>
– Fuel Cost : RG (Pass-through)	13,686.76	23,248.06	(9,561.30)	(41.13)
– Fuel Cost	4,147.21	3,115.99	1,031.22	33.09
– Operation & Maintenance	1,087.12	931.58	155.53	16.70
– Repairing Expense (CSA)	378.86	450.76	(71.90)	(15.95)
– Spare parts	216.93	202.22	14.71	7.27
– Others	1,609.82	717.02	892.80	124.52
<b>Selling and Admin- Expenses</b>	<b>1,213.17</b>	<b>1,059.11</b>	<b>154.06</b>	<b>14.55</b>
<b>Total Cost and Expenses*</b>	<b>22,339.86</b>	<b>29,724.75</b>	<b>(7,384.88)</b>	<b>(24.84)</b>

\* excluding depreciation & amortization




# Planned Outage in 2023

Actual Outage Planned Outage		Planned Outage in 2023											
Plant		Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
RG	CCGT-11												7 <div>CI (15d)</div> 21
	CCGT-12												7 <div>CI (15d)</div> 21
	CCST-10											26 <div>MI (26d)</div> 21	
RG	CCGT-21									7 <div>CI (15d)</div> 21			
	CCGT-22									7 <div>CI (15d)</div> 21			
	CCST-20								27 <div>MI (26d)</div> 21				
RG	CCGT-31						3 <div>MI (27d)</div> 29						
	CCGT-32						3 <div>MI (27d)</div> 29						
	CCST-30						7 <div>MI (23d)</div> 29						
RG	Thermal-1									1 <div>MI (40d)</div> 9			
RG	Thermal-2										12 <div>MI (40d)</div> 21		
HPC	Unit #1							24 <div>YM (22d)</div> 14					
	Unit #2								3 <div>YM (22d)</div> 24				
	Unit #3										8 <div>ME (70d)</div> 16		
RPCL	CCGT-11										29 <div>MI (24d)</div> 21		
	CCGT-12										29 <div>MI (24d)</div> 21		
	CCST-10										29 <div>MI (24d)</div> 21		
RPCL	CCGT-21	3 <div>CI (10d)</div> 12											
	CCGT-22	3 <div>CI (10d)</div> 12											
	CCST-20												

Thermal Plant	Minor Inspection (MI)		40 Days	Major Overhaul (MO)		57 Days		
Gas Turbine	Warranty Inspection (WI)			Combustion Inspection		Minor Inspection		Major Overhaul
	Normal (WI)	Gen.Rotor Removed (WP*)		(CI)		(MI)		(MO)
	26 Days	32 Days		15 Days		30 Days		52 Days
Steam Turbine	Warranty Inspection (WI)			Minor Inspection		Major Overhaul		
	Normal (WP**)	Gen.Rotor Removed (WP*)		(MI)		(MO)		
	26 Days	30 Days		26 Days		49 Days		

# Planned Outage in 2022

Actual Outage Planned Outage		Planned Outage in 2022											
Plant		Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
RG	CCGT-11											CI (11d) 27	7
	CCGT-12											CI (11d) 27	7
	CCST-10												
RG	CCGT-21				MI (30d) 3	2							
	CCGT-22				MI (30d) 3	2							
	CCST-20												
RG	CCGT-31		CI (9d) 6	14									
	CCGT-32		CI (9d) 6	14									
	CCST-30												
RG	Thermal-1												
RG	Thermal-2												
HPC	Unit #1											YM (22d) 20	11
	Unit #2	14	MO (44d)		26								
	Unit #3										YM (22d) 16	6	
RPCL	CCGT-11											CI (10d) 27	6
	CCGT-12											CI (10d) 27	6
	CCST-10												
RPCL	CCGT-21	3	MI (25d)	27									
	CCGT-22	3	MI (25d)	27									
	CCST-20	3	MI (25d)	27									
Thermal Plant		Minor Inspection (MI)			40 Days	Major Overhaul (MO)			57 Days				
Gas Turbine	Warranty Inspection (WI)					Combustion Inspection			Minor Inspection		Major Overhaul		
	Normal (WI)		Gen.Rotor Removed (WI*)			(CI)			(MI)		(MO)		
	26 Days		32 Days			15 Days			30 Days		52 Days		
Steam Turbine	Warranty Inspection (WI)					Minor Inspection			Major Overhaul				
	Normal (WI**)		Gen.Rotor Removed (WI*)			(MI)			(MO)				
	26 Days		30 Days			26 Days			49 Days				
													

# IR Contact



Tel : +66 (0) 2794 9841-2



Email : [ir@ratch.co.th](mailto:ir@ratch.co.th)



## Disclaimer

The information contained in our presentation is intended solely for your personal reference only. In addition, such information contains projections and forward-looking statements that reflect the Company's current views with respect to future events and financial performance. These views are based on assumptions subject to various risks. No assurance is given that future events will occur, that projections will be achieved, or that the Company's assumptions are correct. Actual results may differ materially from those projected. Investors are, however, required to use their own discretion regarding the use of information contained in this presentation for any purpose.