



บริษัท ทีพีซี เพาเวอร์ โฮลดิ้ง จำกัด (มหาชน)  
TPC POWER HOLDING PUBLIC COMPANY LIMITED



**Management's Discussion and Analysis (MD&A)**  
**For Quarterly Ended March 31, 2023**

No. TPCH-SC-001-05/2566

9 May 2023

**Subject: Management's Discussion and Analysis of a Quarterly ended March 31, 2023**

**To: Managing Director and Manager  
Stock Exchange of Thailand**

TPC Power Holding Public Company Limited and its subsidiaries are pleased to announce our performance regarding the financial statement for Quarterly ended March 31, 2023.

TPC Power Holding Public Company Limited is a company that primary invests in subsidiaries that operate renewable energy power plants in both domestically and internationally. The company starts to expand overseas investment from solar power farm with an offering capacity of 100 megawatts to achieve its investment goal of an installed capacity of 300 megawatts. With the current portfolio, The company has invested in domestic renewable energy power plants in both waste power plants and biomass power plants with the capacity offered for sale with 109.35 megawatts of offering capacity, PBM power plant project of 2.85 MW which in the stage of testing and preparing the system to start its commercial operation, and SP2 project with an installed capacity of 8 MW of the waste-to-energy that has been announced as the winner of the bidding for the joint investment in construction and waste management with the local authority. Funding sources for additional investments are income from dividends from subsidiaries and debentures.

## Events 1<sup>st</sup> quarter of 2023

### ■ Overseas investment

In April of 2023, the Company jointly invested in and paid for ordinary shares of Mekong Power Co., Ltd. (“MKP”) in the proportion of 40% which operates the business of selling electricity from solar energy in Lao PDR. MKP has signed a power purchase agreement of 100 megawatts with Electricite Du Laos (“EDL”) in May 2020 for a period of 25 years from the commercial operation date (Commercial Operation Date: “COD”) which is scheduled within December of 2023.

### ■ Progress of ECO company investing in the Pracharat power plant projects

Pracharath Bannang Sata Biomass power plant (PBB), with an installed capacity of 2.85 megawatts, has completed its construction and began commercial operation on March 30, 2023, within the timeline stated on the power purchase agreement with the Provincial Electricity Authority. The tariff rate for FiTv is at least 3.88 baht per unit when generating electricity is less than 80% and 5.25 baht per unit when generating more than 80%, (announcement of the rate Purchase of electricity FiTv as of February 1, 2023)

Pracharath Maelan Biomass power plant (PBM), located in Maelan district Pattani province Thailand, has overall completion of 96.15% with the capacity of 2.85 MW and is currently on a preparation to test run of its commercial operation.

### ■ Progress of Siam Power Co., Ltd.

In Q1-2023, SP1 operates at an average of 52% capacity factor. It is in the process of improving in RDF production to obtain most quantity and quality at appropriate costs for the machine to be able to continuously generate electricity efficiently with the main consideration of the safety of operators.

## Overview of Financial Performance of the Company

Unit : Million THB

Separated Financial Statement	Q1-2023	Q4-2022	QoQ	Q1-2022	YoY
<b>Revenue</b>					
Dividend Revenue	407.69	100.75	>100%	56.72	>100%
Other revenue	1.72	1.40	22.8%	0.61	>100%
Finance revenue	16.69	16.67	0.1%	12.86	29.7%
<b>Total Revenue</b>	<b>426.09</b>	<b>118.81</b>	<b>&gt;100%</b>	<b>70.20</b>	<b>&gt;100%</b>
<b>Expense</b>					
Administrative Expense	(31.78)	(25.51)	24.6%	(20.06)	58.4%
Finance cost	(18.34)	(18.67)	(1.8%)	(19.17)	(4.3%)
<b>Total Expense</b>	<b>(50.11)</b>	<b>(44.18)</b>	<b>13.4%</b>	<b>(39.23)</b>	<b>27.8%</b>
<b>Yearly Net profit (loss)</b>	<b>375.97</b>	<b>74.63</b>	<b>&gt;100%</b>	<b>30.97</b>	<b>&gt;100%</b>
Other net profit (loss)	0.00	3.92	(100%)	0.00	-
Net profit (loss)	375.97	78.55	>100%	30.97	>100%
<b>Earnings (loss) per share</b>	<b>0.94</b>	<b>0.19</b>		<b>0.08</b>	

### Separated Financial Statement

In Q1-2023, the company had a total net profit of 375.97 million THB, increased 301.34 million THB or more than 100% from previous quarter and increased 345.01 million THB or more than 100% from the same period of last year due to the following reasons:

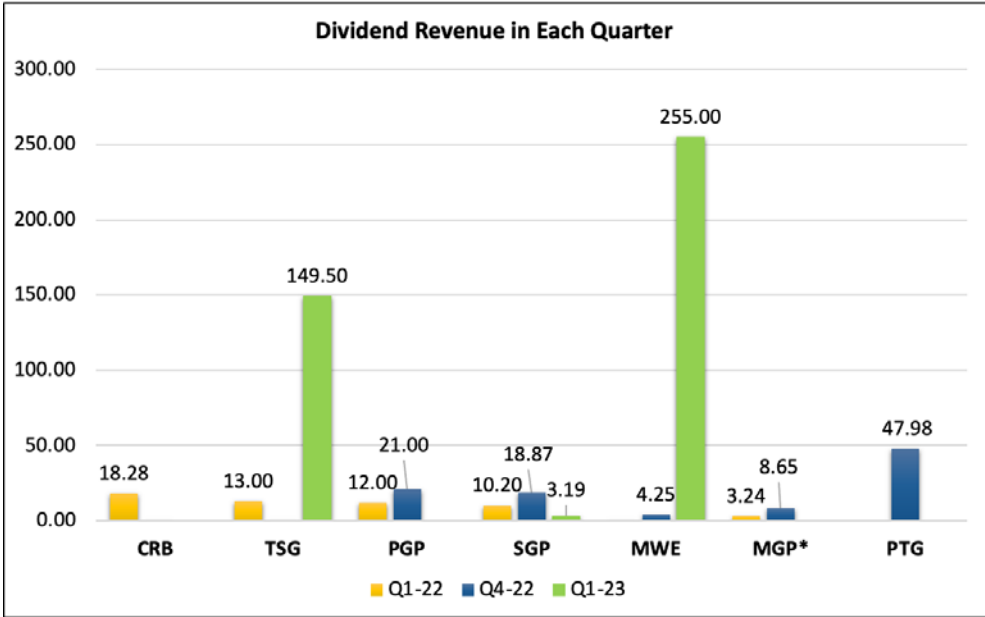
#### ■ Dividend Revenue

The company had a total dividend revenue of 407.69 million THB, increased 306.94 million THB or more than 100% from previous quarter, and increased 350.96 million THB or more than 100% from the previous year.

MWE received money from the reimburse from a new financial institution in the amount of 430.00 million THB with an interest rate of 3.90% per year in the first 3 months and an interest rate of MLR-2.58% per year for the 4th month onwards. MWE has paid annual dividends from retained earnings in the amount of 300 million THB which is to the company in the amount of 255.00 million THB.

TSG received a loan from its financial institution lender in the amount of 230.00 million THB, which was an additional credit line of 500.00 million THB with the same interest rate. TSG has the ability to operate electricity generation efficiently with annual dividend payment from retained earnings in the amount of 220.00 million THB and interim dividend payment from the operating results in January in the amount of 10.00 million THB, dividend to the company in the amount of 149.50 million THB in total as shown in the picture below.

Unit: Million THB



■ **Financial Cost**

The Company had a finance cost from interest of the debenture received at 4.5% per annum.

## Consolidated Company Performance

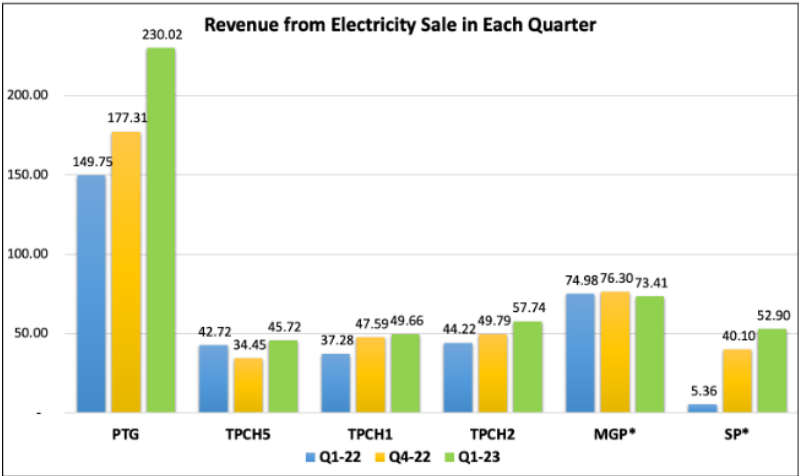
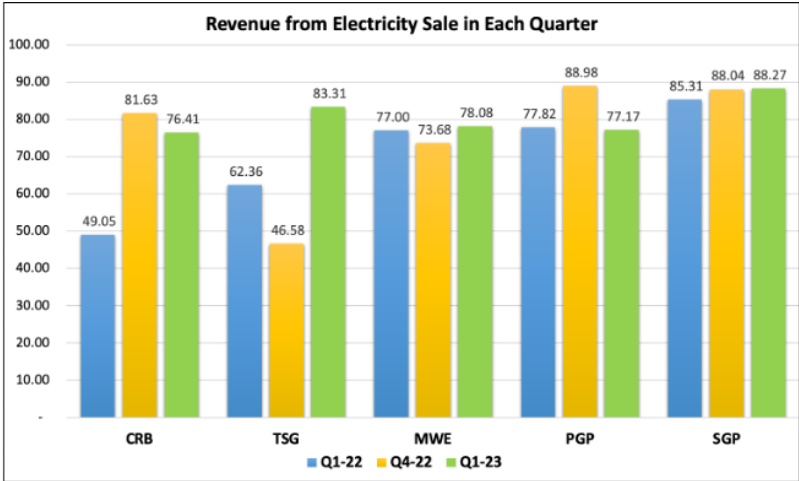
Consolidated Financial Statement	Q1-2023	Q4-2022	QoQ	Q1-2022	YoY
Revenue from electricity sales	786.51	688.05	14.3%	625.52	25.7%
Cost of electricity sales	(522.62)	(525.99)	(0.6%)	(492.27)	6.2%
<b>Gross profit</b>	263.89	162.06	62.8%	133.35	98.0%
Other revenue	1.15	2.26	(49.1%)	33.13	(96.5%)
<b>Profit before expense</b>	265.05	164.32	61.3%	166.38	59.3%
Administrative expense	(51.87)	(40.26)	28.9%	(31.64)	64.0%
Profit (loss) from operation	213.17	124.70	71.8%	134.74	58.2%
Finance revenue	5.72	5.70	0.5%	3.32	72.6%
Financial cost	(54.54)	(51.52)	5.9%	(50.49)	8.0%
Profit (loss) from investment in associates	(6.39)	(10.90)	(41.4%)	(9.28)	(31.2%)
Total	(55.21)	(56.72)	(2.7%)	(56.45)	(2.2%)
<b>Profit (loss) before tax</b>	157.97	67.35	>100.0%	78.29	>100.0%
Income tax expense	(2.64)	(5.42)	(51.3%)	(7.66)	(65.6%)
<b>Net profit (loss)</b>	155.33	61.93	>100.0%	70.62	>100.0%
<b>Other net profit (loss)</b>	0.00	6.47	(100.0%)	0.00	-
<b>Total Net profit (loss)</b>	155.33	68.40	>100.0%	70.62	>100.0%
<b>Profit (loss) per standard share</b>	0.28	0.08		0.09	
<b>Profit attribution</b>					
Owner of the company	110.77	33.61	>100.0%	36.99	>100.0%
Non-controlling interests	44.56	28.32	57.3%	33.63	32.5%
<b>Total net profit (loss)</b>	155.33	61.93	>100.0%	70.62	>100.0%
<b>Profit attributable to</b>					
Owner of the company	110.77	39.82	>100.0%	36.99	>100.0%
Non-controlling interests	44.56	28.58	55.9%	33.63	32.5%
<b>Total net profit (loss)</b>	155.33	68.40	>100.0%	70.62	>100.0%

**Consolidated Financial Statement**

■ **Revenue from Electricity Sale**

In Q1-2023, The company had a total revenue of 786.51 million THB, increased by 98.46 million THB or 14.3% from previous quarter due to TSG operates more efficiently with an average capacity factor of 92% which is the highest number of electricity sales since 2021. PTG also operates the power generation more efficiently with a lower fuel consumption rate. In addition, the tariff rate of Ft of PTG has gradually increased since September 2022. On the other hand, TPCH1 TPCH2 TPCH5 operate more efficiently than the previous quarter with lower fuel costs.

The revenue increased 160.99 million THB or 25.7% from the previous year, due PTG operates electricity generation more efficiently and the average wholesale electricity tariff (Ft) of the PTG increased. CRB had completed the repair of the generator, thus returning to normal operation. TSG operates power generation more efficiently after the shutdown. Details as followed:



MGP,SP\* is a joint venture business. It shows only the income from current shareholding.

## ■ Cost of Electricity Sales

The cost of electricity Sales was 522.62 million THB, decreased by 3.37 million THB or 0.6% from the previous quarter and increased 30.35 million THB or 6.2% from the previous year. The cost consists of operation management fees, fuel costs, electricity costs, insurance premiums, ash handling costs, and equipment costs to strengthen the power plants and fuel management for the project is self-managed except CRB and TSG, details as followed:

Cost of Electricity Sales (MTHB)	Q1-2023										
	CRB	TSG	MWE	PGP	SGP	PTG	TPCH1	TPCH2	TPCH5	Total	%
Operation and Fuel cost	34.72	34.53	45.83	42.70	46.14	85.34	37.15	41.50	29.55	397.45	76.05
Depreciation and Amortization	7.69	7.30	6.81	7.58	8.00	22.07	8.86	8.92	7.36	84.59	16.19
Maintenance Cost	1.75	0.94	3.19	4.76	0.30	4.85	2.16	2.09	2.02	22.05	4.22
Electricity Cost	0.23	0.76	0.77	1.27	1.14	1.05	0.73	0.43	0.85	7.23	1.38
Others (Insurance and ash handling)	1.38	0.90	1.14	1.05	0.87	3.53	0.87	0.85	0.69	11.30	2.16
<b>Total Cost</b>	<b>45.78</b>	<b>44.43</b>	<b>57.73</b>	<b>57.35</b>	<b>56.46</b>	<b>116.84</b>	<b>49.78</b>	<b>53.77</b>	<b>40.47</b>	<b>522.62</b>	<b>100.00</b>
<b>Margin of COGS</b>											<b>66.46</b>

Cost of Electricity Sales (MTHB)	Q4-2022										
	CRB	TSG	MWE	PGP	SGP	PTG	TPCH1	TPCH2	TPCH5	Total	%
Operation and Fuel cost	37.51	19.28	45.07	49.51	48.54	71.87	35.74	34.67	23.97	366.16	69.61
Depreciation and Amortization	7.85	7.41	6.94	7.80	8.40	22.48	9.03	9.09	7.52	86.52	16.45
Maintenance Cost	2.47	26.97	5.00	0.73	0.77	9.54	2.20	1.97	4.09	53.74	10.22
Electricity Cost	0.26	1.00	1.02	0.97	1.15	1.39	0.86	0.66	1.30	8.61	1.64
Others (Insurance and ash handling)	1.54	0.61	1.24	0.56	0.55	3.64	0.95	0.94	0.91	10.95	2.08
<b>Total Cost</b>	<b>49.62</b>	<b>55.27</b>	<b>59.27</b>	<b>59.57</b>	<b>59.42</b>	<b>108.92</b>	<b>48.78</b>	<b>47.33</b>	<b>37.80</b>	<b>525.99</b>	<b>100.00</b>
<b>Margin of COGS</b>											<b>76.45</b>

The cost of electricity sales of TSG decreased due to no repair expenses or other costs involved in generating electricity vary according to the electricity sales unit produced with an operating contract at the price of 1.85 baht per unit.

The cost of electricity sales of PTG increased due to the electricity generating operation at full capacity, with the cost per unit of electricity sold decreased due to the average wholesale electricity tariff (Ft) that increased more than the previous quarter.

The cost of electricity sales of TPCH, TPCH2, and TPCH5 increased due to more efficient operation of the electricity generation with better fuel consumption control.



## ■ Administrative Expenses

The company and its subsidiaries had a total of administrative expenses of 51.87 million THB, increased by 11.62 million THB or 28.9% from previous quarter due to an increase in employees from the year 2021.

## ■ Profit (loss) from investments in joint ventures

A total loss from investments in joint ventures was 6.39 million THB, decreased by 4.51 million THB or more than 41.4% from the previous quarter and decreased 2.89 million THB or 31.2% from the previous year. Details as follows:

- The share of profit from 46 percent in **MGP** was 10.41 million THB, decreased 0.12 million THB or 1.1% from the previous quarter.
- The share of loss from 33 percent in **PA Waste and Energy Company Limited (PA)** from this period was 0.01 million THB.
- The share of loss from 50 percent in **SP** was 16.81 million THB, decreased of 4.63 million THB from the previous quarter due to being able to produce electricity more efficiently and having financial costs from loans for developing other projects.

## ■ Total Net Profit (Loss)

The Company had total net profit of 155.33 million THB, increased by 93.61 million THB or more than 100% from the previous quarter and increased 93.40 million THB or more than 100% from the previous year, which attributed to the company of 110.77 million THB increased 77.16 million THB or more than 100% from the previous quarter and increased 73.78 million THB or more than 100% from the previous year, due to following reason.

- **5 Projects (CRB, TSG, MWE, PGP, SGP) *The performance is stable. The overall lower profit will be caused by annual shutdowns and the price of fuel used.***

After the maintenance shutdown of TSG, is has made the electricity generation more efficient with average capacity factor of 92% which is the highest number of units sold since 2021, resulting in more profitable results than the previous quarter. It also paid dividend of 230.00 million THB.

MWE has written off assets in the amount of 4.81 million THB, resulting in a decrease in operating results from the previous quarter. Hence, there was an annual dividend payment of 300.00 million THB.

A turnover of PTG decreased due to the shutdown for annual maintenance shutdown of 10 days.

SGP produced less electricity than the previous quarter but was able to control fuel costs better, resulting in a higher profit than the previous quarter.

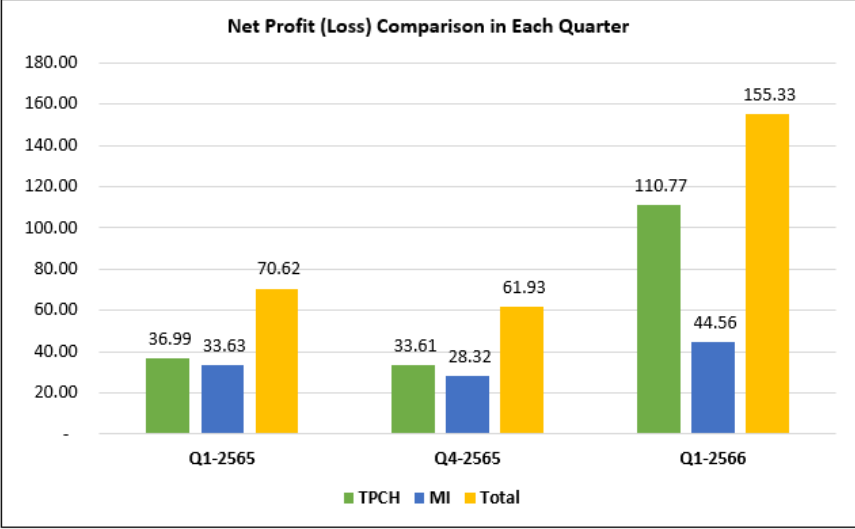
○ **3 border provinces (PTG, TPCH5, TPCH1, TPCH2)**

In Q1/2023, PTG was able to generate electricity by an average of 82% for the whole year due to the maintenance shutdown of 8 days 13 hours, as well as the average wholesale electricity tariff (Ft) that was higher than the previous quarter, therefore, making the turnover profitable.

TPCH1, TPCH2, TPCH5 projects in Q1/2023 have periodic maintenance shutdowns to make the machine more efficient with a lower the fuel consumption rate, TPCH1 operating at an average of 78%, TPCH2 at an average of 91%, and TPCH5 at an average of 96%. All 3 projects generate more electricity than the previous quarter.

- **ECO (PBM, PBB)** PBM is under construction, the construction progress is 95.93% and is in the preparation test run for commercial electricity distribution. PBB has been commercially operated since March 30, 2023 and are in the process of fine-tuning.

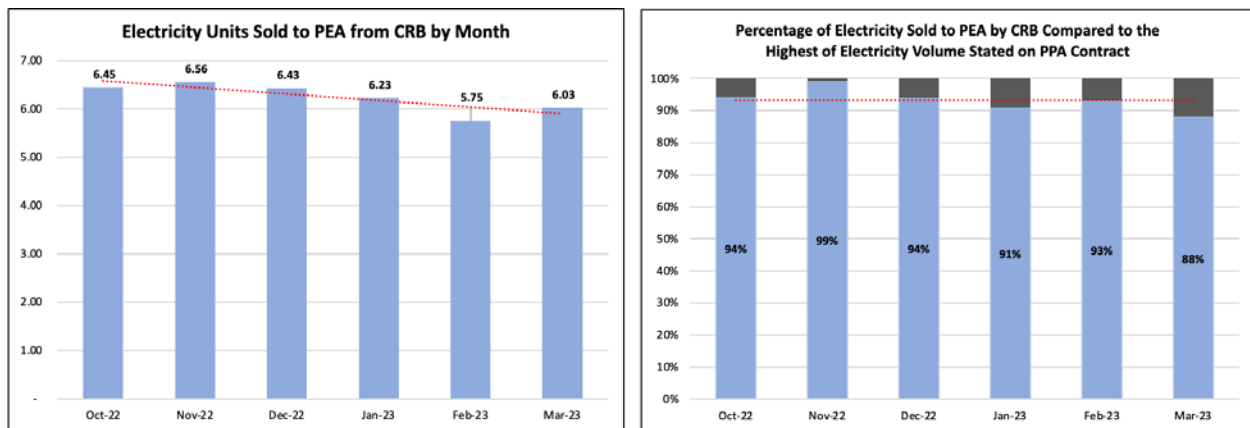
- **Joint Ventures (MGP, SP, PA)** MGP produce electricity less than the previous quarter with an average operation 93%. As a result, the profit decreased slightly. SP is in the process of improving various processes in the production of RDF fuel to obtain the appropriate quantity and quality for the machines to continue to generate electricity. Also, several waste-to-energy projects being developed under SP, resulting in no profit.



## Performance of Power plants under operations (11 plants in total)

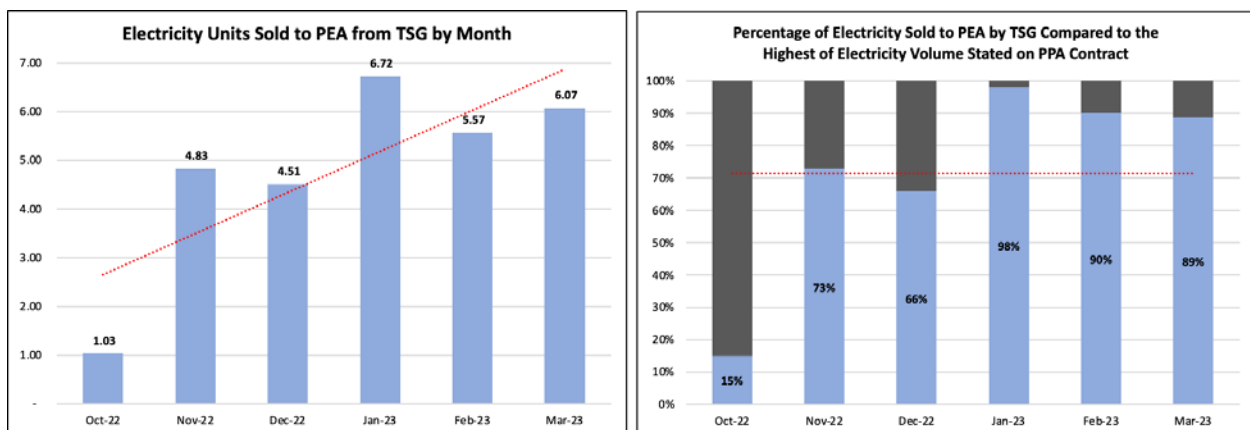
**CRB** power plant has electricity sales volume under the Feed-in Tariff (FiT) system power purchase agreement of 9.2 megawatts with a net selling price of 4.24 baht per unit.

In Q1-2023, CRB generated and sold 18,003,358 kWh with a capacity factor of 91%. Details as follows:



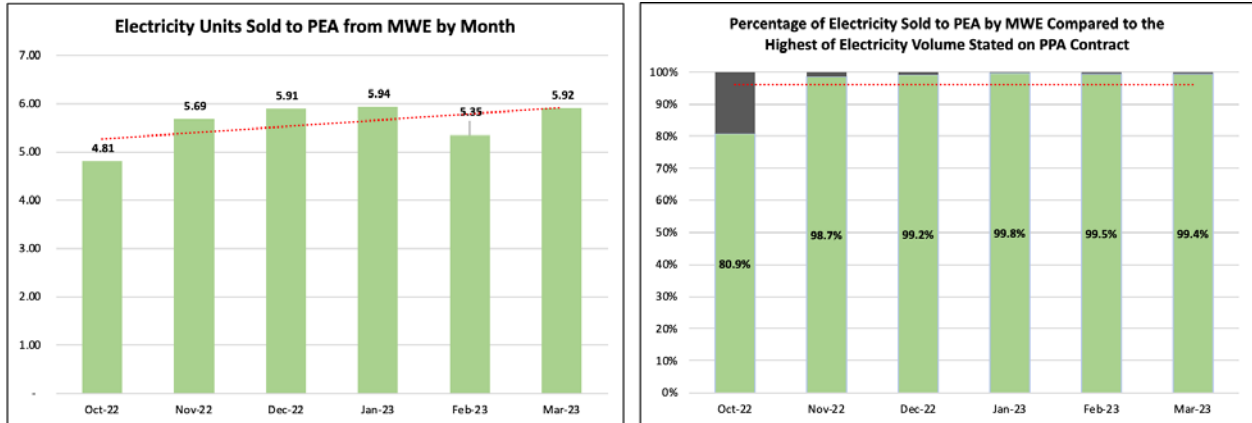
**TSG** power plant has electricity sales volume under the Feed-in Tariff (FiT) system power purchase agreement of 9.2 megawatts with a net selling price of 4.54 baht per unit.

In Q1-2023, TSG generated and sold 18,357,600 kWh with a capacity factor of 92%.. Details as follows:



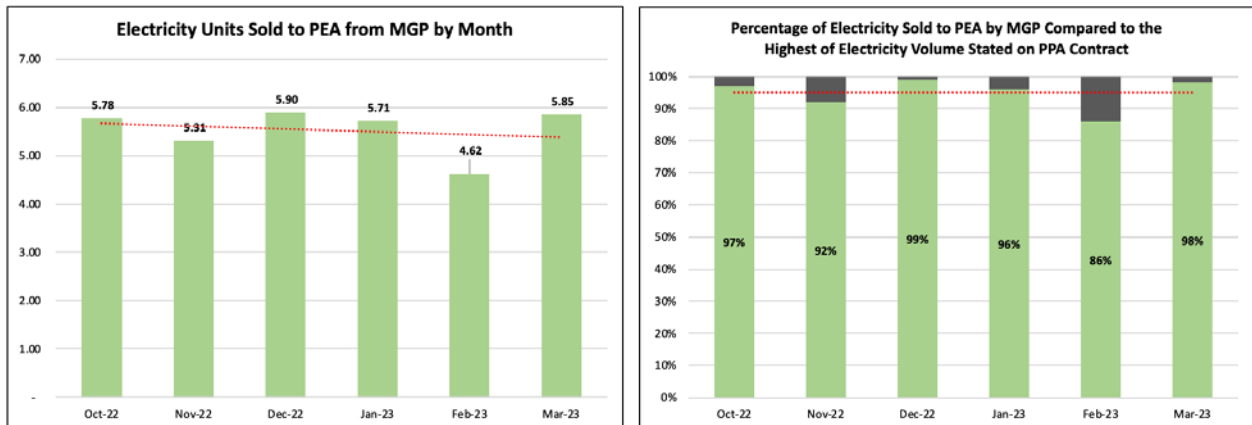
**MWE** power plant has electricity sales volume under the Feed-in Tariff (FiT) system power purchase agreement of 8.0 megawatts with a net selling price of 4.54 baht per unit.

In Q1-2023, MWE generated and sold 17,206,582 kWh with a capacity factor of 99.6%. Details as follows:



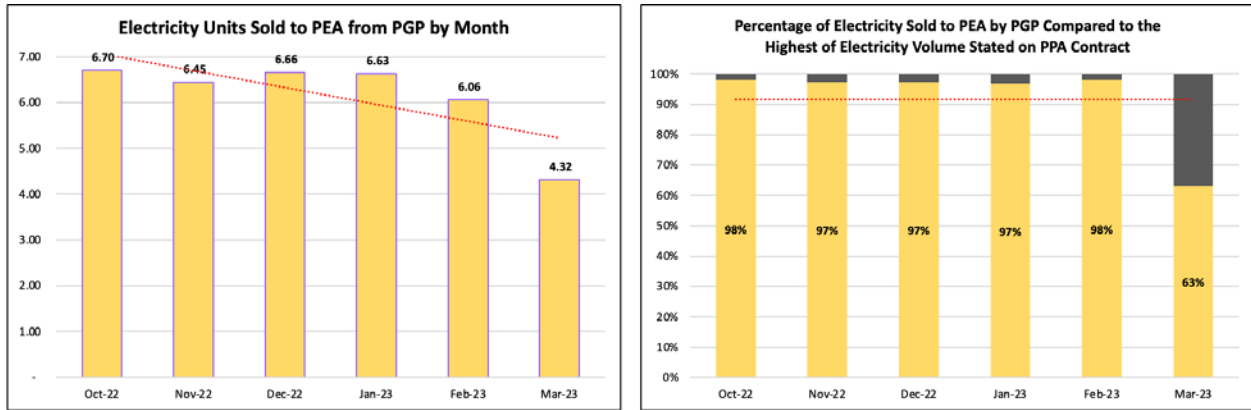
**MGP** power plant has electricity sales volume under the Feed-in Tariff (FiT) system power purchase agreement of 8.0 megawatts with a net selling price of 4.54 baht per unit.

In Q1-2023, MGP generated and sold 16,176,797 kWh with a capacity factor of 93%. Details as follows:



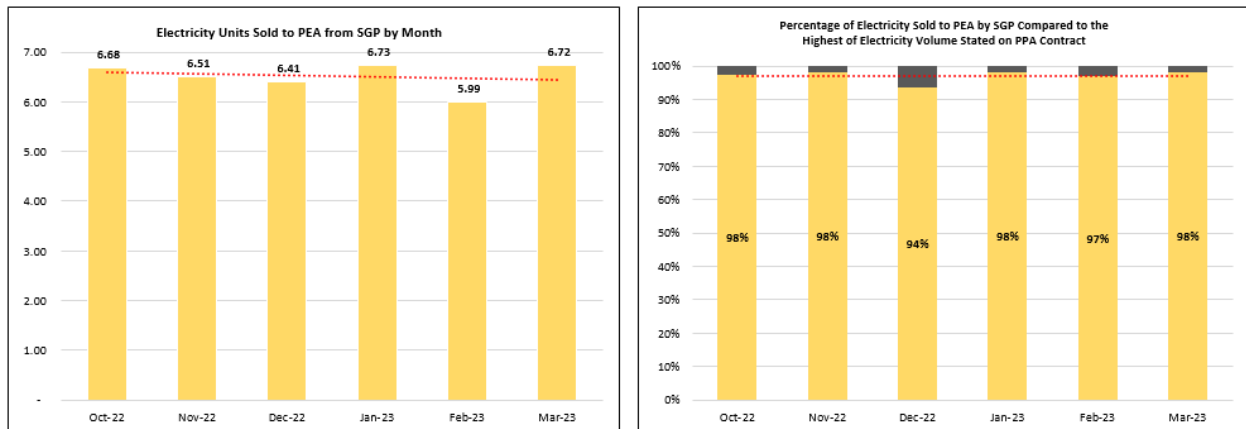
PGP power plant has electricity sales volume under the Feed-in Tariff (FiT) system power purchase agreement of 9.2 megawatts with a net selling price of 4.54 baht per unit.

In Q1-2023, PGP generated and sold 17,003,485 kWh with a capacity factor of 86%. Details as follows:



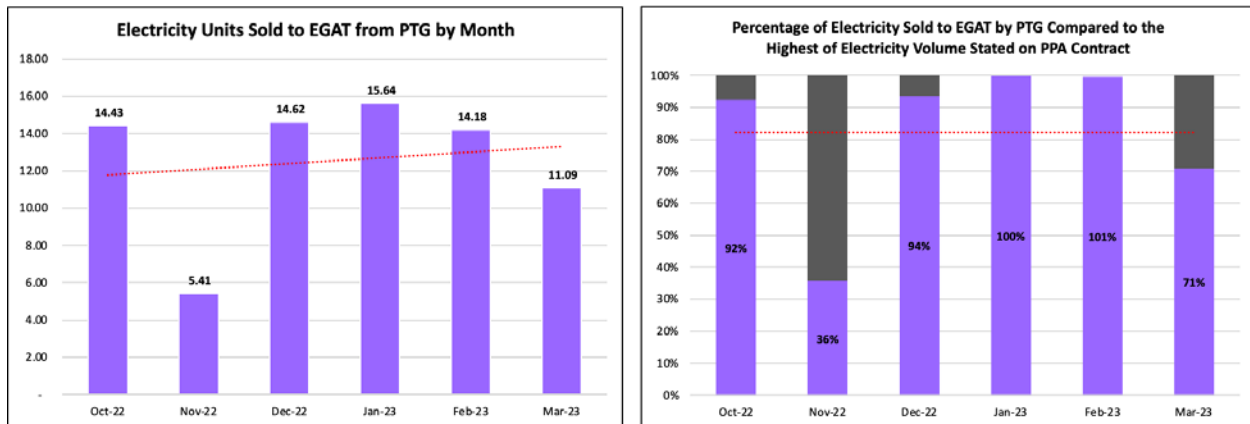
SGP power plant has electricity sales volume under the Feed-in Tariff (FiT) system power purchase agreement of 9.2 megawatts with a net selling price of 4.54 baht per unit.

In Q1-2023, SGP generated and sold 19,450,476 kWh with a capacity factor of 98%. Details as follows:



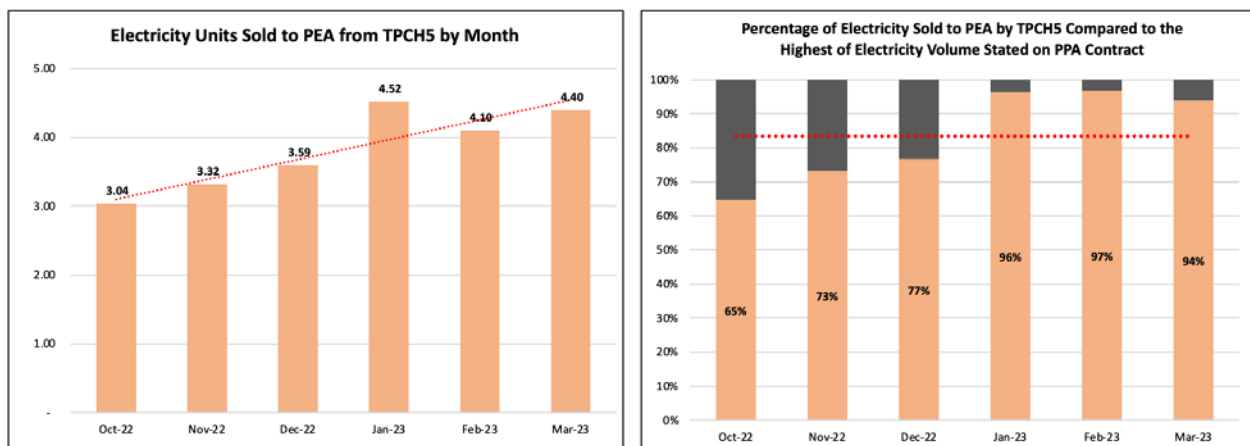
**PTG** power plant has started selling electricity commercially on 19 May 2020 with an electricity sales volume under the Adder system power purchase agreement of 21.0 megawatts with a net selling price of 5.62 baht per unit.

In Q1-2023, PGT generated and sold 40,912,775 kWh with a capacity factor of 91%. Details as follows:



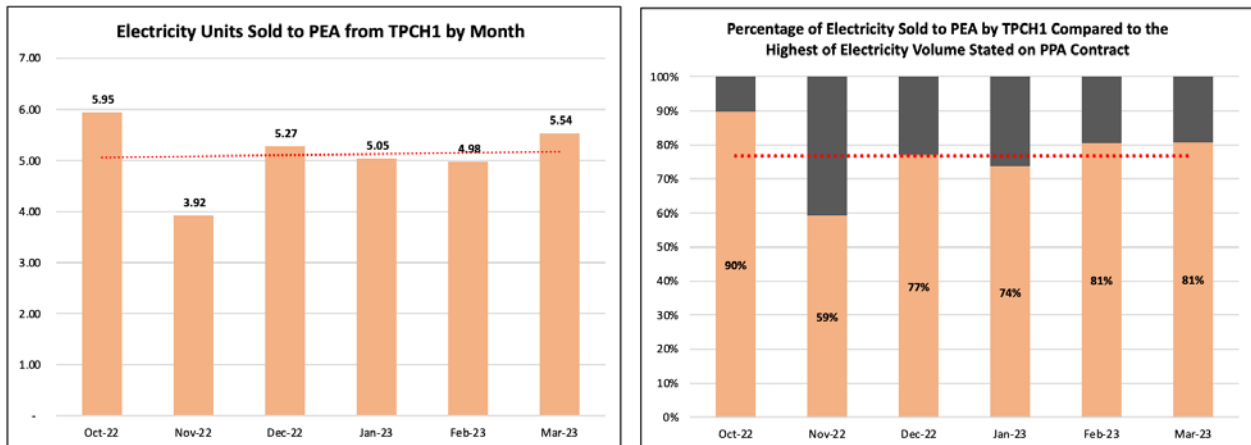
**TPCH5** power plant has started selling electricity commercially on 17 November 2020 with an electricity sales volume under the bidding system power purchase agreement of 6.3 megawatts with a net selling price of 3.51 baht per unit.

In Q1-2023, TPCH5 generated and sold 13,023,250 kWh with a capacity factor of 96%. Details as follows:



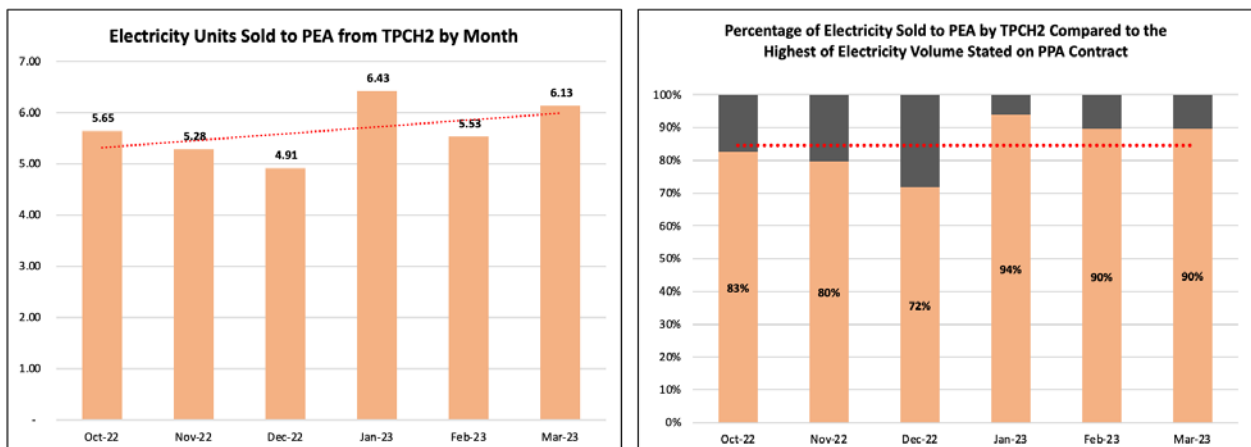
TPCH1 power plant has started selling electricity commercially on 27 November 2020 with an electricity sales volume under the bidding system power purchase agreement of 9.2 megawatts with a net selling price of 3.19 baht per unit.

In Q1-2023, TPCH1 generated and sold 15,562,870 kWh with a capacity factor of 78%. Details as follows:



TPCH2 power plant has started selling electricity commercially on 17 February 2021 with an electricity sales volume under the bidding system power purchase agreement of 9.2 megawatts with a net selling price of 3.19 baht per unit.

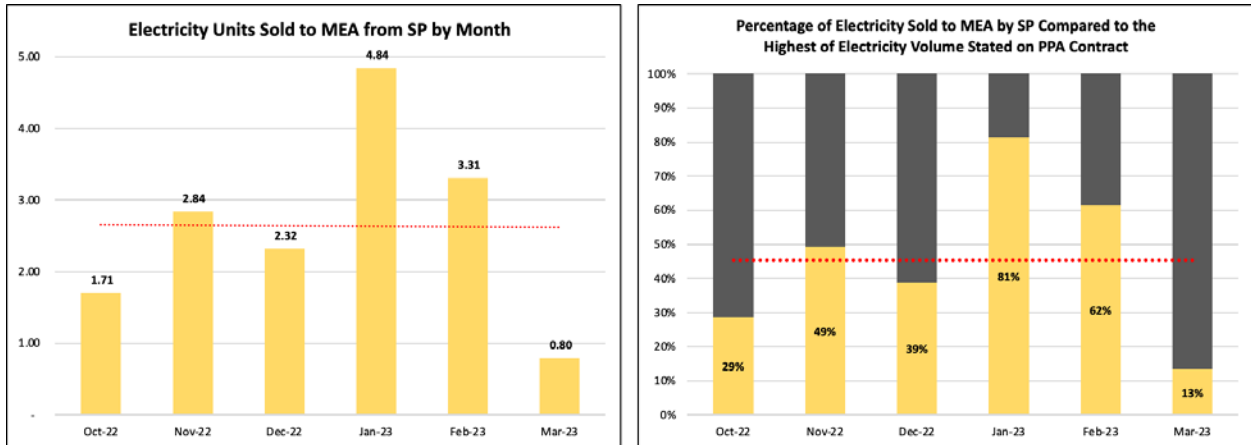
In Q1-2023, TPCH2 generated and sold 18,096,232 kWh with a capacity factor of 91%. Details as follows:





SP power plant has started selling electricity commercially on 30 February 2021 with has electricity sales volume under the Feed-in Tariff (FiT) system power purchase agreement of 8.0 megawatts with a net selling price of 5.91 baht per unit.

In Q1-2023, SP generated and sold 8,951,350 kWh with a capacity factor of 52%. Details as follows:



## Industry Overview in 2023

For 2023, the Company will focus on developing renewable energy as an IPP in neighboring countries with business partners who have expertise in the area instead of developing projects in Thailand. Higher business competition and low electricity purchase price per unit in Thailand make developing projects in neighboring countries more attractive in terms of returns and overseas expansion. Since it is a development abroad, there may be various risk factors that the company has to analyze in detail, whether it is the economic, political, and social policies of the country. As a result, the company has hired experts in various fields such as legal consultants to study foreign investments, financial consultants to study project feasibility, tax advisory etc. to explore all the possibilities before making investment decisions since factors affecting the return on investment and returns to the company in total. It is expected that the company's first overseas project will have more clarity in terms of investment by early 2023 after completing the study and closing various risks.

As for the projects in Thailand, the company continues to develop the municipal waste power plant project that the company invests 50% share in Siam Power Co., Ltd. (SP). Two projects are expected to receive the power purchase agreement within 2023 since they are the project that has already been acknowledged in the AEDP plan. Another 3-4 projects are being developed as well, all of which are municipal waste-to-energy VSPP power plants. As for the projects that have commercially retailed electricity, the company still focuses on controlling the cost of electricity generation to reduce mainly in terms of fuel costs, administrative costs, and improving the efficiency of the machines. On the other hand, there is also an additional source of income to the company such as the sale of carbon credits that can add generous value to the projects in the future.

For your information,

TPC Power Holding Public Company Limited



(Mr. Cherdsak Wattanavijitkul)

President

## Index

<b>TPCH</b>	: TPC Power Holding Public Company Limited
<b>CRB</b>	: Chang Rak Biopower Company Limited
<b>MWE</b>	: Maewong Energy Company Limited
<b>MGP</b>	: Mahachai Green Power Company Limited
<b>TSG</b>	: Thungsung Green Company Limited
<b>PGP</b>	: Phatthalung Green Power Company Limited
<b>SGP</b>	: Satun Green Power Company Limited
<b>PTG</b>	: Pattani Green Company Limited
<b>TPCH1</b>	: TPCH Power 1 Company Limited
<b>TPCH2</b>	: TPCH Power 2 Company Limited
<b>TPCH5</b>	: TPCH Power 5 Company Limited
<b>PA</b>	: PA Waste and Energy Company Limited
<b>SP</b>	: Siam Power Company Limited
<b>ECO</b>	: ECO Energy Group Corporation Company Limited
<b>PBM</b>	: Pracharat Biomass Mae Lan Company Limited
<b>PBB</b>	: Pracharat Biomass Bannang Sata Company Limited
<b>TPCH9</b>	: TPCH Power 9 Company Limited
<b>TPCH10</b>	: TPCH Power 10 Company Limited
<b>TPCH11</b>	: TPCH Power 11 Company Limited
<b>TPCH14</b>	: TPCH Power 14 Company Limited
<b>TPCH15</b>	: TPCH Power 15 Company Limited
<b>TPCH17</b>	: TPCH Power 17 Company Limited
<b>TPCH18</b>	: TPCH Power 18 Company Limited
<b>TPCH19</b>	: TPCH Power 19 Company Limited
<b>PEA</b>	: Provincial Electricity Authority
<b>MEA</b>	: Metropolitan Electricity Authority
<b>COD</b>	: Commercial Operation Date
<b>SCOD</b>	: Scheduled Commercial Operation Date
<b>RDF</b>	: Refuse Derived Fuel which is the product of processing municipal solid waste to separate the noncombustible from the combustible portion, and preparing the combustible portion into a form that can be effectively fired in an existing or new boiler.