



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



Management's Discussion and Analysis (MD&A)

Ended June 30, 2022

No. TPCH-SC-001-05/2565

August 10, 2022

Subject: Management's Discussion and Analysis for Ended June 30, 2022

**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 ended June 30, 2022.

TPC Power Holding Public Company Limited is a company that primarily invests in subsidiaries that operate renewable energy power plants. The company focuses on maximizing cost management by purchasing fuel from agricultural waste materials around power plant areas. We also promote the creation of local careers through the employment system by using personnel in the areas surrounding the power plants to ensure stability at levels appropriate to the electricity demand.

Events in Q2-2022

■ **The first interim dividend payment for the PTG power plant project**

PTG power plant project with an installed capacity of 23 megawatts and an offered capacity on PPA of 21 megawatts is a Small Power Producer (SPP) that constructed and finetuned various systems during the Covid-19 outbreak. The electricity tariff is an adder system with an additional premium for the three southern border provinces. The commercial operation of electricity sales and revenue recognition was first recorded on June 16, 2020.

As of March 31, 2022, the PTG project has retained earnings of 16,847,625.40 THB in accordance with the minutes of the first interim dividend payment of the Board of Directors. From the operating results for the 3 months ending Q2/22 after deducting the legal reserve in the amount of 20,222,500.00 baht, due on August 16, 2022

■ **Operation of SP waste power plant**

The SP project, with an installed capacity of 9.5 megawatts and an offering capacity of 8.0 megawatts, is the Company's first waste-to-energy project. Construction began during the Covid-19 outbreak and installing the system during the time to meet the COD schedule within December 31, 2021 according to the power purchase agreement with the Metropolitan Electricity Authority. In Q1/22 and Q2/22, there were periodic shutdowns for testing and fine-tuning of various machinery systems in order to produce electricity efficiently. It was able to distribute electricity for 1,688,000 units, amounting to 15.26 million baht. The fine-tuning process is expected to be completed by September 2022.

■ **CRB project maintenance shutdown**

The generator of the project was malfunctioned on 4th March 2022, resulting in the inability to generate electricity for sale with an expect downtime of 120 days. CRB is in the process of maintenance and will be claiming insurance for machinery repair costs including lost revenue during the shutdown of the power plant afterward.

■ **Project under construction**

Pracharat Biomass Maelan Power Plant (PBM) located in Mae Lan District, Pattani Province has a project progress of 66.41%. Pracharat Biomass Bannang Sata Power Plant (PBB) located in Bannang Sata District, Yala Province has a project progress of 72.04%. Each project has an offering capacity of 2.85 megawatts and a tariff rate of 5.14 baht per unit of electricity FiT per unit.

Overview of Financial Performance of the Company

Unit : Million THB

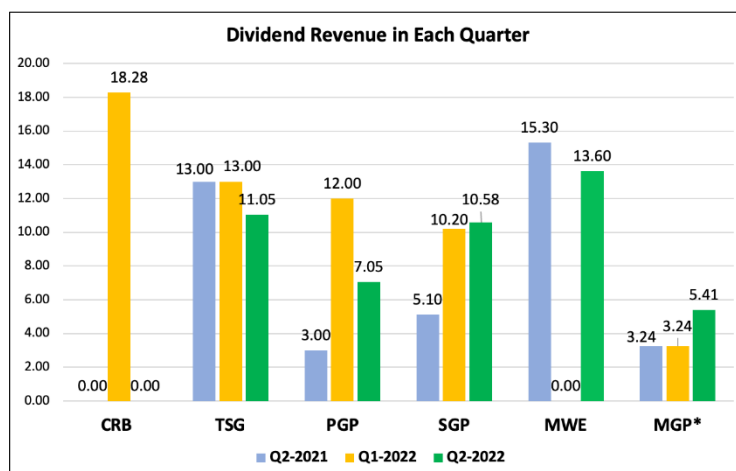
Separated Financial Statement	Q2-2022	Q1-2022	%QoQ	Q2-2021	%YoY
Revenue					
Dividend Revenue	47.69	56.72	(15.9%)	39.64	20.3%
Other revenue	0.70	0.61	14.5%	0.27	>100.0%
Finance revenue	15.09	12.86	17.3%	5.15	>100.0%
Total Revenue	63.48	70.20	(9.6%)	45.07	40.9%
Expense					
Administrative Expense	(20.55)	(20.06)	2.4%	(22.01)	(6.7%)
Finance cost	(18.56)	(19.17)	(3.1%)	(3.11)	>100.0%
Total Expense	(39.11)	(39.23)	(0.3%)	(25.12)	55.7%
Net profit (loss)	24.37	30.97	(21.3%)	19.95	22.2%
Earnings (loss) per share	0.06	0.08		0.05	

Separated Financial Statement

In Q2-2022, the company had a total net profit of 24.37 million THB, decreased 6.6 million THB or 21.3% and increased 4.42 million THB or 22.2% from previous quarter due to the following reasons:

■ Dividend Revenue

The company had a total dividend revenue of 47.69 million THB, decreased 9.04 million THB or 15.9% from previous quarter due to a generator breakdown of CRB causing it unable to generate revenue and dividend payment for this quarter. However, the dividend revenue increased 8.04 million THB or 20.3% from the same quarter of 2021



- **Other Revenue**

The company had other revenue of 0.7 million THB, increased by 0.09 million THB or 14.5% from previous quarter and increased 0.43 million THB or more than 100% from the same quarter in 2021, which is an operating income in the subsidiaries and the improvement of Management system such as Accounting, Financing, Human resources, IT and business development.

- **Finance Revenue**

The company had finance revenue of 15.09 million THB, increased by 2.23 million THB or 17.3% from previous quarter and increased 9.94 million THB or more than 100% from the same quarter in 2021, which is from a short-term loan interest of subsidiaries and related parties with an interest rate less than 5% per annual following the rate of loan agreement the company has received with the bank.

- **Administrative Expense**

The company had the expense of 20.55 million THB increased by 0.48 million THB or 2.4%, from previous quarter and decreased 1.47 million THB or 6.7% from the same quarter in 2021, which most of the expenses goes to employees' wages/salaries, Board, Manager, Utilities, other administrative expense and managing expense, consultant, public relations.

- **Financial Cost**

The Company had a finance cost of 18.56 million THB, decreased by 0.60 million THB or 3.1% from previous quarter, and increased 15.46 million THB or more than 100% from the same quarter in 2021, which is from interest of short-term loan in terms of bill of exchange, Financial institution loan and interest expense of 1,500 million THB of debenture which requires to be paid every 3 months.

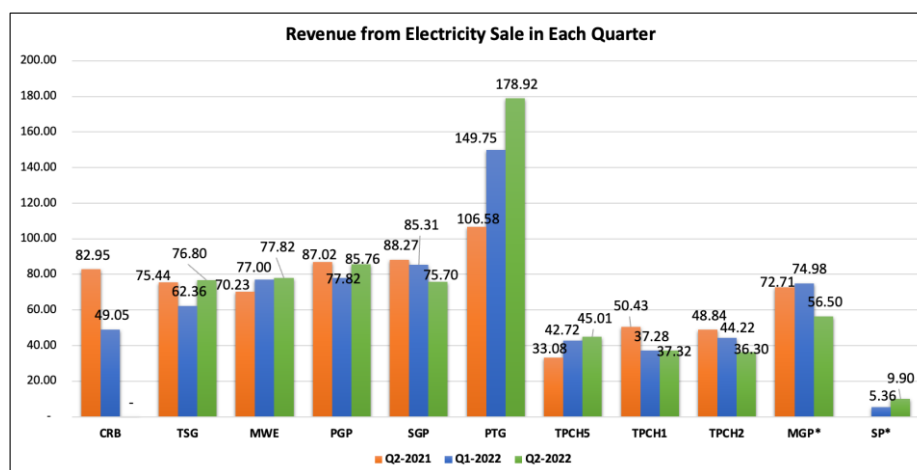
Consolidated Company Performance

Consolidated Financial Statement	Q2-2022	Q1-2022	%QoQ	Q2-2021	%YoY
Revenue from electricity sales	613.60	625.52	(1.9%)	642.83	(4.5%)
Cost of electricity sales	(506.62)	(492.27)	2.9%	(486.59)	4.1%
Gross profit	106.98	133.25	(19.7%)	156.24	(31.5%)
Other revenue	0.10	33.13	(99.7%)	1.13	(90.9%)
Profit before expense	107.08	166.38	(35.6%)	157.37	(32.0%)
Administrative expense	(31.14)	(31.64)	(1.6%)	(32.76)	(4.9%)
Profit (loss) from operation	75.94	134.74	(43.6%)	124.61	(39.1%)
Finance revenue	5.00	3.32	50.7%	1.04	>100.0%
Financial cost	(49.02)	(50.49)	(2.9%)	(37.15)	32.0%
Profit (loss) from investment in associates	(17.09)	(9.28)	84.2%	2.29	(>100.0%)
Total	(61.11)	(56.45)	8.3%	(33.82)	80.7%
Profit (loss) before tax	14.83	78.29	(81.1%)	90.78	(83.7%)
Income tax expense	1.55	(7.66)	(>100.0%)	(3.57)	(>100.0%)
Net profit (loss)	16.38	70.62	(76.8%)	87.21	(81.2%)
Profit (loss) per standard share	(0.004)	0.09		0.12	
Profit attribution					
Owner of the company	(1.63)	36.99	(>100.0%)	48.40	(>100.0%)
Non-controlling interests	18.01	33.63	(46.4%)	38.81	(53.6%)
Total Net profit (loss)	16.38	70.62	(76.8%)	87.21	(81.2%)

Consolidated Financial Statement

■ Revenue from Electricity Sale

In Q2-2022, The company had a total revenue of 613.60 million THB, decreased by 11.91 million THB or 1.9% from previous quarter because CRB did not operate due to the unplan shutdown and SGP had yearly maintenance shutdown. Revenue decreased 29.22 million THB or 4.5% from the same quarter of 2021. Details as followed:



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

■ Cost of Electricity Sales

The cost of electricity Sales was 506.62 million THB, increased by 14.35 million THB or 2.9% from the previous quarter and increased 20.03 million THB or more than 4.1% from the same quarter in 2021. The cost consists of operation management fees, fuel costs, electricity costs, insurance premiums, ash handling costs, and equipment costs to strengthen the power plants, every power plant also have their own fuel management except CRB and TSG. details as followed:

Cost of Electricity Sales (MTHB)	Q2-2022										
	CRB	TSG	MWE	PGP	SGP	PTG	TPCH1	TPCH2	TPCH5	Total	%
Operation and Fuel cost	5.40	31.63	43.95	49.56	39.29	87.73	30.92	32.77	28.57	349.81	69.05
Depreciation and Amortization	7.81	7.34	6.87	7.84	8.65	21.63	8.86	8.89	7.44	85.34	16.84
Maintenance Cost	28.29	1.67	2.04	4.52	9.40	4.28	1.46	1.89	1.64	55.20	10.90
Electricity Cost	0.56	0.81	0.75	1.04	1.23	0.56	0.66	0.57	0.87	7.04	1.39
Others (Insurance and ash handling)	0.41	0.73	1.18	0.45	0.61	3.48	0.83	0.80	0.76	9.24	1.82
Total Cost	42.48	42.18	54.78	63.42	59.17	117.68	42.73	44.92	39.27	506.62	100.00
Margin of COGS											82.57

Cost of Electricity Sales (MTHB)	Q1-2022										
	CRB	TSG	MWE	PGP	SGP	PTG	TPCH1	TPCH2	TPCH5	Total	%
Operation and Fuel cost	22.20	25.69	44.11	47.26	48.84	83.18	32.73	36.03	28.85	368.87	74.93
Depreciation and Amortization	7.28	7.10	6.89	8.12	8.57	21.34	8.71	8.65	7.32	83.97	17.06
Maintenance Cost	3.50	1.95	1.77	5.69	0.78	3.49	1.43	1.97	1.48	22.05	4.48
Electricity Cost	0.54	0.93	0.73	1.16	1.13	1.04	0.97	0.69	0.88	8.06	1.64
Others (Insurance and ash handling)	0.81	0.92	1.16	0.52	0.43	3.26	0.82	0.86	0.53	9.32	1.89
Total Cost	34.32	36.58	54.66	62.75	59.75	112.30	44.66	48.19	39.07	492.27	100.00
Margin of COGS											78.70

In Q2-2022,

CRB had increased the power generation cost due to the maintenance cost of generator.

SGP had increased maintenance cost due to an annual maintenance shutdown.

PTG had increased generation cost due to a better generation performance and fuel management.

Other revenue

The company had other revenue of 0.1 million THB, decreased 33.03 million THB or 99.7% from previous quarter and decreased 1.03 million THB or 90.9% from the same quarter in 2021 which is from its subsidiaries.

■ **Administrative Expenses**

The company and its subsidiaries had a total of administrative expenses of 31.14 million THB, decreased by 0.50 million THB or 1.6% from previous quarter and decreased by 1.62 million THB or 4.9%. The main cost are employees' wages and salaries, board of directors, utilities, Power plant Capital contribution, depreciation, and interest.

■ **Finance Revenue**

The company had finance revenue of 5 million THB, increased by 1.68 million THB or 50.7% from previous quarter and increased 3.96 million THB or more than 100% from the same quarter In 2021 due to a short-term loan for subsidiaries and related parties with an interest rate less than 5% per annual following the rate of loan agreement the company has received with the bank.

■ **Finance Cost**

The company has finance cost of 49.02 million THB, decreased by 1.47million THB or 2.9% from the previous quarter and increased 11.87 million THB or 32% from the same quarter in 2021, which were from a short-term loan interest of bill of exchange which brought to subsidiaries, loan interest from financial institutes, and interest expense of 1,500 million THB debenture which must be paid every 3 months.

■ Profit (loss) from investments in joint ventures

A total loss from investments in joint ventures was 17.09 million THB, increased by 7.82 million THB or 84.2% from the previous quarter and decreased 19.38 or more than 100% from the same quarter in 2021. Details as follows:

- The share of profit from 46 percent in **MGP** was 2.96 million THB, decreased 6.41 million THB or 68.44% from previous quarter due to 20 days of maintenance shut down.
- The share of loss from 33 percent in **PA Waste and Energy Company Limited (PA)** from this period was 0.02 million THB.
- The share of loss from 50 percent in **SP** was 20.06 million THB increased by 1.40 million THB or 7.48% from the previous quarter, due to the project has started commercial operations on December 30, 2021 which is currently under fine-tuning, alternative fuels were purchased for system testing which cost higher fuel consumption than normal. Other costs consist of employee salaries, depreciation, insurance premiums, electricity, the cost of materials and equipment.

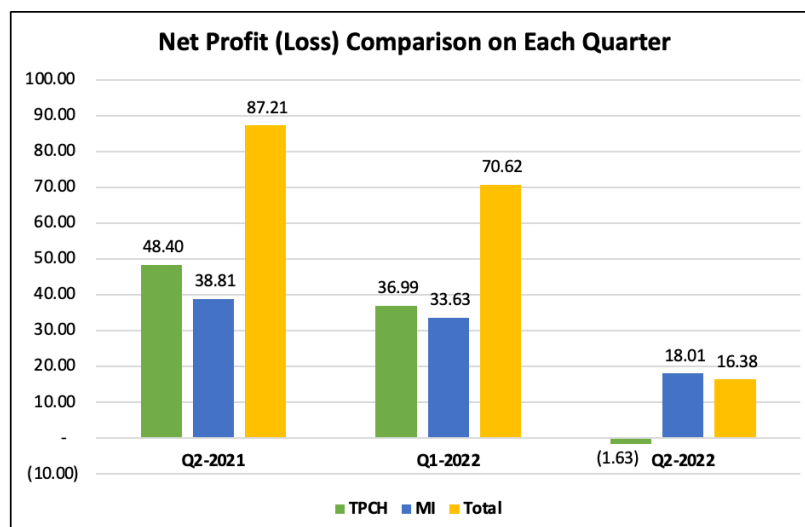
■ Total Net Profit (Loss)

The Company had total net profit of 16.38 million THB, decreased by 54.25 million THB or more than 76.8% from the previous quarter and decreased 70.84 million THB or 81.2% from the same quarter in 2021, which attributed to the loss of company of 1.63 million THB, decreased by 38.62 million THB or more than 100% from previous quarter and decreased 50.3 million THB or more than 100% from the same quarter in 2021 net loss due to following reasons.

- **5 Projects (CRB, TSG, MWE, PGP, SGP)** *Stable Performance* except for CRB
 - In Q2-2022, CRB did not generate electricity due to maintenance shutdown and started operating again on July 8,2022. Maintenance cost and loss of revenue is currently under a process of insurance claiming.
 - In Q2-2022 SGP had yearly maintenance shutdown which caused lower profit than previous quarter.
- **3 border provinces (PTG, TPCH5, TPCH1, TPCH2)**
 - In Q2-2022 PTG had generated more than 90% of capacity factor resulting in 47.44 million Baht of profit compares to previous quarter of 76% of

capacity factor and 22.71 million Baht of profit. PTG was able to pay the first interim dividend due to a higher performance and lower in operating cost. PTG has improved the wood chopper to be more efficient, allowing more stumps can be chopped, resulting in lower fuel costs. Efficient fuel management by managing electricity generation during peak and off-peak periods in order to increase revenue from electricity sales. In May and June, the Ft tariff also increased, causing the average selling price of electricity to increase as well.

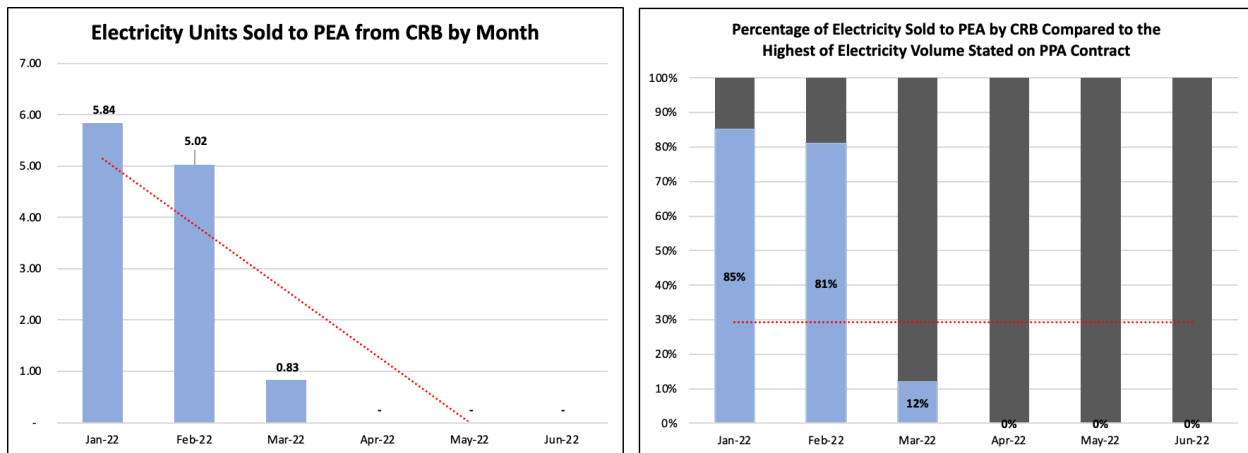
- TPCH1, TPCH2, TPCH5 had several periodic shutdowns for maintenance and machine finetuning to make the machines more efficient and lower a fuel consumption rate. TPCH1 has an average capacity factor of 59%, TPCH2 of 57%, and TPCH5 of 94% with the TPCH1 operating an average of 59%, the TPCH2 operating an average of 57%, and the TPCH5 operating an average of 94%.
- **ECO (PBM, PBB)** The loss is recognized according to the shareholding proportion because the projects are under construction. PBM has reached 66.41% and PBB of 72.04% of construction.
- **Joint Ventures (MGP, SP, PA)** had a close operation performance in most of the quarters but had more loss than previous quarter, due to SP project had recently started commercial operation which required special monitoring and adjustments to have more stable generation causing the cost of sales increased.



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

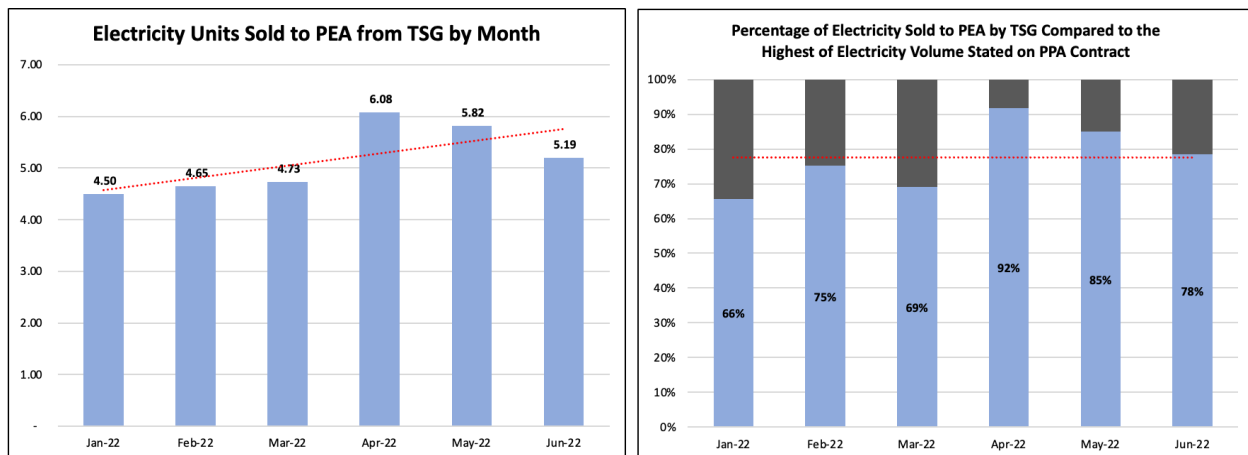
CRB power plant has electricity sales volume under the Feed-in Tariff (FiT) system power purchase agreement of 9.2 megawatts with a net selling price of 4.20 baht per unit.

In Q2-2022, CRB was unable to produce electricity for sale due to the failure of the generator of the project. However, the generator has already been repaired and it started operating on July 8, 2022 at its full capacity. CRB had 91 days of unplanned shutdown. 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 4.49 baht per unit.

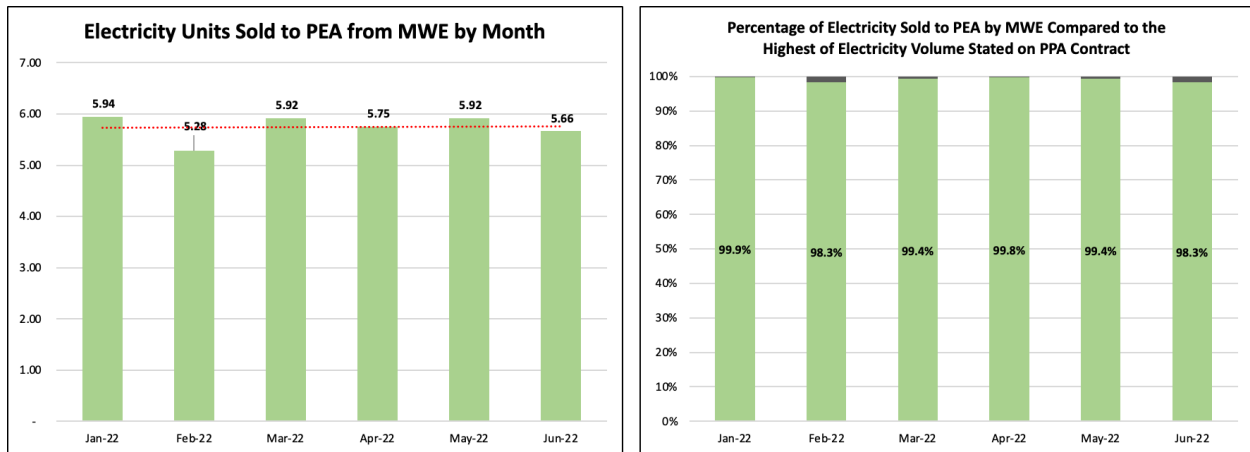
In Q2-2022, TSG generated and sold 17,098,017 units with 31 hours of unplanned shutdown. Details as follows:



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 4.49 baht per unit.

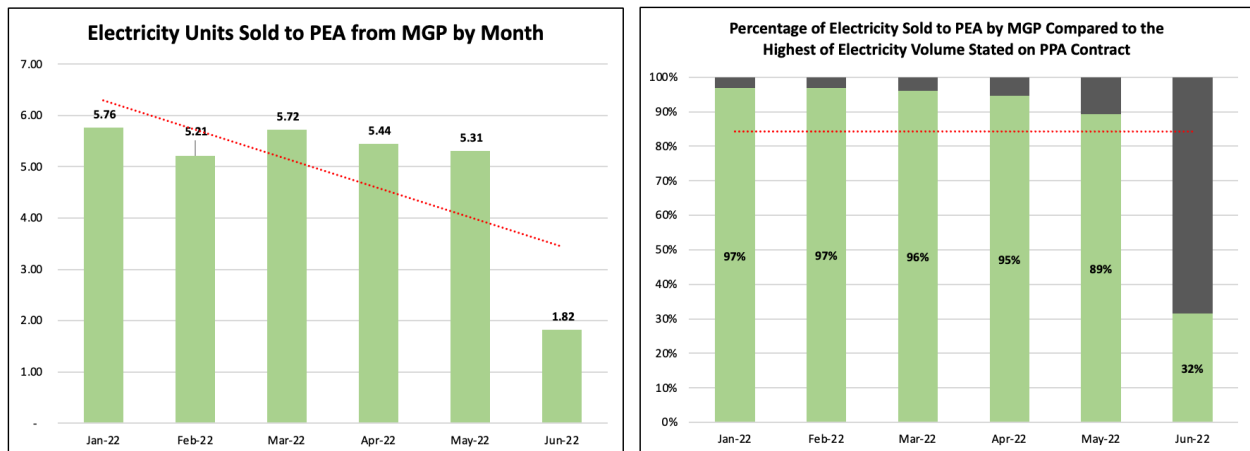
In Q2-2022, MWE generated and sold 17,325,572 units with 8 hours of unplanned shutdown.

Details as follows:



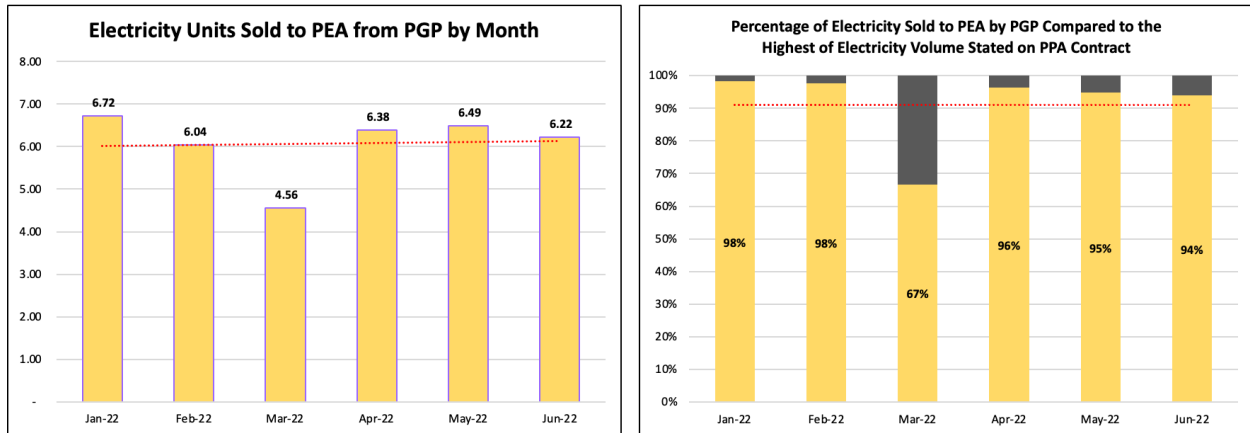
MGP power plant has electricity sales volume under the Feed-in Tariff (FiT) system power purchase agreement of 8.0 megawatts with a net selling price of 4.49 baht per unit.

In Q2-2022, MGP generated and sold 12,575,788 units 20 days of planned shutdown and 2 days 18 hours of unplanned shutdown details as follows:



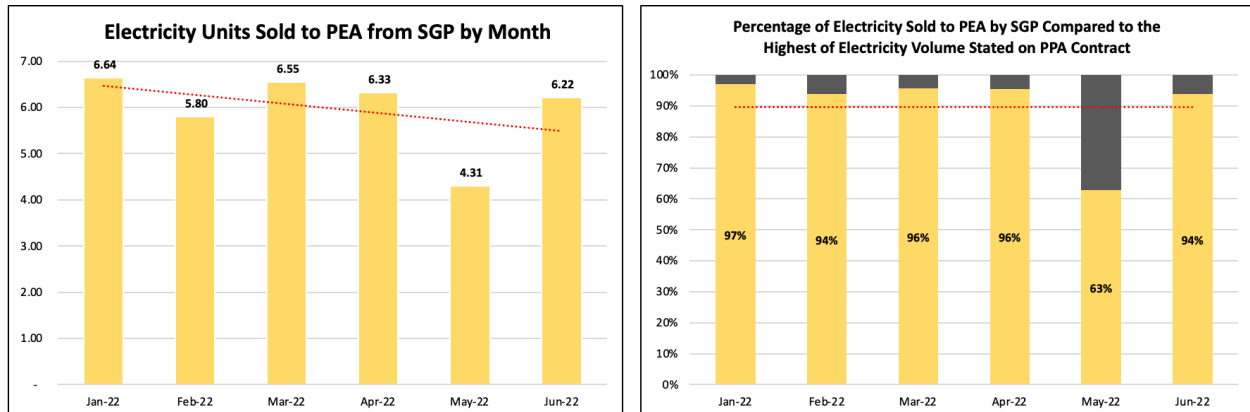
PGP power plant has electricity sales volume under the Feed-in Tariff (FiT) system power purchase agreement of 9.2 megawatts with a net selling price of 4.49 baht per unit.

In Q2-2022, PGP generated and sold 19,093,182 units with 2 days and 8 hours of unplanned shutdown. Details as follows:



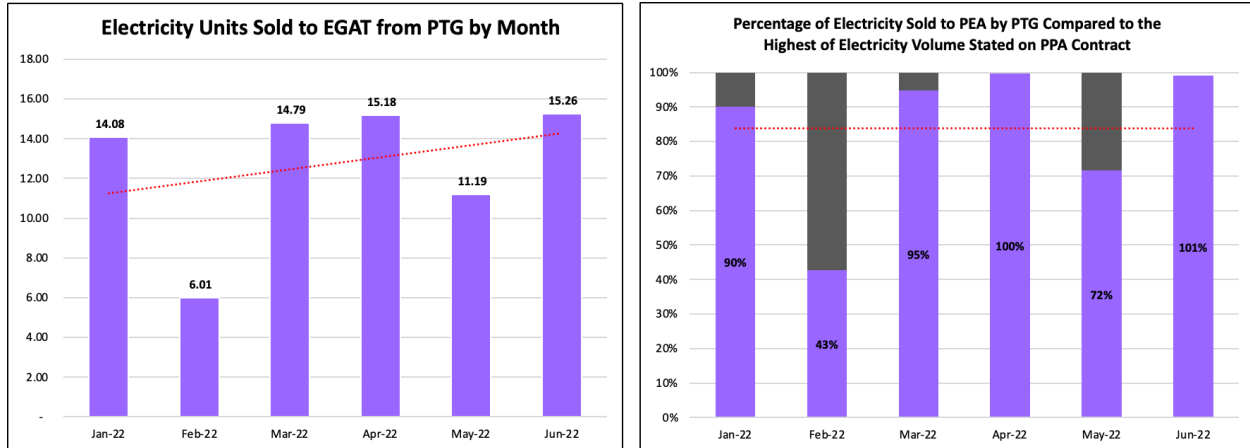
SGP power plant has electricity sales volume under the Feed-in Tariff (FiT) system power purchase agreement of 9.2 megawatts with a net selling price of 4.49 baht per unit.

In Q2-2022, SGP generated and sold 16,852,917 units with 11 days 15 hours of planned shutdown and 3 days 1 hours of unplanned shutdown. Details as follows:



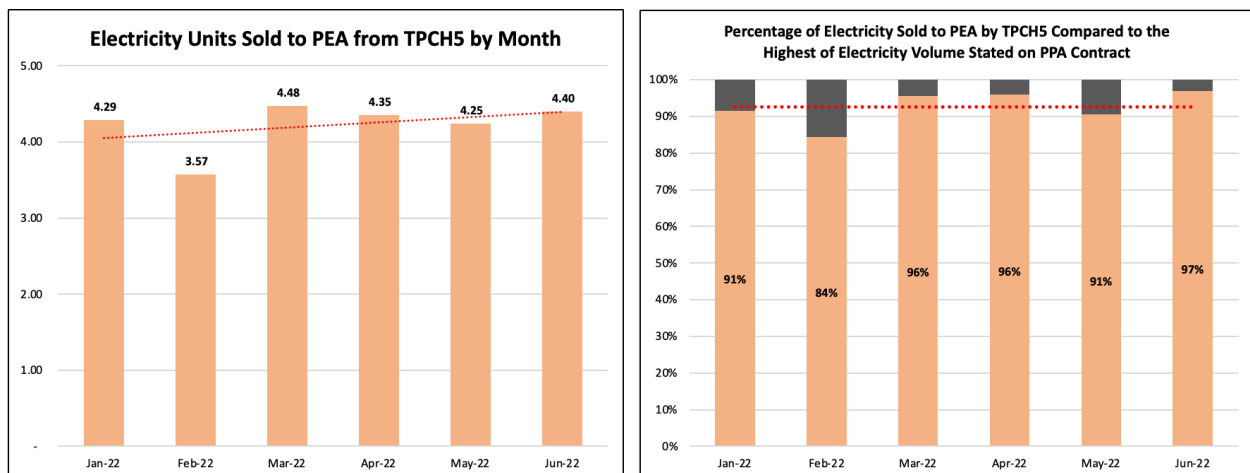
PTG power plant has started selling electricity commercially on 19 May 2020 with an electricity sales volume under the Adder system power purchase agreement of 21.0 megawatts with a net selling price of 4.30 baht per unit.

In Q2-2022, PGT generated and sold 41,625,980 units with 8 days 1 hours of unplanned shutdown. Details as follows



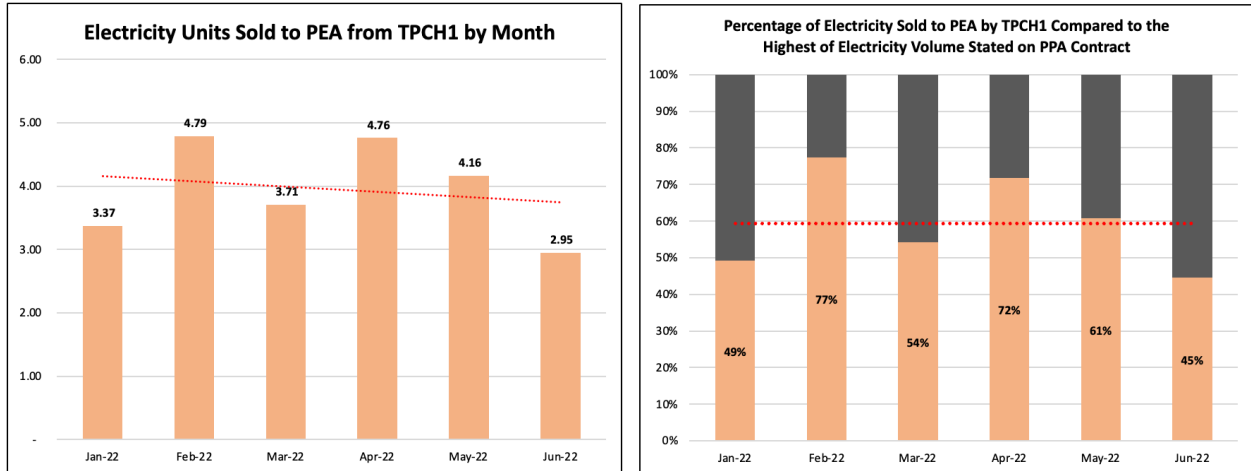
TPCH5 power plant has started selling electricity commercially on 17 November 2020 with an electricity sales volume under the bidding system power purchase agreement of 6.3 megawatts with a net selling price of 3.46 baht per unit.

In Q2-2022, TPCH5 generated and sold 12,995,448 units with 4 days 7 hours of unplanned shutdown. Details as follows:



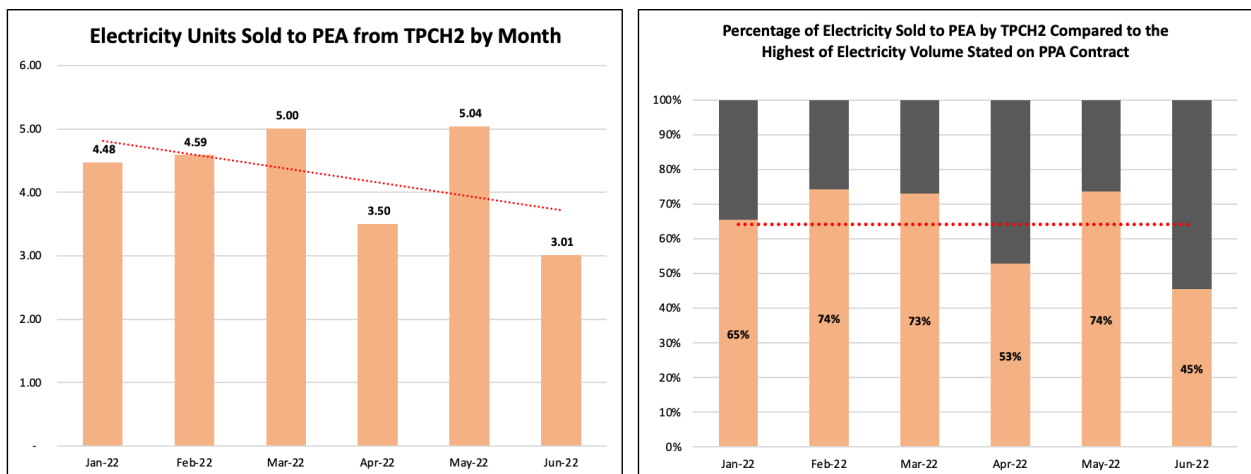
TPCH1 power plant has started selling electricity commercially on 27 November 2020 with an electricity sales volume under the bidding system power purchase agreement of 9.2 megawatts with a net selling price of 3.14 baht per unit.

In Q2-2022, TPCH1 generated and sold 11,872,441 units with 16 days of planned shutdown and 7 days 14 hours of unplanned shutdown. Details as follows:



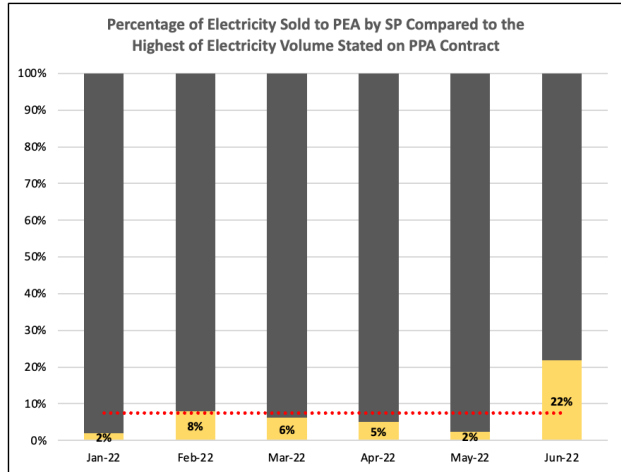
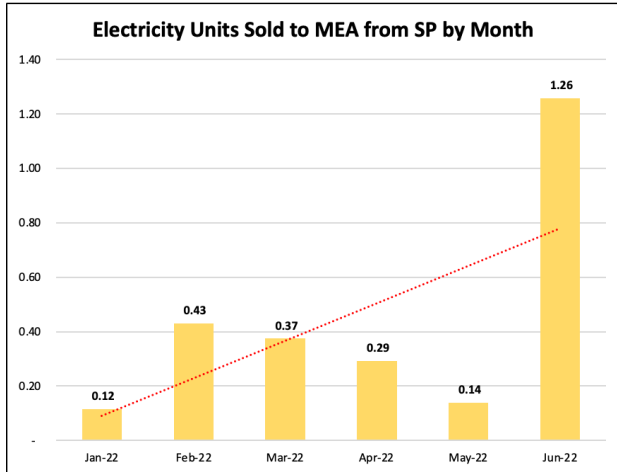
TPCH2 power plant has started selling electricity commercially on 17 February 2021 with an electricity sales volume under the bidding system power purchase agreement of 9.2 megawatts with a net selling price of 3.14 baht per unit.

In Q2-2022, TPCH2 generated and sold 11,548,753 units with 16 days of planned shutdown and 10 days 17 hours of unplanned shutdown. Details as follows:



SP power plant has started selling electricity commercially on December 30, 2021, with power purchase agreement of 8.0 megawatts which has electricity sales volume under Feed-in tariff with net selling price of 5.84 Baht per unit.

In Q2-2022, SP generated and sold 1,688,000 units with 51 days of planned shutdown and 13 days 19 hours of unplanned shutdown. Details as follows:



Industry Overview in 2022

The Company is in the process of developing 5-7 community waste power plants under the name of Siam Power Company Limited (SP), which the Company holds 50 percent of the shares. It is expected that 2 of the projects mentioned above will receive PPA within the end of 2022. The company has prepared to bid for other types of renewable energy project, which is expected to be purchased by the end of 2022, as well as seeking for the acquisition of many renewable energy business. In addition, several large-scale renewable energy projects internationally have been undertaken as a co-development with local business partners with expertise in the area. At the same time, the Company has invested in the business as a prototype project for studying and developing business expansion beyond the distribution of electricity, in order to support the BCG (Bio-Circular-Green Economy) policy for the surrounding communities. The project will have an initial revenue recognition within this year as well.

As for the biomass power plant projects that has already generated and sold electricity commercially, the machinery has been continuously maintained in order to generate electricity at full efficiency. The company has registered these projects for carbon credits. It will be calculated as the amount of credit that can be discounted per year and is valued in cash before being sold as credit to other organizations. This will be an additional income for the company in near future.

For your information,

TPC Power Holding Public Company Limited



(Mr. Cherdsak Wattanavijitkul)

President

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TPCH	: TPC Power Holding Public Company Limited
CRB	: Chang Rak Biopower Company Limited
MWE	: Maewong Energy Company Limited
MGP	: Mahachai Green Power Company Limited
TSG	: Thungsung Green Company Limited
PGP	: Phatthalung Green Power Company Limited
SGP	: Satun Green Power Company Limited
PTG	: Pattani Green Company Limited
TPCH1	: TPCH Power 1 Company Limited
TPCH2	: TPCH Power 2 Company Limited
TPCH5	: TPCH Power 5 Company Limited
PA	: PA Waste and Energy Company Limited
SP	: Siam Power Company Limited
ECO	: ECO Energy Group Corporation Company Limited
PBM	: Pracharat Biomass Mae Lan Company Limited
PBB	: Pracharat Biomass Bannang Sata Company Limited
PEA	: Provincial Electricity Authority
MEA	: Metropolitan Electricity Authority
COD	: Commercial Operation Date
SCOD	: Scheduled Commercial Operation Date
RDF	: 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.