



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



Management's Discussion and Analysis (MD&A)
For Nine Months Ending 30 September 2018

No. TPCH-SC-001-11/2561

8 November 2018

Subject: Management's Discussion and Analysis of Nine Months Ended September 30, 2018

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 nine months ending September 30, 2018.

TPC Power Holding Public Company Limited is a holding company which invested in other companies that operate power plants from renewable energy. The Company has a mission to focus on enhancing the allocation of power plants to ensure the appropriate level of security to support the development of Thailand's Power Development Plan under the 3E pillars: 1. Energy Security 2. Economic 3. Environmental Friendly and has a main target to improve the management of the company's electricity costs efficiency.



Events During Third Quarter of 2018

■ TRIS Rating at “BBB”

TRIS Rating has rated TPC Power Holding PLC (TPCH) at “BBB” with a “Stable” outlook. The rating reflects predictable and strong cash flows the company continues to receive based on long-term power purchase agreements (PPAs) with state-owned utilities. The rating also recognizes solid operating performance of TPCH’s power plants, who have exhibited solid performance over the past three years. A high yield of actual energy output has been achieved and surpassed 80% of the full capacity for the majority of the power plants. As a result, the EBITDA margin of the power plants has been maintained at a high level of about 50%.

■ ASEAN Energy Award

CRB was selected as the winners for the Thailand Energy Award 2018. Department of Alternative Energy Development and Efficiency (DEDE) stated the competition since 2000 in order to eulogize the outstanding performance of factories, buildings and personals that encourage energy conservation and renewable energy development. Nonetheless, CRB was also selected as a representative of Thailand for the ASEAN Energy Award which was hosted by Singapore in 2018. As a result, CRB was a winner in national grid category of renewable energy award.



Progress of Projects

■ Progress

| | |
|-------------------------------------|--------------|
| Operations | 60 MW |
| CRB, MWE, MGP, TSG, PGP, SGP | |
| Constructions / SCOD | 49 MW |
| PTG, TPCH 1, TPCH 2, TPCH 5 | |
| Development | 10 MW |
| SP | |

■ Project Under Development

Siam Power (SP) is a municipal-waste project having a total installed capacity of 9.5 MW and will be selling electricity under the FIT system to the Metropolitan Electricity Authority. The company has already filed a petition for a power purchase agreement (**PPA**). The Energy Regulatory Commission will announce the names of those who have passed the qualification by April 30, 2019, to sign the power purchase agreement by August 28, 2019 and set the date of the electricity supply to the commercial system (SCOD) before December 31, 2021

The project has signed a contract for construction and management of 3 million tons (133 Rai) of solid waste landfill into RDF used for producing electricity. The contract started in May of 2015 and will last for 23 years. The project also invested in another 800,000 tons (40 Rai) of public landfill. A total of 3,800,000 tons of waste will be convert into 1,700,000 tons of RDF at a NHV of 3,155.93 kcal/kg. Such amount of RDF can be used to produce electricity for 27 years.

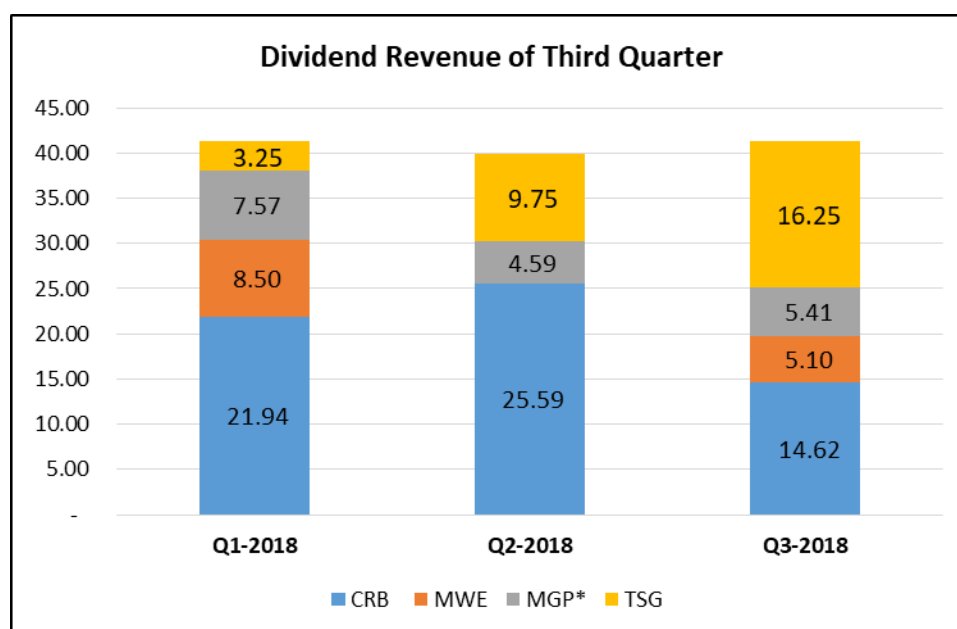


Overview of Financial Performance of the Company

| Separated Financial Statement | 9M-2018 | Q3-2018 | Q2-2018 | Q1-2018 | Q3-2017 | QoQ | YoY |
|--|----------------|----------------|----------------|----------------|----------------|---------------|---------------------|
| Revenues | | | | | | | |
| Dividend Revenue | 122.57 | 41.38 | 39.94 | 41.25 | 31.95 | 3.6% | 29.5% |
| Other Revenue | 11.73 | 2.95 | 3.87 | 4.90 | 3.81 | (23.8%) | (22.6%) |
| Total Revenue | 134.30 | 44.33 | 43.81 | 46.15 | 35.76 | 1.2% | 24.0% |
| Expenses | | | | | | | |
| Administrative Expense | (45.78) | (16.08) | (16.58) | (13.12) | (17.87) | (3.0%) | (10.0%) |
| Allowance for doubtful account | 0.00 | 0.00 | 0.00 | 0.00 | (40.52) | - | (100.0)% |
| Finance Cost | (0.14) | (0.05) | (0.04) | (0.04) | (0.06) | 20.5% | (16.1%) |
| Total Expense | (45.92) | (16.13) | (16.62) | (13.16) | (58.44) | (3.0%) | (72.4%) |
| Profit (loss) before income tax | 88.38 | 28.20 | 27.19 | 32.99 | (22.68) | 3.7% | >(100.0)% |
| Income (Expense) on Income Tax | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - |
| Net Profit (Loss) | 88.38 | 28.20 | 27.19 | 32.99 | (22.68) | 3.7% | >(100.0)% |
| Earnings (loss) per share | 0.22 | 0.07 | 0.07 | 0.08 | (0.06) | 3.7% | >(100.0)% |

Separated Financial Statement of 3rd Quarter of 2018 increased by 1.01 million THB from its previous quarter.

- **Dividend Revenue** in 3rd quarter of 2018 increased 1.44 million THB as follows:



Note MGP* A Joint venture, recognized revenue from electricity sales according to shareholding proportion



Consolidated Company Performance

| Consolidated Financial Statement | 9M-2018 | Q3-2018 | Q2-2018 | Q1-2018 | Q3-2017 | QoQ | YoY |
|--|----------|----------|----------|----------|----------|-----------|----------|
| Revenue from sales of electricity | 1,140.28 | 402.36 | 395.24 | 342.68 | 295.45 | 1.8% | 36.2% |
| Cost from sales of electricity | (602.14) | (208.96) | (203.72) | (189.46) | (160.11) | 2.6% | 30.5% |
| Gross Profit | 538.14 | 193.39 | 191.52 | 153.22 | 135.34 | 1.0% | 42.9% |
| Other revenue | 7.74 | 1.24 | 2.87 | 3.62 | 2.40 | (56.7%) | (48.2%) |
| Profit Before Expenses | 545.88 | 194.63 | 194.39 | 156.84 | 137.74 | 0.1% | 41.3% |
| Administrative Expense | (76.75) | (29.06) | (26.22) | (21.47) | (25.33) | 10.8% | 14.7% |
| Doubtful Accounts | 0.00 | 0.00 | 0.00 | 0.00 | (40.52) | - | (100.0%) |
| Finance Cost | (61.64) | (20.93) | (21.20) | (19.51) | (18.25) | (1.3%) | 14.7% |
| Profit (Loss) from investment in joint venture | 4.81 | 4.55 | (3.47) | 3.73 | 3.95 | >(100.0%) | 15.2% |
| Total Expense | (133.58) | (45.44) | (50.89) | (37.25) | (80.15) | (10.7%) | (43.3%) |
| Profit (Loss) Before Income Tax | 412.30 | 149.19 | 143.50 | 119.59 | 57.59 | 4.0% | >100.0% |
| Income Tax Expense | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - |
| Net Profit (Loss) | 412.30 | 149.19 | 143.50 | 119.59 | 57.59 | 4.0% | >100.0% |
| Profit Attributable to: | | | | | | | |
| Owner of the Company | 263.58 | 91.93 | 90.35 | 81.29 | 26.22 | 1.7% | >100.0% |
| Non-controlling Interests | 148.72 | 57.26 | 53.15 | 38.30 | 31.37 | 7.7% | 82.5% |
| Total Net Profit (Loss) | 412.30 | 149.19 | 143.50 | 119.59 | 57.59 | 4.0% | >100.0% |
| Earnings (Loss) per share | 0.66 | 0.23 | 0.23 | 0.20 | 0.07 | 3.2% | >100.0% |

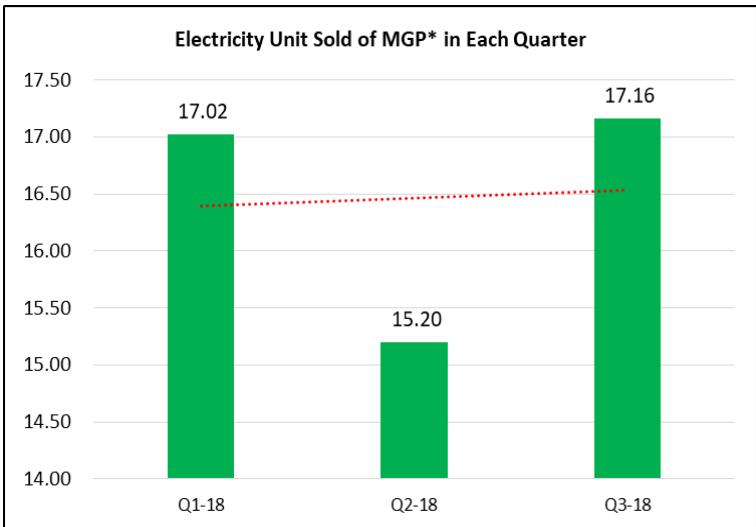
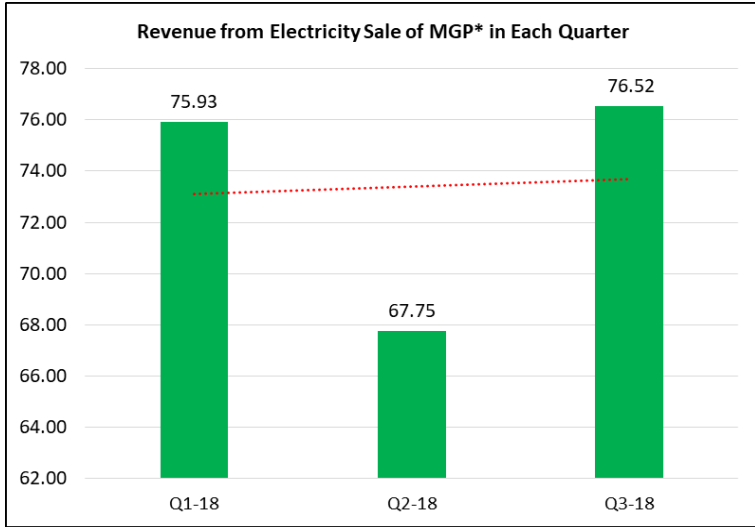
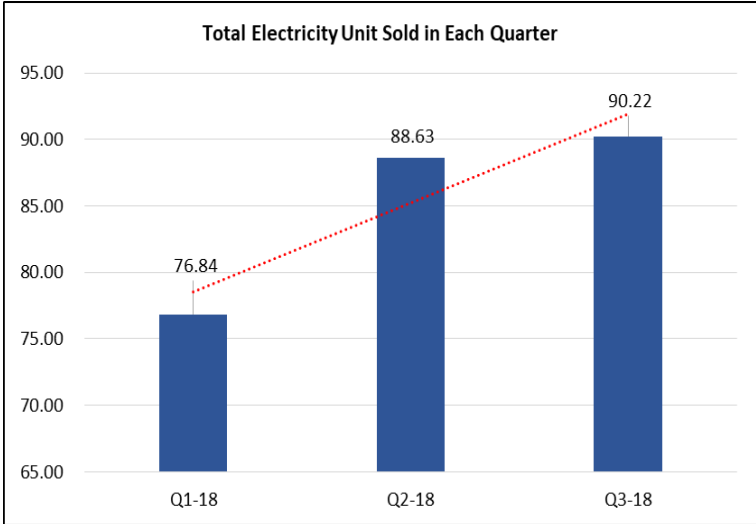
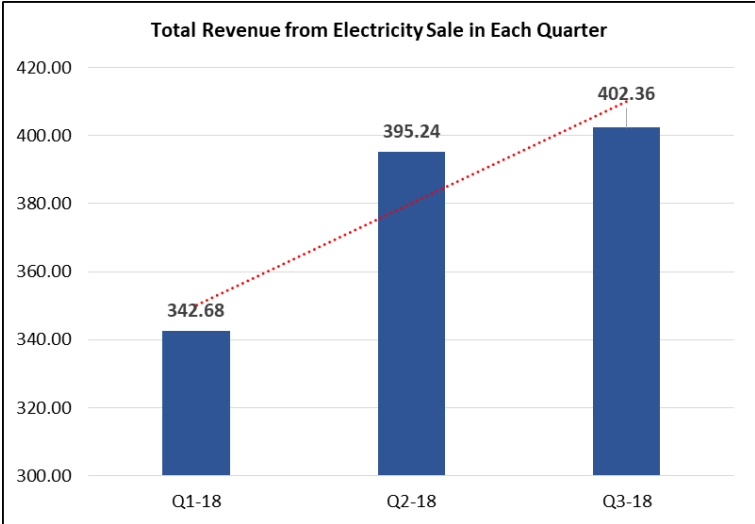
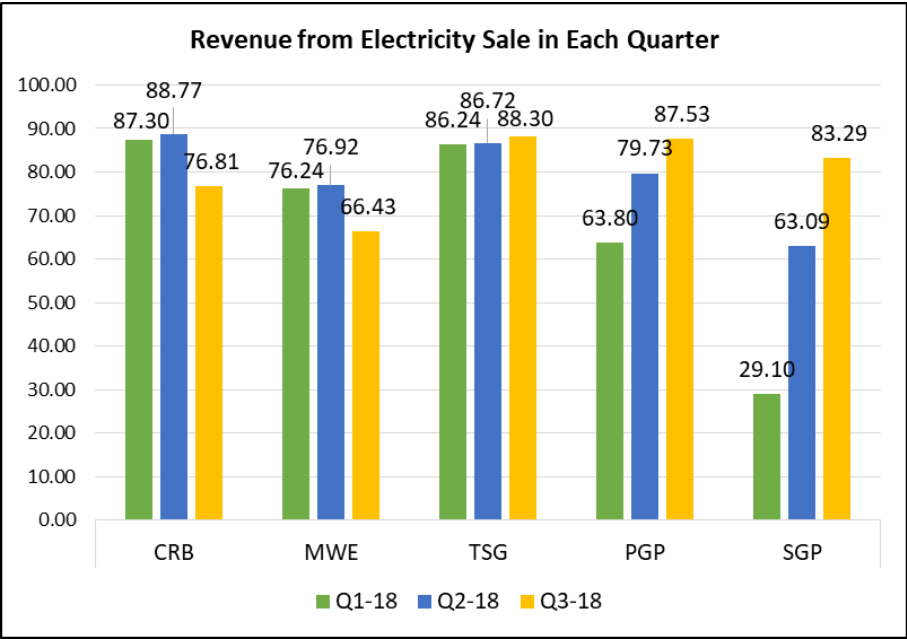
Unit: Million THB

■ Revenue from Electricity Sales

TPCH and its subsidiaries' total revenue increased by 7.12 million THB or 1.8% from its previous quarter. Revenue from electricity sales increased slightly due to maintenance shutdown of CRB and MWE.

Revenues are as follows:





▪ **Cost from sales of electricity**

Cost of electricity production (Including depreciation) consists of the following principal costs: Wage / Operation Management, depreciation, and material costs incurred to improve the efficiency of machinery and assets in power plants. CRB and MWE had a maintenance shutdown which led to higher cost in the quarter. The operators of the power plant are as follows:

| Cost of Electricity Sales (million THB) | Q3-2018 | | | | | | |
|--|--------------|--------------|--------------|--------------|--------------|---------------|---------------|
| | CRB | MWE | TSG | PGP | SGP | Total | % |
| Operation Cost | 30.46 | 30.25 | 34.39 | 31.53 | 29.23 | 155.85 | 74.58 |
| Depreciation and Amortization cost | 6.46 | 7.02 | 7.12 | 8.17 | 8.77 | 37.54 | 17.96 |
| Maintenance cost | 4.16 | 6.68 | 0.00 | 0.29 | 0.07 | 11.20 | 5.36 |
| Electricity cost | 0.57 | 0.58 | 1.07 | 0.72 | 1.44 | 4.38 | 2.09 |
| Total Cost | 41.65 | 44.52 | 42.58 | 40.71 | 39.50 | 208.96 | 100.00 |
| Margin of COGS | | | | | | | 51.93 |
| Cost of Electricity Sales (million THB) | Q2-2018 | | | | | | |
| | CRB | MWE | TSG | PGP | SGP | Total | % |
| Operation Cost | 36.12 | 37.79 | 34.04 | 29.40 | 21.15 | 158.59 | 77.85 |
| Depreciation and Amortization cost | 6.41 | 6.86 | 6.96 | 8.41 | 8.60 | 37.24 | 18.28 |
| Maintenance cost | 0.00 | 3.10 | 0.00 | 0.11 | 0.68 | 3.90 | 1.91 |
| Electricity cost | 0.25 | 0.33 | 1.00 | 0.97 | 1.45 | 3.99 | 1.96 |
| Total Cost | 42.87 | 48.07 | 41.99 | 38.89 | 31.89 | 203.72 | 100.00 |
| Margin of COGS | | | | | | | 51.54 |

▪ **Other Revenue**

Other revenue decreased by 1.63 million THB from its previous quarter. The Company earned other revenue from interest and short-term investments.



■ Administrative Expenses

The Company's administrative expense (including depreciation) increased by 2.84 million THB. The costs occurred from expenses on independent financial advisor, engineering consultant, and expenses related to an operation of the Company in order to develop and support the growth of the Company.

■ Finance Cost

The Company's finance costs increased by 0.27 million THB due to interest expenses of the power plants and short-term loans.

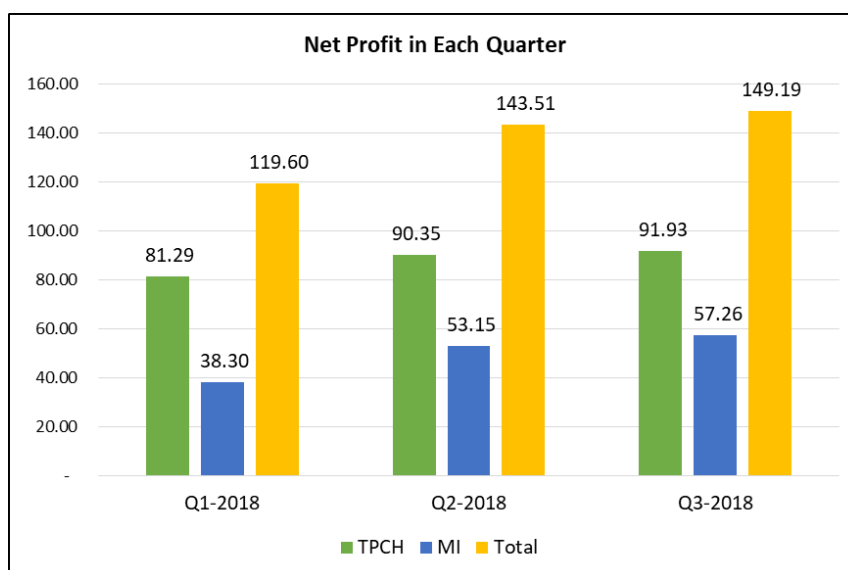
■ Profit (loss) from investments in joint ventures

Share of profit (loss) from investments in joint ventures was recognized by the proportion of shareholding in each company. Profit (loss) from investments in joint ventures increased by 8.02 million THB. Details are as follows:

- The share of profit from 46 percent in MGP was 9.05 million THB.
- 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 Siam Power Company Limited (SP) from this period was 4.49 million THB.

■ Total Net Profit (Loss)

The Company's total net profit increased by 5.69 million THB or 4%. The Company's net profit increased by 1.58 million THB from the previous quarter. The share of profit from investment in associates increased from the previous quarter. Company's six projects were running at a high capacity during the quarter even though both CRB and MWE had a preventive maintenance shutdown.



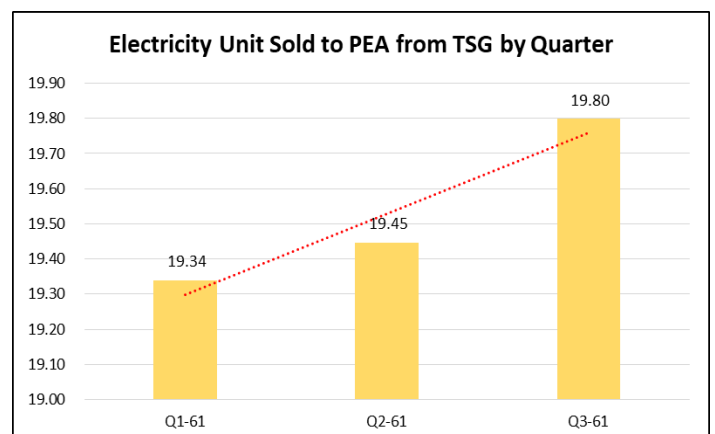
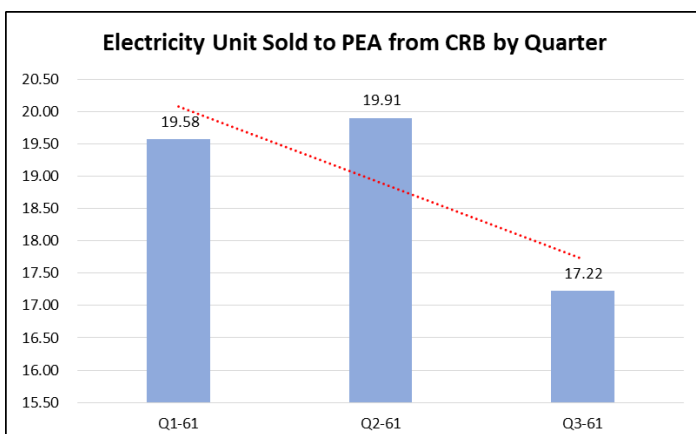
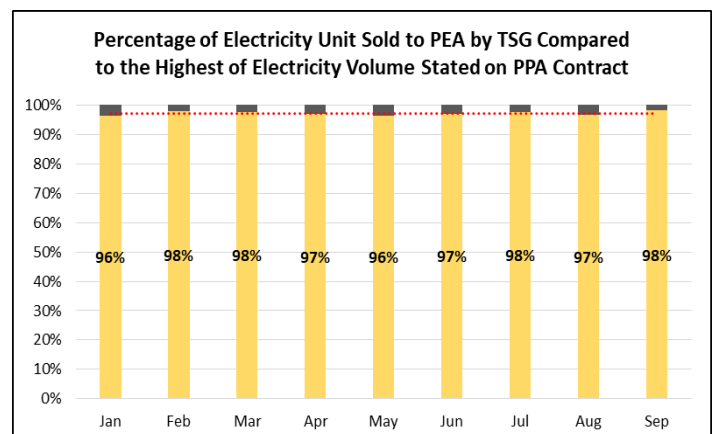
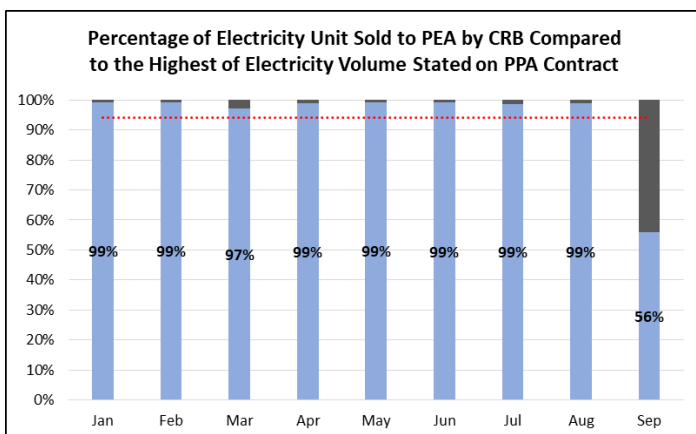
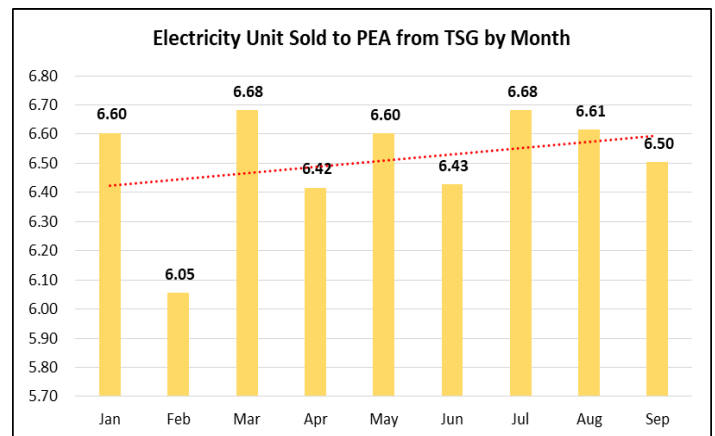
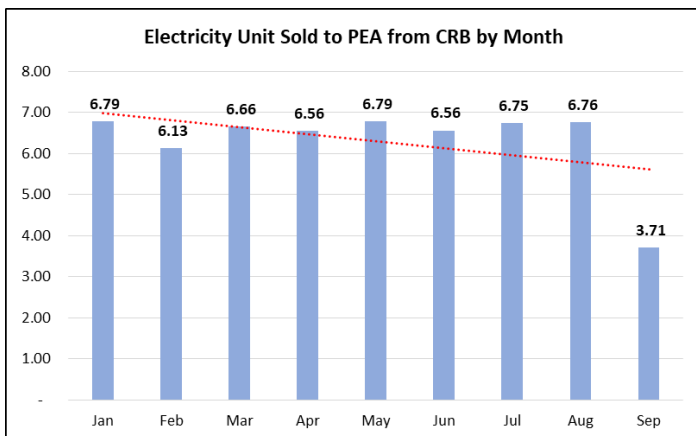
Unit: Million THB



Performance of Power Plants under Operations (Six Plants in Total)

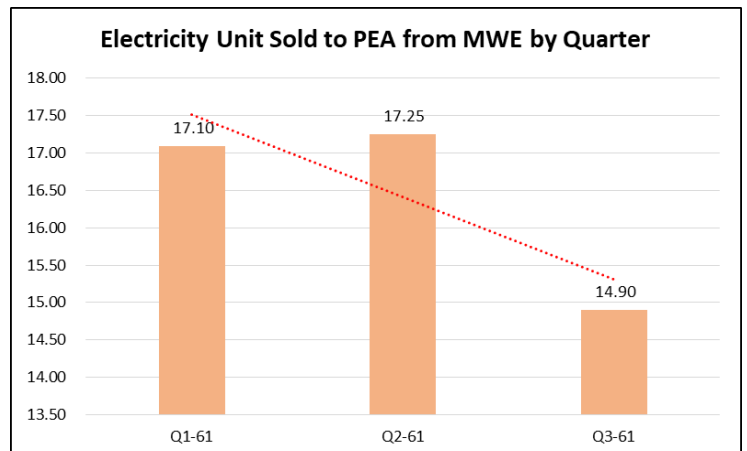
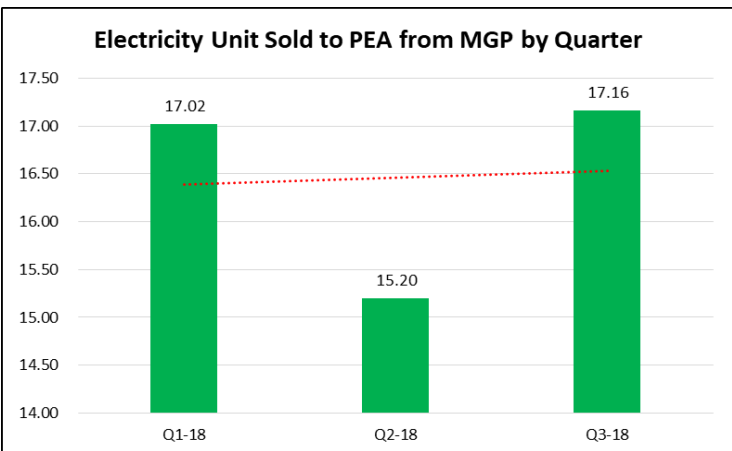
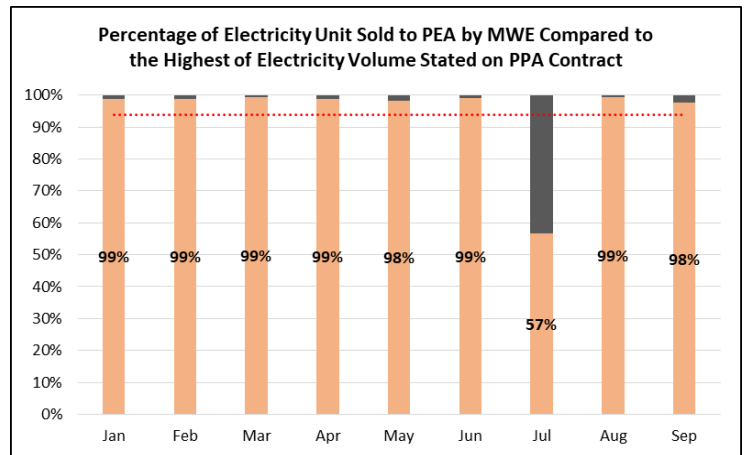
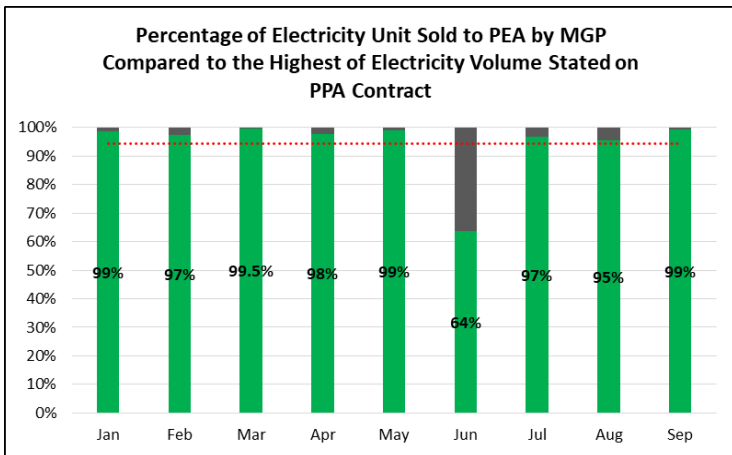
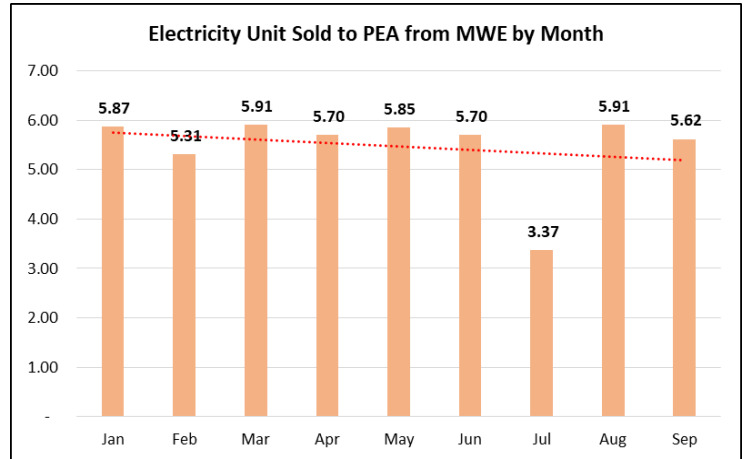
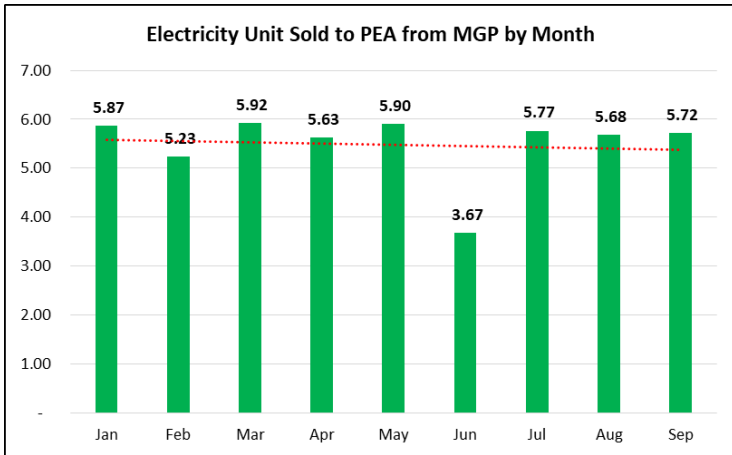
CRB, a 9.2 MW power plant which started selling electricity commercially on March 15, 2013, generated electricity of 17,222,594 units under the FiT system (4.45 baht/unit) in Q3/2018. During the period, it had a 12 day planned shutdown and 13 hours of unplanned shutdown.

TSG, a 9.2 MW power plant which started selling electricity commercially on October 3, 2016, generated electricity of 19,799,924 units under the FiT system (4.45 baht/unit) and 38 hours of unplanned shutdown in Q3/2018.



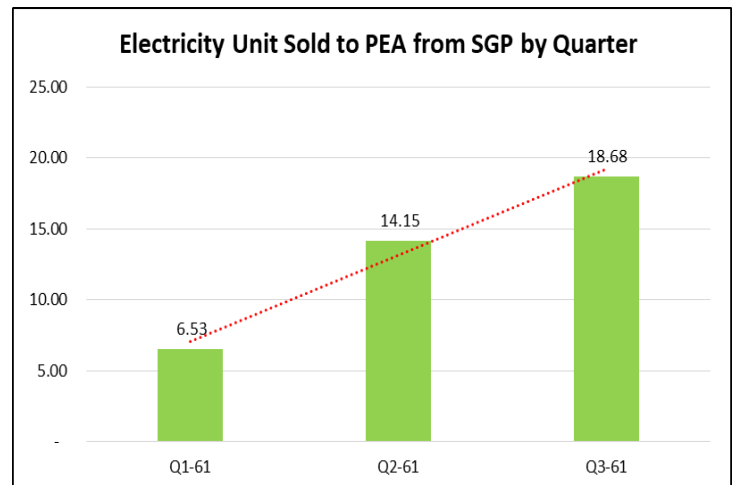
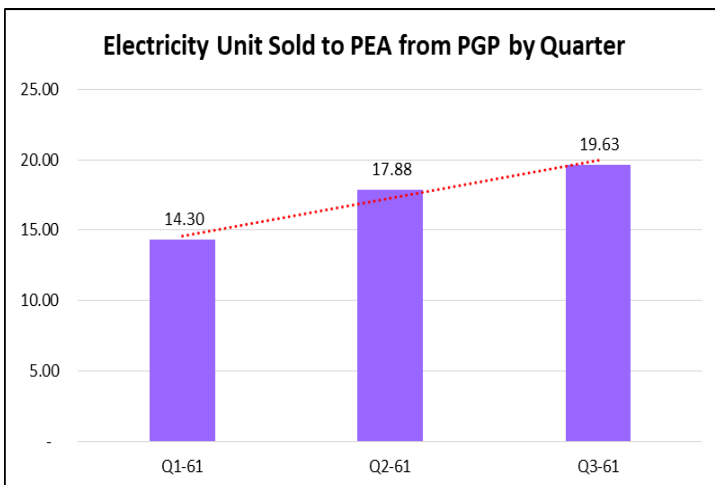
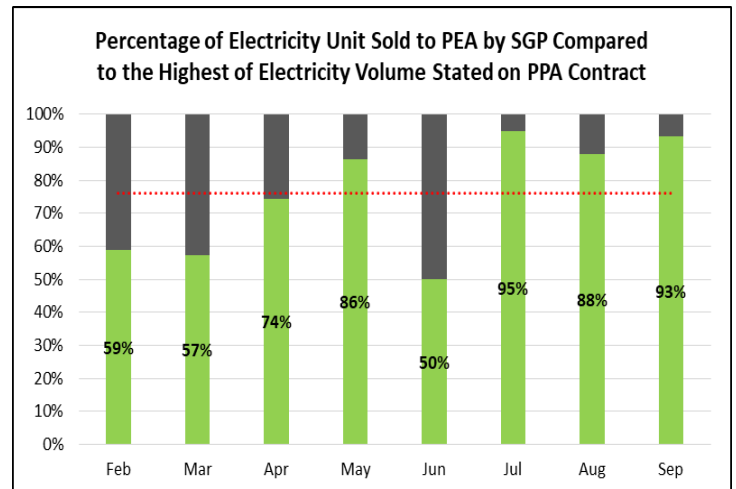
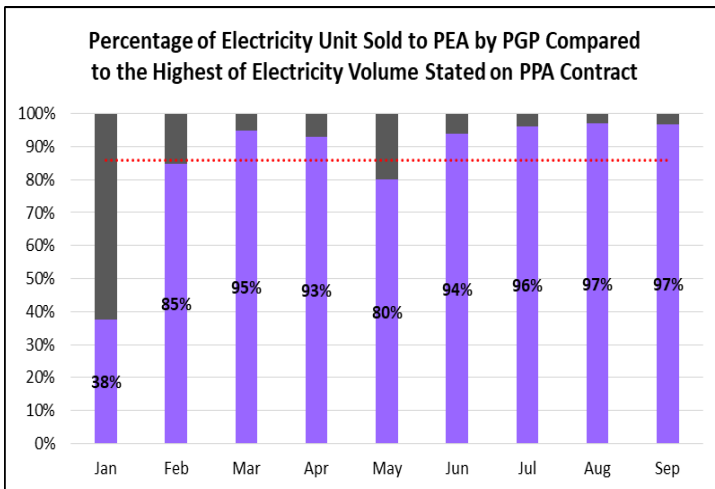
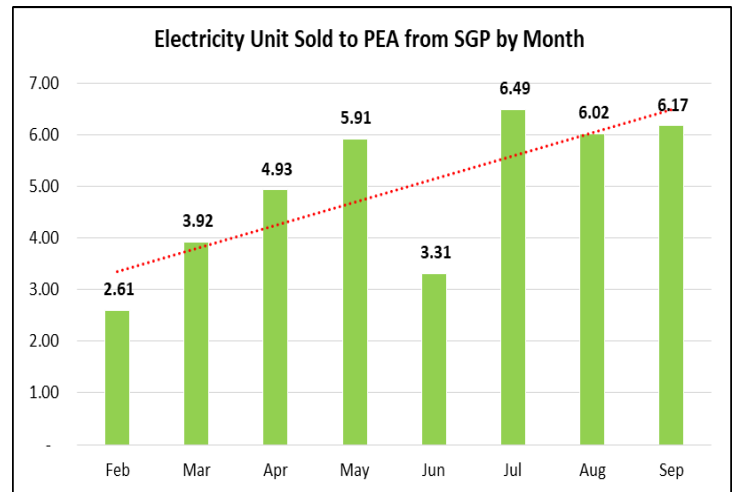
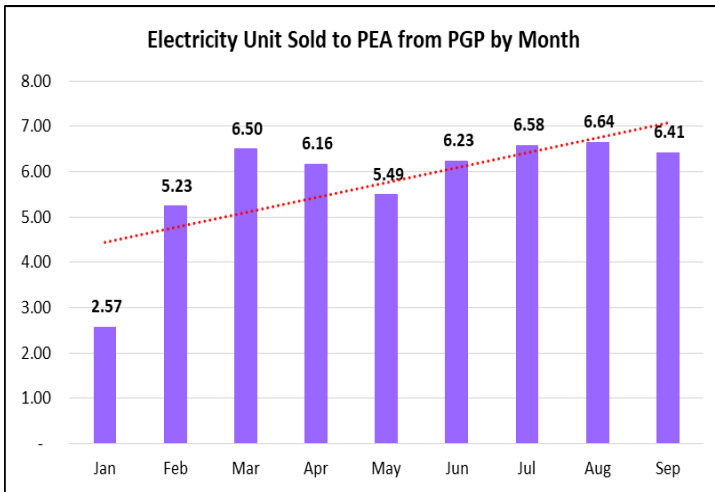
MGP, an 8.0 MW joint venture which commenced selling electricity on April 8, 2016, generated electricity of 17,159,462 under the FiT system (4.45 baht/unit) and 5 hours of unplanned shutdown in Q3/2018.

MWE, an 8.0 MW power plant which started selling electricity commercially on October 12, 2015, generated electricity of 14,895,481 units under the FiT system (4.45 baht/unit) in Q3/2018. During the period, it had a 13 day planned shutdown and a total of 1 day and 4 hours of unplanned shutdown.



PGP, a 9.2 MW power plant which started selling electricity commercially on July 7, 2017, has generated electricity of 19,627,920 units under the FiT system (4.45 baht/unit) and 13 hours of unplanned shutdown in Q3/2018.

SGP, a 9.2 MW power plant which started selling electricity commercially on February 9, 2018, generated electricity of 18,676,379 units under the FiT system (4.45 baht/unit) and 4 days and 4 hours of unplanned shutdown in Q3/2018.



Industry Overview

The Ministry of Energy has provided information on the upcoming Power Development Plan (PDP 2018) which will be focusing on three categories: energy security, economics and environmental friendliness. Regarding energy security, the government will try to prioritize and focus on energy producers who can produce and control energy as required, to meet the needs for the energy demands of Thailand. This will allow more efficient control and easier management of electricity produced in the existing grid structure. By keeping electric costs low, the economy will benefit by helping to reduce the overhead costs of electricity. As well, all producers must be concerned with the environment and the communities around these power plants.

Regarding the future trends in power generation, the size of power generation plants will be reduced or replaced by smaller renewable power plants, more energy-intensive power plants. However, because some forms of renewable energy cannot be fully controlled, the government will use the Smart Grid technology offering greater flexibility and ease of management for the flow of electricity. The Smart Grid technology can automate and manage the increasing complexity and needs of electricity. To this end, the government has planned to locate small power plants throughout the country using this technology to produce and distribute electricity more effectively.

TPCH's current business plan is in line with the future trends of renewable energy production and distribution in Thailand. TPCH has a proven track record of a consistent capacity factor average of 93% of all power plants under their control, creating viable energy production security. TPCH has laid out many cost reduction strategies while continually looking for new and better ways to reduce costs to keep the price of electricity production at reasonable and affordable levels. While focusing on costs, we also are greatly concerned with preserving the environment by strictly following environmental regulations such as EIA for the betterment and benefit of the communities surrounding their power plants.

For your information,

TPC Power Holding Public Company Limited

(Mr. Cherdsak Wattanavijitkul)

President



Index

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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 |
| TPCH1 | : | TPCH Power 1 Company Limited |
| TPCH2 | : | TPCH Power 2 Company Limited |
| TPCH5 | : | TPCH Power 5 Company Limited |
| PTG | : | Pattani Green Company Limited |
| PA | : | PA Waste and Energy Company Limited |
| SP | : | Siam Power Company Limited |
| PEA | : | Provincial Electricity Authority of Thailand |
| COD | : | Commercial Operation Date |
| SCOD | : | Scheduled Commercial Operation Date |
| RDF | : | Refuse Derived Fuel |

