

PEMC MARKET ASSESSMENT HIGHLIGHTS

- The average demand and the reserve schedule, recorded at 2,655 MW during the week of 29 Jul - 04 Aug 2024, was higher than the previous week at 2,509 MW.
- The average effective supply during the week was 2,955 MW, higher than the 2,795 MW of the previous week. Ramping limitations were considered in the calculation of the effective supply.
 - The capacity on outage averaged at 332 MW, lower than last week's 415 MW. In terms of capacity on outage by plant type, about 63% of the 332 MW involved Coal Plants, while in terms of outage by category, about 73% were Forced Outages.
- As a result, an average supply margin of 300 MW was observed during the week, which is higher by about 5% relative to the previous week. Based on MMS solution, the thinnest supply margin was 181.02 MW on 02 August 2024 at 13:15h. The average supply margin was 269.66 MW at peak intervals and 323.13 MW at off-peak intervals.
- Correspondingly, average GWAP was recorded at PHP 3,374/MWh from PHP 3,260/MWh last week.
 - No secondary price cap was imposed for this week.
- The top 5 participant groups accounted for about 78% of the offered capacity. The Herfindahl-Hirschman Index (HHI) by participant group indicated moderately concentrated market based on the offered and registered capacities.
- The top 5 pivotal plants during the week were –
 - FDC MISAMIS CFTPP (about 87.25% of the time)
 - GN POWER KAUSWAGAN CFTPP (about 74.4% of the time)
 - MALITA CFTPP (about 22.87% of the time)
 - THERMA SOUTH CFTPP (about 10.86% of the time)
 - SARANGANI CFTPP (about 7.54% of the time)
- Based on the MMS Solution, the congested equipment during the week was 138kV Jasaan_Butuan (0.05% of the time)

OFFER PATTERN ANALYSIS

- The offered capacity of coal plants was higher than the previous week due to the resumption in operations of plants previously on outage. However, the sudden drop in offered capacity observed on July 29 and 31 was due to outages from other coal plants.
- The offered capacity of hydro plants was lower than the previous week due to outages, particularly from August 1 to 3. It was observed that around 30 MW to 120 MW of hydro plant capacity was offered at Php 30,000 to Php 32,000 for the entire week.
- There were no outages from geothermal plants, as well as testing of plants for the entire week. The low offered capacity on August 4 was due to the lower offered capacity of a geothermal plant. The offered price for the all geothermal capacities was consistently at 0 Php and below for the week.
- The highest nomination in solar plants was on August 2 which peaked at around 58 MW and the lowest was on August 1 which peaked at around 53 MW.

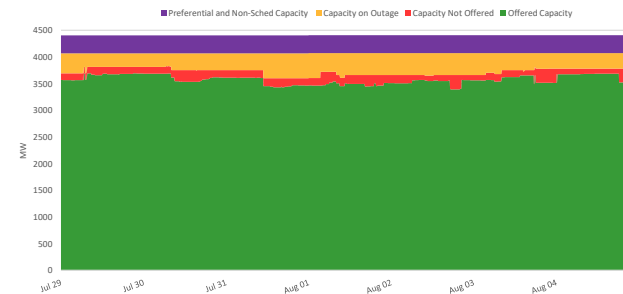
IEMOP MARKET SYSTEMS ADVISORY

- No IT-related issue was advised in IEMOP's market systems from 29 Jul - 04 Aug 2024.

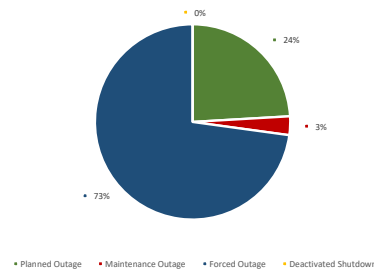
SUMMARY (PRICE, SUPPLY, DEMAND AND RESERVE SCHEDULE)

Particulars		29 Jul -04 Aug 2024	Previous Week (22 - 28 Jul 2024)	Percent Change
GWAP (PHP/MWh)	max	23,619.559	20,394.425	15.814%
	min	-0.971	-0.011	-8k%
	ave	3,373.845	3,260.305	3.482%
Effective Supply (MW)	max	3,375.920	3,259.600	3.569%
	min	2,396.673	2,192.875	9.294%
	ave	2,954.699	2,795.120	5.709%
System Demand (MW)	max	2,534.370	2,549.000	-0.574%
	min	1,531.260	1,505.860	1.687%
	ave	2,012.344	1,995.929	0.822%
Demand + Reserve Schedule (MW)	max	3,110.620	3,007.480	3.429%
	min	2,034.870	1,888.390	7.757%
	ave	2,655.123	2,509.002	5.824%
Supply Margin (MW)	max	431.450	412.992	4.469%
	min	181.020	185.882	-2.616%
	ave	299.577	286.118	4.704%

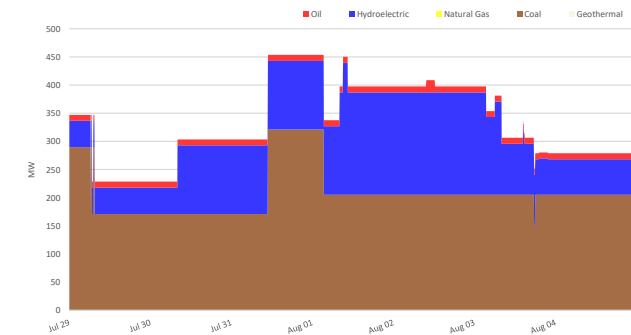
CAPACITY PROFILE



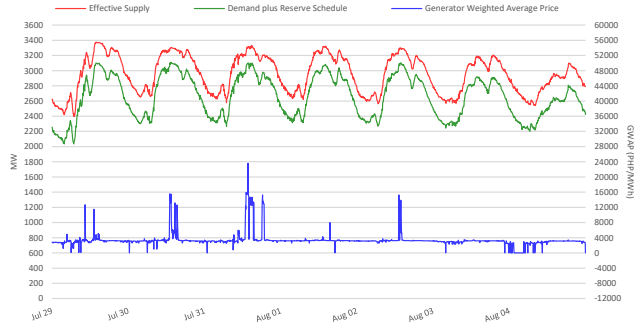
CAPACITY ON OUTAGE BY OUTAGE CATEGORY



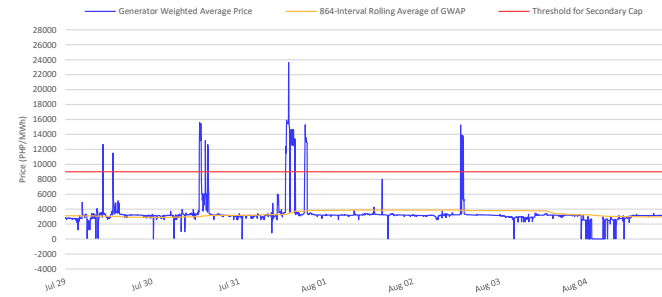
RTD CONGESTION



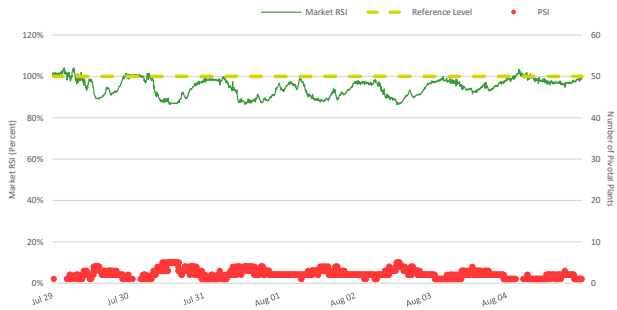
SUPPLY, DEMAND AND PRICE



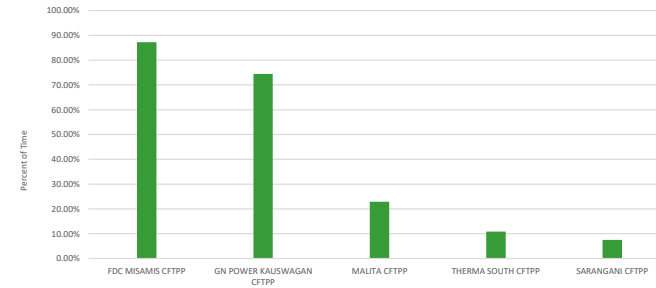
GENERATOR WEIGHTED AVERAGE PRICE



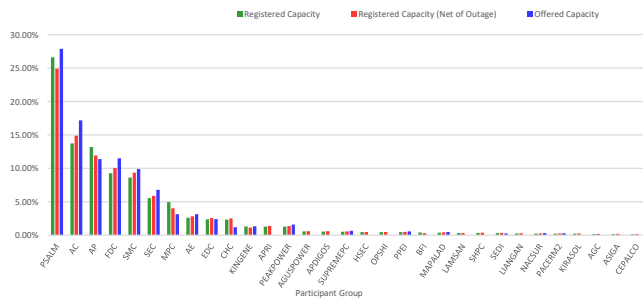
MARKET RSI VS PIVOTAL PLANTS



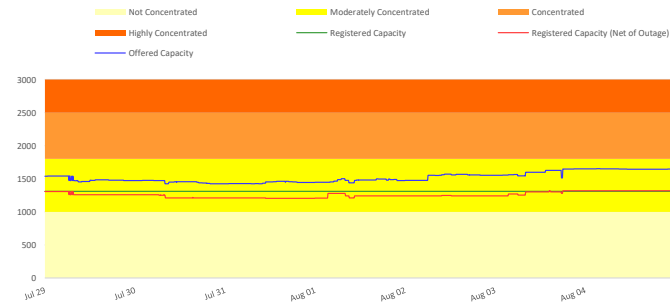
PSI



MARKET SHARE

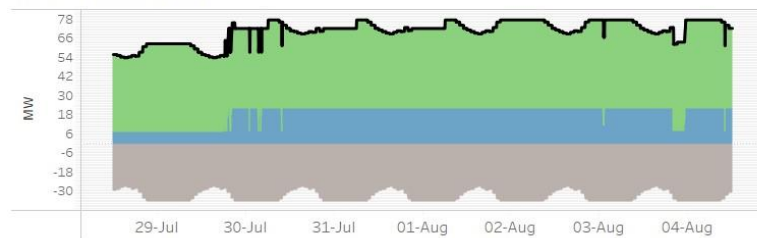


HERFINDAHL-HIRSCHMAN INDEX

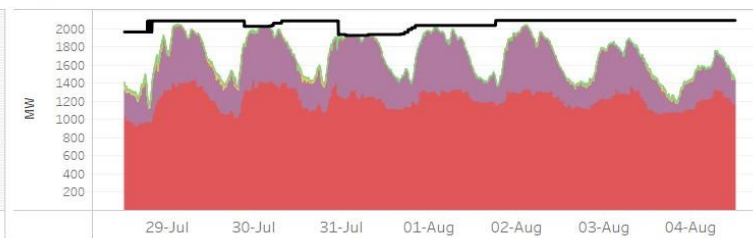


OFFER PATTERN ANALYSIS

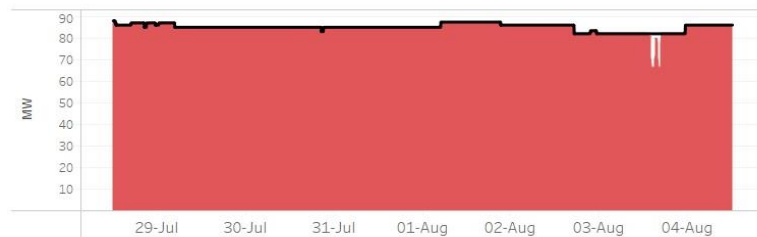
BATTERY AND BIOFUEL



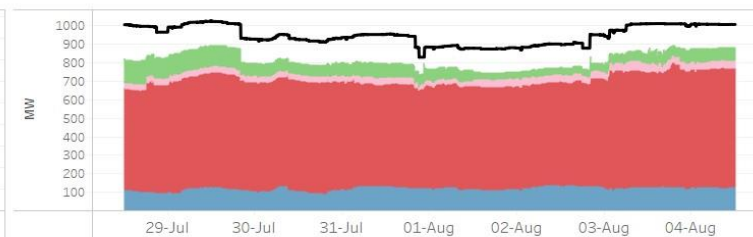
COAL



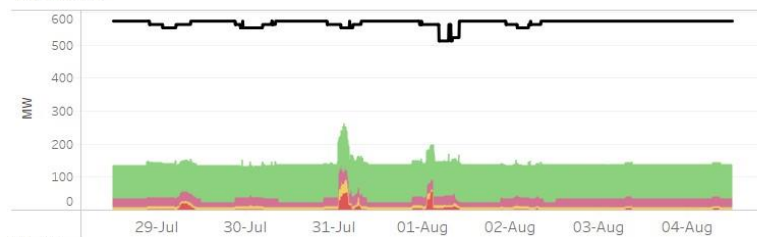
GEOTHERMAL



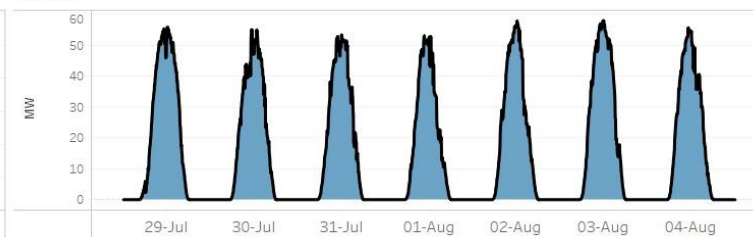
HYDRO



OIL-BASED



SOLAR



Offer Price



Notes:

1. In Php (X, Y], it includes offer price greater than Php X but less than or equal to Php Y.
2. Reflected capacity includes offered capacity of all scheduled generators, nominated loading level of nonscheduled generators and projected output of preferential dispatch generators adjusted based on submitted ramp rate limitations.

GLOSSARY OF TERMS

EFFECTIVE SUPPLY - The effective supply is equal to the offered capacity of all scheduled generator resources, nominated loading level of non-scheduled generating units and projected output of preferential dispatch generating units, adjusted for any security limit provided by the System Operator and other constraints considered during MMS simulation such as generator offered ramp rates. Scheduled output of plants on testing and commissioning through the imposition of security limit by SO and scheduled output of Malaya plant when it is called to run as Must Run Unit (MRU) are likewise accounted for in the effective supply.

MARKET RESIDUAL SUPPLY INDEX (Market RSI) - The RSI is a dynamic continuous index measured as ratio of the available generation without a generator to the total generation required to supply the demand. The RSI is measured for each generator. The greater the RSI of a generator, the less will be its potential ability to exercise market power and manipulate prices, as there will be sufficient capacity from the other generators. In contrary, the lower the RSI, the greater the market power of a generator (and its potential benefit of exercising market power), as the market is strongly dependent on its availability to be able to fully supply the demand. In particular, a RSI greater than 100% for a generator means that the remaining generators can cover the demand, and in principle that generator cannot manipulate market price. On the other hand, a RSI less than 100% means that the generator is pivotal in supplying the demand.

The RSI for the whole market (Market RSI) is measured as the lowest RSI among all the generators in the market. A Market RSI less than 100% indicates the presence of pivotal generator/s.

MARKET SHARE - The fraction of the total capacity or energy that a company or related group owns or controls in the market.

MAJOR PARTICIPANT GROUP - The grouping of generators by ownership or control.

PIVOTAL SUPPLIER INDEX (PSI) - The pivotal supplier index is a binary variable (1 for pivotal and 0 for not pivotal) for each generator. The index identifies whether a generator is pivotal in supplying the demand. The PSI is calculated as the percentage of time that a generator is pivotal in a period (i.e. monthly).

HERFINDAHL-HIRSCHMAN INDEX (HHI) - is a commonly accepted measure of market concentration that takes into account the relative size and distribution of participants in the market. The HHI is a number between 0 and 10,000, which is calculated as the sum of squares of the participant's market share. The HHI approaches zero when the market has very large number of participants with each having a relatively small market share. In contrary, the HHI increases as the number of participants in the market decreases, and the disparity in the market shares among the participants increases. The following are the widely used HHI screening numbers: (1) less than 1,000 - not concentrated; (2) 1,000 to 1,800 - moderately concentrated; (3) greater than 1,800 - concentrated; and (4) greater than 2,500 - highly concentrated.

REGISTERED CAPACITY - The capacity registered by a generator with WESM.

REGISTERED CAPACITY (NET OF OUTAGE) - The capacity registered by a generator with WESM less capacity on outage.

OFFERED CAPACITY - The offer to supply electricity submitted by a generator.

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