

PEMC MARKET ASSESSMENT HIGHLIGHTS

- The average demand and the reserve schedule, recorded at 2,599 MW during the week of 13 - 19 May 2024, was lower than the previous week at 2,733 MW.
- The average effective supply during the week was 2,769 MW, lower than the 2,901 MW of the previous week. Ramping limitations were considered in the calculation of the effective supply.
 - The capacity on outage averaged at 420 MW, slightly higher than last week's 419 MW. In terms of capacity on outage by plant type, about 69% of the 420 MW involved hydro plants, while in terms of outage by category, about 87% were forced outages.
- As a result, an average supply margin of 170 MW was observed during the week, which is slightly higher by about 1% relative to the previous week. A 0.04 MW supply deficit was observed on 13 May 2024 at 18:20h. The average supply margin was 124.02 MW at peak intervals and 205.47 MW at off-peak intervals.
- Correspondingly, average GWAP was recorded at PHP 6,146/MWh from PHP 6,339/MWh last week.
 - The secondary price cap was imposed during 46 intervals out of the 2,016 intervals of the week (about 2% of the time).
- The top 5 participant groups accounted for about 73% 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 –
 - GN POWER KAUSWAGAN CFTPP (about 99.85% of the time)
 - FDC MISAMIS CFTPP (about 99.01% of the time)
 - MALITA CFTPP (about 95.59% of the time)
 - THERMA SOUTH CFTPP (about 74.11% of the time)
 - MINDANAO CFTPP (about 63.1% of the time)
- Based on the MMS Solution, the congested equipment during the week were –
 - Placer_Transformer 2 (0.45% of the time)
 - Kidapawan_Transformer 1 (0.1% of the time)
- OFFER PATTERN ANALYSIS
 - The offered capacity of coal plants from May 13 to 17 was low for the entire week due to an increase in capacity on outage.
 - The offered capacity of hydro plants on May 19 was lower for the entire week due to an increase in capacity on outage.
 - The offered capacity of geothermal plants from May 13 to 14 and May 18 was lower due to outages and lower offer of Mt APO Unit 2. Moreover, for the entire week, the offered price was only Php 0 or below.
 - The lowest solar plant nomination was recorded on May 16, while the highest was recorded on May 14.

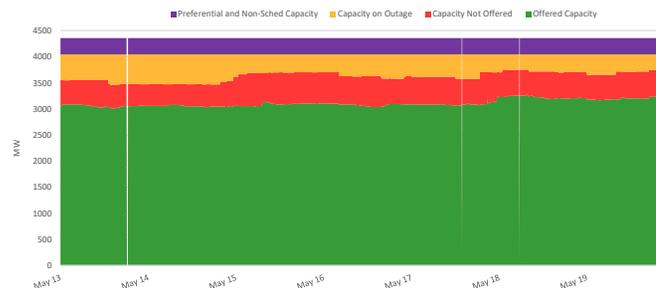
IEMOP MARKET SYSTEMS ADVISORY

- MO-initiated Market Intervention for Luzon, Visayas, and Mindanao from 18:10h to 18:40h on May 13, 2024 and 05:40h on May 18, 2024 due to failure to generate market results.
- SO-initiated market intervention for the Visayas Region from 08:55h to 16:00h on May 17, 2024 due to manual load dropping implementation to prevent overloading of Cebu-Mandaue 138kV Line 2.

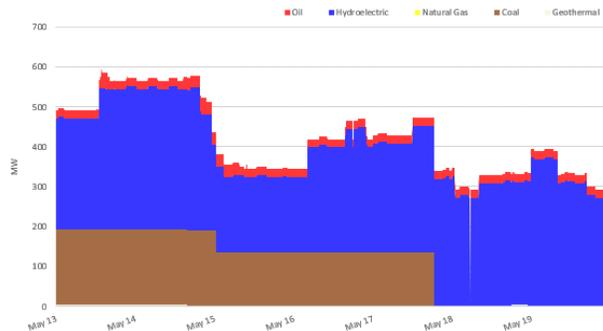
SUMMARY (PRICE, SUPPLY, DEMAND AND RESERVE SCHEDULE)

Particulars		13 - 19 May 2024	Previous Week (06 - 12 May 2024)	Percent Change
GWAP (PHP/MWh)	max	47,257.392	32,831.566	43.939%
	min	-1,079.422	-0.010	-101%
	ave	6,145.924	6,338.645	-3.040%
Effective Supply (MW)	max	3,151.260	3,298.582	-4.466%
	min	2,083.655	2,384.716	-12.625%
	ave	2,768.690	2,901.171	-4.566%
System Demand (MW)	max	2,621.140	2,669.890	-1.826%
	min	1,641.420	1,670.970	-1.768%
	ave	2,164.197	2,162.637	0.072%
Demand + Reserve Schedule (MW)	max	3,148.130	3,225.180	-2.389%
	min	1,792.720	2,147.170	-16.508%
	ave	2,599.008	2,733.315	-4.914%
Supply Margin (MW)	max	371.054	372.808	-0.470%
	min	-0.040	4.870	-100.821%
	ave	169.682	167.857	1.087%

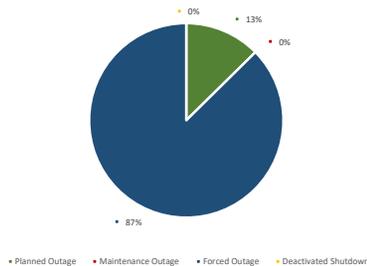
CAPACITY PROFILE



CAPACITY ON OUTAGE BY PLANT TYPE



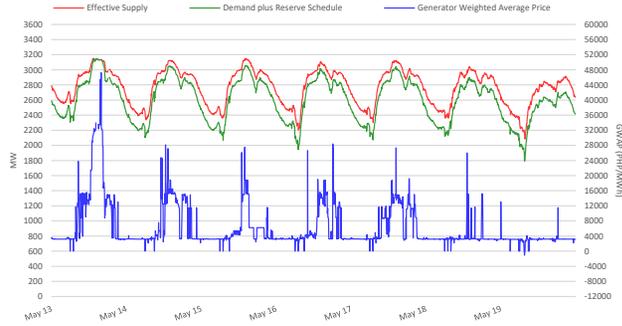
CAPACITY ON OUTAGE BY OUTAGE CATEGORY



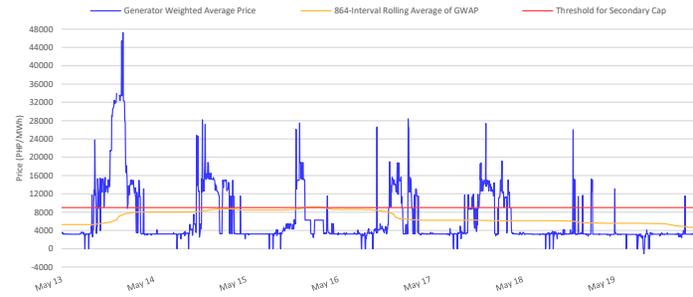
RTD CONGESTION



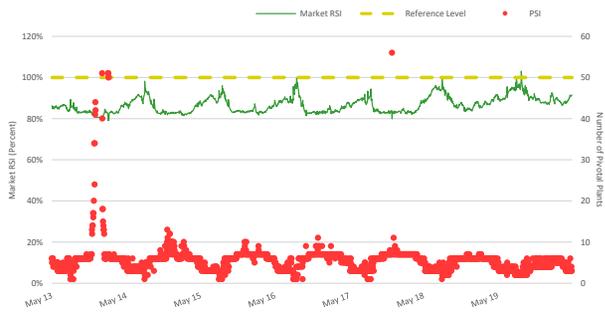
SUPPLY, DEMAND AND PRICE



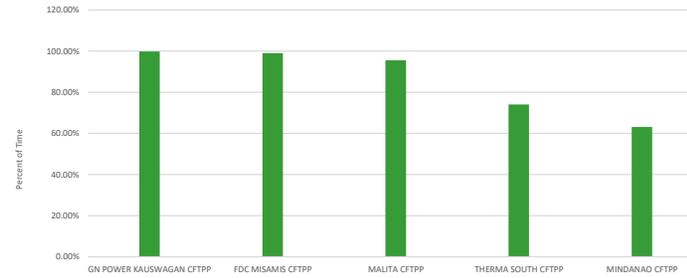
GENERATOR WEIGHTED AVERAGE PRICE



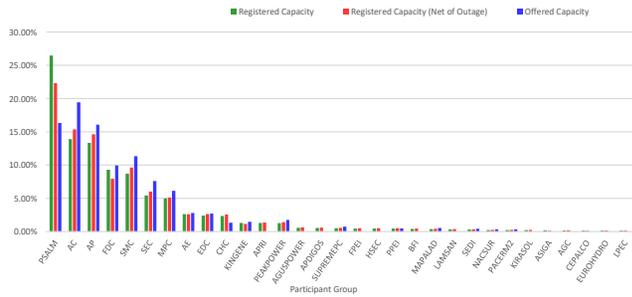
MARKET RSI VS PIVOTAL PLANTS



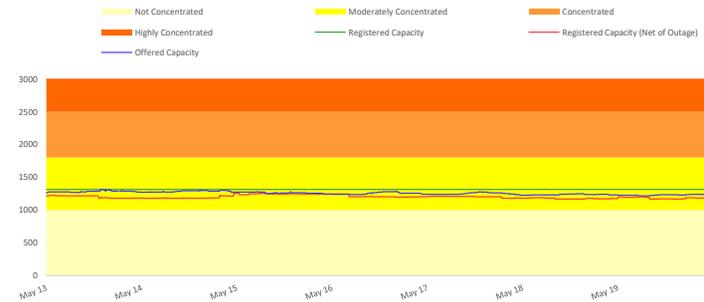
PSI



MARKET SHARE

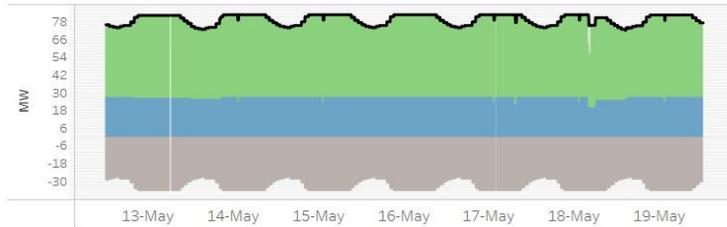


HERFINDAHL-HIRSCHMAN INDEX

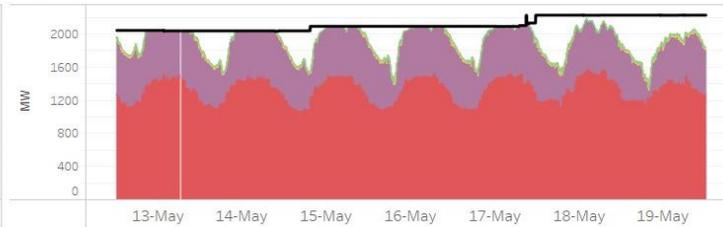


OFFER PATTERN ANALYSIS

BATTERY AND BIOFUEL



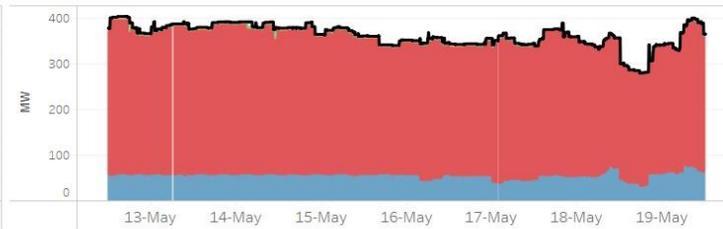
COAL



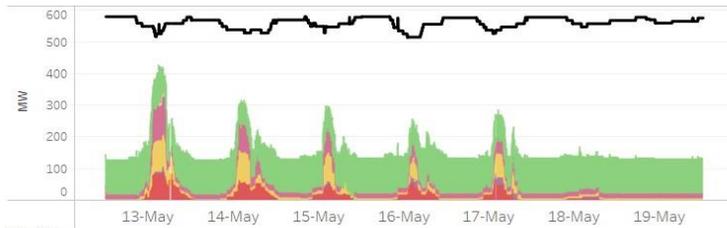
GEO THERMAL



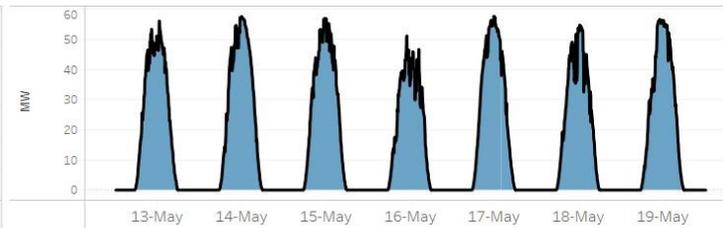
HYDRO



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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