

PEMC MARKET ASSESSMENT HIGHLIGHTS

- The average demand and the reserve schedule, recorded at 2,605 MW during the week of 20 - 26 May 2024, was higher than the previous week at 2,598 MW.
- The average effective supply during the week was 2,793 MW, higher than the 2,769 MW of the previous week. Ramping limitations were considered in the calculation of the effective supply.
 - The capacity on outage averaged at 323 MW, lower than last week's 420 MW. In terms of capacity on outage by plant type, about 83% of the 323 MW involved Hydroelectric Plants, while in terms of outage by category, about 90% were Forced Outages.
- As a result, an average supply margin of 189 MW was observed during the week, which is higher by about 11% relative to the previous week. The thinnest supply margin based on MMS solution was 56.94 MW on 23 May 2024 at 13:20h. The average supply margin was 150.5 MW at peak intervals and 218.88 MW at off-peak intervals.
- Correspondingly, average GWAP was recorded at PHP 4,852/MWh from PHP 6,146/MWh last week.
 - No secondary price cap was imposed for this week.
- The top five (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 five (5) pivotal plants during the week were –
 - FDC MISAMIS CFTPP (about 99.8% of the time)
 - MALITA CFTPP (about 98.51% of the time)
 - GN POWER KAUSWAGAN CFTPP (about 96.23% of the time)
 - THERMA SOUTH CFTPP (about 85.42% of the time)
 - SARANGANI CFTPP (about 56.4% of the time)
- Based on the MMS Solution, the congested equipment during the week was Placer_Transformer 2 (about 3.2% of the time)

OFFER PATTERN ANALYSIS

- The offered capacity of coal plants starting May 25 was lower due to an increase in capacity on outage.
- The offered capacity of hydro plants starting May 25 was higher due to the resumption of plant operations, with observed capacities around 20 MW being offered at prices ranging from Php 30,000/MWh to Php 32,000/MWh.
- The offered capacity of geothermal plants on May 20 to 22 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 24, while the highest was recorded on May 22.

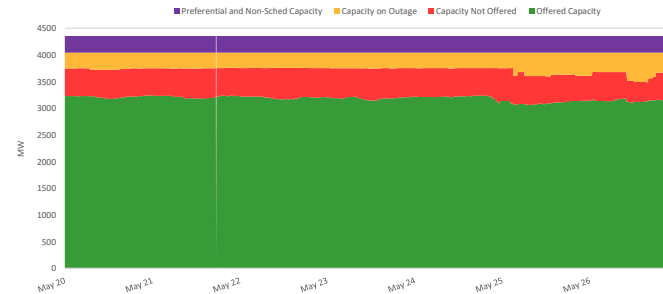
MEMOP MARKET SYSTEMS ADVISORY

- MO-initiated Market Intervention for Luzon, Visayas, and Mindanao at 17:35h on May 21, 2024, due to a failure to generate market results.
- SO-initiated market intervention for the Visayas Region from 13:35h to 14:05h, and from 16:35h to 16:50h on May 21, 2024, and from 11:55h to 12:10h, and from 12:45h to 15:45h on May 22, 2024, due to manual load dropping implementation to prevent overloading of the Cebu-Mandaue 138kV Line 2.
- ERC declared a market suspension in Luzon and Visayas during red alerts caused by generation deficiency from 13:05h of May 23, 2024 to 22:30h of May 24, 2024 in Visayas and to 00:50h of May 25, 2024 in Luzon.

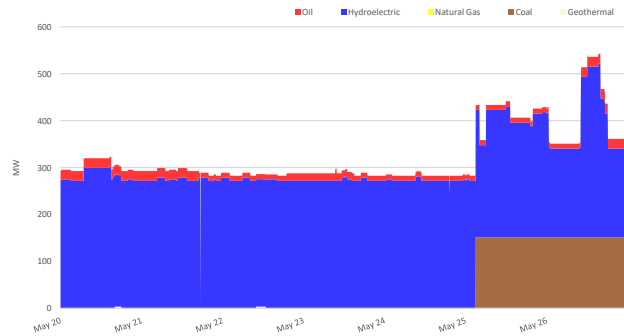
SUMMARY (PRICE, SUPPLY, DEMAND AND RESERVE SCHEDULE)

Particulars		20 - 26 May 2024	Previous Week (13 - 19 May 2024)	Percent Change
GWAP (PHP/MWh)	max	27,698.412	47,257.392	-41.388%
	min	0.000	-1,079.422	100.000%
	ave	4,852.464	6,145.924	-21.046%
Effective Supply (MW)	max	3,250.757	3,151.260	3.157%
	min	2,270.231	2,083.655	8.954%
	ave	2,793.485	2,768.690	0.896%
System Demand (MW)	max	2,743.630	2,621.140	4.673%
	min	1,637.700	1,641.420	-0.227%
	ave	2,166.386	2,164.197	0.101%
Demand + Reserve Schedule (MW)	max	3,161.460	3,148.130	0.423%
	min	1,987.320	1,792.720	10.855%
	ave	2,604.632	2,599.008	0.216%
Supply Margin (MW)	max	360.161	371.054	-2.936%
	min	56.937	-0.040	142k%
	ave	188.853	169.682	11.298%

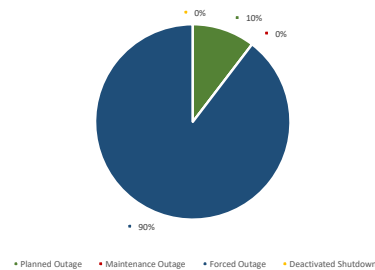
CAPACITY PROFILE



CAPACITY ON OUTAGE BY PLANT TYPE



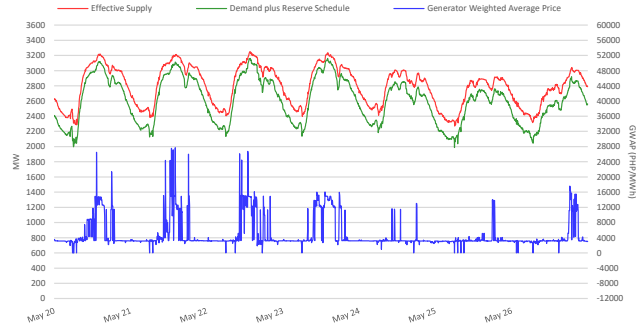
CAPACITY ON OUTAGE BY OUTAGE CATEGORY



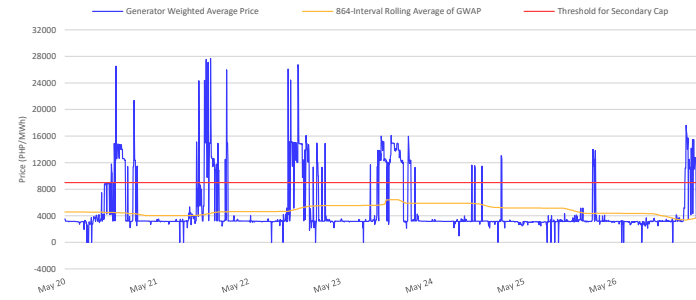
RTD CONGESTION



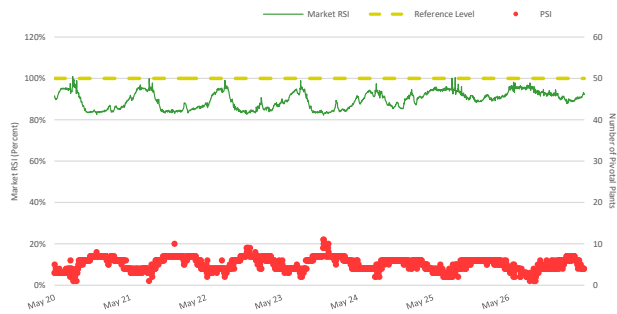
SUPPLY, DEMAND AND PRICE



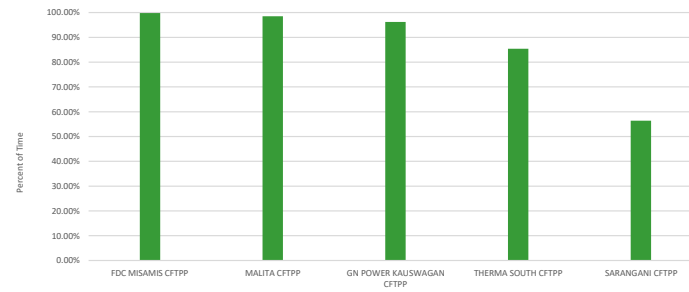
GENERATOR WEIGHTED AVERAGE PRICE



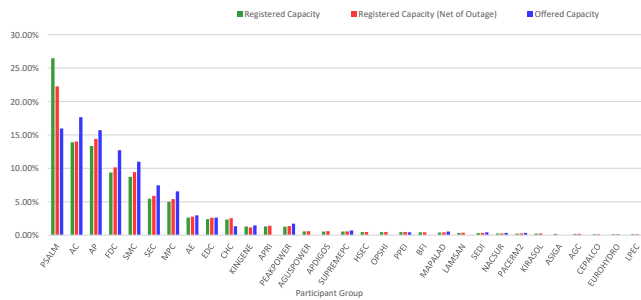
MARKET RSI VS PIVOTAL PLANTS



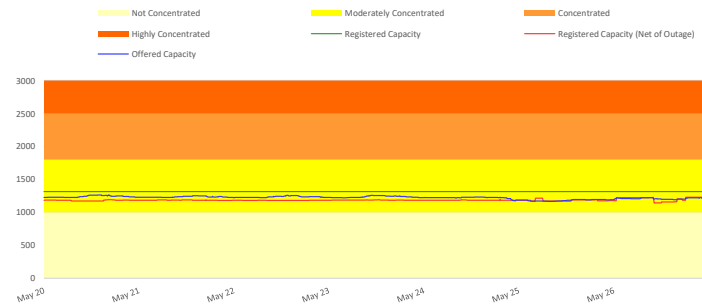
PSI



MARKET SHARE

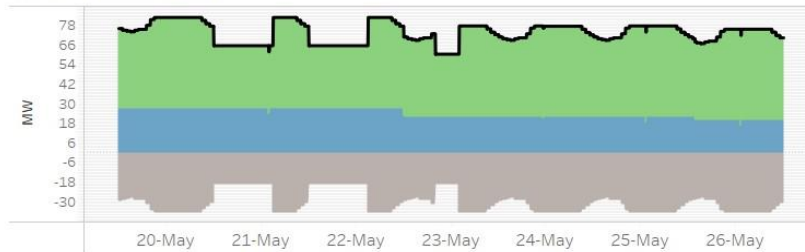


HERFINDAHL-HIRSCHMAN INDEX

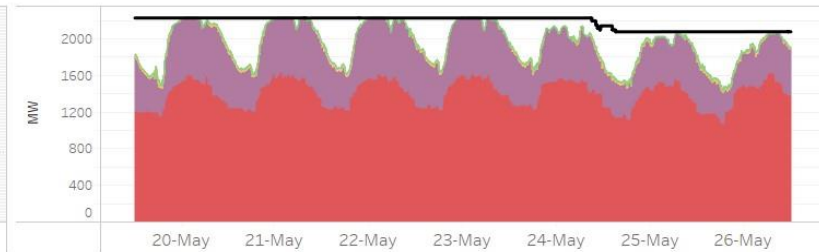


OFFER PATTERN ANALYSIS

BATTERY AND BIOFUEL



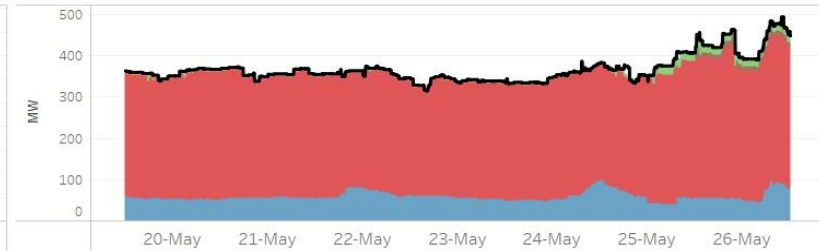
COAL



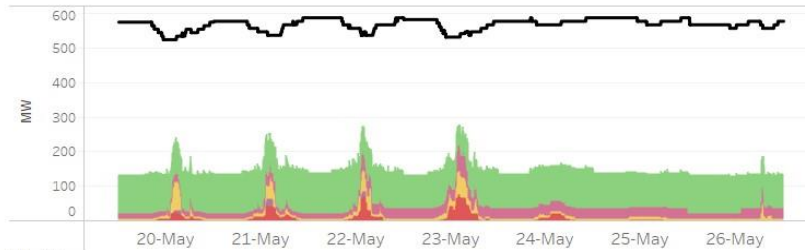
GEOTHERMAL



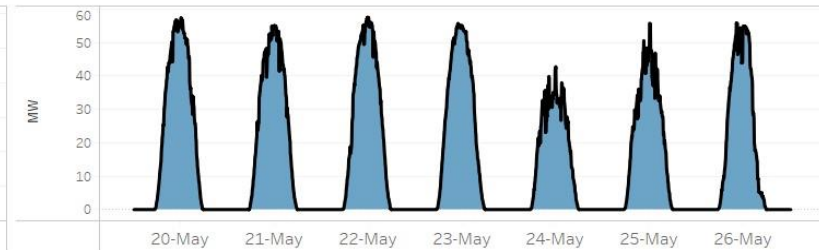
HYDRO



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.

DISCLAIMER: The information contained in this document is based on the available electricity spot market data. The same information is subject to change as updated figures come in. As such, the PEMC does not make any representation or warranty as to the completeness of this information. The PEMC likewise accepts no responsibility or liability whatsoever for any loss or cost incurred by a reader arising from, or in relation to, any conclusion or assumption derived from the information found herein.