

PEMC MARKET ASSESSMENT HIGHLIGHTS

- The average demand, including the reserve schedule, recorded at 13,347 MW during the week of 24 - 30 Jun 2024, was higher than the previous week at 13,336 MW and higher than the same week last year at 11,912 MW.
- The average effective supply during the week was 14,032 MW which is higher than the 13,938 MW of the previous week and higher than the 12,844 MW during the same week last year. Ramping limitations were considered in the calculation of the effective supply.
 - The capacity on outage averaged at 1,685 MW, higher than last week's 1,554 MW. In terms of capacity on outage by plant type, about 33% of the 1,685 MW involved Coal Plants, while in terms of category, about 80% were under Forced Outage.
- As a result, an average supply margin of 685 MW was observed during the week, which is higher by about 14% relative to the previous week and lower by about 26.485% compared to the same week last year. The thinnest supply margin based on MMS solution was 302.43 MW observed on 30 June 2024 at 20:10h. The average supply margin was 707.34 MW at peak intervals and 664.6 MW at off-peak intervals.
- Correspondingly, average GWAP was recorded at PHP 4,171/MWh from PHP 4,516/MWh last week. This is lower than the PHP4,192/MWh during the same week last year.
 - No secondary price cap was imposed for this week.
- The top 5 participant groups accounted for about 80% of the offered capacity. The Herfindahl-Hirschman Index (HHI) by participant group indicated a mostly concentrated market based on the offered capacities and a moderately concentrated market based on the registered capacities.
- The top 5 pivotal plants during the week were –
 1. GNP DINGININ CFTPP (about 99.7% of the time)
 2. ILJAN NGPP (about 99.4% of the time)
 3. STA RITA NGPP (about 96.13% of the time)
 4. MASINLOC CFTPP (about 92.41% of the time)
 5. SUAL CFTPP (about 90.97% of the time)
- Based on the MMS Solution, the top 5 congested equipment during the week were –
 1. 138kV Maasin-Ubay Line 1 (about 26.2% of the time)
 2. 138kV Barotac-Dingle Line 2 (about 12.% of the time)
 3. 138kV Barotac-Dingle Line 1 (about 9.4% of the time)
 4. 230kV Mexico-Hermosa Line 2 (about 6.2% of the time)
 5. PGPP1_Transformer 1 (0.05% of the time)

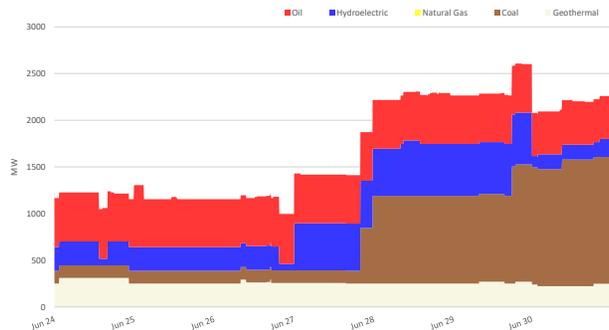
OFFER PATTERN ANALYSIS

- The offered capacity of coal plants started decreasing on the evening of June 27th and continued through the end of the week due to increased capacity on outage.
- The offered capacity of the geothermal plants was slightly lower than the previous week due to increase in outages and the testing of plants, which were scheduled through the security limit imposed by the SO.
- The offered capacity of the hydro plants was slightly lower than the previous week due to an increase in outages. Moreover, observed capacities of around 450 MW were offered at prices ranging from Php 30,000/MWh to Php 32,000/MWh on June 30.
- The offered capacity of natural gas was lower on June 24, 25, and 26 due to the testing of plants, which were scheduled thru the security limit imposed by the SO.
- The lowest solar plant nomination was recorded on June 26, while the highest was recorded on June 28.
- The lowest nomination by wind plants was recorded on June 24, while the highest was on June 26.

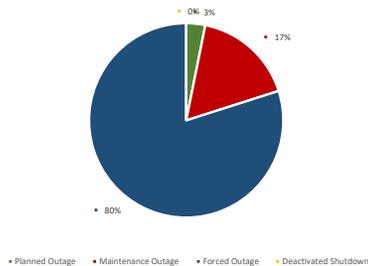
IEMOP MARKET SYSTEMS ADVISORY

- MO initiated Market Intervention for Luzon, Visayas, and Mindanao due to the failure to generate RTD results on June 29, 2024 (04:30h to 04:55h).

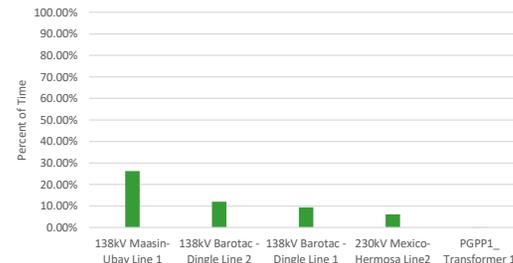
CAPACITY ON OUTAGE BY PLANT TYPE



CAPACITY ON OUTAGE BY OUTAGE CATEGORY



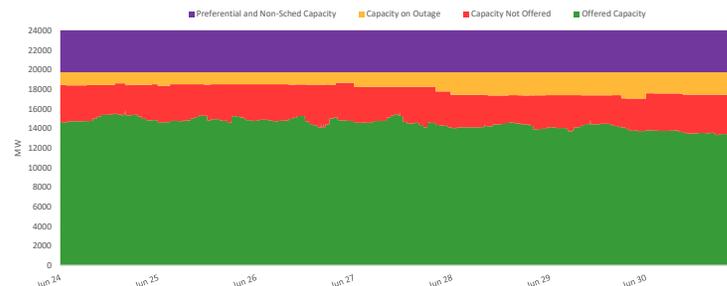
RTD CONGESTION



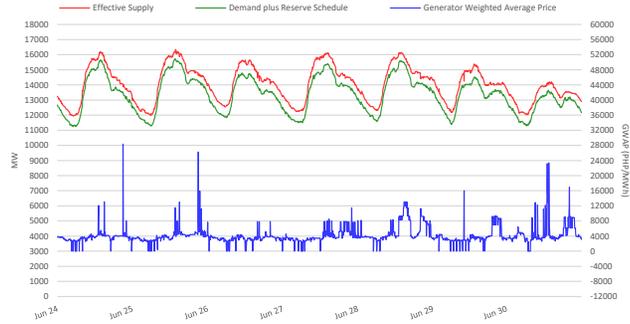
SUMMARY (PRICE, SUPPLY, DEMAND AND RESERVE SCHEDULE)

Particulars	24 - 30 Jun 2024	Previous Week (17 - 23 Jun 2024)	Same Week, Previous Year (26 Jun -02 Jul 2023)	Percent Change From		
				Previous Week	Same Week, Prev Year	
GWAP (PHP/MWh)	max	28,354.893	32,944.854	19,105.913	-13.932%	48.409%
	min	-1.004	-5,836.736	-1,010.000	99.983%	99.901%
	ave	4,170.874	4,515.508	4,192.161	-7.632%	-0.508%
Effective Supply (MW)	max	16,352.960	16,642.625	14,937.990	-1.741%	9.472%
	min	11,946.887	11,567.948	10,863.605	3.276%	9.972%
	ave	14,032.327	13,935.414	12,844.176	0.695%	9.251%
System Demand (MW)	max	15,113.240	15,474.040	13,478.240	-2.332%	12.131%
	min	10,219.420	9,955.800	9,356.860	2.648%	9.218%
	ave	12,657.312	12,598.129	11,433.392	0.470%	10.705%
Demand + Reserve Schedule (MW)	max	15,727.300	16,279.740	14,174.300	-3.393%	10.956%
	min	11,234.700	10,836.970	9,696.260	3.670%	15.866%
	ave	13,346.865	13,335.663	11,911.770	0.084%	12.048%
Supply Margin (MW)	max	1,168.033	1,044.691	1,419.536	11.807%	-17.717%
	min	302.427	7.421	415.744	3%	-27.256%
	ave	685.462	599.751	932.406	14.291%	-26.485%

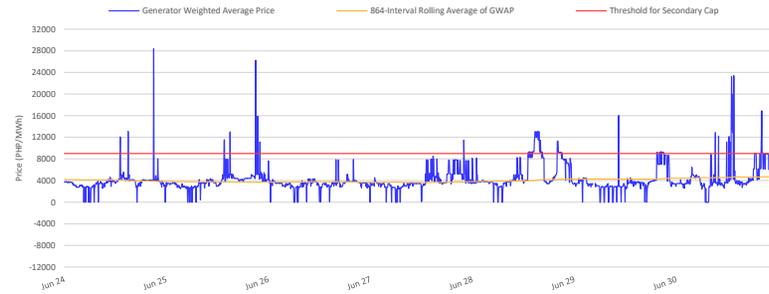
CAPACITY PROFILE



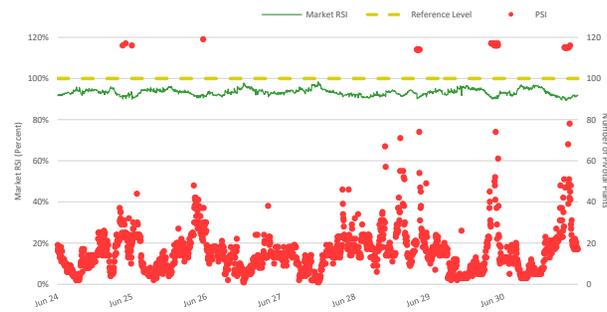
SUPPLY, DEMAND AND PRICE



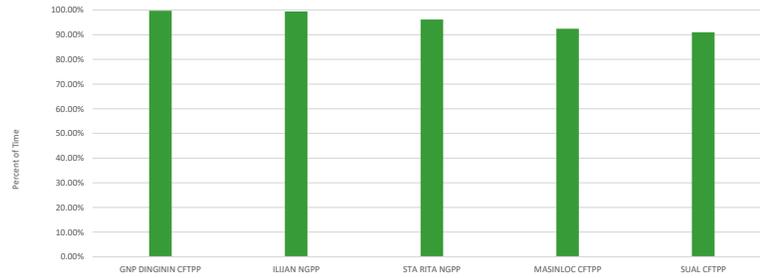
GENERATOR WEIGHTED AVERAGE PRICE



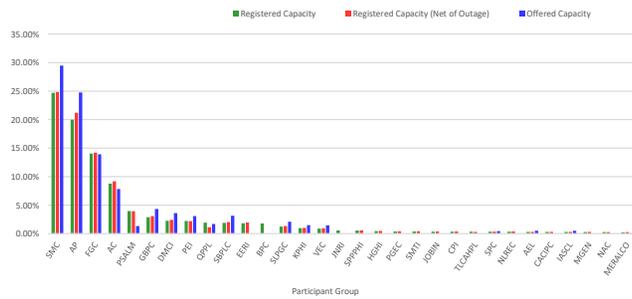
MARKET RSI VS PIVOTAL PLANTS



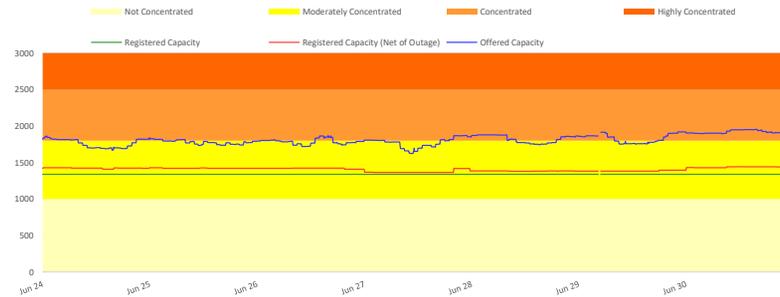
PSI



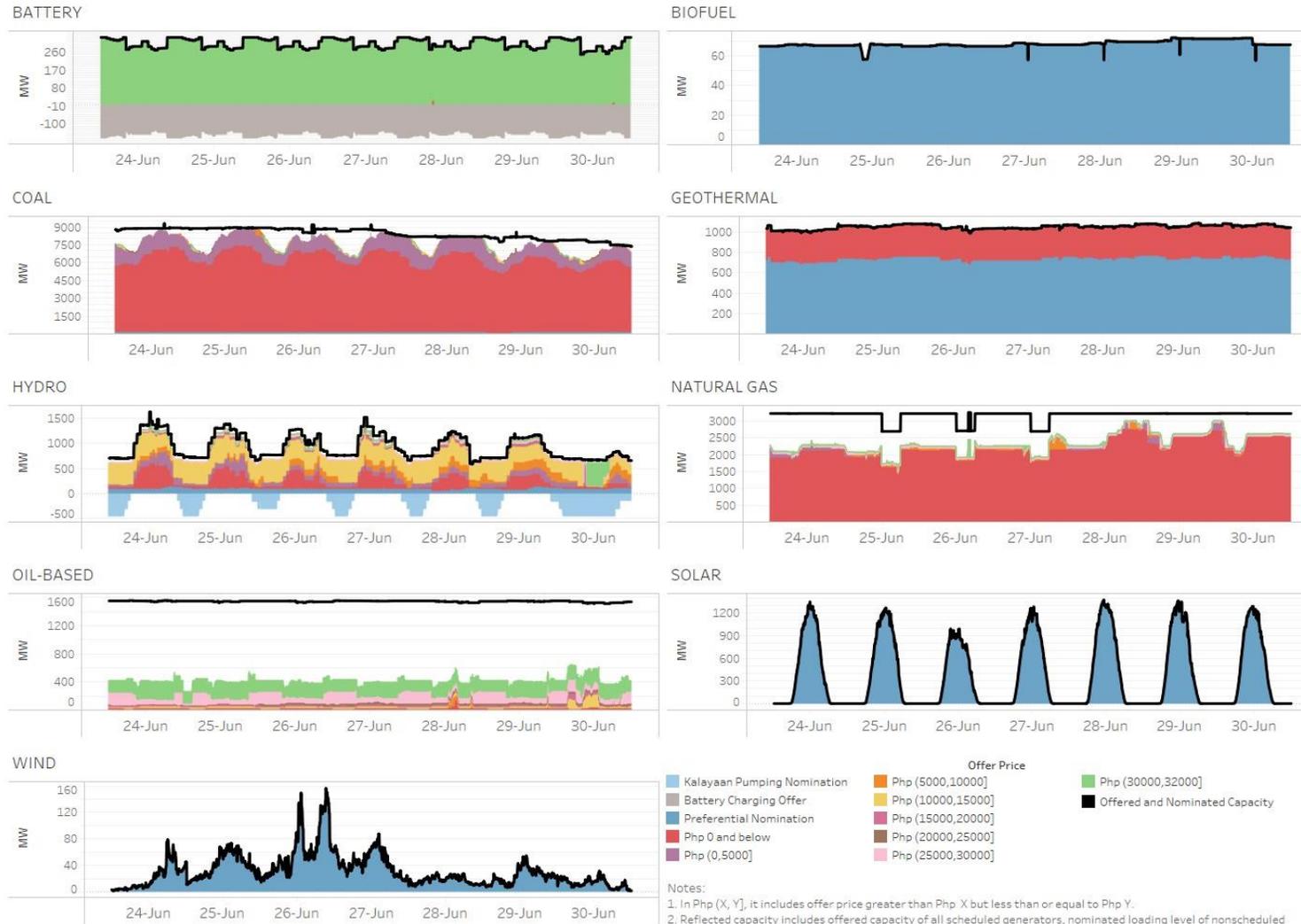
MARKET SHARE



HERFINDAHL-HIRSCHMAN INDEX



OFFER PATTERN ANALYSIS



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.