

PEMC MARKET ASSESSMENT HIGHLIGHTS

- The average demand and the reserve schedule, recorded at 13,336 MW during the week of 17 - 23 Jun 2024, was lower than the previous week at 13,733 MW and higher than the same week last year at 13,748 MW.
- The average effective supply during the week was 13,935 MW, lower than the 14,340 MW of the previous week and higher than the 13,510 MW during the same week last year. Ramping limitations were considered in the calculation of the effective supply.
 - The capacity on outage averaged at 1,554 MW, higher than last week's 1,514 MW. In terms of capacity on outage by plant type, about 33% of the 1,554 MW involved Oil Plants, while in terms of category, about 88% were Forced Outages.
- As a result, an average supply margin of 600 MW was observed during the week, which is higher by about 1% relative to the previous week and lower by about 29.598% in comparison with the same week last year. The thinnest supply margin based on MMS solution was 7.42 MW on 20 June 2024 20:05h. The average supply margin was 575.21 MW at peak intervals and 618.54 MW at off-peak intervals.
- Correspondingly, average GWAP was recorded at PHP4,516/MWh from PHP5,069/MWh last week. This is lower than the PHP5,197/MWh during the same week last year.
 - No secondary price cap was imposed for this week.
- The top five participant groups accounted for approximately 79% of the offered capacity. The Herfindahl-Hirschman Index (HHI) by participant group indicated instances of concentrated market based on the offered capacities, but was nevertheless moderately concentrated majority of the week, and a moderately concentrated market based on the registered capacities.
- The top 5 pivotal plants during the week were –
 - GNP DINGININ CFTPP (about 99.95% of the time)
 - ILIJAN NGPP (about 99.95% of the time)
 - MASINLOC CFTPP (about 98.86% of the time)
 - STA RITA NGPP (about 97.32% of the time)
 - MARIVELES CFTPP (about 88.% of the time)

- Based on the MMS Solution, the top 5 congested equipment during the week were –
 - 138kV Maasin-Ubay Line 1 (about 26.6% of the time)
 - 138kV Barotac-Dingle Line 2 (about 8.8% of the time)
 - 138kV Barotac-Dingle Line 1 (about 3.5% of the time)
 - DASMA_CORRIDOR (about 2.6% of the time)
 - Damarinas_Transformer 1 (about 1.2% of the time)

OFFER PATTERN ANALYSIS

- The offered capacity of coal plants was lower on June 19, 20, and 21 due to testing of plants, which was scheduled through the security limit imposed by the SO. On June 22, the reduced capacity was caused by an increase in outages.
- The lower capacity of geothermal plants on June 17, 18, 21, 22, and 23 was attributed to outages and the testing of plants, which was scheduled through the security limit imposed by the SO
- The offered capacity of the hydro plants was lower than the previous week due to an increase in outages
- Moreover, observed capacities of around 180 MW were offered at prices ranging from Php 30,000/MWh to Php 32,000/MWh on June 22.
- The offered capacity of natural gas was lower on June 19 and 20 due to outages. The sudden decrease on June 21 was due to testing of plants and was scheduled through the security limit imposed by the SO
- The lowest solar plant nomination was recorded on June 19, while the highest was recorded on June 22.
- The lowest nomination by wind plants was recorded on June 21, while the highest was on June 22.

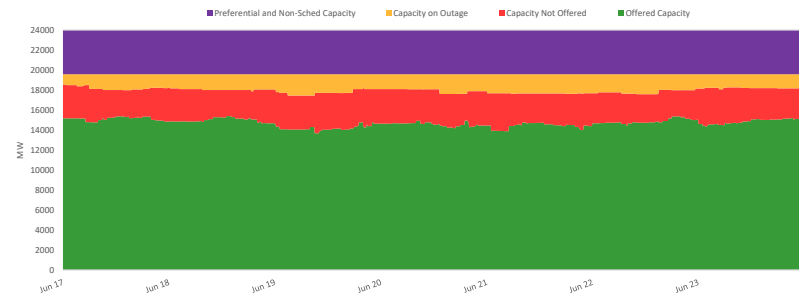
IEMOP MARKET SYSTEMS ADVISORY

- No IT-related issue was advised in IEMOP's market systems from 17 - 23 Jun 2024.

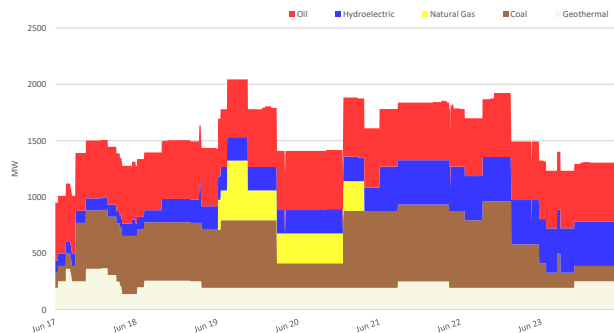
SUMMARY (PRICE, SUPPLY, DEMAND AND RESERVE SCHEDULE)

Particulars		17 - 23 Jun 2024	Previous Week (10 - 16 Jun 2024)	Same Week, Previous Year (19 - 25 Jun 2023)	Percent Change From	
					Previous Week	Same Week, Prev Year
GWAP (PHP/MWh)	max	32,944.854	33,235.770	27,870.285	-0.875%	18.208%
	min	-5,836.736	-8,519.934	-1.040	31.493%	-561k%
	ave	4,515.508	5,069.282	5,197.142	-10.924%	-13.116%
Effective Supply (MW)	max	16,642.625	17,135.551	15,869.887	-2.877%	4.869%
	min	11,567.948	11,745.069	11,043.378	-1.508%	4.750%
	ave	13,935.414	14,340.461	13,510.464	-2.825%	3.145%
System Demand (MW)	max	15,474.040	15,754.640	14,558.480	-1.781%	6.289%
	min	9,955.800	10,275.460	9,393.710	-3.111%	5.984%
	ave	12,598.129	13,034.677	12,009.193	-3.349%	4.904%
Demand + Reserve Schedule (MW)	max	16,279.740	16,710.650	15,448.690	-2.579%	5.379%
	min	10,836.970	11,043.810	9,933.710	-1.873%	9.093%
	ave	13,335.663	13,747.898	12,658.566	-2.999%	5.349%
Supply Margin (MW)	max	1,044.691	1,067.930	1,335.336	-2.176%	-21.766%
	min	7.421	0.040	208.846	18k%	-96.447%
	ave	599.751	592.563	851.898	1.213%	-29.598%

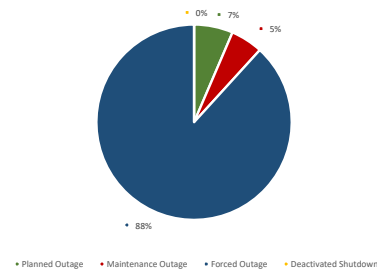
CAPACITY PROFILE



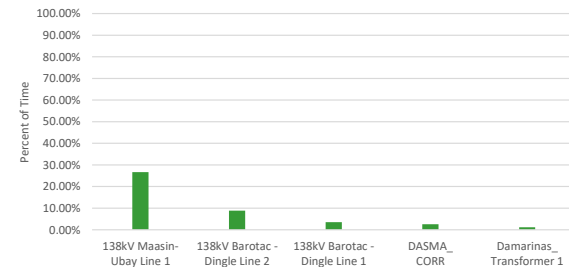
CAPACITY ON OUTAGE BY PLANT TYPE



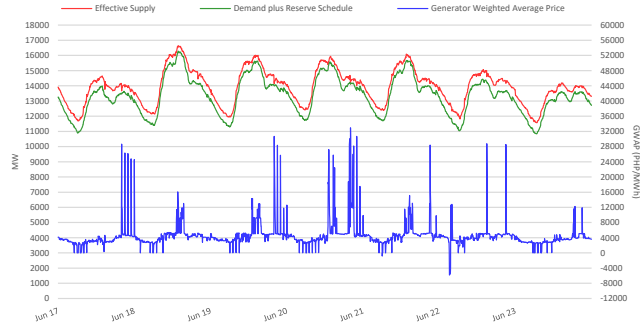
CAPACITY ON OUTAGE BY OUTAGE CATEGORY



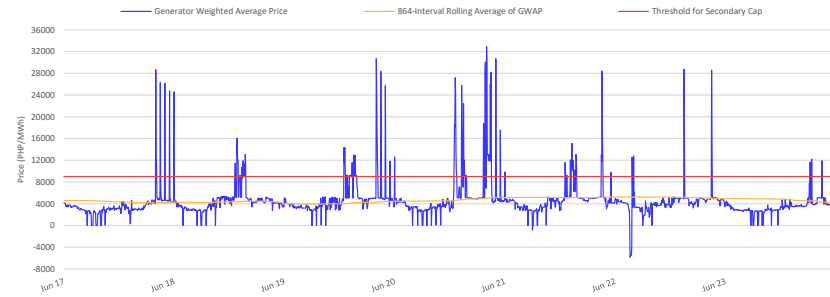
RTD CONGESTION



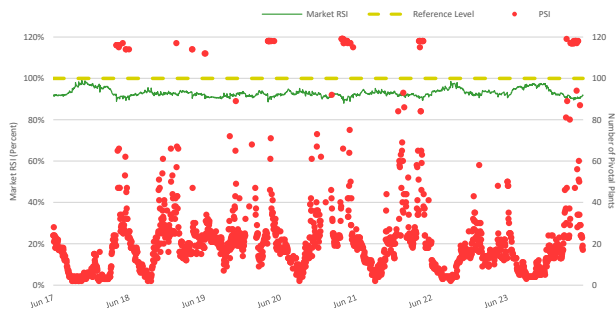
SUPPLY, DEMAND AND PRICE



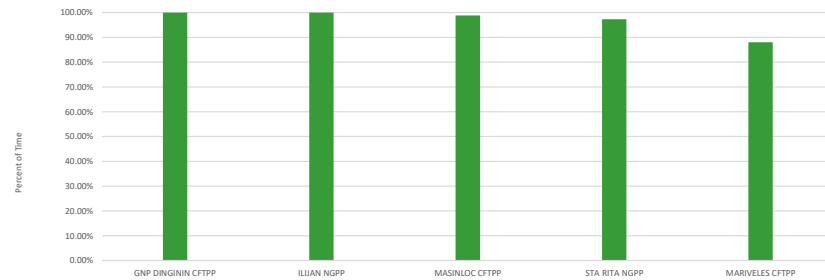
GENERATOR WEIGHTED AVERAGE PRICE



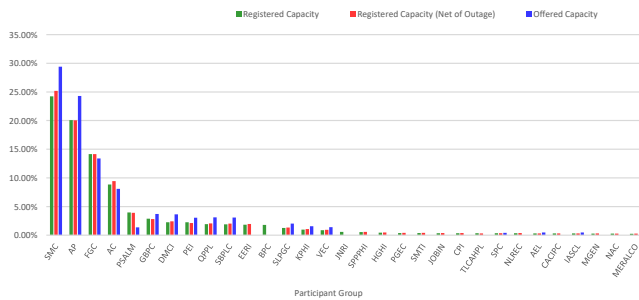
MARKET RSI VS PIVOTAL PLANTS



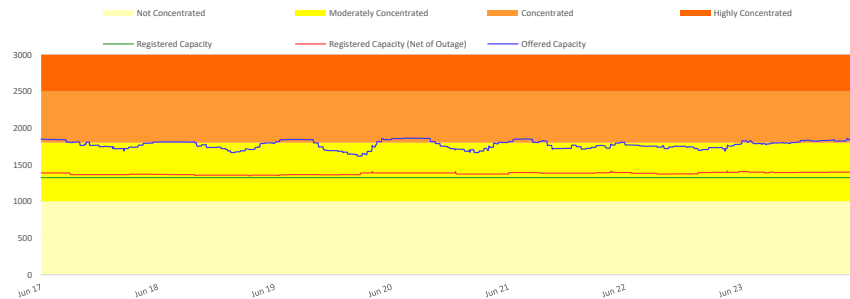
PSI



MARKET SHARE

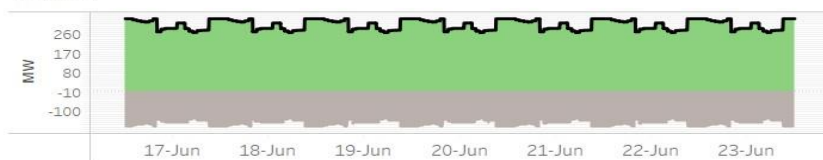


HERFINDAHL-HIRSCHMAN INDEX

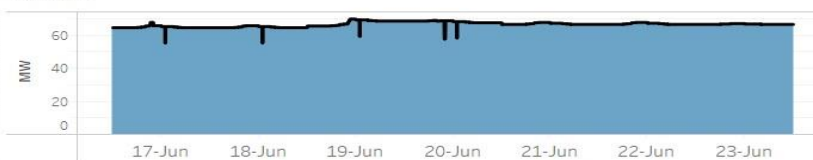


OFFER PATTERN ANALYSIS

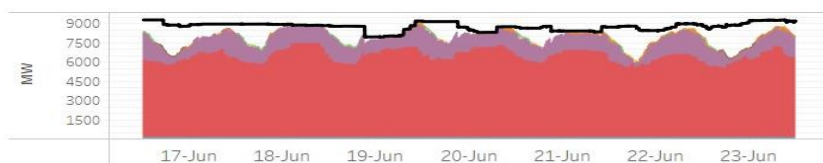
BATTERY



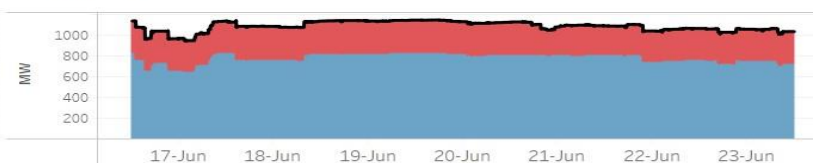
BIOFUEL



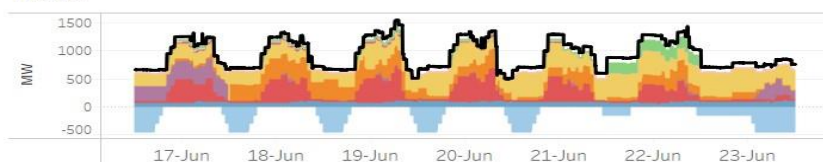
COAL



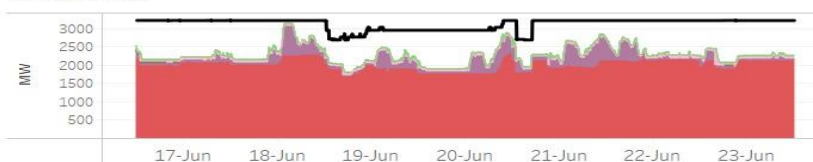
GEOTHERMAL



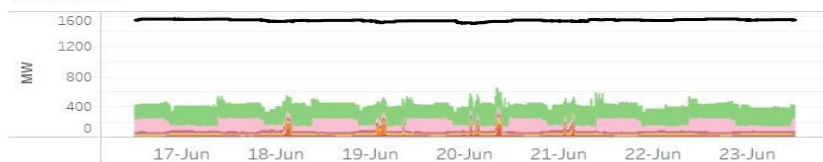
HYDRO



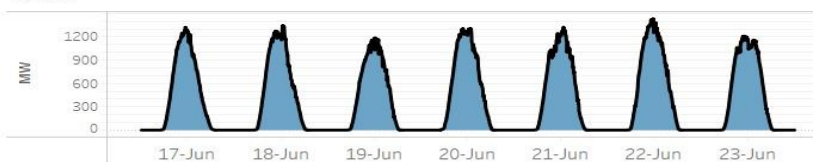
NATURAL GAS



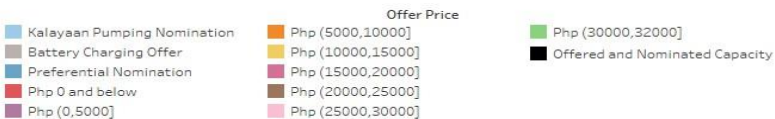
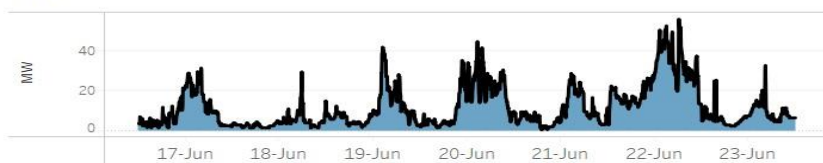
OIL-BASED



SOLAR



WIND



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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