

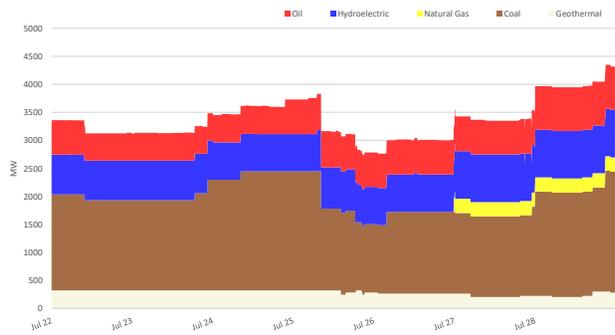
PEMC MARKET ASSESSMENT HIGHLIGHTS

- The average demand and the reserve schedule, recorded at 11,683 MW during the week of 22 - 28 Jul 2024, was lower than the previous week at 12,653 MW and higher than the same week last year at 11,041 MW.
- The average effective supply during the week was 12,349 MW, lower than the 13,116 MW of the previous week and higher than the 11,909 MW during the same week last year. Ramping limitations were considered in the calculation of the effective supply.
 - The capacity on outage averaged at 3,371 MW, lower than last week's 3,980 MW. In terms of capacity on outage by plant type, about 50% of the 3,371 MW involved Coal Plants, while in terms of category, about 51% were Planned Outages.
- As a result, an average supply margin of 666 MW was observed during the week, which is higher by about 43.7% relative to the previous week and lower by about 23.3% in comparison with the same week last year. Based on the MMS solution, a minimum margin of 110.43 MW was observed on 27 July 2024 at 21:05h. The average supply margin was 683.74 MW at peak intervals and 651.44 MW at off-peak intervals.
- Correspondingly, average GWAP was recorded at PHP 3,483/MWh from PHP 7,711/MWh last week. This is higher than the PHP3,265/MWh during the same week last year.
 - No secondary price cap was imposed for this week
- The top five (5) participant groups accounted for about 79% of the offered capacity. The Herfindahl-Hirschman Index (HHI) by participant group indicated partially concentrated and moderately concentrated market based on the offered and registered capacities, respectively.
- The top five (5) pivotal plants during the week were –
 - ILIJAN NGPP (about 98.31% of the time)
 - STA RITA NGPP (about 90.58% of the time)
 - GNP DINGININ CFTPP (about 89.19% of the time)
 - SUAL CFTPP (about 87.85% of the time)
 - MARIVELES CFTPP (about 82.44% of the time)
- Based on the MMS Solution, the top 5 congested equipment during the week were –
 - 138kV Maasin-Ubay Line 1 (about 47.1% of the time)
 - 138kV Barotac-Dingle Line 1 (about 14.8% of the time)
 - 138kV Barotac-Dingle Line 2 (about 10.3% of the time)
 - Dasmarinas Transformer 3 (about 0.74% of the time)
 - Dona Imelda Transformer 2 (about 0.6% of the time)
- OFFER PATTERN ANALYSIS
 - The offered capacity of the coal plant was higher than the previous week due to lower outages. However, the lower offer on July 24 was caused by outages and testing of plants. Additionally, the short drops in offered capacity on July 28 were caused by plant testing, scheduled through security limits imposed by the SO.
 - The offered capacity of the geothermal plants was comparable to the previous week with a minimal increase in outages and testing of small plants.
 - The offered capacity of the hydro plants was higher than the previous week due to decrease in outages. Around 13 MW to 46 MW was offered at Php 30,000 to Php 32,000 from July 23 to 26 and from July 27 to 28, respectively.
 - The offered capacity of natural gas was higher than the previous week due to the resumption of plants. However, the decrease in offered capacity in the last two (2) days of the week was attributed to a 255 MW capacity on outage.
 - The lowest peak in solar plant nomination was recorded on July 24, while the highest was recorded on July 27.
 - The lowest nomination by wind plants was recorded on July 27, while the highest was on July 24.

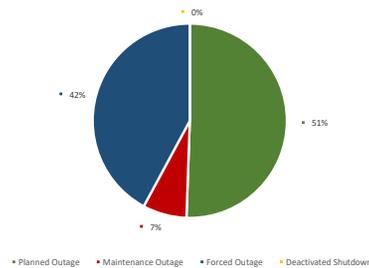
ITEMOP MARKET SYSTEMS ADVISORY

- No IT-related issue was advised in ITEMOP's market systems from 22 - 28 Jul 2024.

CAPACITY ON OUTAGE BY PLANT TYPE



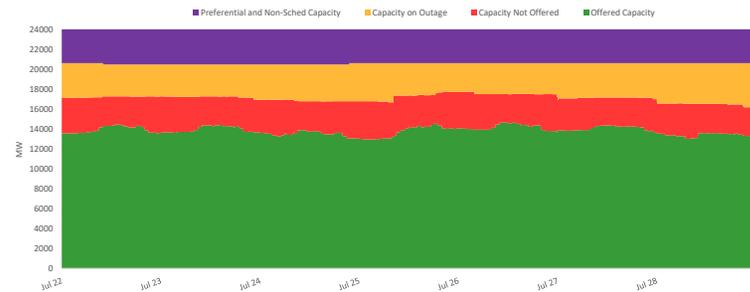
CAPACITY ON OUTAGE BY OUTAGE CATEGORY



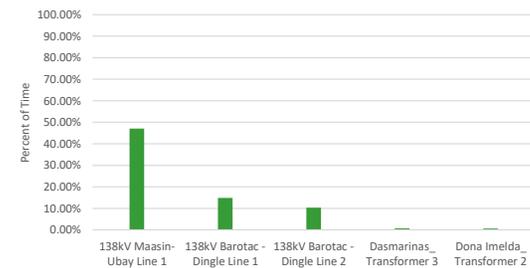
SUMMARY (PRICE, SUPPLY, DEMAND AND RESERVE SCHEDULE)

Particulars		22 - 28 Jul 2024	Previous Week (15 - 21 Jul 2024)	Same Week, Previous Year (24 - 30 Jul 2023)	Percent Change From	
					Previous Week	Same Week, Prev Year
GWAP (PHP/MWh)	max	31,412.916	32,642.949	27,673.559	-3.768%	13.512%
	min	-0.825	-1.001	-997.034	17.582%	99.917%
	ave	3,483.121	7,711.028	3,265.318	-54.829%	6.670%
Effective Supply (MW)	max	14,813.663	15,375.873	14,421.683	-3.656%	2.718%
	min	9,992.835	11,073.190	9,893.190	-9.756%	1.007%
	ave	12,348.623	13,116.199	11,908.781	-5.852%	3.693%
System Demand (MW)	max	13,559.160	14,406.710	12,958.020	-5.883%	4.639%
	min	8,504.100	9,891.240	8,408.250	-14.024%	1.140%
	ave	11,071.207	12,127.119	10,595.267	-8.707%	4.492%
Demand + Reserve Schedule (MW)	max	14,184.330	14,994.460	13,594.850	-5.403%	4.336%
	min	9,250.540	10,608.040	8,792.250	-12.797%	5.212%
	ave	11,682.953	12,652.885	11,040.875	-7.666%	5.815%
Supply Margin (MW)	max	1,052.701	898.764	1,439.940	17.128%	-26.893%
	min	110.431	-52.179	167.741	311.639%	-34.168%
	ave	665.670	463.314	867.906	43.676%	-23.302%

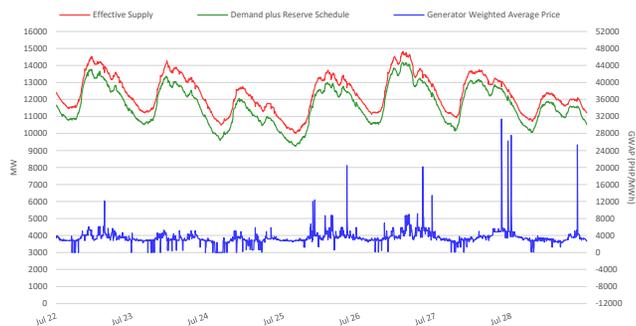
CAPACITY PROFILE



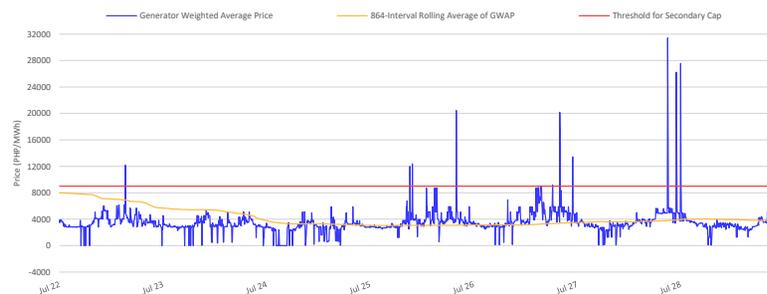
RTD CONGESTION



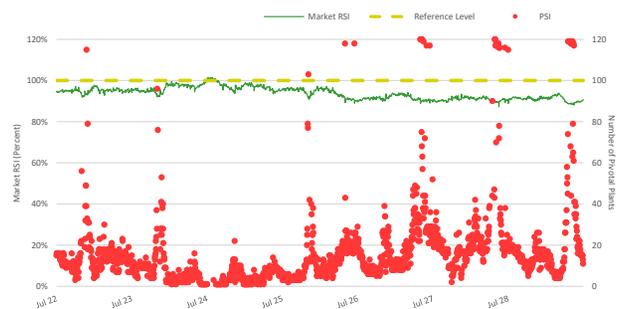
SUPPLY, DEMAND AND PRICE



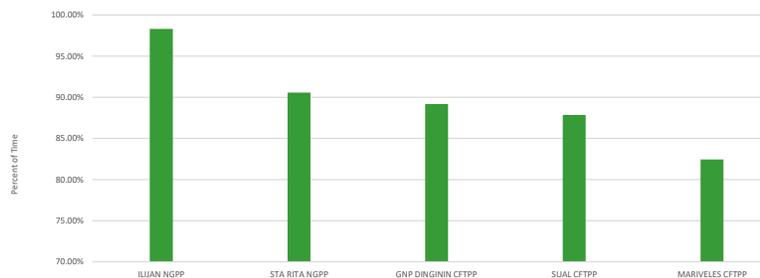
GENERATOR WEIGHTED AVERAGE PRICE



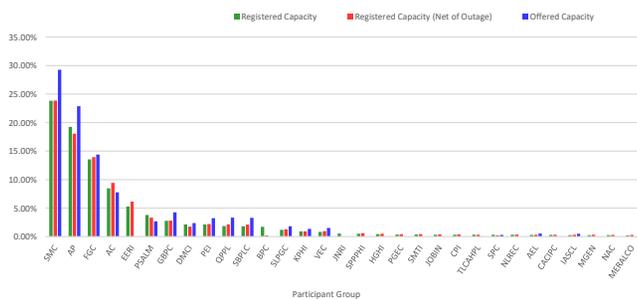
MARKET RSI VS PIVOTAL PLANTS



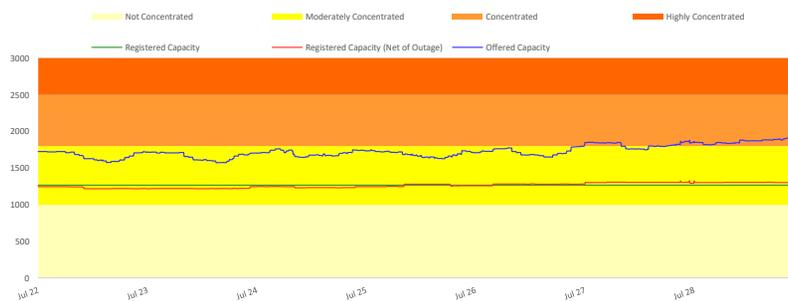
PSI



MARKET SHARE

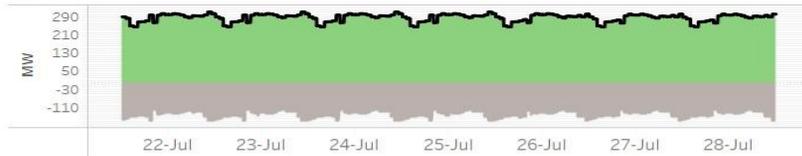


HERFINDAHL-HIRSCHMAN INDEX



OFFER PATTERN ANALYSIS

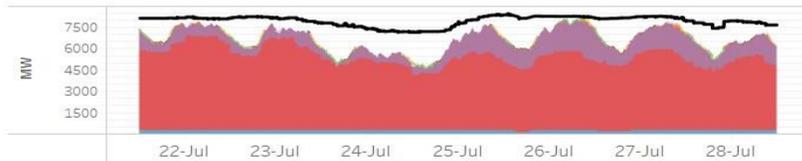
BATTERY



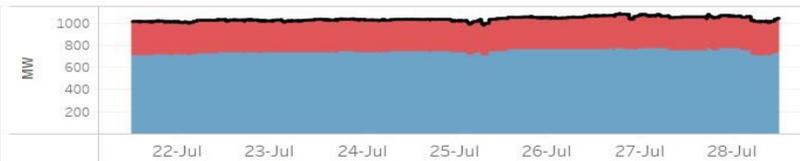
BIOFUEL



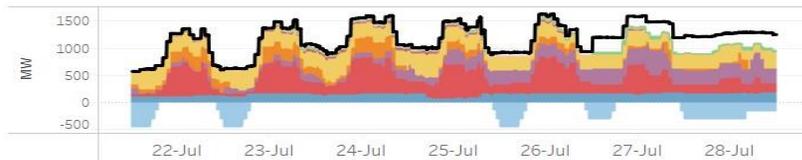
COAL



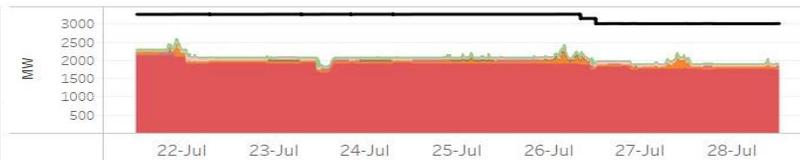
GEOHERMAL



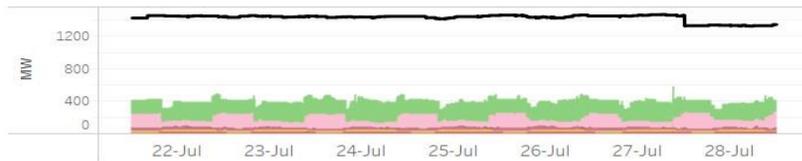
HYDRO



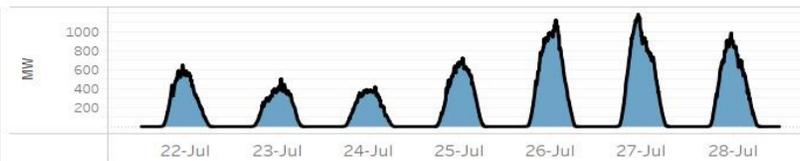
NATURAL GAS



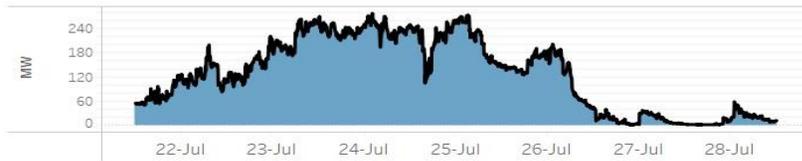
OIL-BASED



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.

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.