

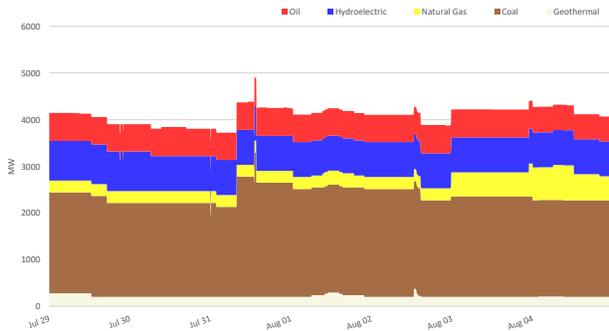
PEMC MARKET ASSESSMENT HIGHLIGHTS

- The average demand and the reserve schedule, recorded at 12,392 MW during the week of 29 Jul - 04 Aug 2024, was higher than the previous week at 11,683 MW and higher than the same week last year at 11,446 MW.
- The average effective supply during the week was 12,903 MW, higher than the 12,349 MW of the previous week and higher than the 12,261 MW during the same week last year. Ramping limitations were considered in the calculation of the effective supply.
 - The capacity on outage averaged at 4,091 MW, higher than last week's 3,371 MW. In terms of capacity on outage by plant type, about 53% of the 4,091 MW involved Coal Plants, while in terms of category, about 51% were Forced Outages.
- As a result, an average supply margin of 511 MW was observed during the week, which is lower by about 23.268% relative to the previous week and lower by about 37.299% in comparison with the same week last year. Based on MMS solution, a supply deficit was noted at 5.48 MW on 31 July 2024 at 13:55h. The average supply margin was 461.41 MW at peak intervals and 549.65 MW at off-peak intervals.
- Correspondingly, average GWAP was recorded at PHP 5,889/MWh from PHP 3,483/MWh last week. This is higher than the PHP4,184/MWh during the same week last year.
 - No secondary price cap was imposed for this week.
- The top 5 participant groups accounted for about 81% 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 –
 - SUAL CFTPP (100% of the time)
 - MASINLOC CFTPP (100% of the time)
 - GNP DINGININ CFTPP (100% of the time)
 - MARIVELES CFTPP (100% of the time)
 - ILJAN NGPP (100% of the time)
- Based on the MMS Solution, the top 5 congested equipment during the week were –
 - 138kV Maasin-Ubay Line 1 (about 35.9% of the time)
 - 230 kV Tabango_Daan Bantayan (about 7.3% of the time)
 - 138kV Barotac-Dingle Line 2 (about 5.6% of the time)
 - 138kV Barotac-Dingle Line 1 (about 5.5% of the time)
 - Calbayog_Transformer 1 (about 0.25% of the time)
- OFFER PATTERN ANALYSIS
 - The offered capacity of the coal plant was lower than the previous week due to outages that started on July 31. Additionally, the significant short drops in offered capacity on August 3 and 4 were caused by plant testing, scheduled through security limits imposed by the SO.
 - The offered capacity of the geothermal plants was lower on July 29, August 01 and 02 due to the observed increase in outages, while on July 31 and Aug 4 were due to lower offer in Makban and Leyte A.
 - The offered capacity of the hydro plants was uniform throughout the week. Approximately 45 MW to 90 MW was offered at Php 30,000 to Php 32,000 for the entire week.
 - The offered capacity of natural gas was lower than the previous week, significantly on the last two (2) days of the week due to higher outages.
 - The lowest peak in solar plant nomination was recorded on July 29, while the highest was recorded on July 31.
 - The lowest nomination by wind plants was recorded on July 31, while the highest was on July 29.

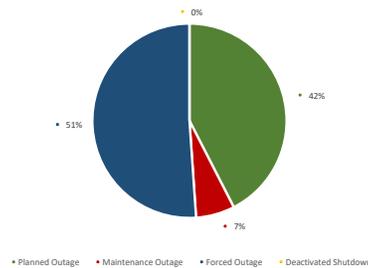
IEMOP MARKET SYSTEMS ADVISORY

- No IT-related issue was advised in IEMOP's market systems from 29 Jul -04 Aug 2024.

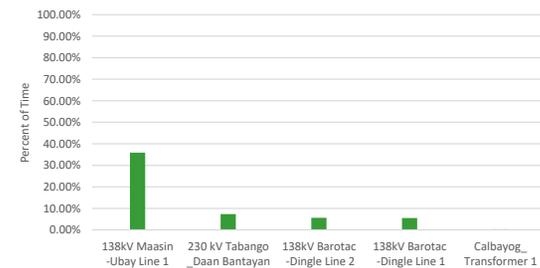
CAPACITY ON OUTAGE BY PLANT TYPE



CAPACITY ON OUTAGE BY OUTAGE CATEGORY



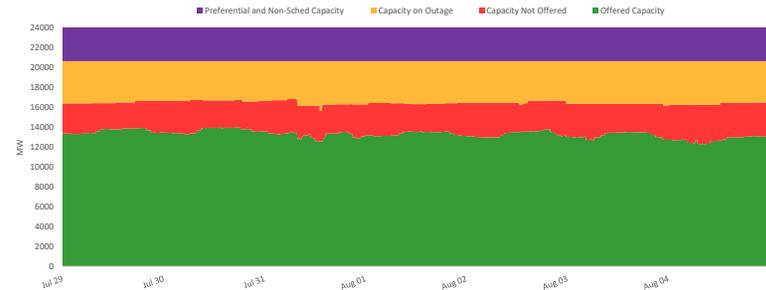
RTD CONGESTION



SUMMARY (PRICE, SUPPLY, DEMAND AND RESERVE SCHEDULE)

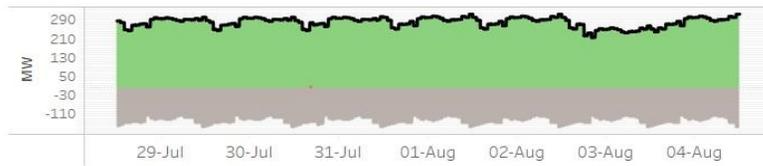
Particulars		29 Jul -04 Aug 2024	Previous Week (22 - 28 Jul 2024)	Same Week, Previous Year (31 Jul - 06 Aug 2023)	Percent Change From	
					Previous Week	Same Week, Prev Year
GWAP (PHP/MWh)	max	33,132.597	31,412.916	31,193.711	5.474%	6.216%
	min	84.932	-0.825	86.278	10k%	-1.560%
	ave	5,888.701	3,483.121	4,184.102	69.064%	40.740%
Effective Supply (MW)	max	15,380.183	14,813.663	14,215.680	3.824%	8.192%
	min	10,034.861	9,992.835	10,065.449	0.421%	-0.304%
	ave	12,903.015	12,348.623	12,261.105	4.490%	5.235%
System Demand (MW)	max	14,548.600	13,559.160	13,124.810	7.297%	10.848%
	min	8,834.570	8,504.100	8,542.170	3.886%	3.423%
	ave	11,948.376	11,071.207	11,047.178	7.923%	8.158%
Demand + Reserve Schedule (MW)	max	15,019.940	14,184.330	13,612.320	5.891%	10.341%
	min	9,346.030	9,250.540	8,901.690	1.032%	4.992%
	ave	12,392.236	11,682.953	11,446.480	6.071%	8.262%
Supply Margin (MW)	max	887.363	1,052.701	1,344.410	-15.706%	-33.996%
	min	-5.480	110.431	79.969	-104.962%	-106.853%
	ave	510.780	665.670	814.624	-23.268%	-37.299%

CAPACITY PROFILE



OFFER PATTERN ANALYSIS

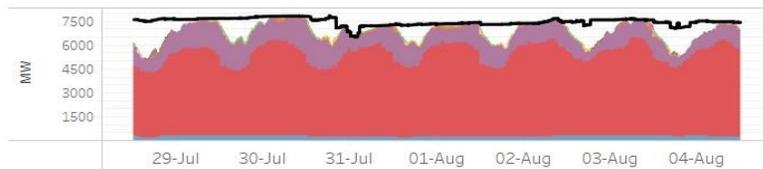
BATTERY



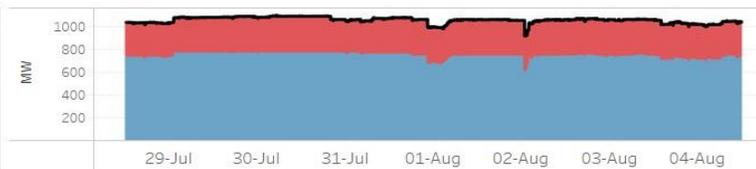
BIOFUEL



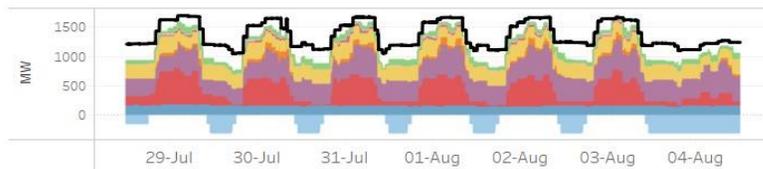
COAL



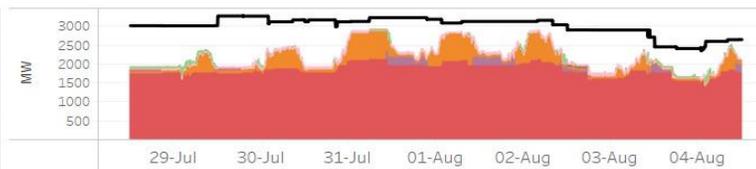
GEOHERMAL



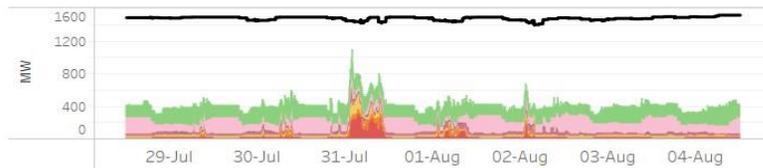
HYDRO



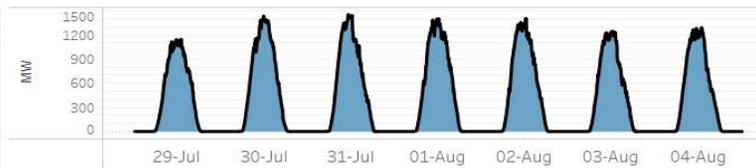
NATURAL GAS



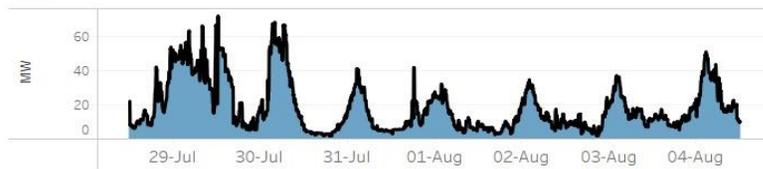
OIL-BASED



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.

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