

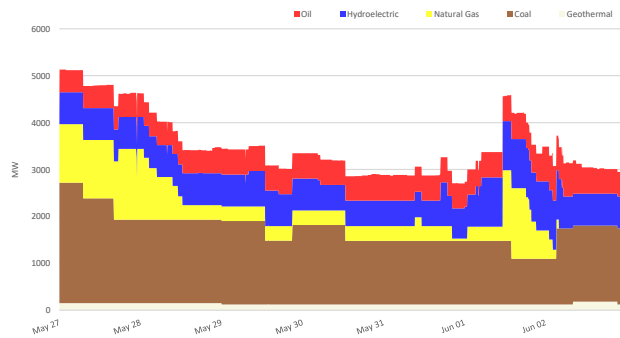
PEMC MARKET ASSESSMENT HIGHLIGHTS

- The average demand and the reserve schedule, recorded at 13,588 MW during the week of 27 May-02 Jun 2024, was lower than the previous week at 14,049 MW and higher than the same week last year at 12,606 MW.
- The average effective supply during the week was 13,827 MW, lower than the 14,369 MW of the previous week and higher than the 13,395 MW during the same week last year. Ramping limitations were considered in the calculation of the effective supply.
 - The capacity on outage averaged at 3,516 MW, higher than last week's 2,513 MW. In terms of capacity on outage by plant type, about 46% of the 3,516 MW involved Coal Plants, while in terms of category, about 85% were Forced Outages.
- As a result, an average supply margin of 239 MW was observed during the week, which is lower by about 23.684% relative to the previous week and lower by about 69.788% in comparison with the same week last year. A supply deficit was noted at 27.41 MW on May 27, 2024, at 18:20h. The average supply margin was 141.38 MW during peak intervals and 315.1 MW during off-peak intervals.
 - Correspondingly, average GWAP was recorded at PHP 8,707/MWh from PHP 8,580/MWh last week. This is higher than the PHP6,523/MWh during the same week last year.
 - The secondary price cap was imposed during 334 intervals out of the 2,016 intervals of the week (about 17% of the time).
- The top 5 participant groups accounted for about 80% of the offered capacity. The Herfindahl-Hirschman Index (HHI) by participant group indicated a partially concentrated and moderately concentrated market based on the offered and registered capacities, respectively.
- The top 5 pivotal plants during the week were –
 1. SUAL CFTPP (100% of the time)
 2. MASINLOC CFTPP (100% of the time)
 3. GNP DINGININ CFTPP (100% of the time)
 4. SMC LIMAY CFTPP (100% of the time)
 5. STA RITA NGPP (100% of the time)
- Based on the MMS Solution, the top 5 congested equipment during the week were –
 1. 138kV Maasin-Ubay Line 1 (about 22.2% of the time)
 2. 230kV Bauang-BPPC Line1 (about 7.8% of the time)
 3. Correla_Transformer 1 (about 2.3% of the time)
 4. 230 kV Tabango_Daan Bantayan (about 1.4% of the time)
 5. San Rafael_Transformer 1 (about 1.2% of the time)
- OFFER PATTERN ANALYSIS
 - The offered capacity of coal plants was lower than the previous week due to an increase in capacity on outage.
 - The offered capacity of the hydro plants was lower starting on Jun 2 due to an increase in capacity on outage.
 - Moreover, observed capacities of around 400 MW were offered at prices ranging from Php 30,000/MWh to Php 32,000/MWh for almost the entire week.
 - The lower offered capacity of natural gas plants on May 27 and Jun 01 was caused by increase in capacity on outage.
 - The lowest solar plant nomination was recorded on May 29, while the highest was recorded on Jun 01.
 - The lowest nomination by wind plants was recorded on May 30, while the highest was on May 28.

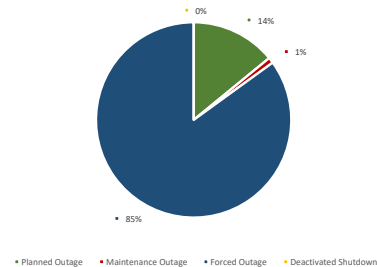
ITEMOP MARKET SYSTEMS ADVISORY

- ERC declared a Market Suspension in Luzon during red alerts caused by generation deficiency from 13:05h on May 27 to 18:00h on May 30, 2024, and from 19:05h on May 31 until the end of the week.
- Market Intervention was initiated by Visayas System Operator from 14:25h to 14:50h May 27, 2024 due to manual load dropping implementation to prevent overloading of Ubay-Maasin 138kV Line.

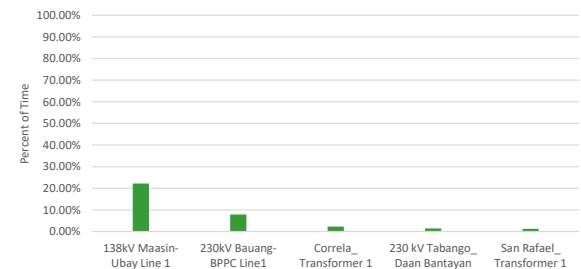
CAPACITY ON OUTAGE BY PLANT TYPE



CAPACITY ON OUTAGE BY OUTAGE CATEGORY



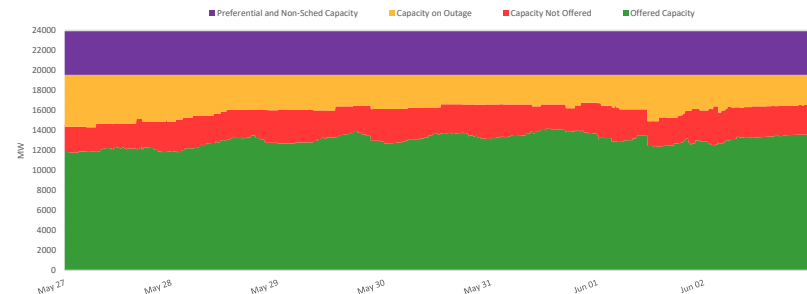
RTD CONGESTION



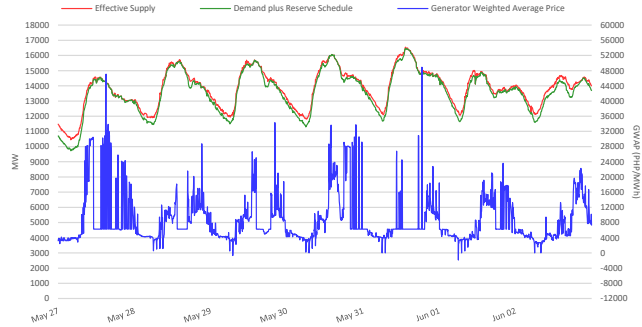
SUMMARY (PRICE, SUPPLY, DEMAND AND RESERVE SCHEDULE)

Particulars		27 May -02 Jun 2024	Previous Week (20 - 26 May 2024)	Same Week, Previous Year (29 May -04 Jun 2023)	Percent Change From	
					Previous Week	Same Week, Prev Year
GWAP (PHP/MWh)	max	48,902.837	47,076.676	32,818.574	3.879%	49.010%
	min	-1,874.750	-0.246	-979.433	-761k%	-91.412%
	ave	8,707.124	8,580.087	6,522.866	1.481%	33.486%
Effective Supply (MW)	max	16,549.031	17,359.717	15,306.912	-4.670%	8.115%
	min	10,444.468	10,602.544	11,011.864	-1.491%	-5.153%
	ave	13,826.887	14,369.106	13,395.230	-3.774%	3.222%
System Demand (MW)	max	15,819.210	16,343.110	14,263.670	-3.206%	10.906%
	min	9,136.760	9,504.760	9,403.750	-3.872%	-2.839%
	ave	13,073.242	13,329.865	12,025.596	-1.925%	8.712%
Demand + Reserve Schedule (MW)	max	16,447.080	17,320.940	15,075.260	-5.045%	9.100%
	min	9,726.590	10,218.060	9,910.030	-4.810%	-1.851%
	ave	13,588.309	14,056.334	12,605.540	-3.330%	7.796%
Supply Margin (MW)	max	842.637	961.715	1,286.102	-12.382%	-34.481%
	min	-27.410	-2.282	-0.051	-1k%	-53k%
	ave	238.578	312.772	789.691	-23.721%	-69.788%

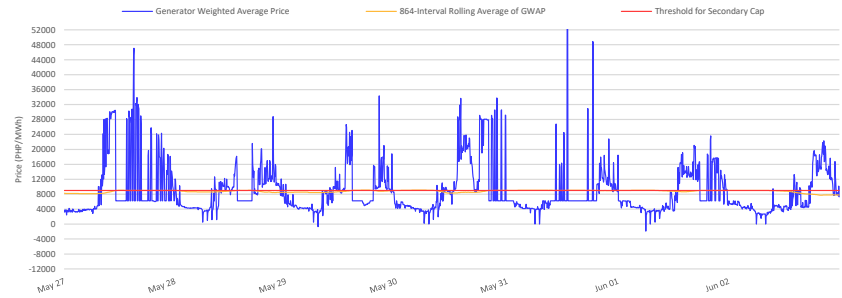
CAPACITY PROFILE



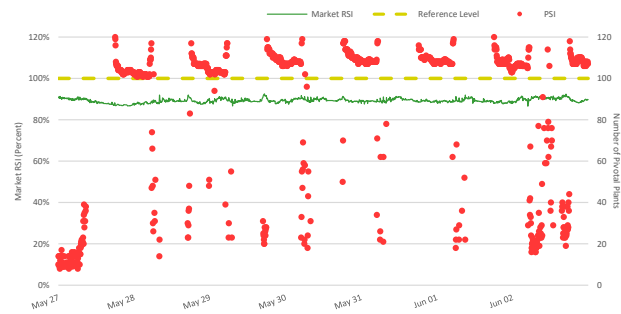
SUPPLY, DEMAND AND PRICE



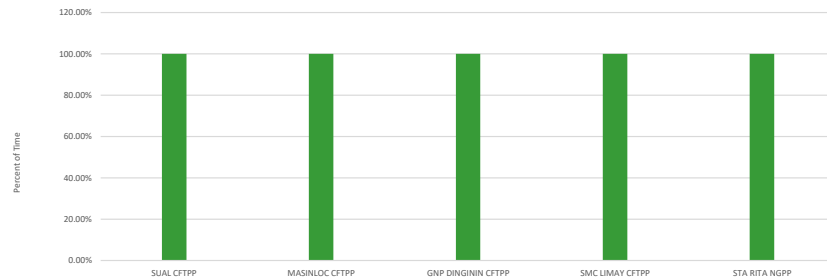
GENERATOR WEIGHTED AVERAGE PRICE



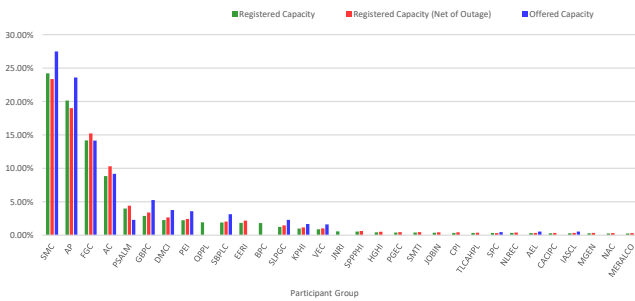
MARKET RSI VS PIVOTAL PLANTS



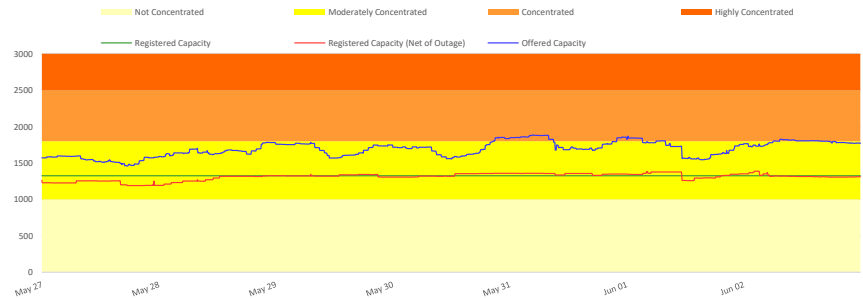
PSI



MARKET SHARE

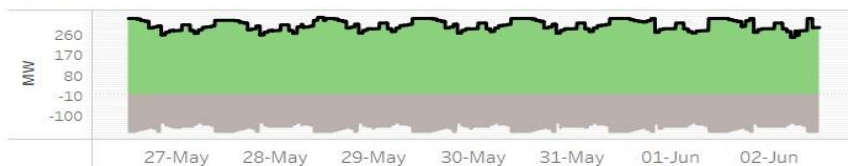


HERFINDAHL-HIRSCHMAN INDEX

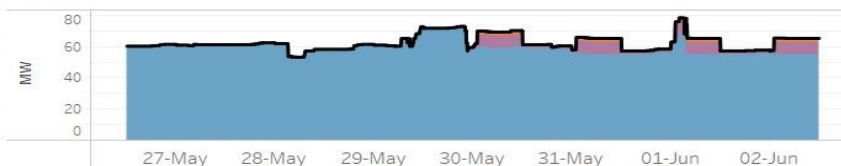


OFFER PATTERN ANALYSIS

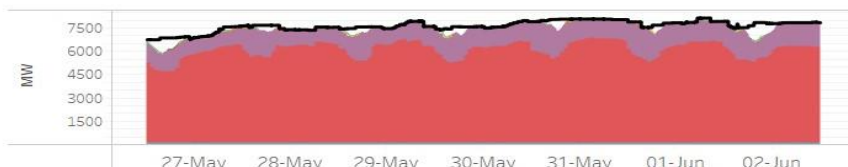
BATTERY



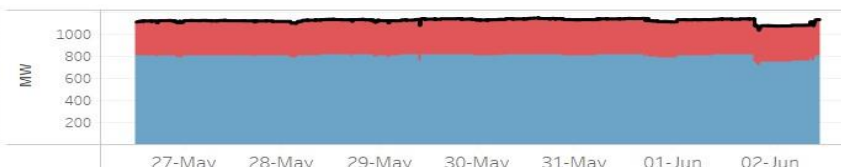
BIOFUEL



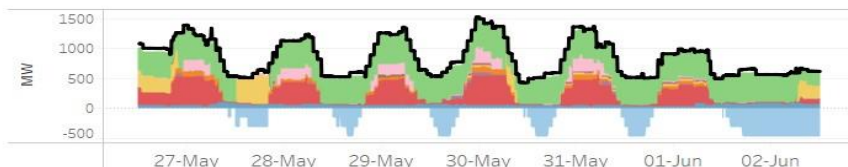
COAL



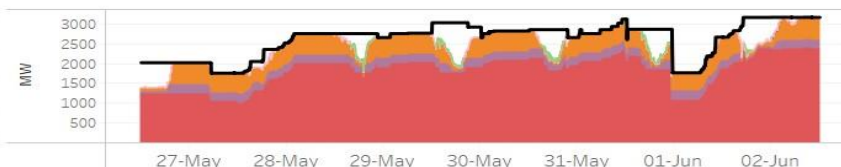
GEOTHERMAL



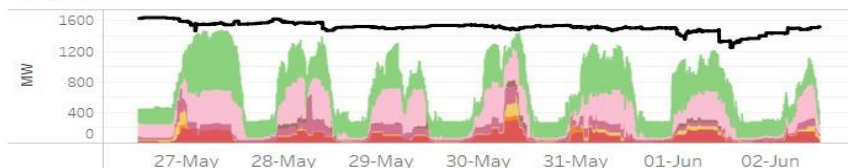
HYDRO



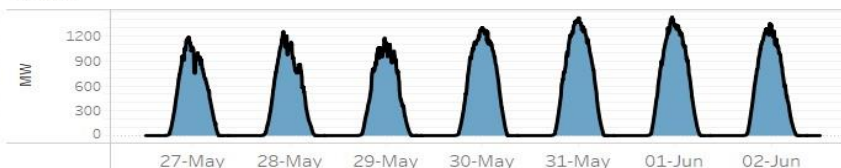
NATURAL GAS



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.

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.