Philippine Electricity Market Corporation

WEEKLY MARKET WATCH-MINDANAO

27 May -02 Jun 2024

PEMC MARKET ASSESSMENT HIGHLIGHTS

· The average demand and the reserve schedule, recorded at 2,813 MW during the week of 27 May-02 Jun 2024, was higher than the previous week at 2,603 MW.

· The average effective supply during the week was 3,009 MW, higher than the 2,793 MW of the previous week. Ramping limitations were considered in the calculation of the effective supply.

· The capacity on outage averaged at 155 MW, lower than last week's 323 MW. In terms of capacity on outage by plant type, about 73% of the 155 MW involved Hydroelectric Plants, while in terms of outage by category, about 100% were Forced Outages.

· As a result, an average supply margin of 196 MW was observed during the week, which is higher by about 4% relative to the previous week. The thinnest supply margin based on MMS solution was 53.6 MW on 27 May 2024 13:30h. The average supply margin was 153.01 MW at peak intervals and 230.01 MW at off-peak intervals.

· Correspondingly, average GWAP was recorded at PHP 6,048/MWh from PHP 4,852/MWh last week.

· No secondary price cap was imposed for this week

· The top 5 participant groups accounted for about 75% 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 –

1. FDC MISAMIS CFTPP (about 99.85% of the time)
2. GN POWER KAUSWAGAN CFTPP (about 99.65% of the time)
3. MALITA CFTPP (about 97.57% of the time)
4. THERMA SOUTH CFTPP (about 95.73% of the time)
5. SARANGANI CFTPP (about 53.47% of the time)

· Based on the MMS Solution, the top 5 congested equipment during the week was Placer_Transformer 2 (about 1.4% of the time)

· OFFER PATTERN ANALYSIS

- The offered capacity of coal plants was lower on May 27 due to an increase in capacity on outage.
- The offered capacity of hydro plants was higher than the previous week due to the resumption of other hydro plants. However, the days with lower offer in the current week was caused by outages. Additionally, around 30 MW were being offered at prices ranging from Php 30,000/MWh to Php 32,000/MWh.
- The offered capacity of geothermal plants on May 31 and June 1 was lower due to outages and the lower offer from a geothermal plant, respectively. Moreover, for the entire week, the offered price was only Php 0 or below.
- The lowest solar plant nomination was recorded on Jun 01, while the highest was recorded on May 28.

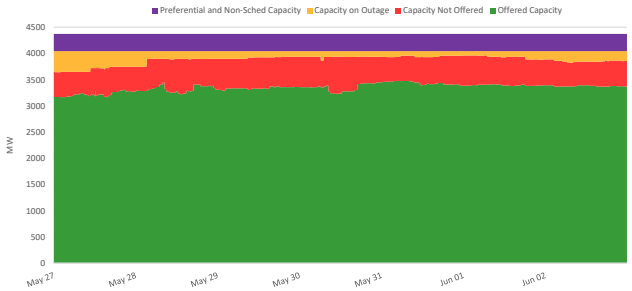
IEMOP MARKET SYSTEMS ADVISORY

- ERC declared a Market Suspension in Luzon during red alerts caused by generation deficiency from 13:05h May 27 to 18:00h May 30, 2024, and from 19:05h May 31 to 00:40h June 3, 2024.
- Market Intervention was initiated by 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.

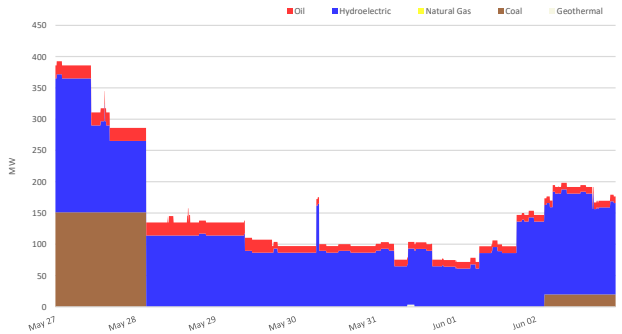
SUMMARY (PRICE, SUPPLY, DEMAND AND RESERVE SCHEDULE)

Particulars		27 May -02 Jun 2024	Previous Week (20 - 26 May 2024)	Percent Change
GWAP (PHP/MWh)	max	30,285.894	27,698.412	9.342%
	min	-0.002	0.000	-
	ave	6,047.890	4,852.464	24.635%
Effective Supply (MW)	max	3,439.430	3,250.757	5.804%
	min	2,374.003	2,270.231	4.571%
	ave	3,009.317	2,793.485	7.726%
System Demand (MW)	max	2,673.980	2,743.630	-2.539%
	min	1,617.880	1,637.700	-1.210%
	ave	2,160.654	2,166.386	-0.265%
Demand + Reserve Schedule (MW)	max	3,339.080	3,161.460	5.618%
	min	2,108.270	1,987.320	6.086%
	ave	2,813.219	2,604.632	8.008%
Supply Margin (MW)	max	435.131	360.161	20.816%
	min	53.599	56.937	-5.863%
	ave	196.098	188.853	3.836%

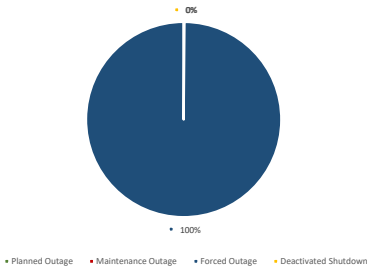
CAPACITY PROFILE



CAPACITY ON OUTAGE BY PLANT TYPE

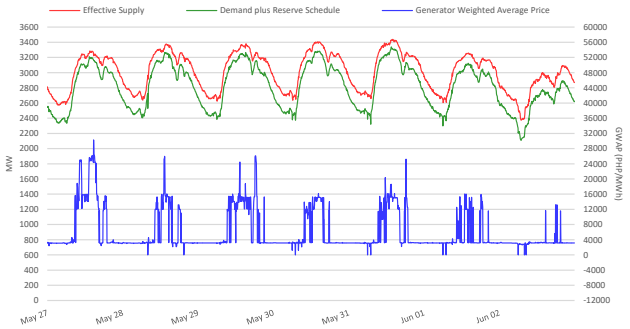


CAPACITY ON OUTAGE BY OUTAGE CATEGORY

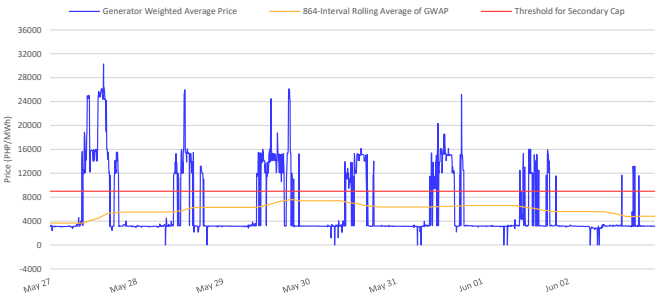


RTD CONGESTION

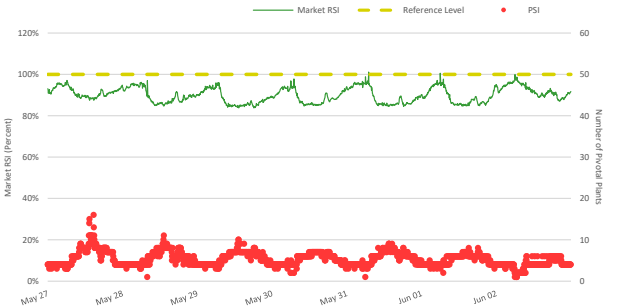
SUPPLY, DEMAND AND PRICE



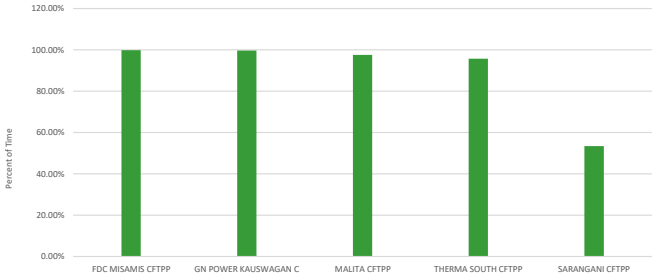
GENERATOR WEIGHTED AVERAGE PRICE



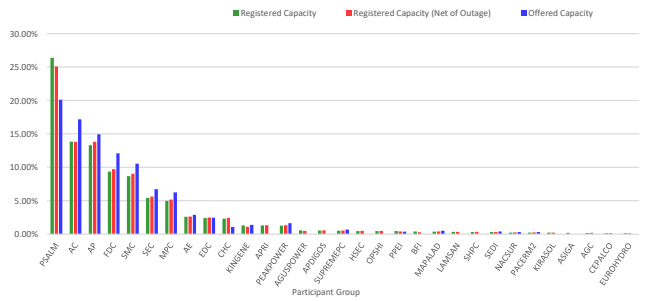
MARKET RSI VS PIVOTAL PLANTS



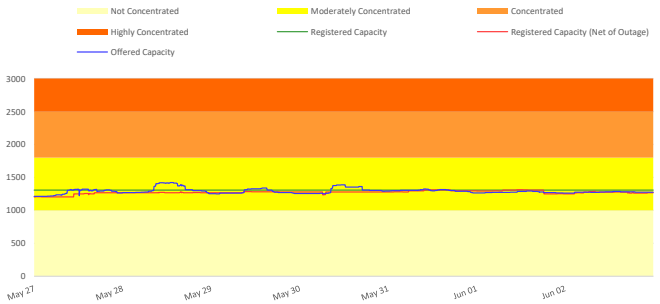
PSI



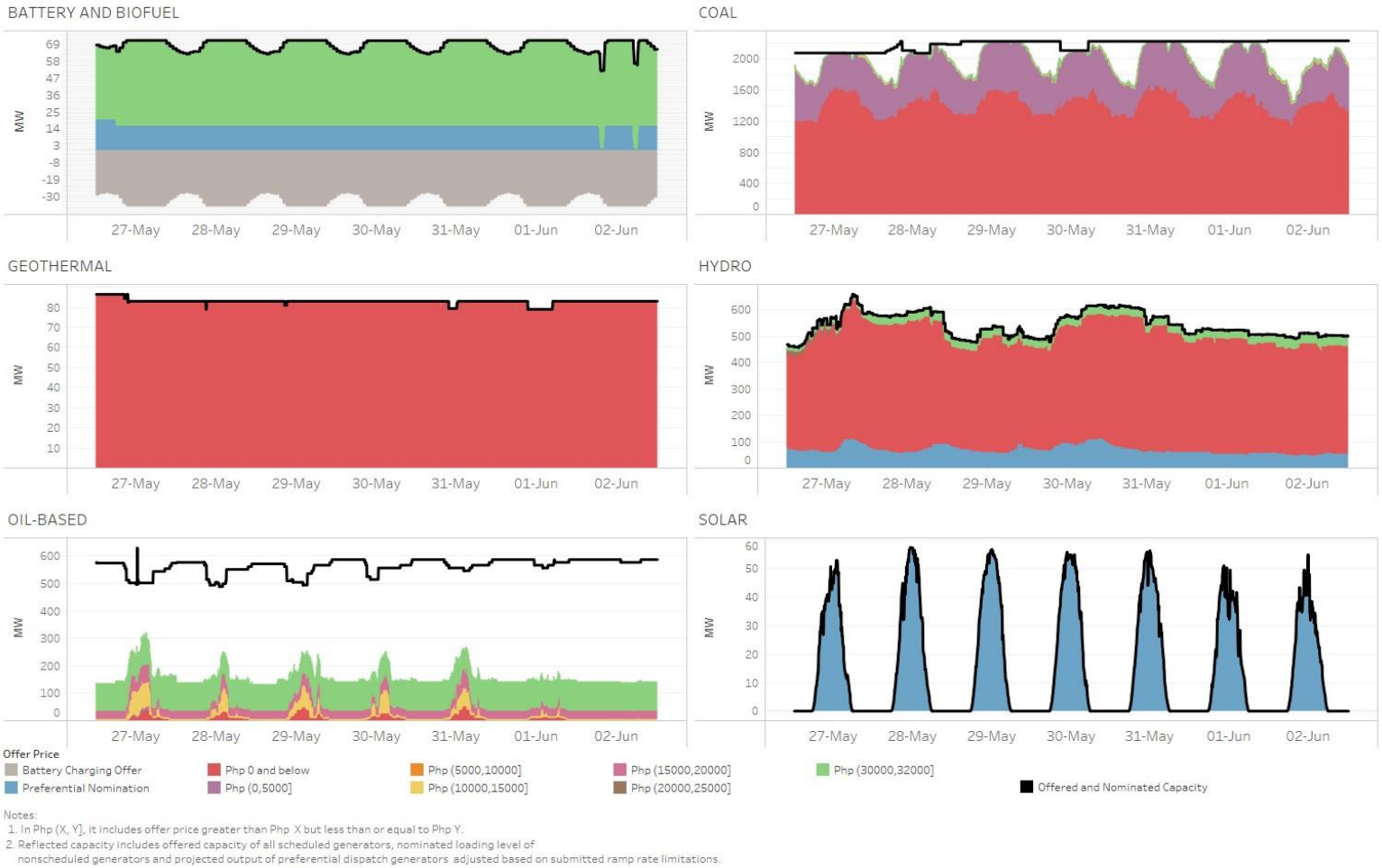
MARKET SHARE



HERFINDAHL-HIRSCHMAN INDEX



OFFER PATTERN ANALYSIS



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.