Philippine Electricity Market Corporation

WEEKLY MARKET WATCH- LUZON-VISAYAS

06 - 12 May 2024

PEMC MARKET ASSESSMENT HIGHLIGHTS

· The average demand and the reserve schedule, recorded at 14,422 MW during the week of 06 - 12 May 2024, was higher than the previous week at 14,227 MW and higher than the same week last year at 12,898 MW.

· The average effective supply during the week was 14,993 MW, higher than the 14,759 MW of the previous week and higher than the 13,542 MW during the same week last year. Ramping limitations were considered in the calculation of the effective supply.
  · The capacity on outage averaged at 2,243 MW, higher than last week's 2,128 MW. In terms of capacity on outage by plant type, about 43% of the 2,243 MW involved Coal Plants, while in terms of category, about 77% were Forced Outages.

· As a result, an average supply margin of 571 MW was observed during the week, which is higher by about 7% relative to the previous week and lower by about 11.353% in comparison with the same week last year. The thinnest supply margin based on MMS solution was 4.86 MW on 08 May 2024 14:05h. The average supply margin was 548.31 MW at peak intervals and 589.41 MW at off-peak intervals.

· Correspondingly, average GWAP was recorded at PHP 7,309/MWh from PHP 6,809/MWh last week. This is lower than the PHP7,984/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 concentrated concentrated and moderately concentrated market based on the offered and registered capacities, respectively.

· The top 5 pivotal plants during the week were –
1. GNP DINGININ CFTPP (100% of the time)
2. ILIJAN NGPP (100% of the time)
3. STA RITA NGPP (about 99.85% of the time)
4. MARIVELES CFTPP (about 98.51% of the time)
5. SUAL CFTPP (about 97.77% of the time)

· Based on the MMS Solution, the top 5 congested equipment during the week were –
1. 138kV Maasin-Ubay Line 1 (about 49.6% of the time)
2. 138kV Cebu -Mandaue Line 2 (about 24.6% of the time)
3. 138kV Barotac -Dingle Line 2(about 7.1% of the time)
4. 230kV Bauang-BPPC Line1 (about 3.8% of the time)
5. 230kV Bauang-Latrinidad Line1(about 1.4% of the time)

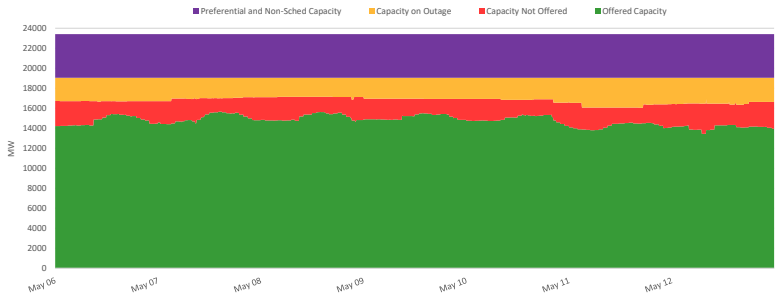
· OFFER PATTERN ANALYSIS
- The offered capacity in coal plants was lower than the previous week due to an increase in capacity outage, as indicated in the capacity outage chart and Offer Pattern Analysis, which started from the late evening on May 10 and continued until the end of the week. The sudden 3-hour drop in offered capacity on May 12 was caused by the testing of Coal Plants, scheduled thru the security limits imposed by SO.
- The offered capacity of the Hydro Plants was slightly higher than the previous week due to a decrease in outages. Moreover, observed capacities ranging from 100 to 400 MW were offered at prices ranging from Php 30,000/MWh to Php 32,000/MWh for almost the entire week, except on Sunday.
- The lower offered capacity in Natural Gas Plants on May 6 and 12 was caused by an increase in capacity on outage and commercial testing of a Natural Gas Plant, respectively, scheduled thru the security limits imposed by SO.
- The lowest Solar Plant nomination was recorded on May 11, while the highest was recorded on May 07.
- The lowest nomination for Wind Plants was recorded on May 06, while the highest was on May 09.

IEMOP MARKET SYSTEMS ADVISORY
· SO initiated Market Intervention for Visayas Region effective 08:20h to 09:20h and 12:55h to 15:20h, May 7, 2024, due to (MLD) Manual Load Dropping implementation to prevent overloading of Cebu-Mandaue 138kV Line 2.

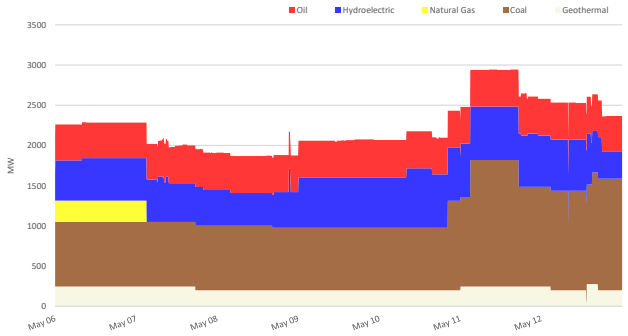
SUMMARY (PRICE, SUPPLY, DEMAND AND RESERVE SCHEDULE)

Particulars		06 - 12 May 2024	Previous Week (29 Apr - 05 May 2024)	Same Week, Previous Year (08 - 14 May 2023)	Percent Change From	
					Previous Week	Same Week, Prev Year
GWAP (PHP/MWh)	max	32,740.586	32,000.000	34,567.558	2.314%	-5.285%
	min	0.000	-9,947.430	0.000	100.000%	-
	ave	7,309.472	6,809.057	7,984.042	7.349%	-8.449%
Effective Supply (MW)	max	17,821.817	17,679.401	15,430.935	0.806%	15.494%
	min	11,966.882	11,743.256	11,549.138	1.904%	3.617%
	ave	14,993.150	14,758.770	13,542.297	1.588%	10.713%
System Demand (MW)	max	16,479.320	16,576.650	14,853.560	-0.587%	10.945%
	min	10,602.610	10,381.560	9,953.160	2.129%	6.525%
	ave	13,733.967	13,608.206	12,387.297	0.924%	10.871%
Demand + Reserve Schedule (MW)	max	17,415.380	17,365.150	15,264.150	0.289%	14.093%
	min	11,193.020	11,025.030	10,497.160	1.524%	6.629%
	ave	14,421.845	14,226.822	12,897.827	1.371%	11.816%
Supply Margin (MW)	max	978.375	1,012.925	1,205.662	-3.411%	-18.852%
	min	4.861	42.940	-596.217	-88.680%	100.815%
	ave	571.306	531.948	644.471	7.399%	-11.353%

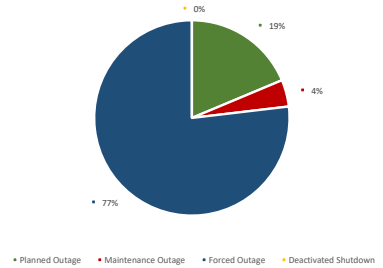
CAPACITY PROFILE



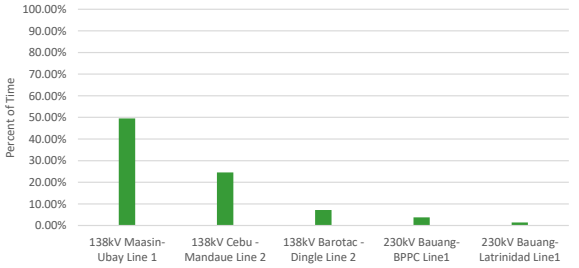
CAPACITY ON OUTAGE BY PLANT TYPE



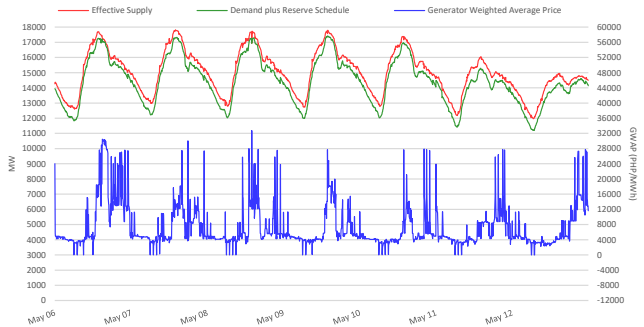
CAPACITY ON OUTAGE BY OUTAGE CATEGORY



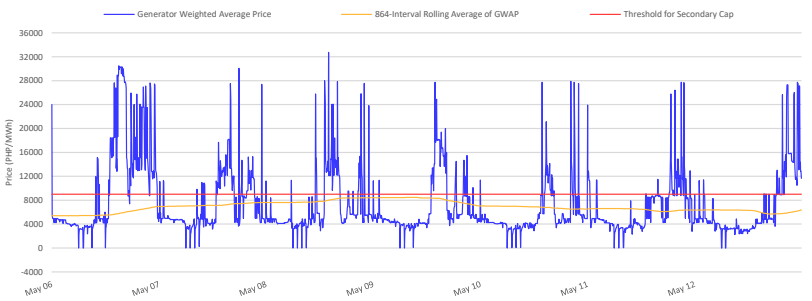
RTD CONGESTION



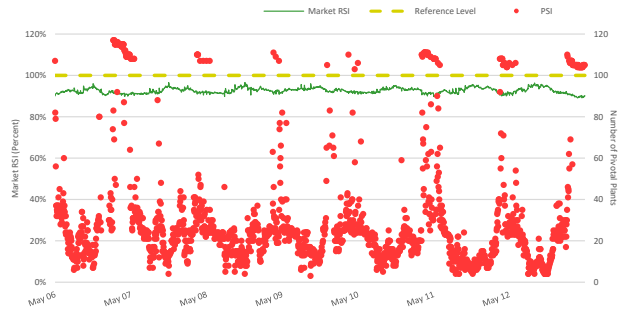
SUPPLY, DEMAND AND PRICE



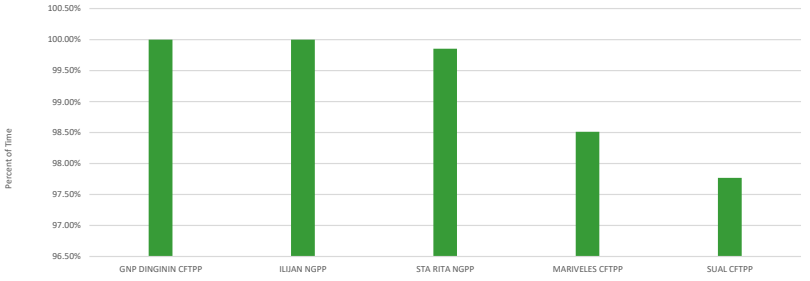
GENERATOR WEIGHTED AVERAGE PRICE



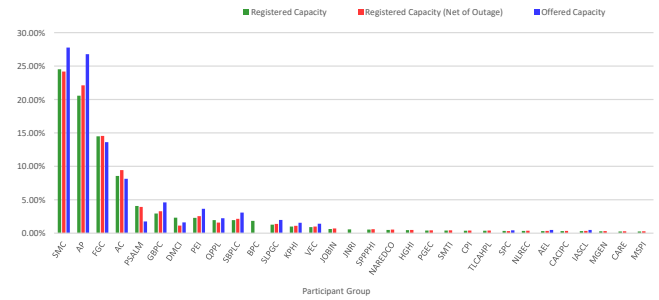
MARKET RSI VS PIVOTAL PLANTS



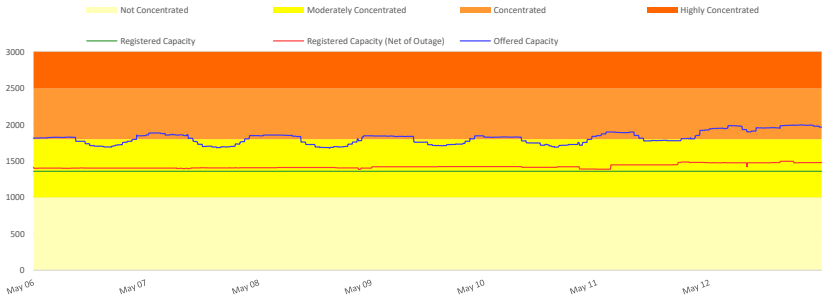
PSI



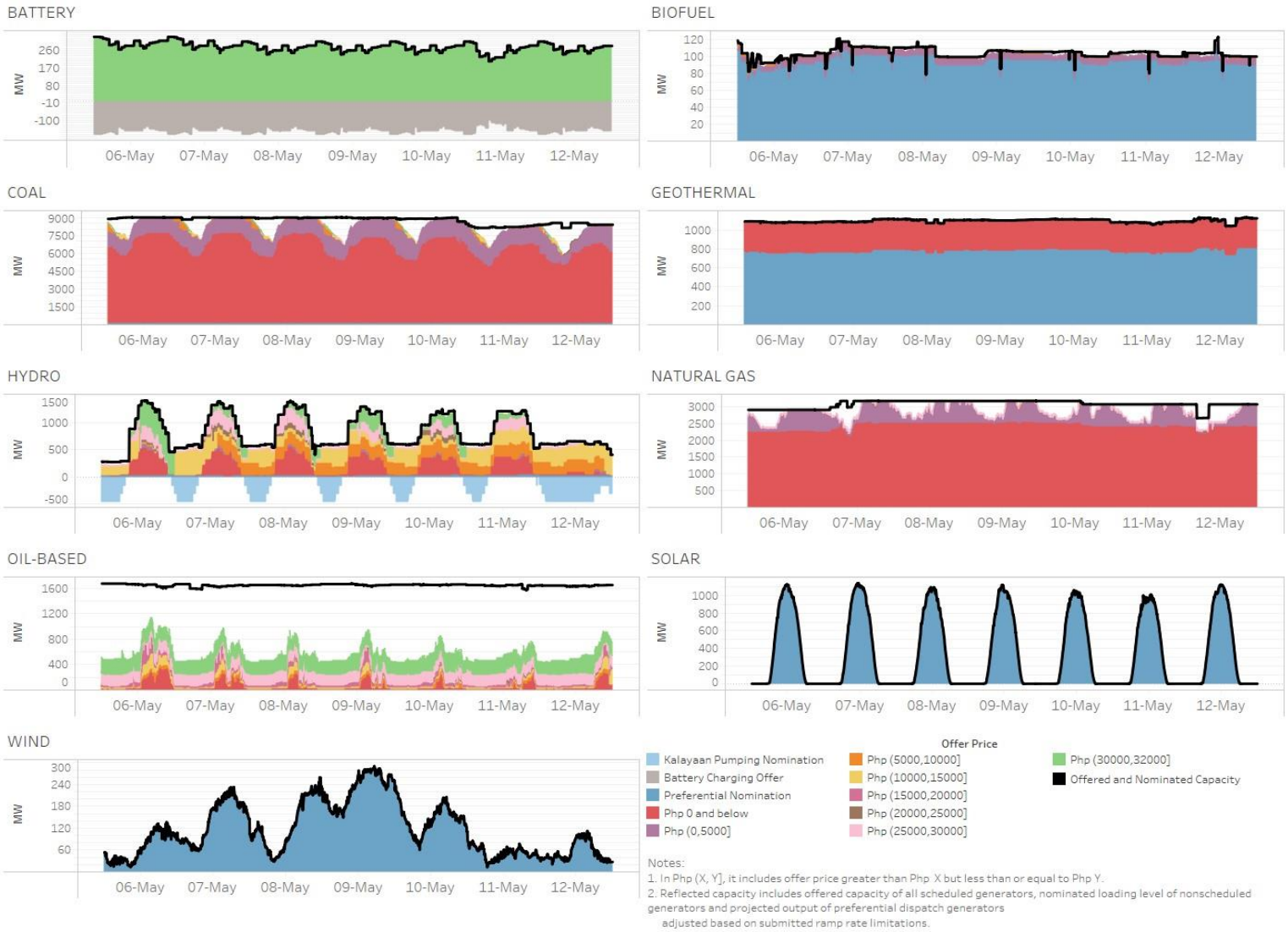
MARKET SHARE



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.