Philippine Electricity Market Corporation

WEEKLY MARKET WATCH- LUZON-VISAYAS

30 Oct -05 Nov 2023

PEMC MARKET ASSESSMENT HIGHLIGHTS

· The average demand and the reserve schedule, recorded at 11,193 MW during the week of 30 Oct -05 Nov 2023, was lower than the previous week at 12,164 MW and higher than the same week last year at 10,669 MW.

· The average effective supply during the week was 12,019 MW, lower than the 13,006 MW of the previous week and higher than the 11,065 MW during the same week last year. Ramping limitations were considered in the calculation of the effective supply.
· The capacity on outage averaged at 2,430 MW, higher than last week's 1,942 MW. About 58% of the 2,430 MW involved Coal plants, while in terms of category, about 44% were Planned Outages.

· As a result, an average supply margin of 826 MW was observed during the week, which is lower by about 1.95% relative to the previous week and higher by about 108% in comparison with the same week last year. The thinnest supply margin based on MMS solution was 90 MW on 05 November 2023 21:05 . The average supply margin was 780.88 MW at peak intervals and 841.77 MW at off-peak intervals.

· Correspondingly, average GWAP was recorded at PHP 3,577/MWh from PHP 3,858/MWh last week. This is lower than the PHP7,118/MWh during the same week last year.
· No secondary price cap was imposed for this week

· The top 5 participant groups accounted for about 80% 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 5 pivotal plants during the week were –

1. GNP DINGININ CFTPP (about 88.79% of the time)
2. ILIJAN NGPP (about 67.01% of the time)
3. STA RITA NGPP (about 58.53% of the time)
4. MARIVELES CFTPP (about 45.63% of the time)
5. PAGBILAO CFTPP (about 33.48% of the time)

· Based on the MMS Solution, the congested equipment during the week were –

1. 138kV Maasin-Ubay Line 1 (about 11.5% of the time)
2. 138kV Samboan-Amlan Line1 (about 9.8% of the time)
3. MAKBAN-B_Transformer 4 (0.05% of the time)

· OPA_ANALYSIS
- Battery had some capacity offered at price range of Php 0/MWh and below on October 30 to November 4. There was also an observed sudden decrease in offered capacity on November 1 & 3.
- Coal plants offered lower capacity compare to previous week due to outages.
- Natural gas plants had higher offered capacity relative to previous week due to lower outages.
- Solar plants' lowest nomination was recorded on November 1 and highest on Novembre 3.
- Wind plants' highest on October 31 and lowest nomination was recorded on November 5.

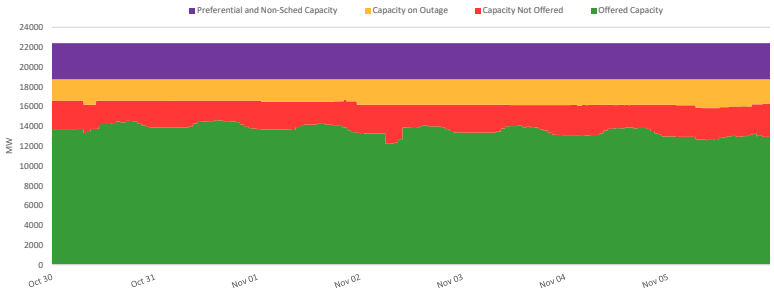
IEMOP MARKET SYSTEMS ADVISORY

· No IT-related issue was advised in IEMOP's market systems from 30 Oct -05 Nov 2023.

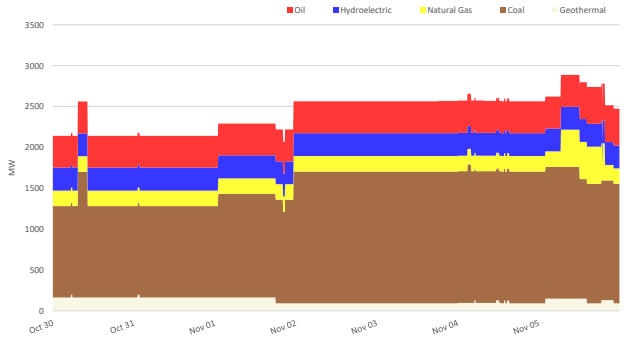
SUMMARY (PRICE, SUPPLY, DEMAND AND RESERVE SCHEDULE)

Particulars		30 Oct -05 Nov 2023	Previous Week (23 - 29 Oct 2023)	Same Week, Previous Year (31 Oct -06 Nov 2022)	Percent Change From	
					Previous Week	Same Week, Prev Year
GWAP (PHP/MWh)	max	32,028.409	31,298.534	33,089.913	2.33%	-3.21%
	min	-4,943.843	-1.001	12.451	-494k%	-39k%
	ave	3,576.925	3,858.228	7,118.115	-7.29%	-49.75%
Effective Supply (MW)	max	15,032.185	15,431.756	13,814.192	-2.59%	8.82%
	min	9,622.770	10,756.095	8,562.502	-10.54%	12.38%
	ave	12,018.963	13,006.225	11,064.932	-7.59%	8.62%
System Demand (MW)	max	13,397.140	13,965.480	12,621.130	-4.07%	6.15%
	min	7,793.920	9,086.000	7,594.120	-14.22%	2.63%
	ave	10,432.386	11,516.421	9,889.819	-9.41%	5.49%
Demand + Reserve Schedule (MW)	max	14,248.660	14,882.120	13,482.180	-4.26%	5.69%
	min	8,676.260	9,545.400	8,163.840	-9.11%	6.28%
	ave	11,193.139	12,164.008	10,668.745	-7.98%	4.92%
Supply Margin (MW)	max	1,566.862	1,373.619	1,058.832	14.07%	47.98%
	min	89.996	126.380	2.498	-28.79%	3.5k%
	ave	825.824	842.216	396.187	-1.95%	108.44%

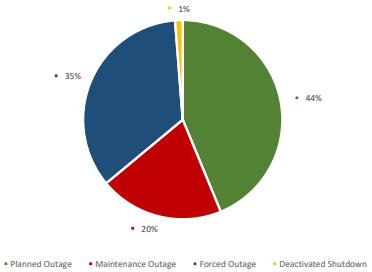
CAPACITY PROFILE



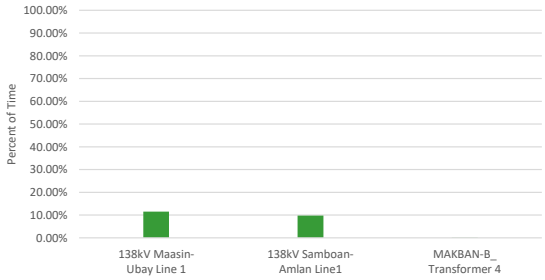
CAPACITY ON OUTAGE BY PLANT TYPE



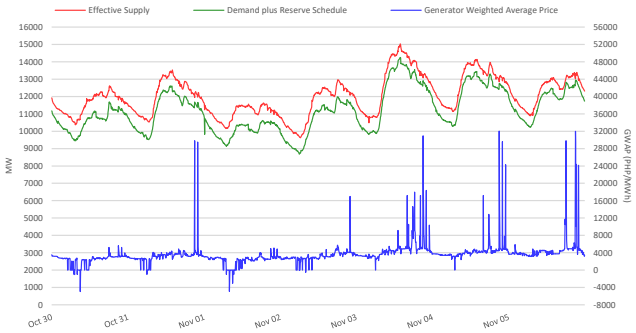
CAPACITY ON OUTAGE BY OUTAGE CATEGORY



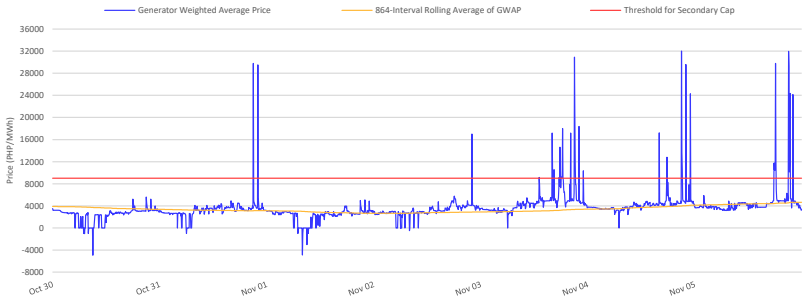
RTD CONGESTION



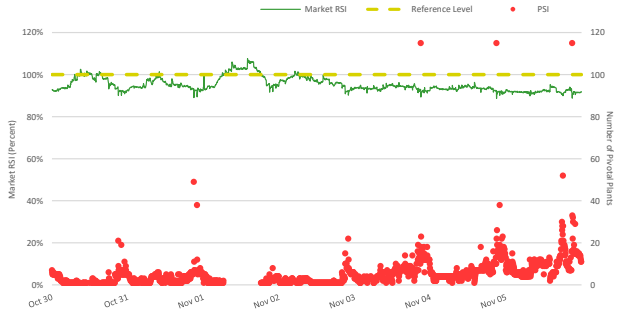
SUPPLY, DEMAND AND PRICE



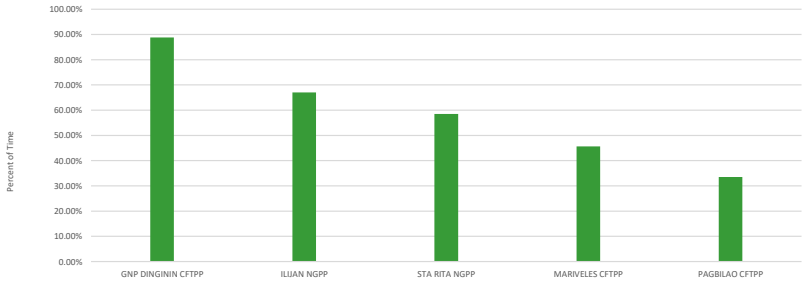
GENERATOR WEIGHTED AVERAGE PRICE



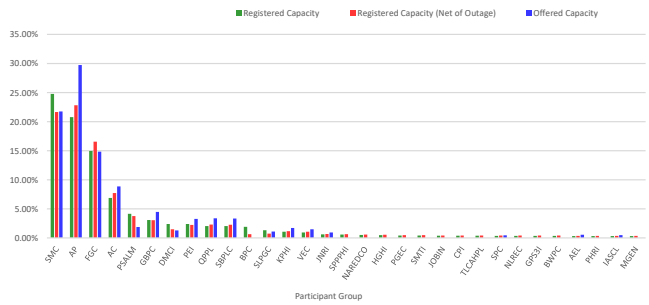
MARKET RSI VS PIVOTAL PLANTS



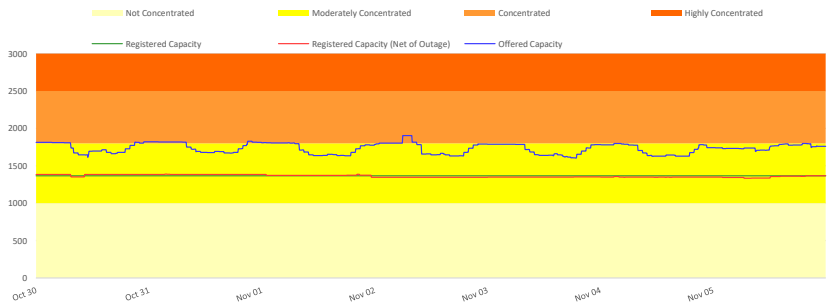
PSI



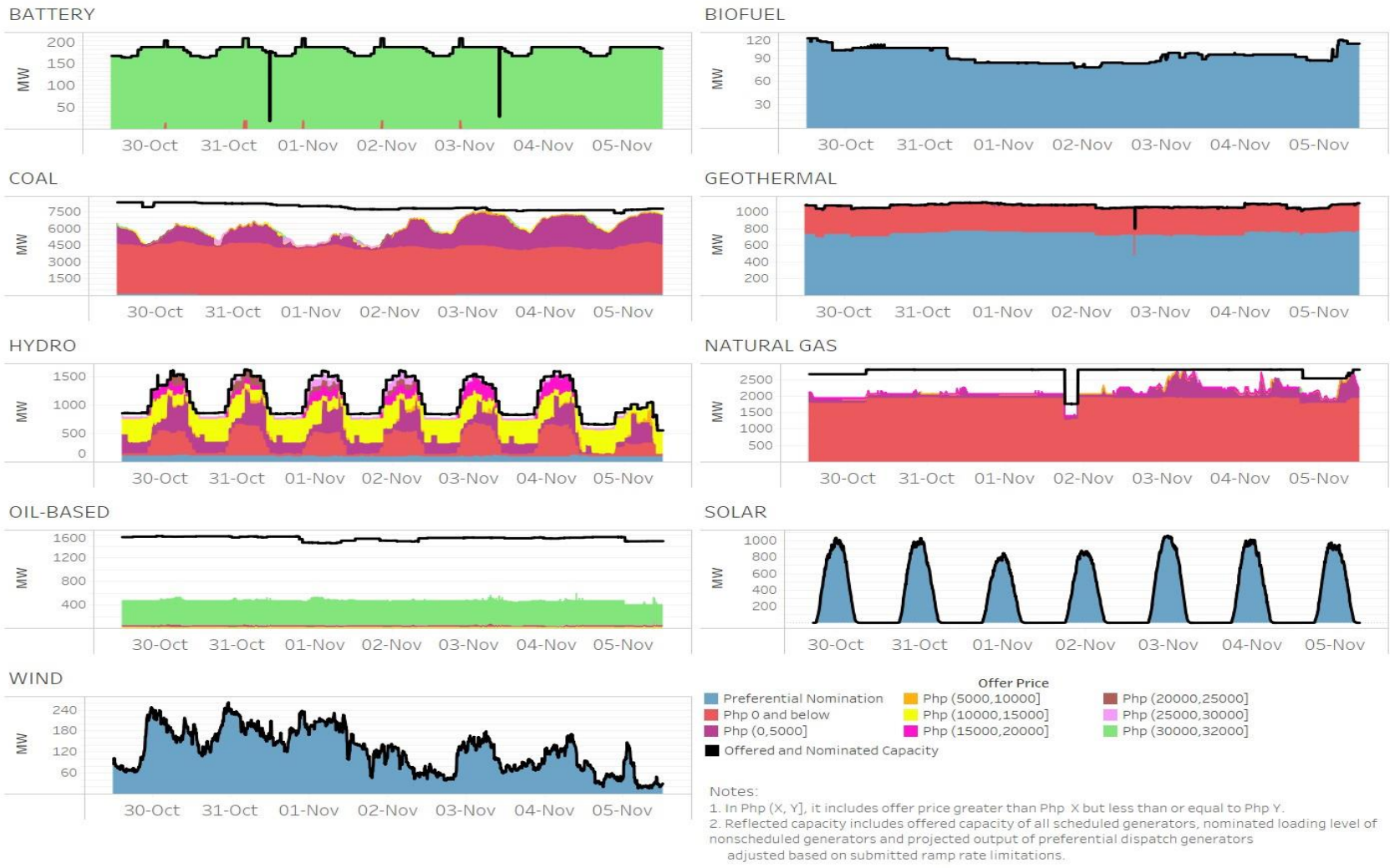
MARKET SHARE



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.