

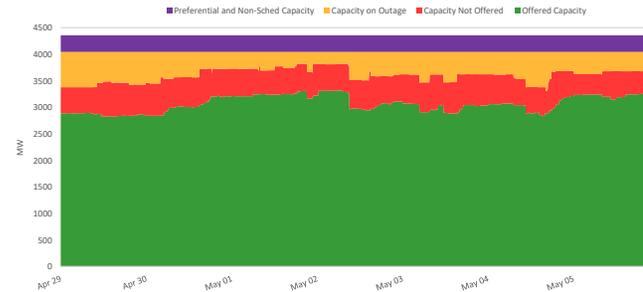
**PEMC MARKET ASSESSMENT HIGHLIGHTS**

- The average demand and the reserve schedule, recorded at 2,573 MW during the week of 29 Apr-05 May 2024, was lower than the previous week at 2,591 MW.
- The average effective supply during the week was 2,739 MW, lower than the 2,749 MW of the previous week. Ramping limitations were considered in the calculation of the effective supply.
  - The capacity on outage averaged at 438 MW, lower than last week's 594 MW. In terms of capacity on outage by plant type, about 65% of the 438 MW involved Hydroelectric Plants, while in terms of outage by category, about 82% were Forced Outages.
- As a result, an average supply margin of 166 MW was observed during the week, which is higher by about 5% relative to the previous week. The supply deficit based on MMS solution was 29.5 MW on 30 April 2024 18:30h. The average supply margin was 123.52 MW at peak intervals and 192.19 MW at off-peak intervals.
- Correspondingly, average GWAP was recorded at PHP 6,465/MWh from PHP 8,821/MWh last week.
  - The secondary price cap was imposed during 73 intervals out of the 2,016 intervals of the week (about 4% of the time).
- The top 5 participant groups accounted for about 72% 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 99.6% of the time)
  2. GN POWER KAUSWAGAN CFTPP (about 99.06% of the time)
  3. MALITA CFTPP (about 88.74% of the time)
  4. SARANGANI CFTPP (about 75.94% of the time)
  5. THERMA SOUTH CFTPP (about 71.38% of the time)
- Based on the MMS Solution, the congested equipment during the week were –
  1. Placer\_Transformer 2 (0.99% of the time)
  2. Kidapawan\_Transformer 1(0.5% of the time)
  3. 138 kV Villanueva\_Jasaan Line 2 (0.3% of the time)
- OFFER PATTERN ANALYSIS
  - The offered capacity of coal plants on April 29 & 30, and May 2 to 4 was lower due to an increase in capacity on outage.
  - The offered capacity of hydro plants from April 29 to May 1, and from May 3 to 5, was lower due to an increase in outages.
  - The offered capacity in geothermal plants for this week was lower than the previous week due to a slight increase in outages.
  - Moreover, for the entire week, the offered price was only Php 0 or below.
  - The lowest Solar Plant nomination was recorded on April 30, while the highest was recorded on May 03.
- IEMOP MARKET SYSTEMS ADVISORY
  - SO initiated market intervention for the Visayas Region from 13:40h to 14:05h on April 30, 2024 due to manual load dropping implementation to prevent overloading of Cebu-Mandaue 138kV Line.

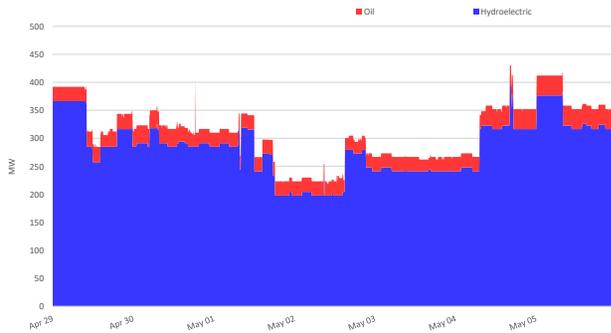
**SUMMARY (PRICE, SUPPLY, DEMAND AND RESERVE SCHEDULE)**

Particulars		29 Apr -05 May 2024	Previous Week (22 - 28 Apr 2024)	Percent Change
GWAP (PHP/MWh)	max	46,884.737	39,948.425	17.363%
	min	-9,642.421	-1.014	-950k%
	ave	6,465.226	8,678.253	-25.501%
Effective Supply (MW)	max	3,115,045	3,216,900	-3.166%
	min	2,179,150	2,129,557	2.329%
	ave	2,738.556	2,749.303	-0.391%
System Demand (MW)	max	2,684.050	2,671.370	0.475%
	min	1,585.550	1,660.760	-4.529%
	ave	2,095.899	2,196.905	-4.598%
Demand + Reserve Schedule (MW)	max	2,989.920	3,182.630	-6.055%
	min	1,904.480	1,886.150	0.972%
	ave	2,572.528	2,591.467	-0.731%
Supply Margin (MW)	max	413.224	434.430	-4.881%
	min	-29.500	-20.040	-47.206%
	ave	166.029	157.836	5.191%

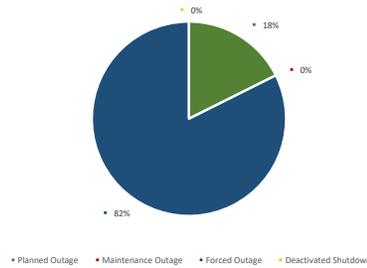
**CAPACITY PROFILE**



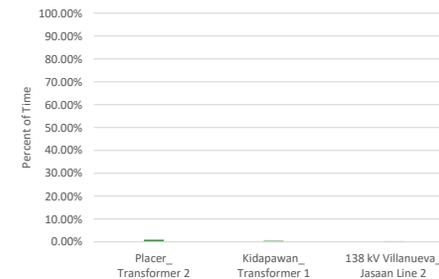
**CAPACITY ON OUTAGE BY PLANT TYPE**



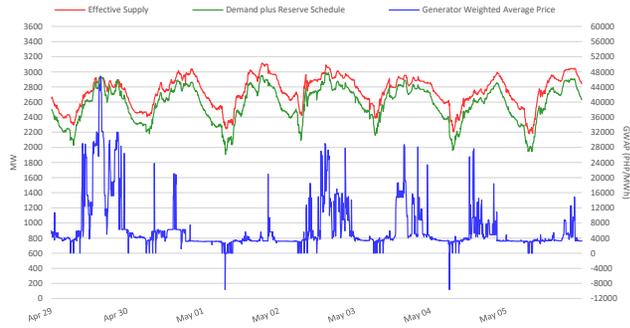
**CAPACITY ON OUTAGE BY OUTAGE CATEGORY**



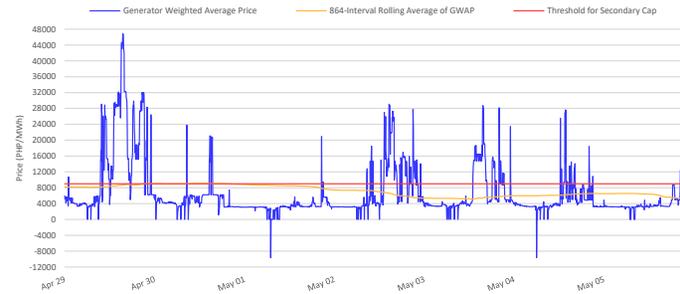
**RTD CONGESTION**



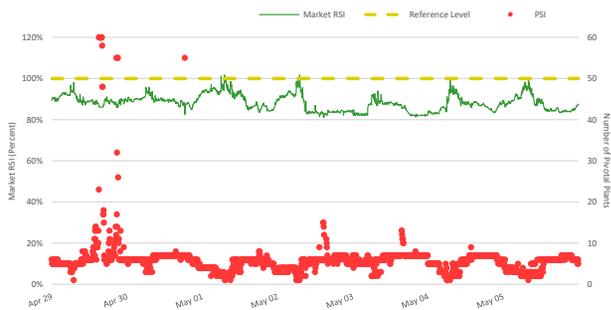
**SUPPLY, DEMAND AND PRICE**



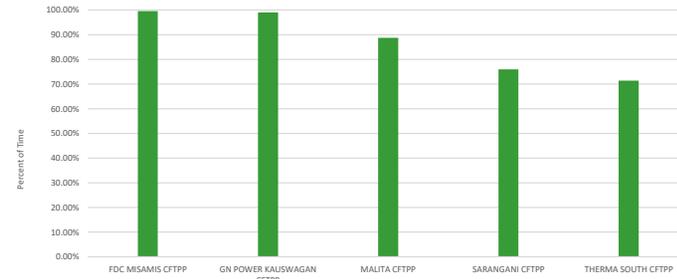
**GENERATOR WEIGHTED AVERAGE PRICE**



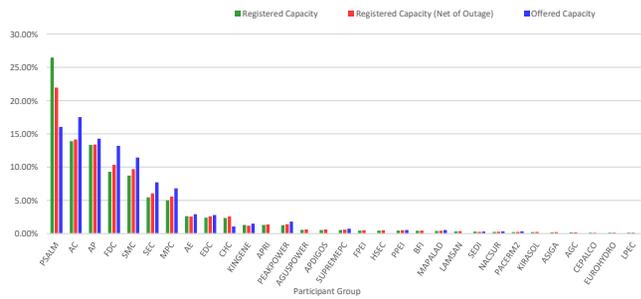
**MARKET RSI VS PIVOTAL PLANTS**



**PSI**



**MARKET SHARE**

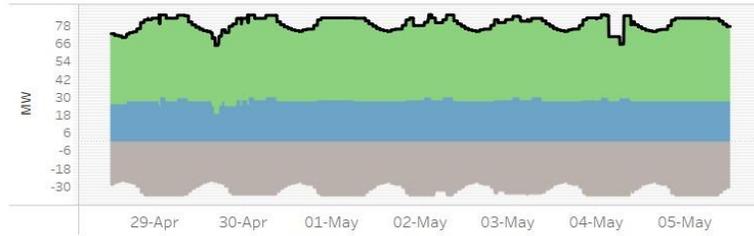


**HERFINDAHL-HIRSCHMAN INDEX**

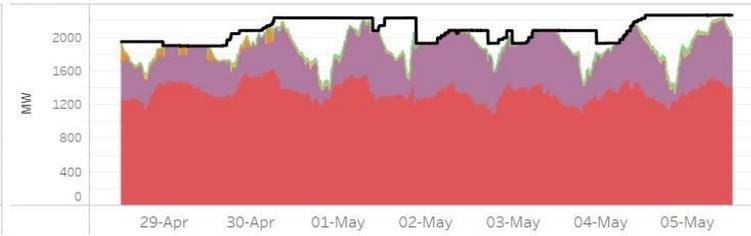


**OFFER PATTERN ANALYSIS**

**BATTERY AND BIOFUEL**



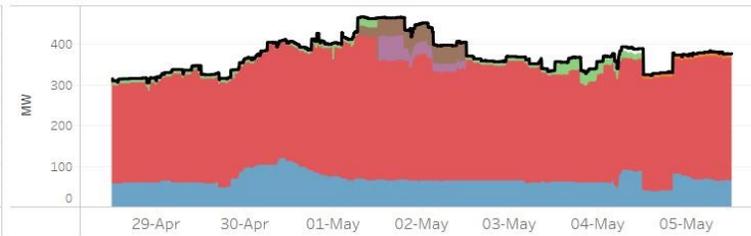
**COAL**



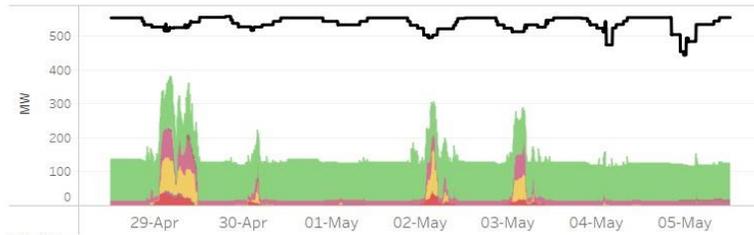
**GEO THERMAL**



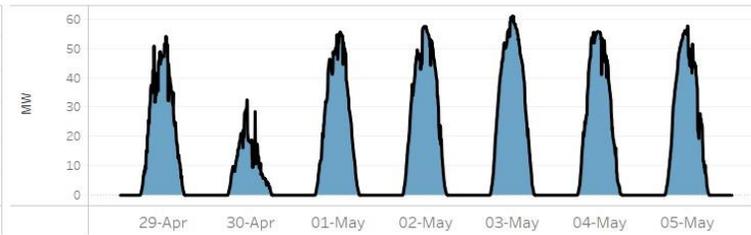
**HYDRO**



**OIL-BASED**



**SOLAR**



**Offer Price**

- Battery Charging Offer
- Preferential Nomination
- Php (0 and below)
- Php (0,5000]
- Php (5000,10000]
- Php (10000,15000]
- Php (15000,20000]
- Php (20000,25000]
- Php (25000,30000]
- Php (30000,32000]
- Offered and Nominated Capacity

**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.