Philippine Electricity Market Corporation

WEEKLY MARKET WATCH
17 - 23 Mar 2025

MARKET ASSESSMENT HIGHLIGHTS

Demand, Supply, and Price

- The average weekly demand decreased across all regions.
- The average weekly capacity on outage increased in the Luzon and Visayas regions, while it decreased in the Mindanao region.
- Exports from Luzon to Visayas occurred 26.19% of the time, while the flow from Mindanao to Visayas was observed 98.81% of the time.
- The average weekly GWAP decreased by 42.86%, 44.25%, and 41.69% in the Luzon, Visayas, and Mindanao regions, respectively.
- Pivotal suppliers were present 63% of the time.

Energy Offer Pattern Analysis

Luzon

- Biofuel plants experience a decrease in nominated capacities on 20 and 21 March due to outage and resource constraints.
- Coal plants showed a decrease in offered capacities due to outages on 19 and 21 March, with a further dip on 23 March due to reduced offered capacities.
- Geothermal plants recorded a decrease in nominated capacities due to outage on 23 March.
- Hydro plants decreased their offered capacities as Kalayaan increased its pump operations on 23 March.
- Natural Gas plants experienced a dip in offered capacities due to outage on 18 March, with decreased offered capacities on 21 until 22 March due to an outage.
- Wind plants' lowest daily peak nominations were observed on 23 March.

Visayas

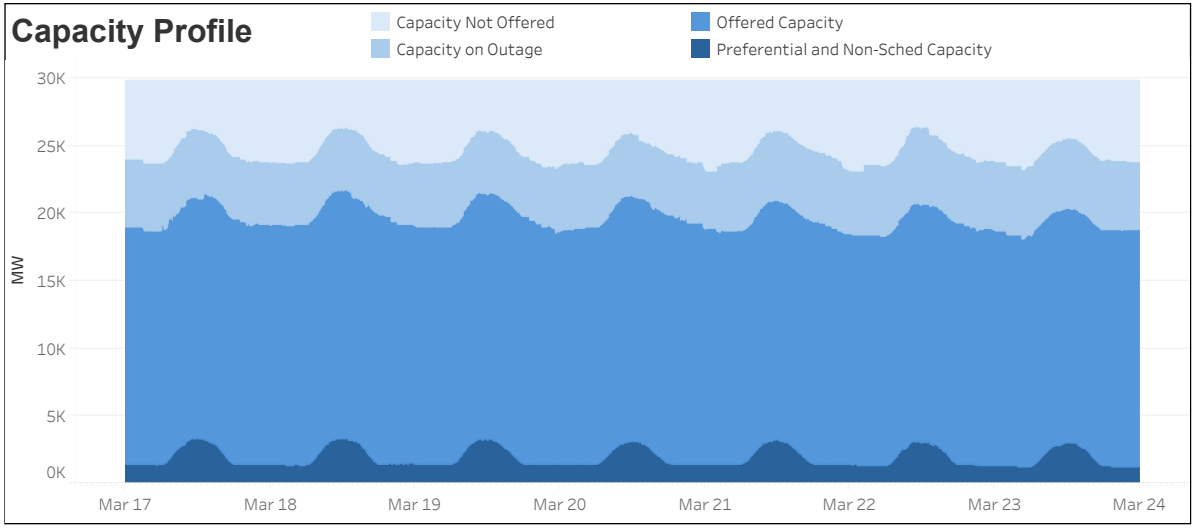
- Biofuel plants recorded a decreasing trend in nominated capacities, with variations due to outages throughout the week.
- Coal plants experienced dips in offered capacities on 18 and 19 March due to outages, and an increase was observed on 20 March with the resumption of a plant from outage but soon decreased due to another outage.
- Hydro plants experienced dips in nominated capacities throughout the week due to outages and resource constraints, with a significant decrease observed on 23 March due to outages.
- Oil plants showed decrease in offered capacities due to outages on 22 and 23 March.
- Solar and Wind plants' lowest daily peak nominations were observed on 20 March and 23 March, respectively.

Mindanao

- Biofuel plants recorded dips in nominated capacities due to outages on 19 and 23 March.
- Coal plants experience decrease in offered capacities due to outages on 20 and 22 March.
- Hydro plants showed decrease in offered capacities on 17, 21, and 22 March due to outages...

Market Systems Advisory

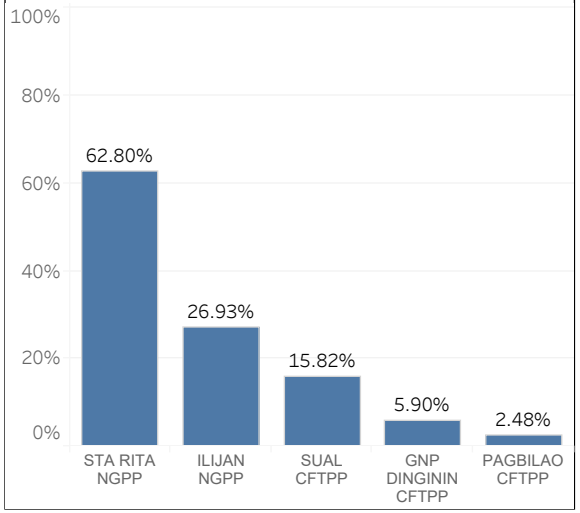
- No IT-related issue in IEMOP's Market Systems was reported from 17 to 23 March 2025.



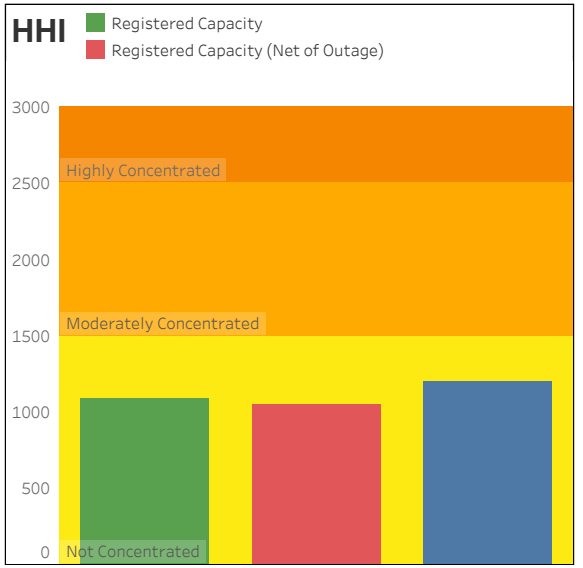
SUMMARY OF AVERAGE VALUES

Particulars	17 - 23 Mar 2025	10 - 16 Mar 2025	% Change
GENERATOR WEIGHTED AVERAGE PRICE (Php/MWh)			
System	3,526	6,171	-42.86%
Luzon	3,615	6,327	-42.86%
Visayas	3,648	6,543	-44.25%
Mindanao	3,110	5,334	-41.69%
EFFECTIVE SUPPLY (MW)			
Luzon	11,916	12,131	-1.77%
Visayas	2,185	2,295	-4.76%
Mindanao	3,443	3,384	1.74%
DEMAND (MW)			
Luzon	9,701	10,084	-3.80%
Visayas	1,827	1,975	-7.49%
Mindanao	2,081	2,106	-1.17%
OUTAGE (MW)			
Luzon	4,049	3,738	8.32%
Visayas	615	586	5.07%
Mindanao	225	371	-39.46%
REGULATING UP PRICE (Php/MWh)			
Luzon	9,475	8,624	9.87%
Visayas	25,821	28,789	-10.31%
Mindanao	25,042	24,405	2.61%
REGULATING DOWN PRICE (Php/MWh)			
Luzon	9,633	8,352	15.33%
Visayas	52,837	50,268	5.11%
Mindanao	25,000	24,405	2.44%
CONTINGENCY RESERVE PRICE (Php/MWh)			
Luzon	5,330	6,443	-17.26%
Visayas	8,149	14,748	-44.74%
Mindanao	833	1,469	-43.26%
DISPATCHABLE RESERVE PRICE (Php/MWh)			
Luzon	442	1,621	-72.74%
Visayas	3,973	2,951	34.63%
Mindanao	2	10	-75.37%

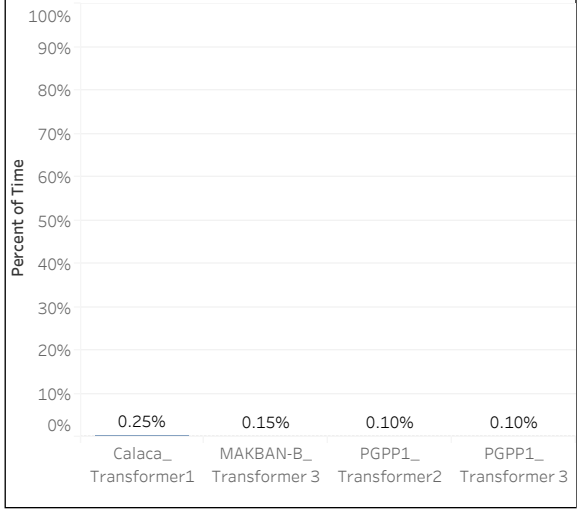
Top 5 Pivotal Plants



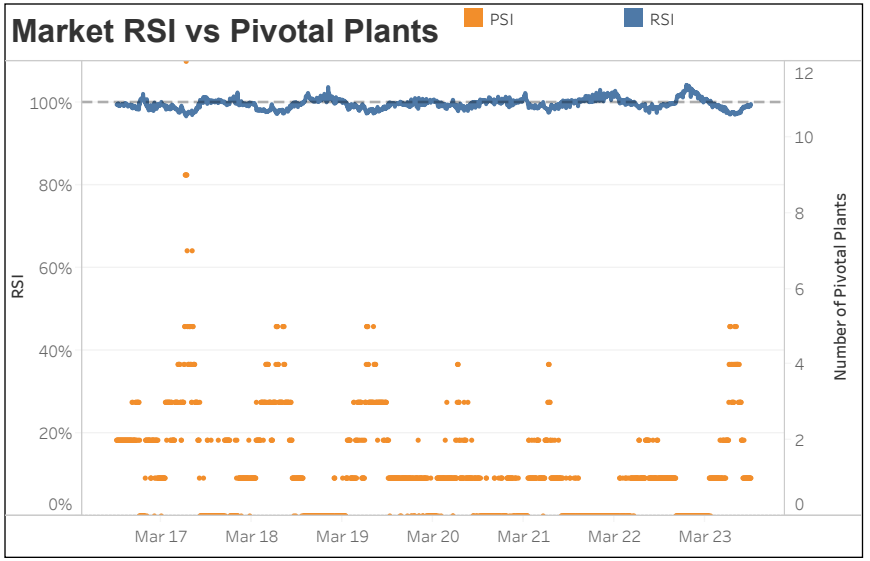
HHI



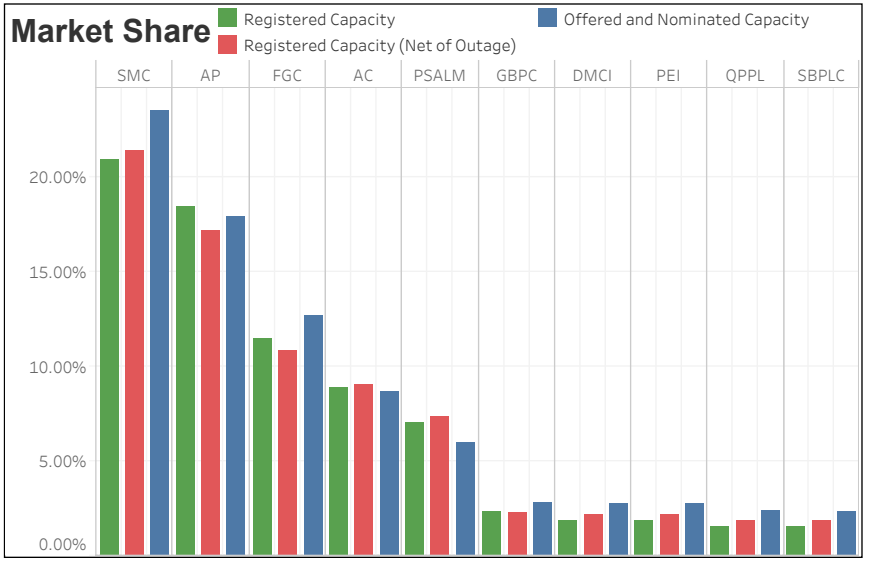
RTD Congestion



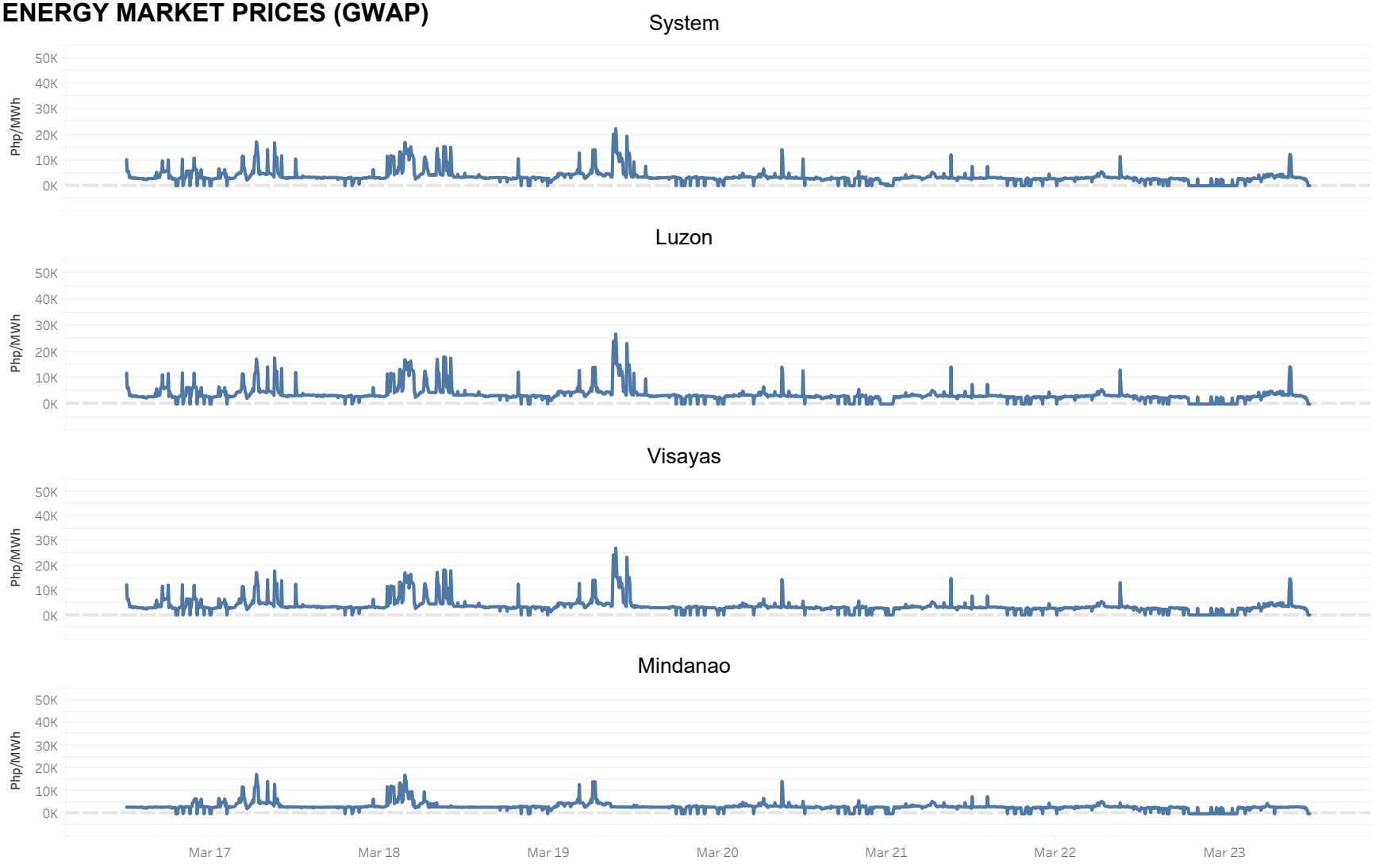
Market RSI vs Pivotal Plants



Market Share



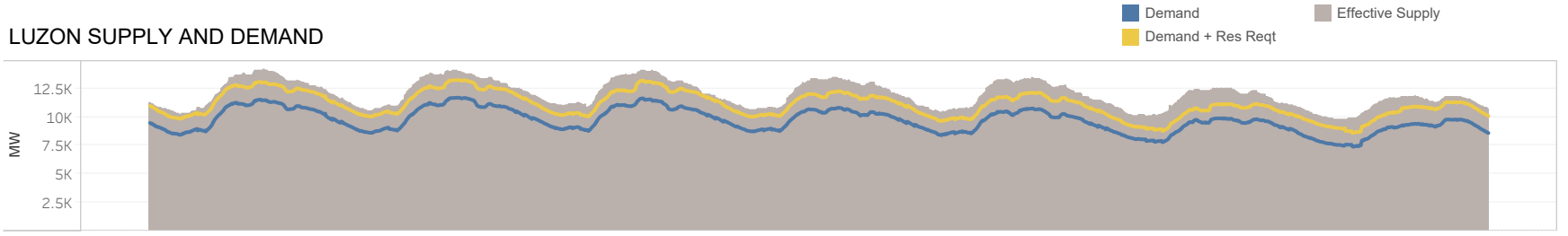
ENERGY MARKET PRICES (GWAP)



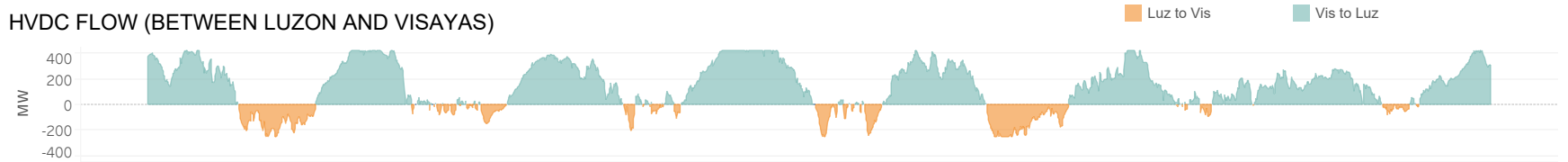
The charts show the market prices by region based on generator weighted average price (GWAP). Prices are subject to the finalization of settlement data.

GWAP GWAP (before post market run calculation)

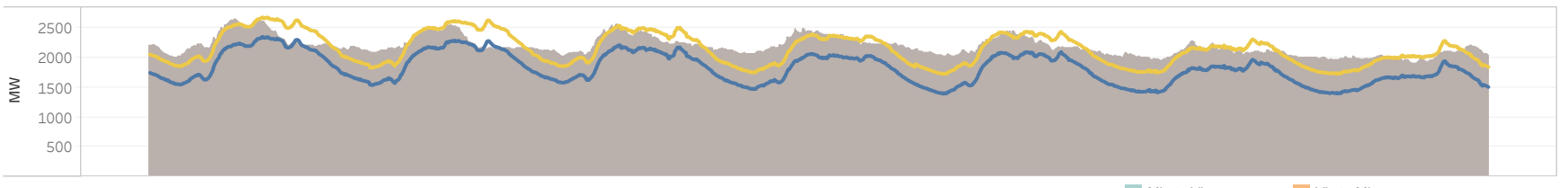
LUZON SUPPLY AND DEMAND



HVDC FLOW (BETWEEN LUZON AND VISAYAS)

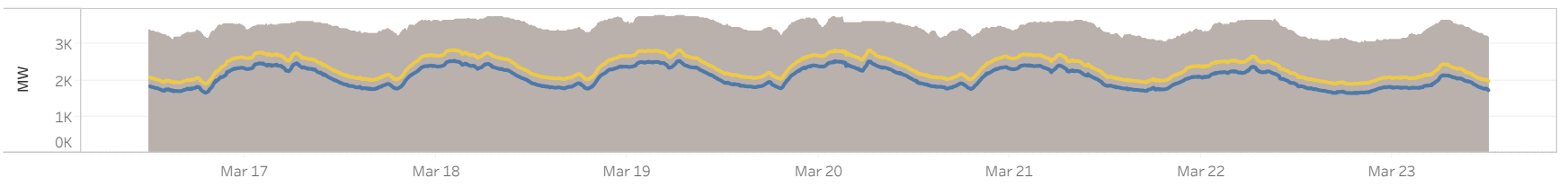


VISAYAS SUPPLY AND DEMAND



HVDC FLOW (BETWEEN VISAYAS AND MINDANAO)

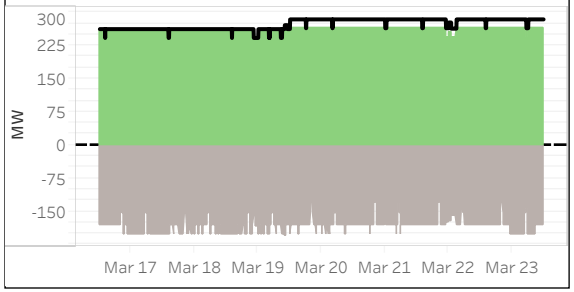
MINDANAO SUPPLY AND DEMAND



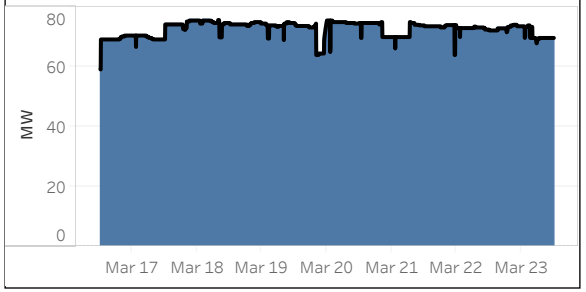
The charts shows the aggregated supply and demand in each region and the scheduled power flow from/to a particular region via HVDC links.

ENERGY OFFER PATTERN - LUZON

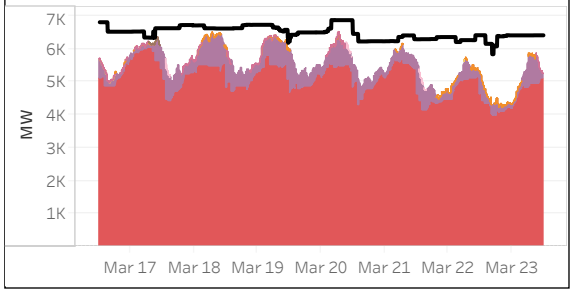
BATTERY



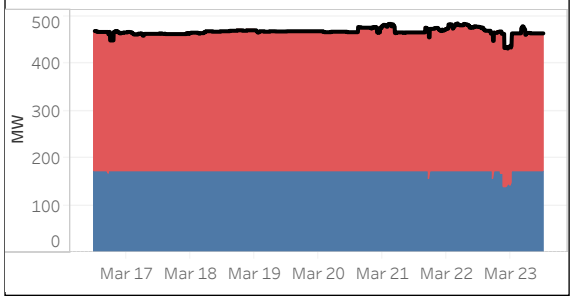
BIOFUEL



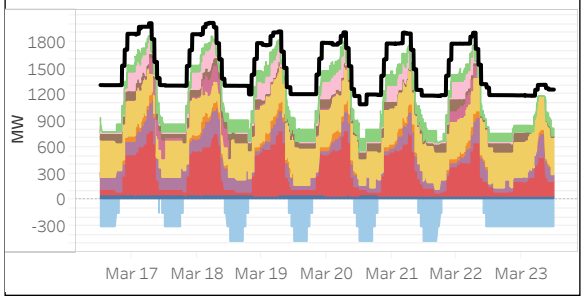
COAL



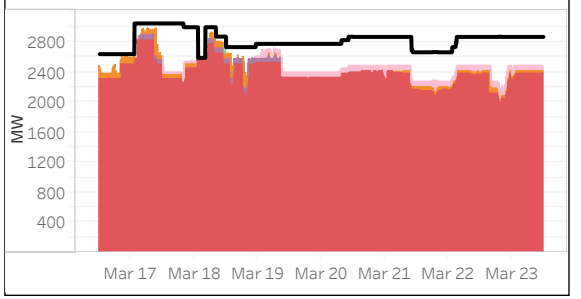
GEOTHERMAL



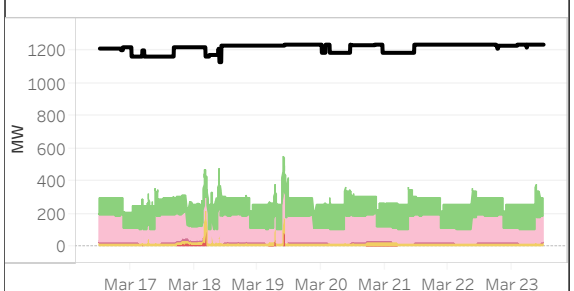
HYDRO



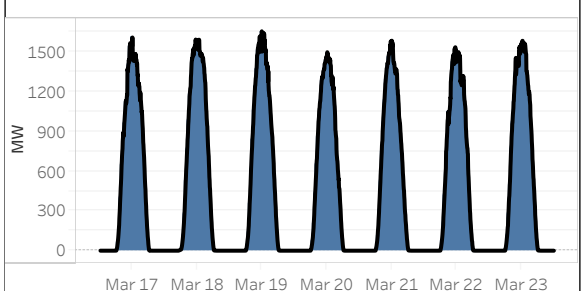
NATURAL GAS



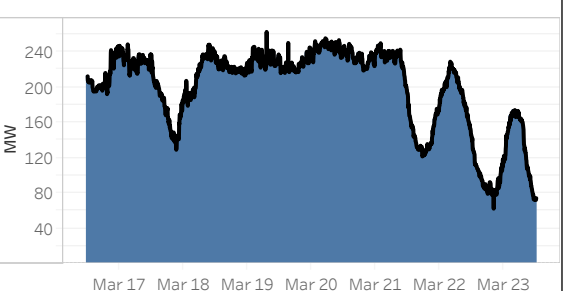
OIL



SOLAR



WIND



Offer Price Range

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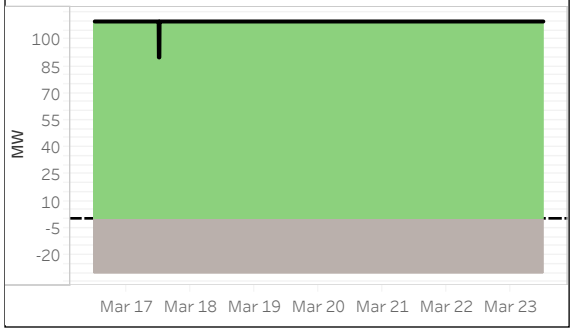
- Offered and Nominated Capacity

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 are effective supply, adjusted for the submitted ramp rate and excluding any overriding constraint.

ENERGY OFFER PATTERN - VISAYAS

BATTERY



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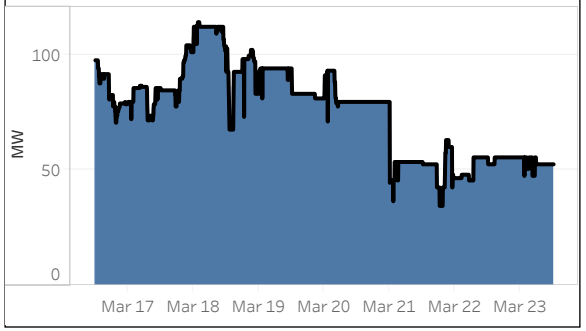
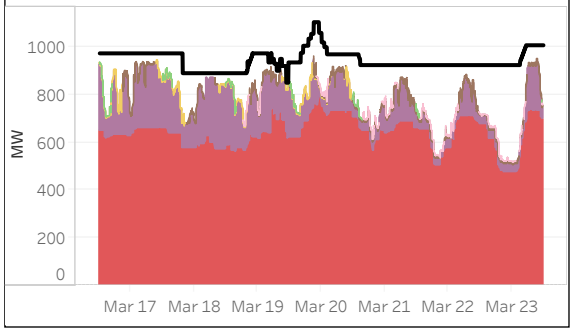
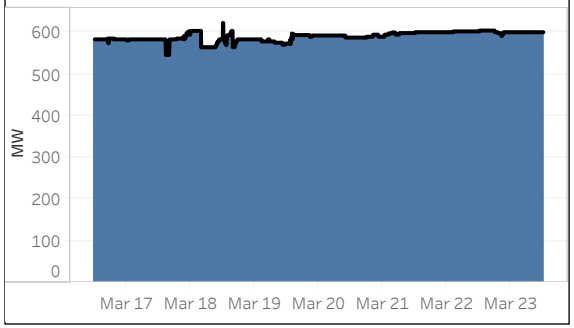


COAL



GEOTHERMAL



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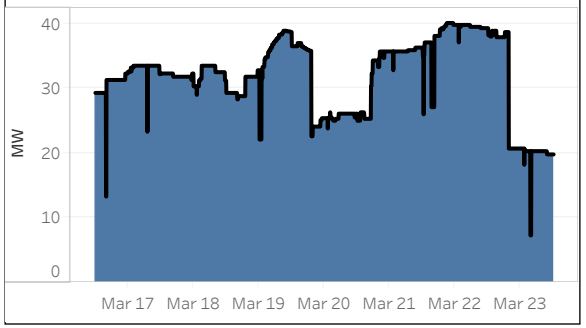
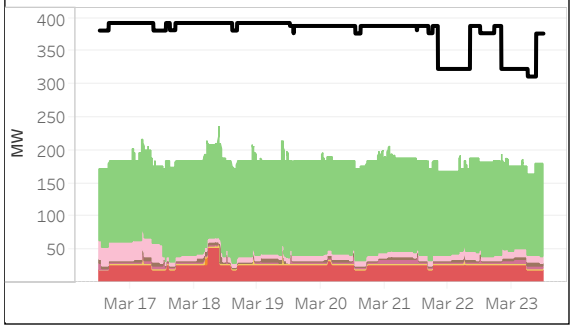
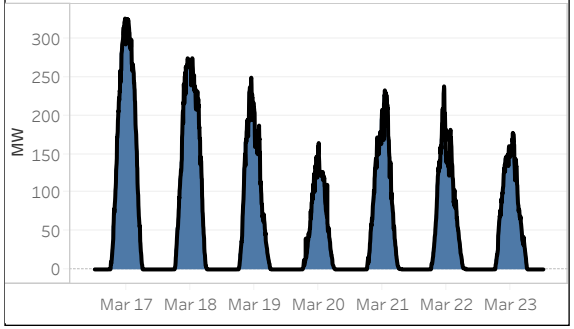


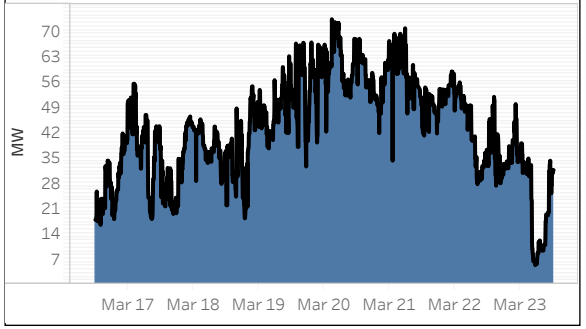
OIL



SOLAR



WIND



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ENERGY OFFER PATTERN - MINDANAO

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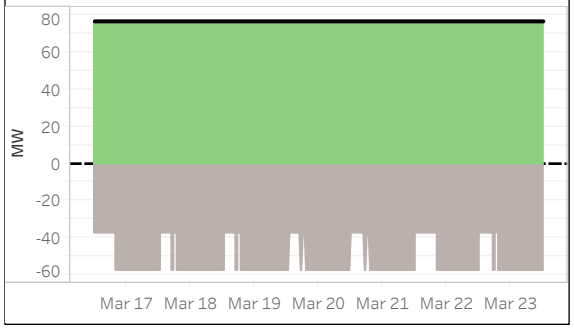
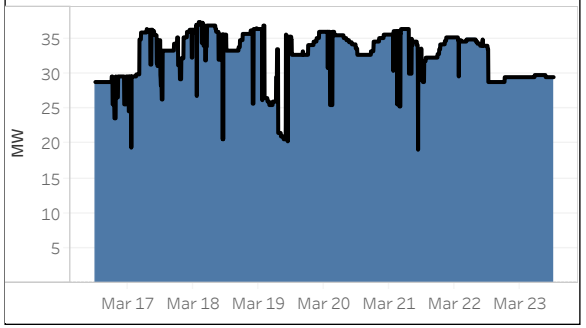
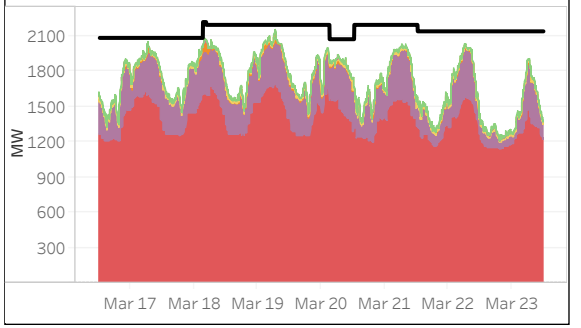


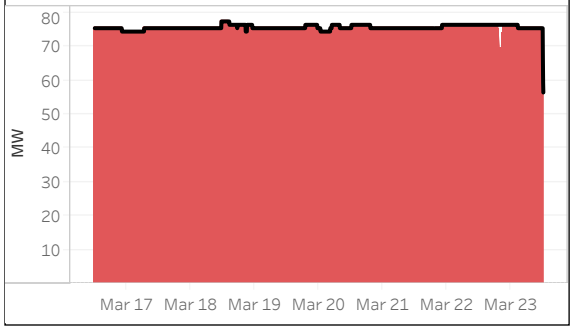
BIOFUEL



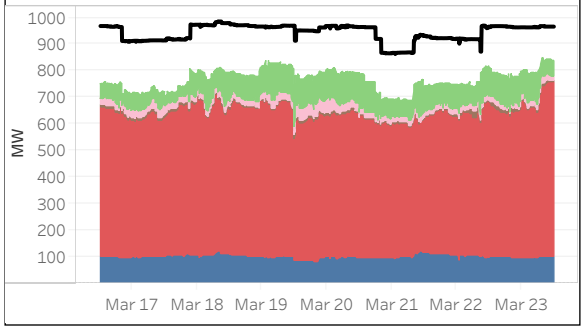
COAL



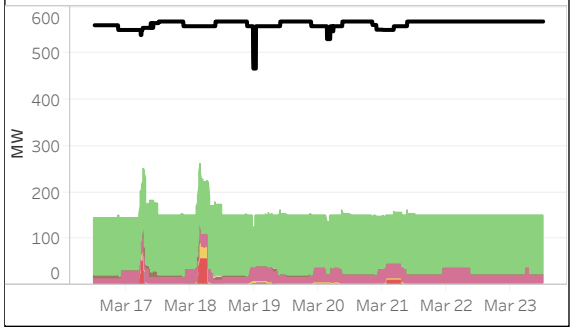
GEOTHERMAL



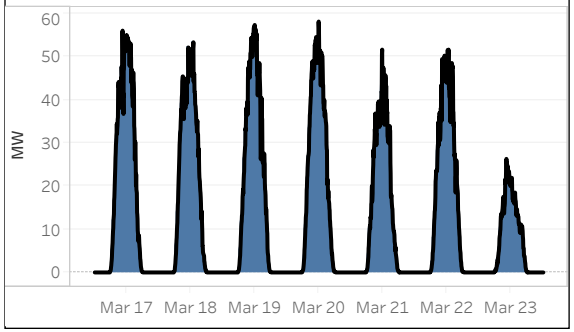
HYDRO



OIL



SOLAR



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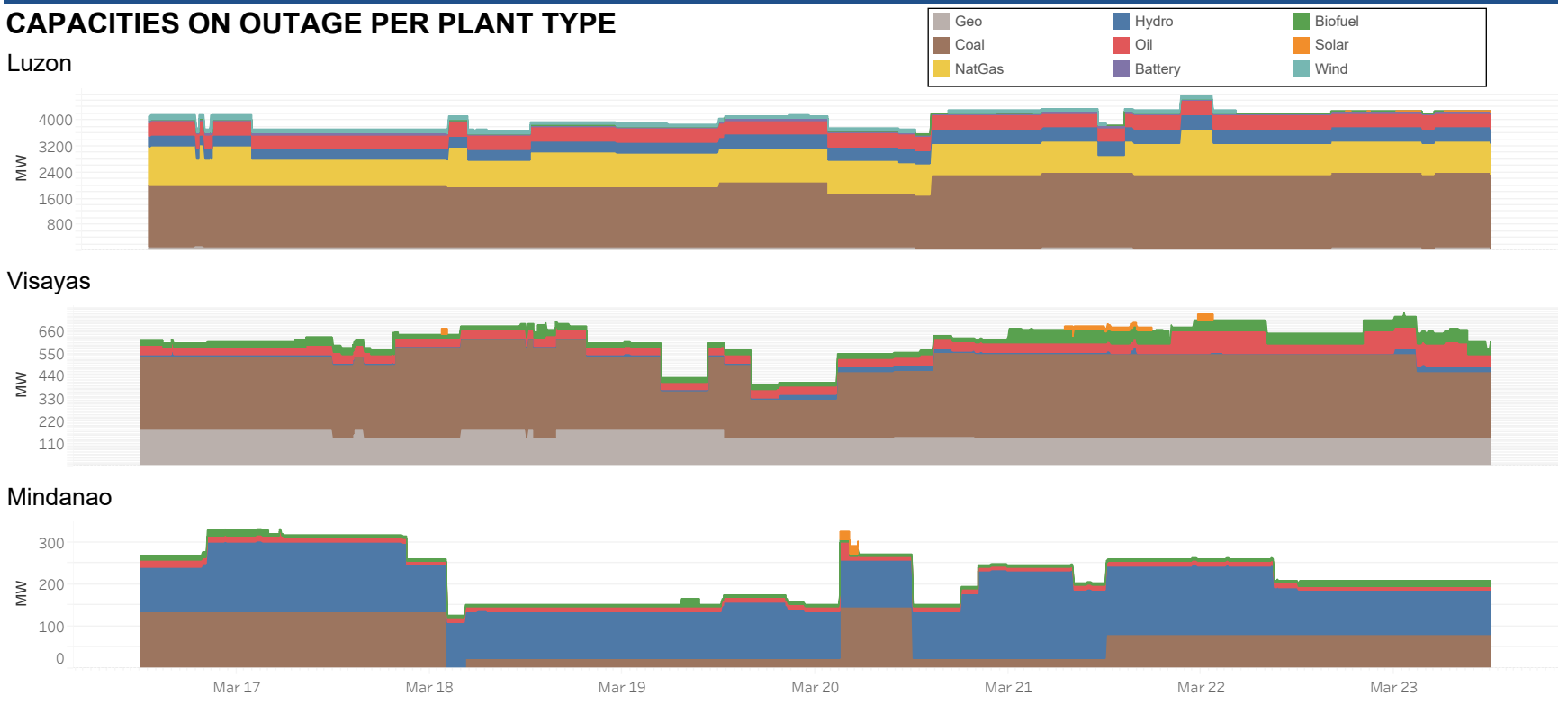
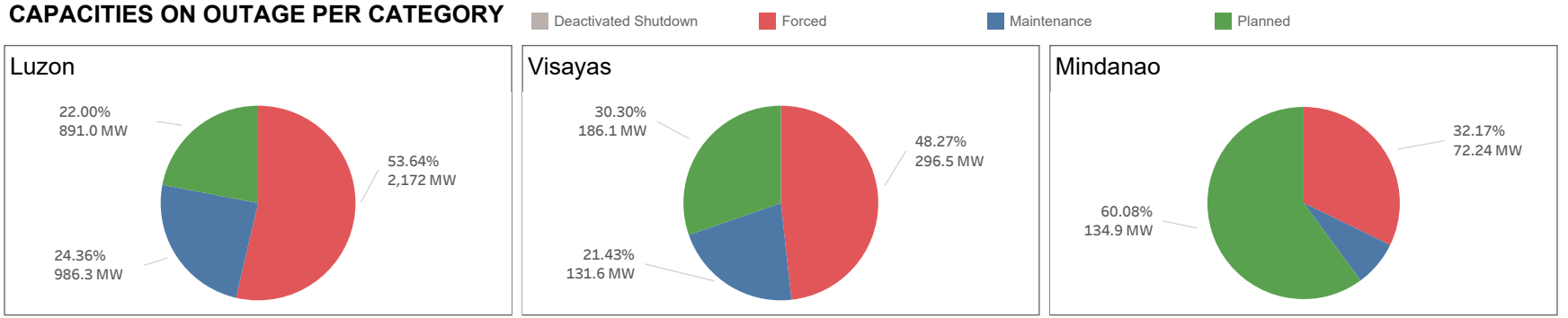
CAPACITIES ON OUTAGE PER PLANT TYPE



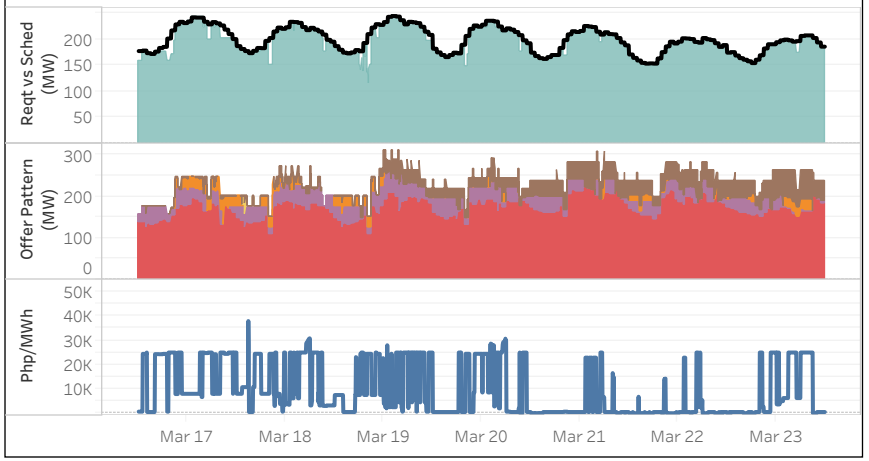
CAPACITIES ON OUTAGE PER CATEGORY



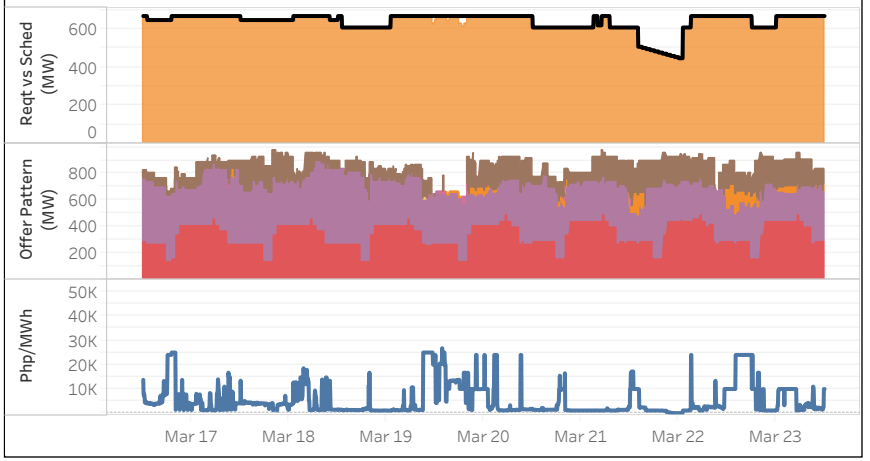
RESERVE MARKET DATA - LUZON

All reserve prices will be capped at price offer cap as per ERC NOR - Case No. 2023-002 RC - PDM Section 2.2.1.4

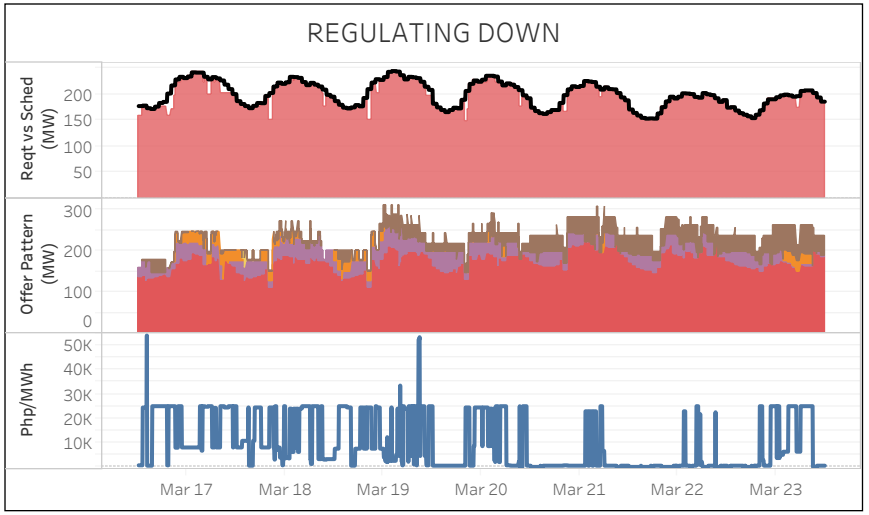
REGULATING UP



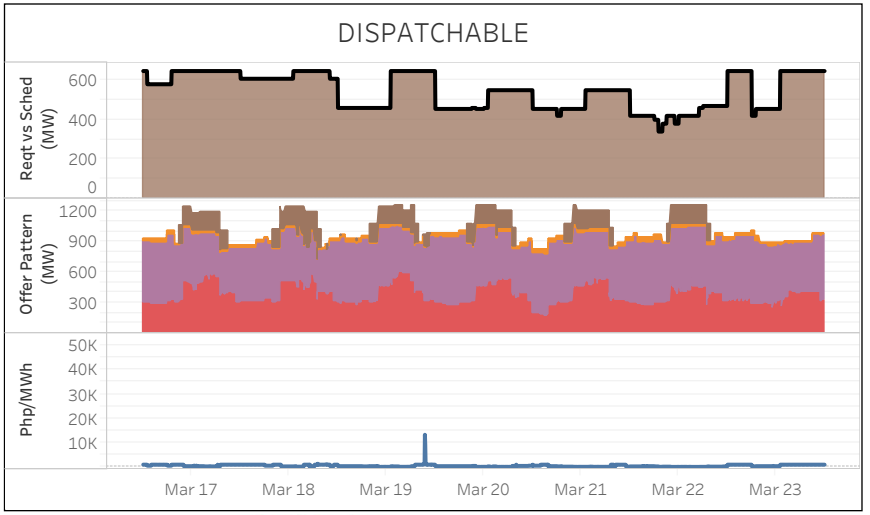
CONTINGENCY



REGULATING DOWN



DISPATCHABLE



Reqt vs Sched Legends

- Reserve Requirement
- RD Schedule
- DR Schedule
- PHP 0
- RU Schedule
- FR Schedule
- PHP (0,5000]

Offer Price Range

- PHP (5000,10000]
- PHP (15000,20000]
- PHP (25000,30000]
- PHP (10000,15000]
- PHP (20000,25000]
- PHP (30000,32000]

RESERVE MARKET DATA - VISAYAS

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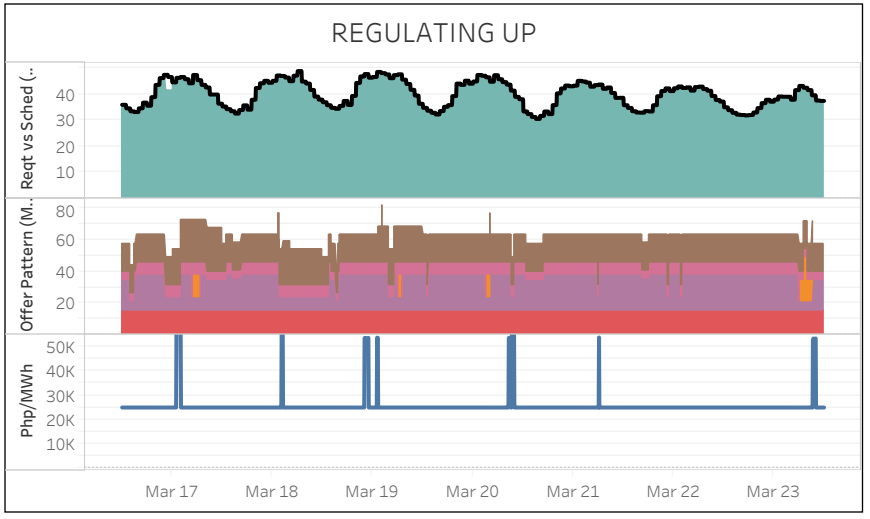
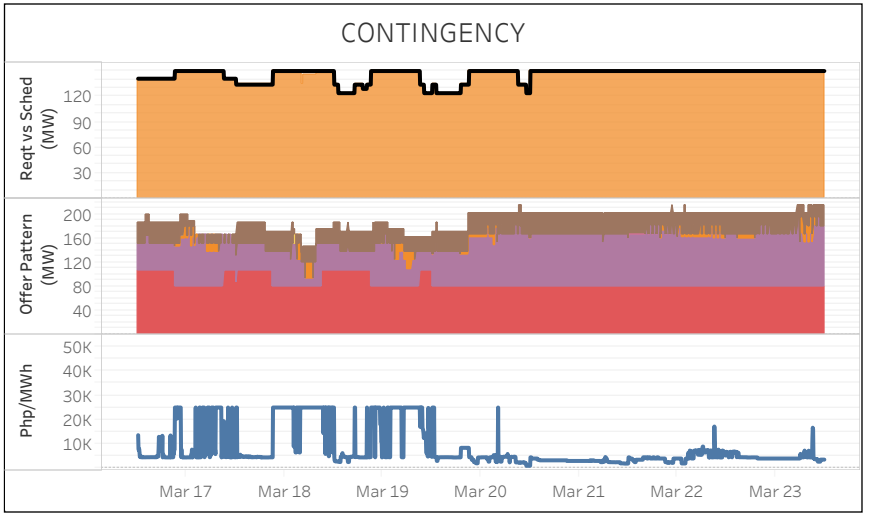
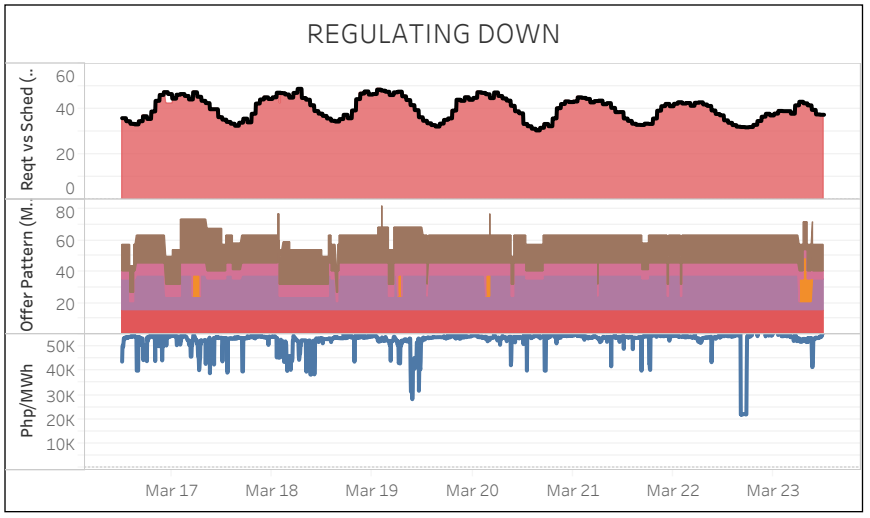
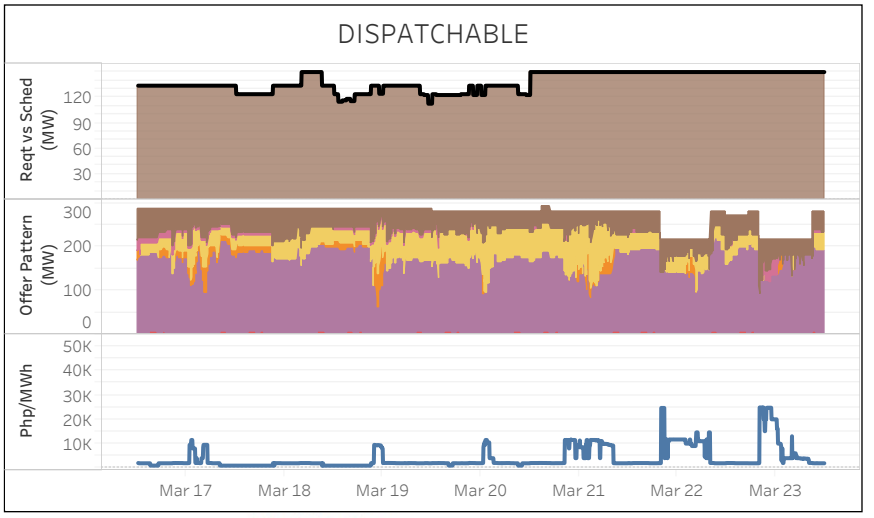








Reqt vs Sched Legends

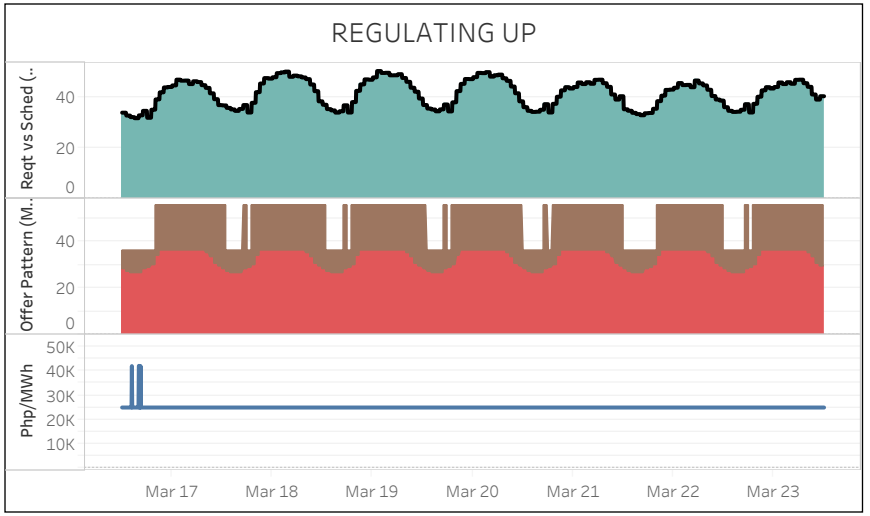
- Reserve Requirement
- RD Schedule
- DR Schedule
- RU Schedule
- FR Schedule

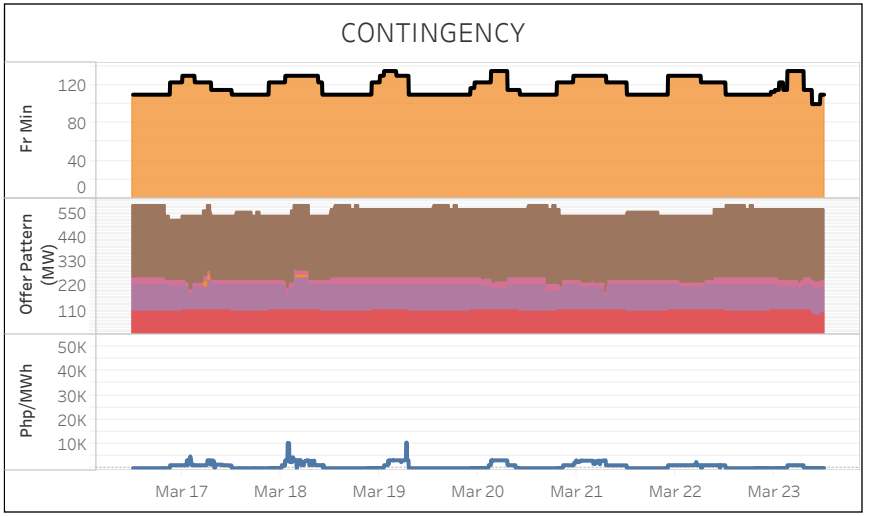
Offer Price Range

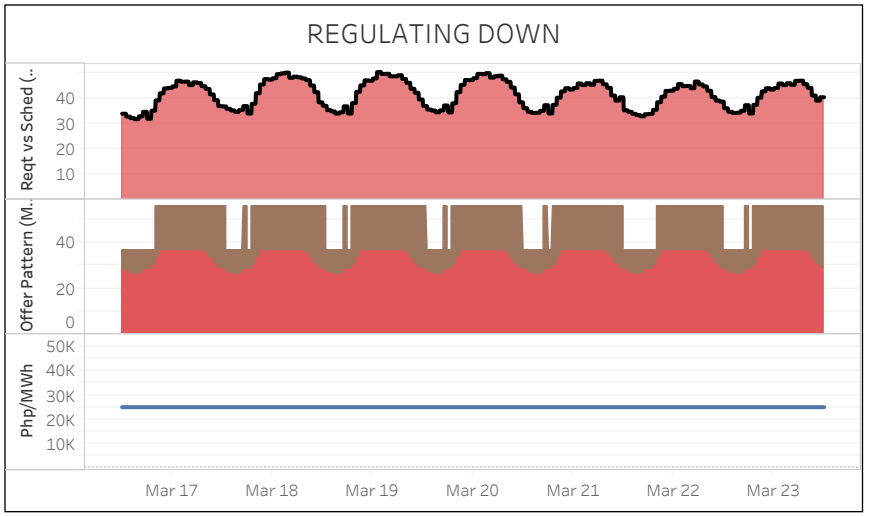
- PHP 0
- PHP (0,5000]
- PHP (5000,10000]
- PHP (10000,15000]
- PHP (15000,20000]
- PHP (20000,25000]
- PHP (25000,30000]
- PHP (30000,32000]

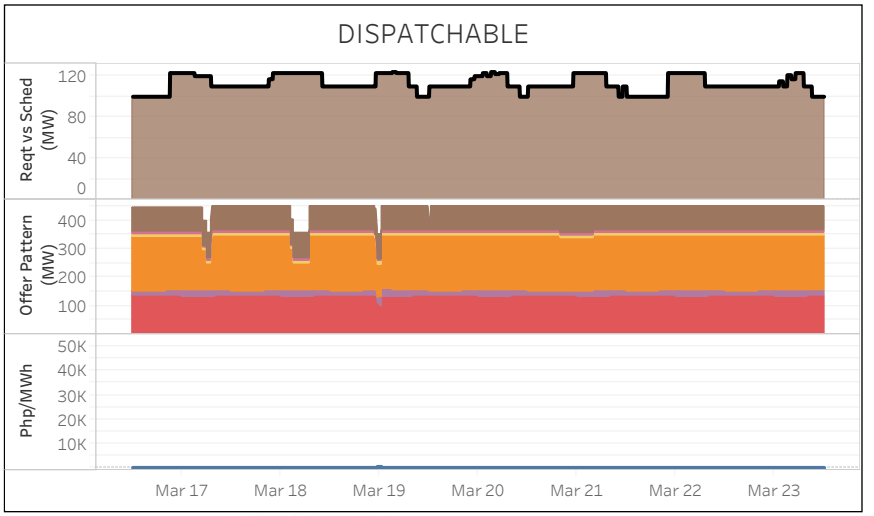
RESERVE MARKET DATA - MINDANAO

All reserve prices will be capped at price offer cap as per ERC NOR - Case No. 2023-002 RC - PDM Section 2.2.1.4









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GLOSSARY OF TERMS

CAPACITY ON OUTAGE
Calculated for each 5-min interval as the sum of the capacity of all generating units on outage, which are further distinguished by plant type and category. The generating unit/s on outage and categories of outage are based on the SO's daily operations report. Cited below are the outage categories as defined in ERC Resolution No. 21, Series of 2016.

Deactivated Shutdown - refers to a condition where a generating unit is unavailable for service for an extended period of time for reasons not related to equipment and inactive for more than 60 days.
Forced - An outage that requires immediate removal of a unit from service, another outage state, or a reserve shutdown state.
Maintenance - An outage that does not require immediate removal from the In-Service state but requires a Unit to be removed from the available state before the next planned outage. This is scheduled at least seven (7) days in advance.
Planned - The state in which a Unit is unavailable due to inspection, testing, preventive maintenance or overhaul. A Planned Outage is scheduled with a pre-determined duration and is coordinated with the System Operator. The Planned Outage of a Unit shall be reflected in the Grid Operating and Management Program (GOMP).

DEMAND
Calculated for each 5-minute trading interval as the sum of the real time dispatch (RTD) schedule of all load resources plus regional losses.

EFFECTIVE SUPPLY
Calculated for each 5-minute trading interval as the sum of the offered capacity of all scheduled generators considering their offered ramp rates, nominated loading level of nonscheduled generators and projected output of preferential dispatch generators, adjusted for any over-riding constraints imposed by the System Operator (SO), and reserve offers. Output of generators on testing and commissioning were considered based on the over-riding constraints imposed by the SO.

HERFINDAHL-HIRSCHMAN INDEX (HHI)
It 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 1,500 - not concentrated; (2) 1,500 to 2,500 - moderately concentrated; and (3) greater than 2,500 - highly concentrated.

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.

GLOSSARY OF TERMS

The available capacity declared by self-scheduled generators.

OFFERED CAPACITY
The available capacity declared by scheduled generators.

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).

POST MARKET RUN CALCULATION
Price adjustment after consideration of different pricing conditions such as AP, SPC, PSM, and PEN.

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.

RESERVE CATEGORIES
Regulating (RU and RD) - Readily available and dispatchable generating capacity that is allocated exclusively to correct deviations from the acceptable nominal frequency caused by unpredicted variations in demand or generation output.
Contingency (FR) - Synchronized generation capacity from Qualified Generating Units and Qualified Interruptible Loads allocated to cover the loss or failure of a synchronized generating unit or a transmission element of the power import from a circuit interconnection.
Dispatchable (DR) - Generating Capacity that are readily available for dispatch in order to replenish the Contingency Reserves whenever a generating unit trips or a loss of a single transmission interconnection occurs.