

MARKET ASSESSMENT HIGHLIGHTS
Demand, Supply, and Price

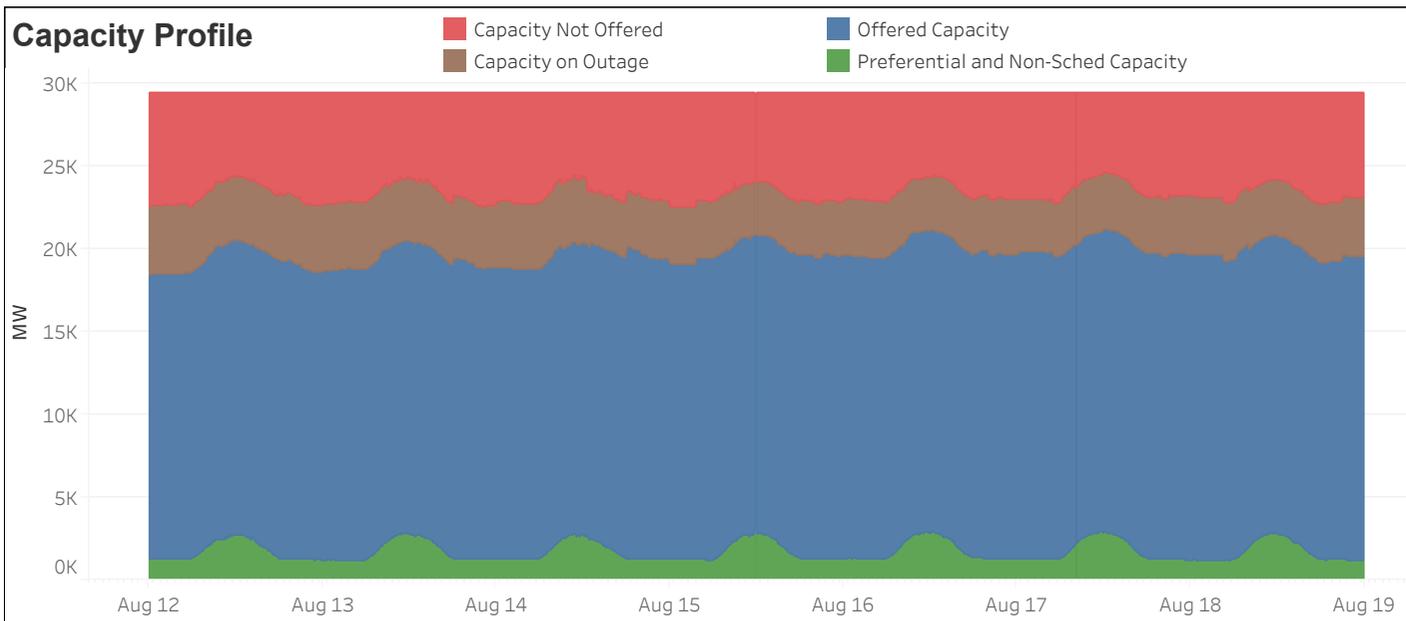
- Average weekly demand has increased in all regions.
- Average weekly Luzon and Visayas GWAP has increased by 9.17% and 12.38%, respectively. While Mindanao's GWAP has decreased by 8.83%.
- Luzon had significant decrease in capacities on outage due to synchronization of a coal plant from a maintenance outage.
- Weekly reserve average prices in the Visayas region has significantly increased .
- Secondary Price Cap was imposed starting the afternoon of 14 August to early morning of 15 August.

Energy Offer Pattern Analysis

- The offered capacity of the Luzon Coal plants increased starting 14 August due to synchronization of a plant. Alternating increase and decrease in offered capacity were due to over-riding constraint that were not included in the chart.
- The increase in offered capacity of Luzon Natural Gas plants, starting 16 August, was caused by one (1) previously derated participant .
- The Luzon Solar nomination has increased from last week. Peak nomination was recorded on 18 August.
- Visayas Biofuel plants had no recorded nomination for the week.
- Visayas Geothermal and Wind plants recorded higher nomination for the whole week compared last week.
- Mindanao Coal plants recorded decrease in offered capacity starting 14 August due to an outage.
- Mindanao Geothermal plants recorded significant decrease in offered capacity by 30MW.
- The rest of the offer pattern has no significant changes.

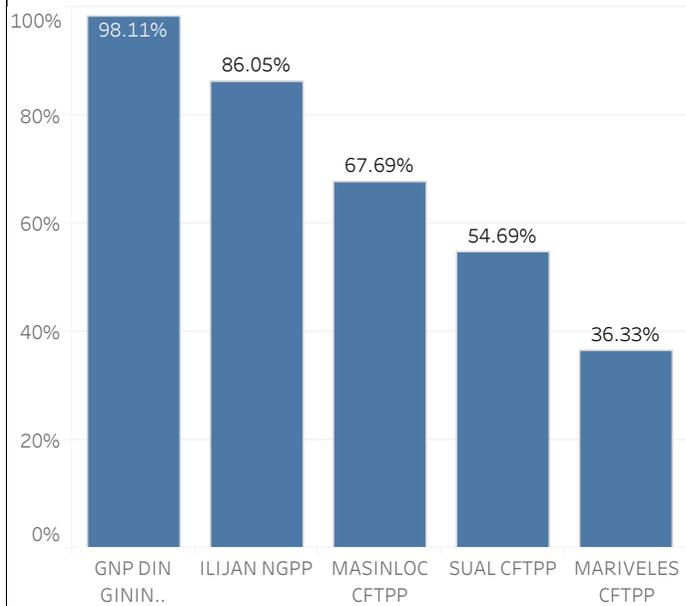
Market Systems Advisory

- MO-Initiated Market Intervention was imposed in all regions on intervals 1150h to 1200h of 15 August and 0815h of 17 August.

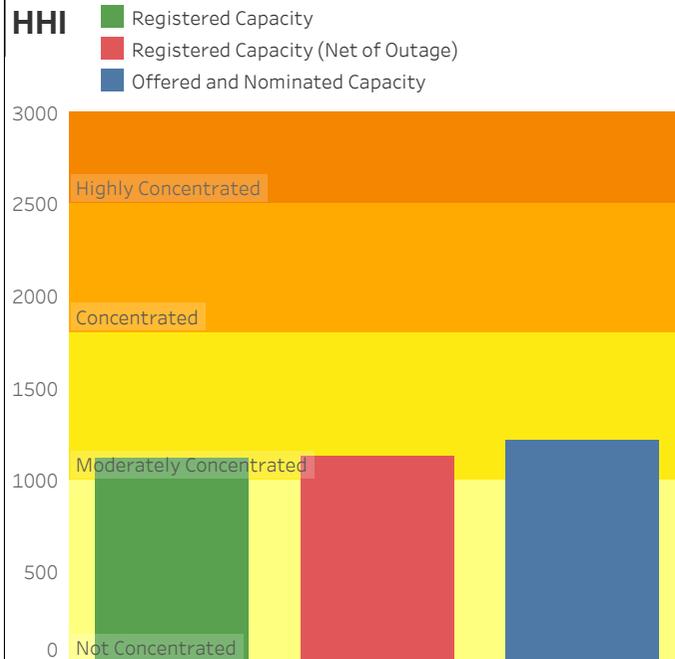

SUMMARY OF AVERAGE VALUES

Particulars	12 - 18 Aug 2024	05 - 11 Aug 2024	% Change
GWAP (Php/MWh)			
System	6,402	5,892	8.65%
Luzon	7,004	6,416	9.17%
Visayas	7,402	6,586	12.38%
Mindanao	2,979	3,268	-8.83%
EFFECTIVE SUPPLY (MW)			
Luzon	12,729	12,133	4.91%
Visayas	2,324	2,170	7.08%
Mindanao	3,233	3,353	-3.59%
DEMAND (MW)			
Luzon	10,846	10,296	5.34%
Visayas	2,050	1,966	4.30%
Mindanao	2,054	2,038	0.79%
OUTAGE (MW)			
Luzon	2,752	3,431	-19.79%
Visayas	474	462	2.68%
Mindanao	355	281	26.13%
RU PRICE (PHP/MWh)			
Luzon	5,672	7,322	-22.54%
Visayas	7,665	3,542	116.39%
Mindanao	8,031	5,808	38.26%
RD PRICE (PHP/MWh)			
Luzon	3,662	3,643	0.51%
Visayas	12,232	4,732	158.49%
Mindanao	5,966	5,333	11.86%
FR PRICE (PHP/MWh)			
Luzon	6,697	6,528	2.60%
Visayas	9,538	8,071	18.17%
Mindanao	1,161	1,221	-4.96%
DR PRICE (PHP/MWh)			
Luzon	6,131	6,185	-0.86%
Visayas	6,608	4,179	58.12%
Mindanao	0	69	-100.00%

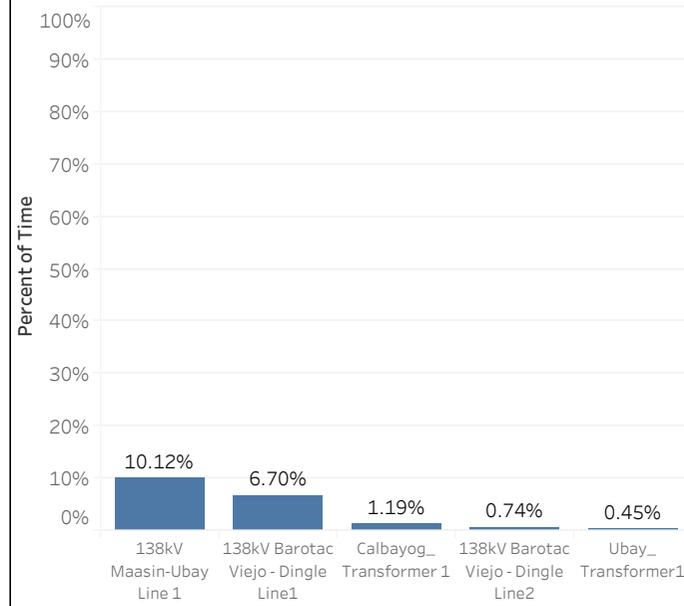
Top 5 Pivotal Plants



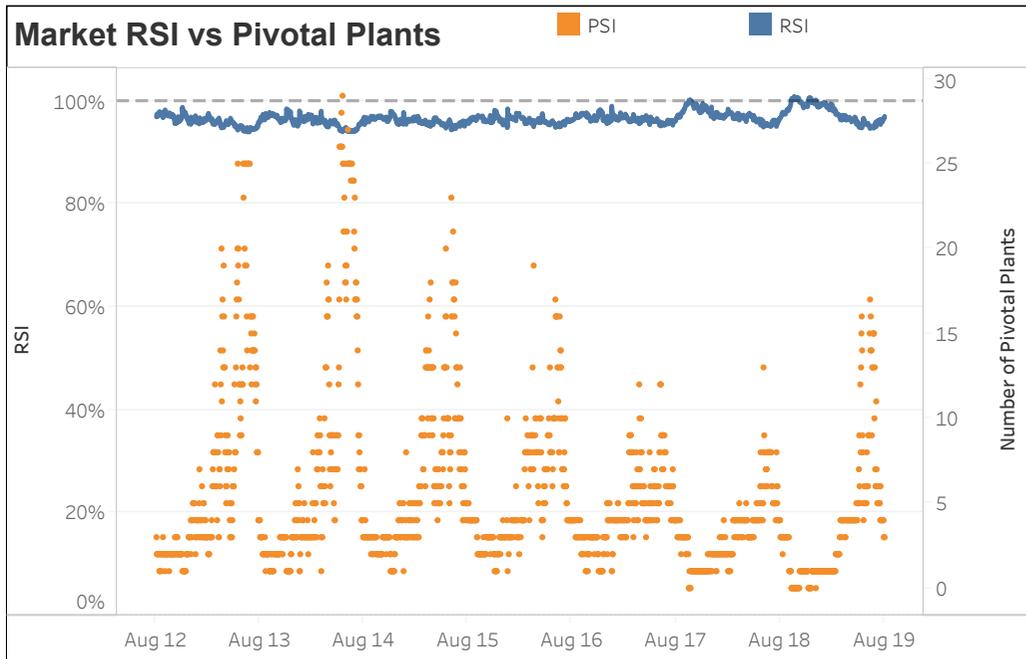
HHI



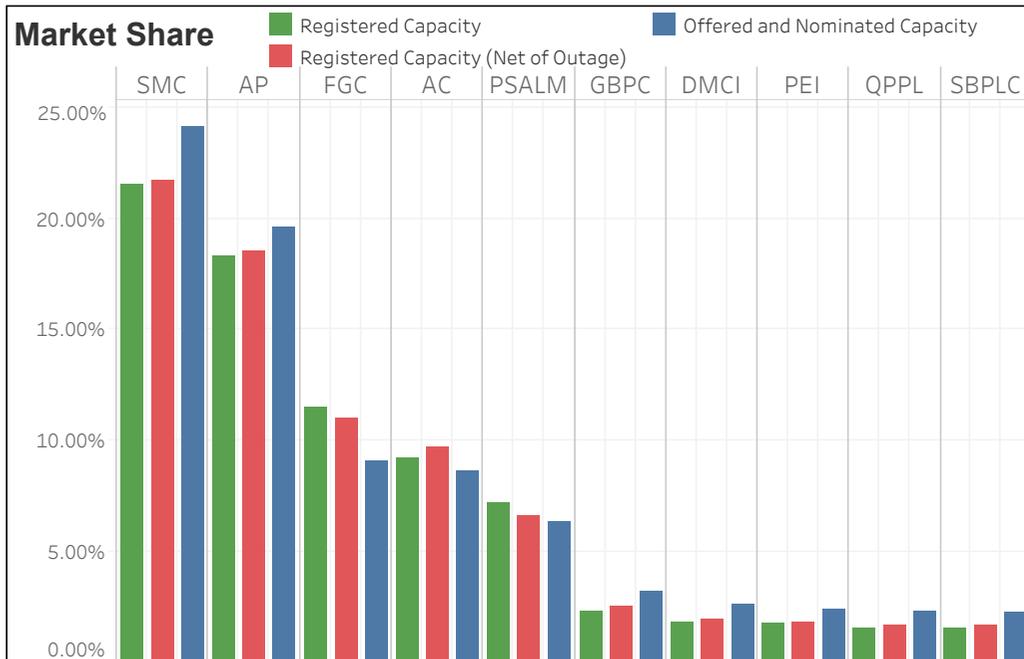
RTD Congestion



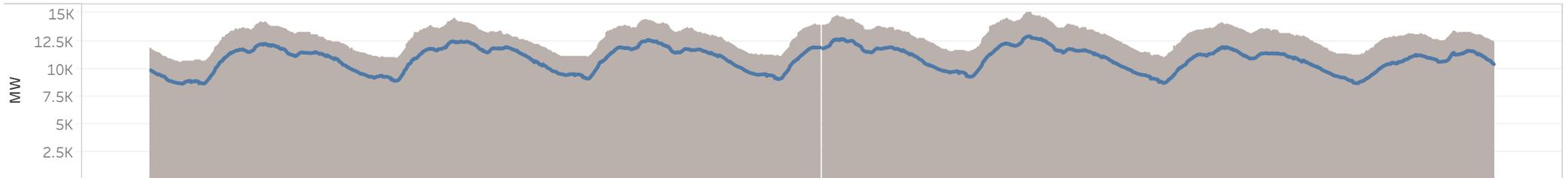
Market RSI vs Pivotal Plants



Market Share



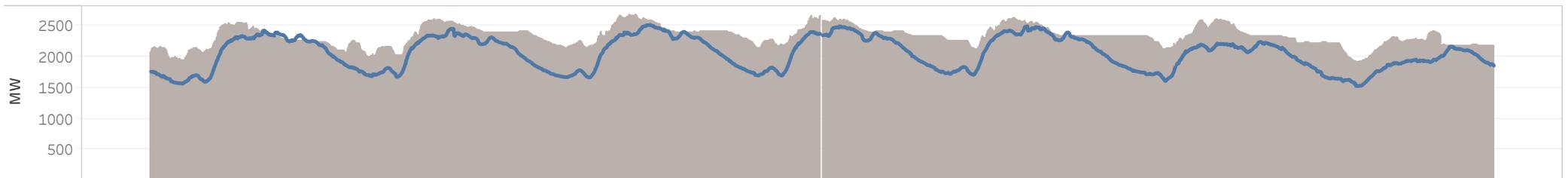
LUZON SUPPLY AND DEMAND



HVDC FLOW (BETWEEN LUZON AND VISAYAS)



VISAYAS SUPPLY AND DEMAND



HVDC FLOW (BETWEEN VISAYAS AND MINDANAO)



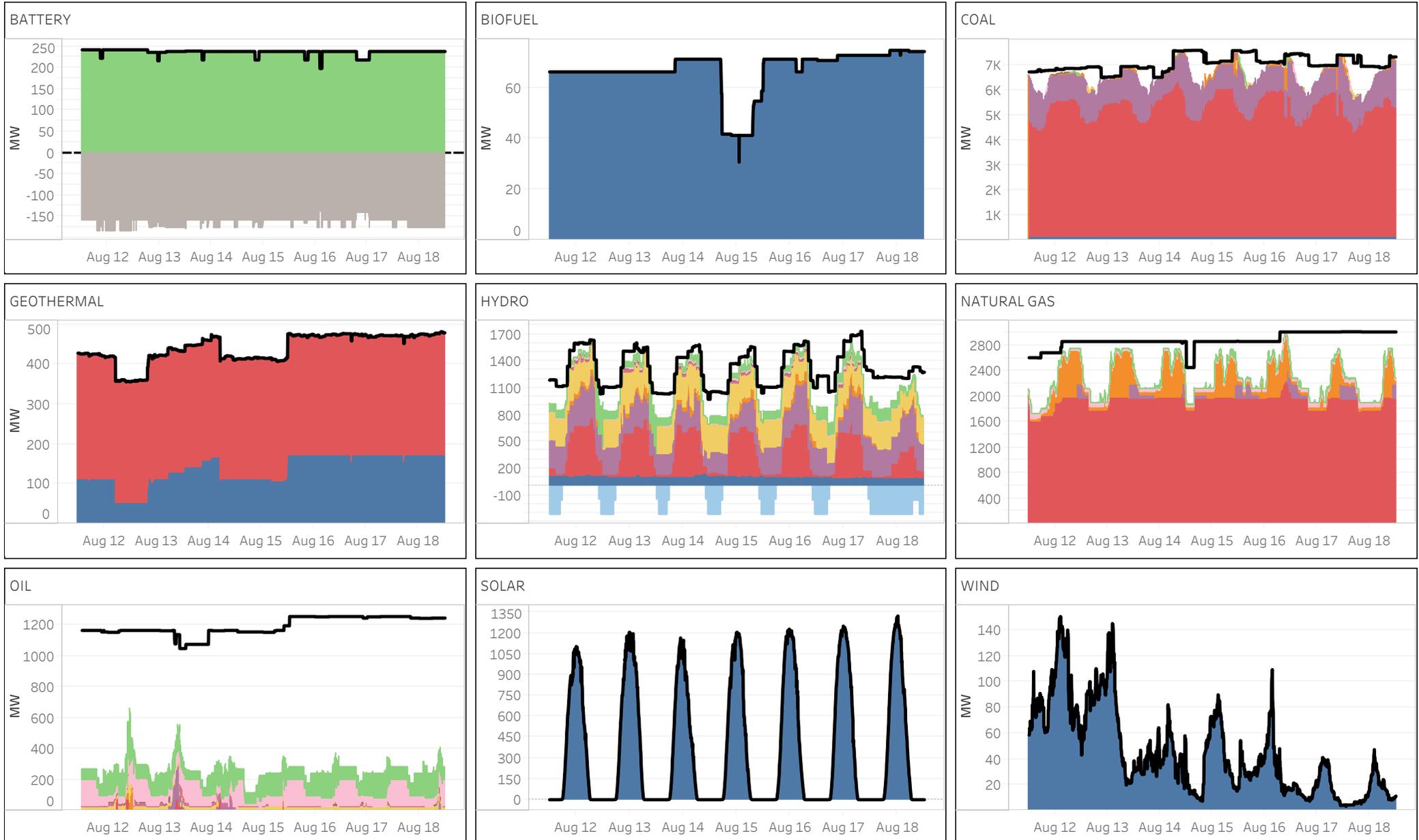
MINDANAO SUPPLY AND DEMAND



Aug 12 Aug 13 Aug 14 Aug 15 Aug 16 Aug 17 Aug 18

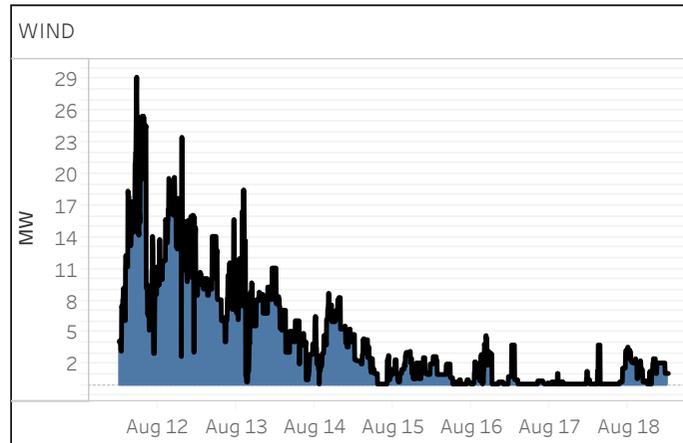
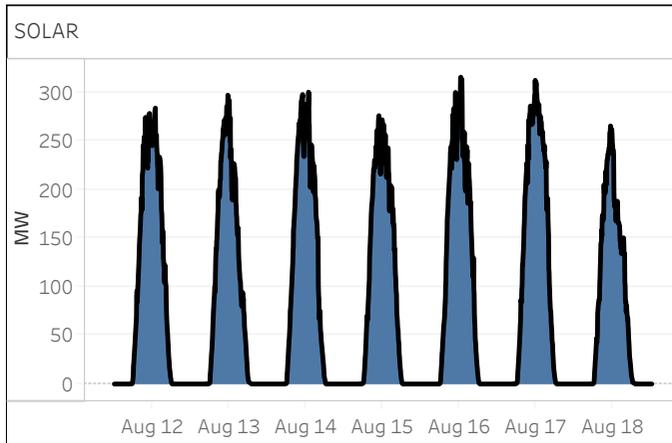
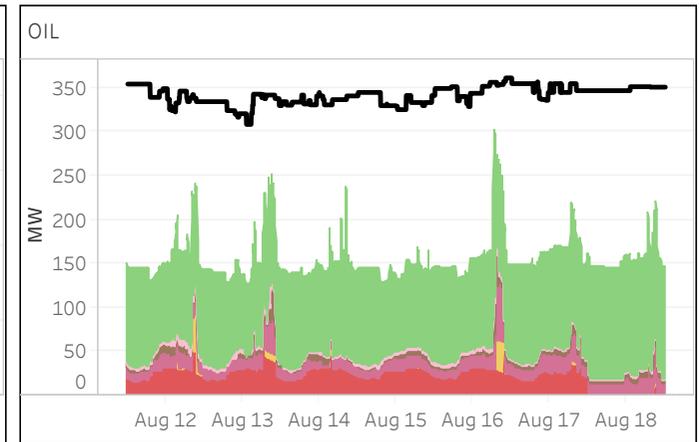
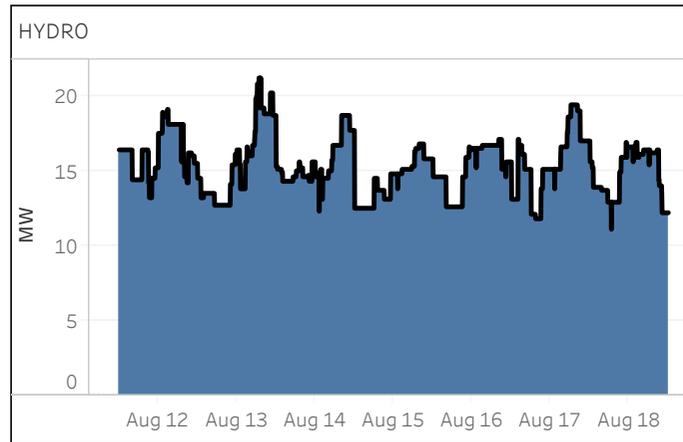
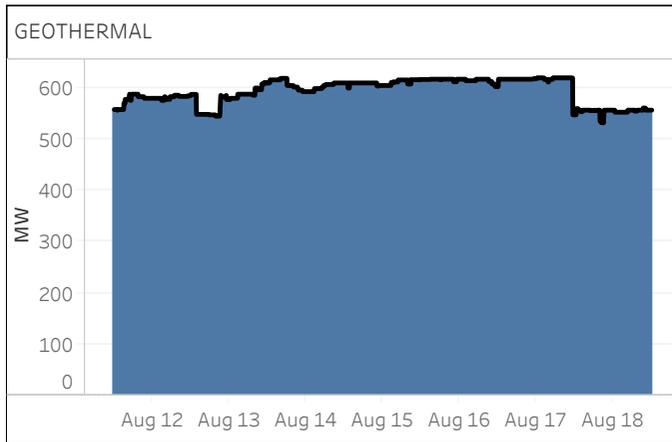
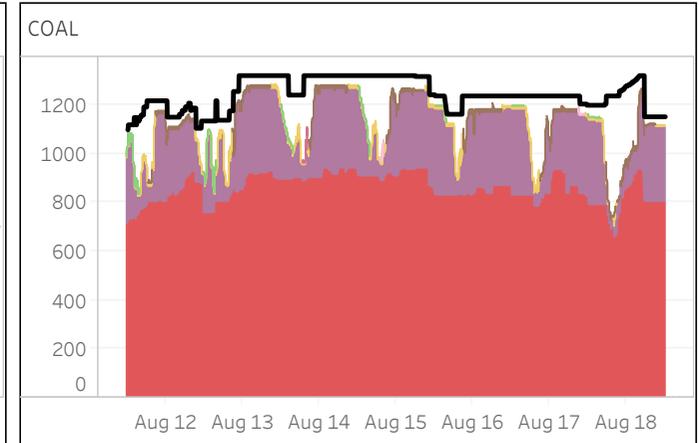
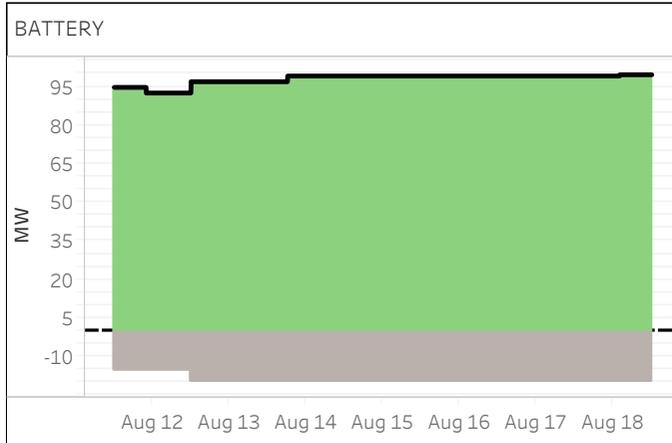
The charts show the aggregated supply and demand in each region and the scheduled power flow from/to a particular region via HVDC links.

ENERGY OFFER PATTERN - LUZON

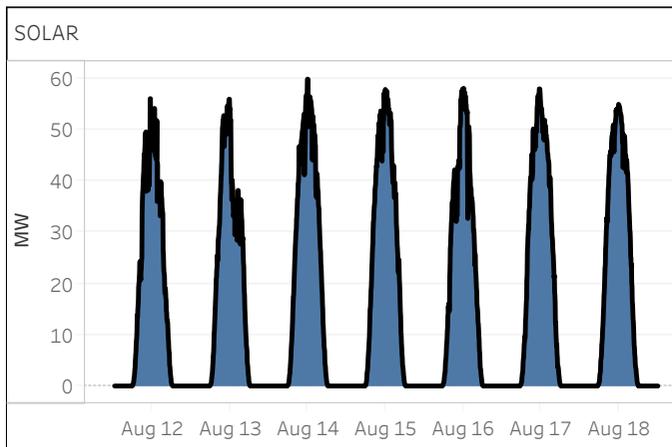
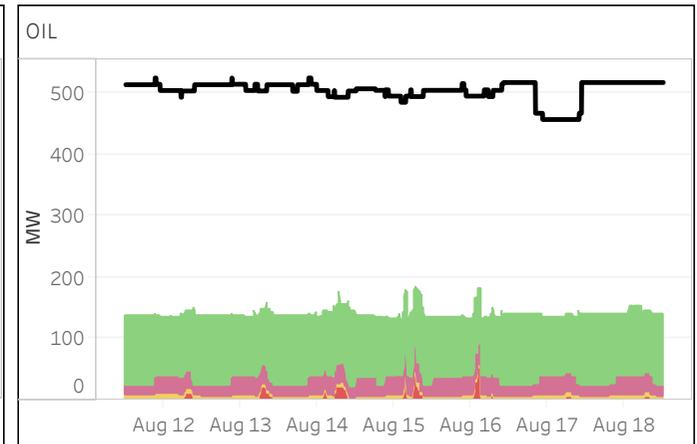
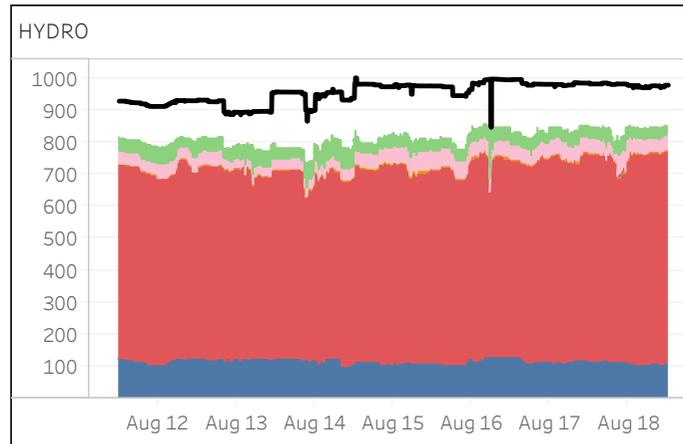
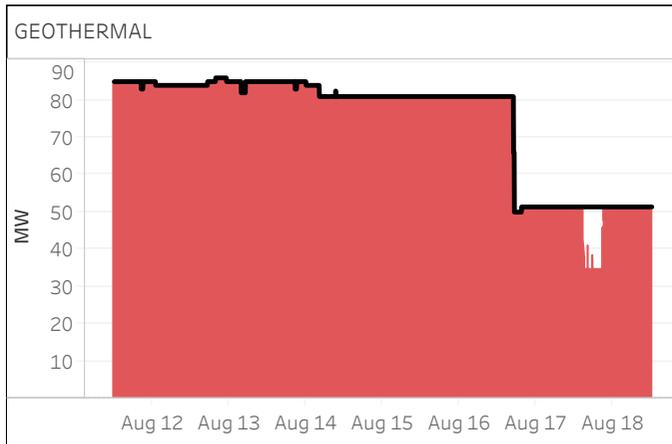
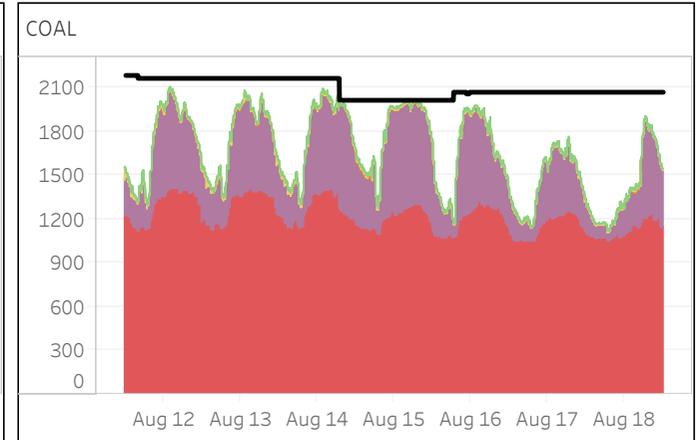
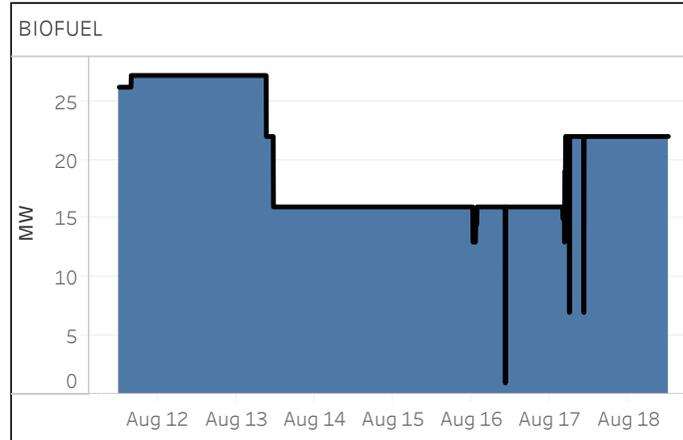
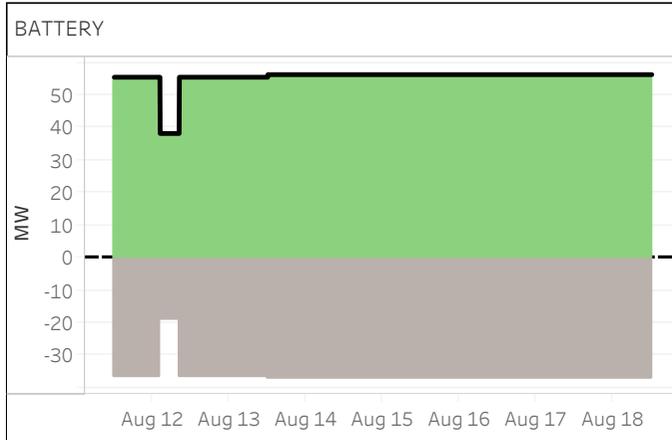


NOTES:

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


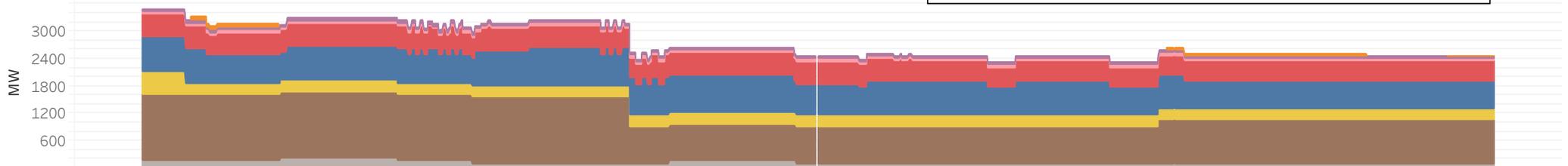
1. In Php (X, Y], it includes offer price greater than Php X but less than or equal to Php Y.
 2. Reflected capacity are effective supply, adjusted for the submitted ramp rate and excluding any overriding constraint.

ENERGY OFFER PATTERN - MINDANAO

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.

CAPACITIES ON OUTAGE PER PLANT TYPE

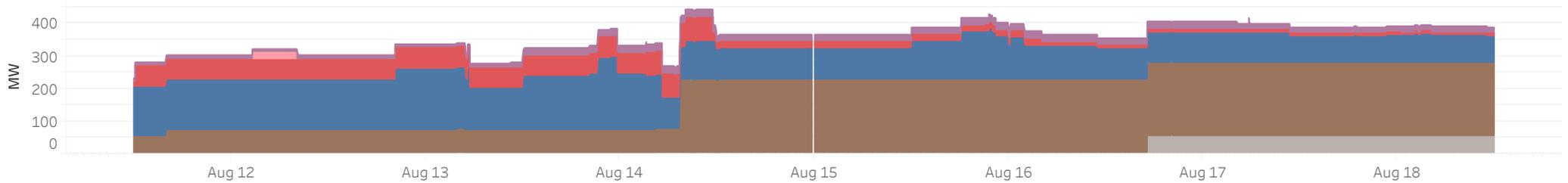
Luzon



Visayas



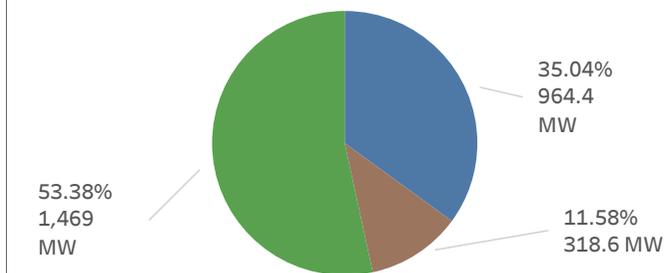
Mindanao



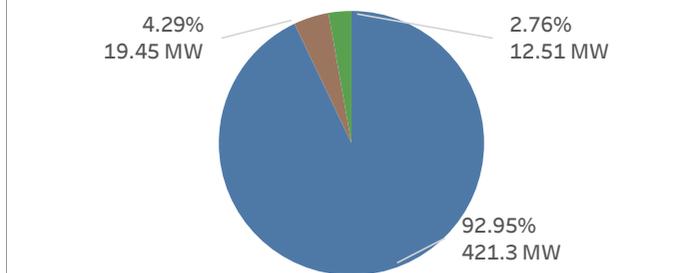
CAPACITIES ON OUTAGE PER CATEGORY

Deactivated Shutdown Forced Maintenance Planned

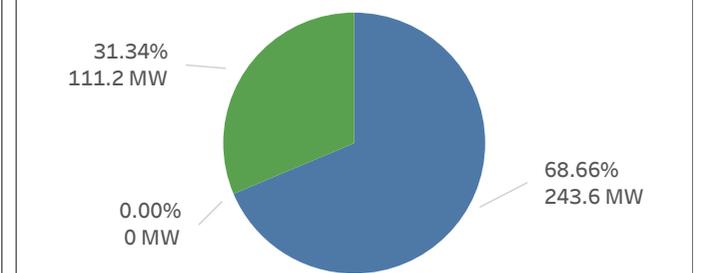
Luzon



Visayas

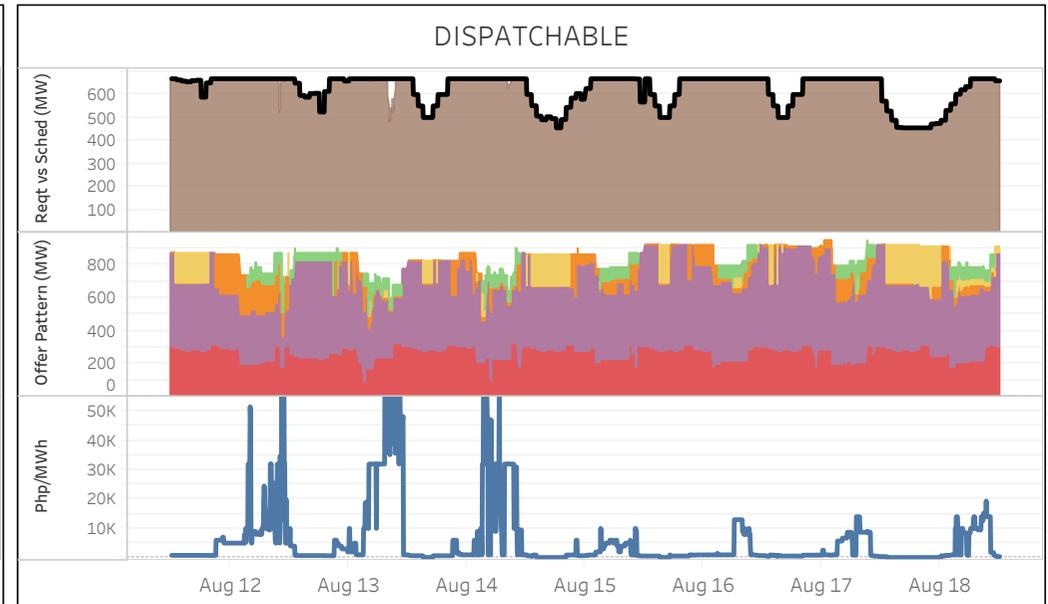
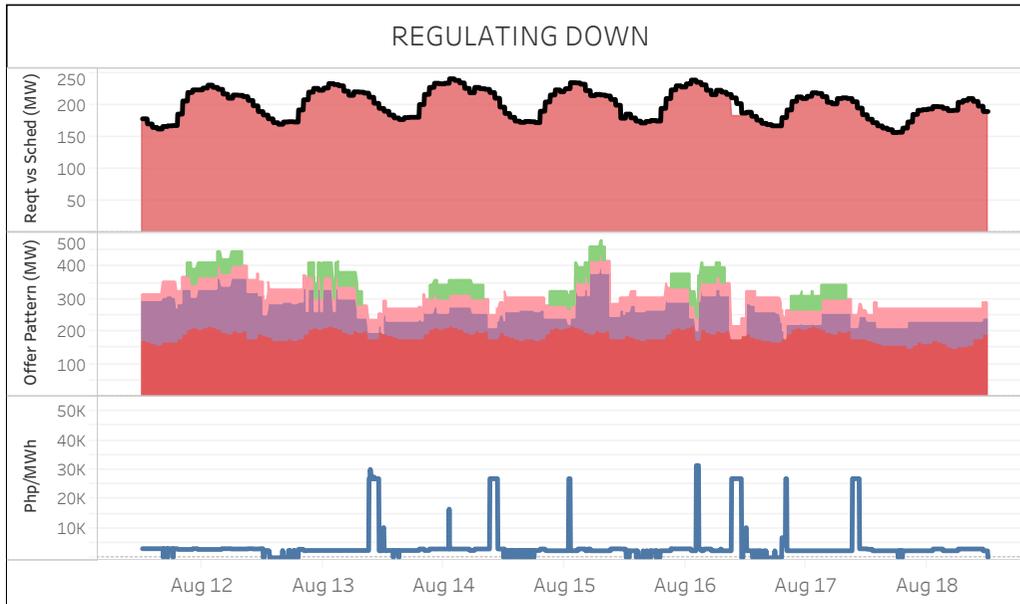
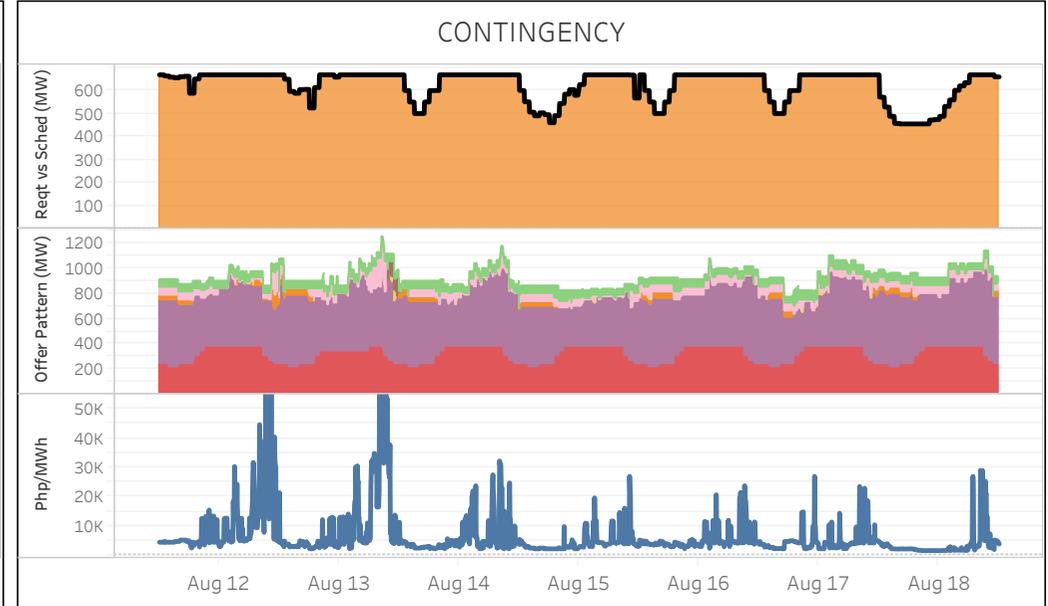
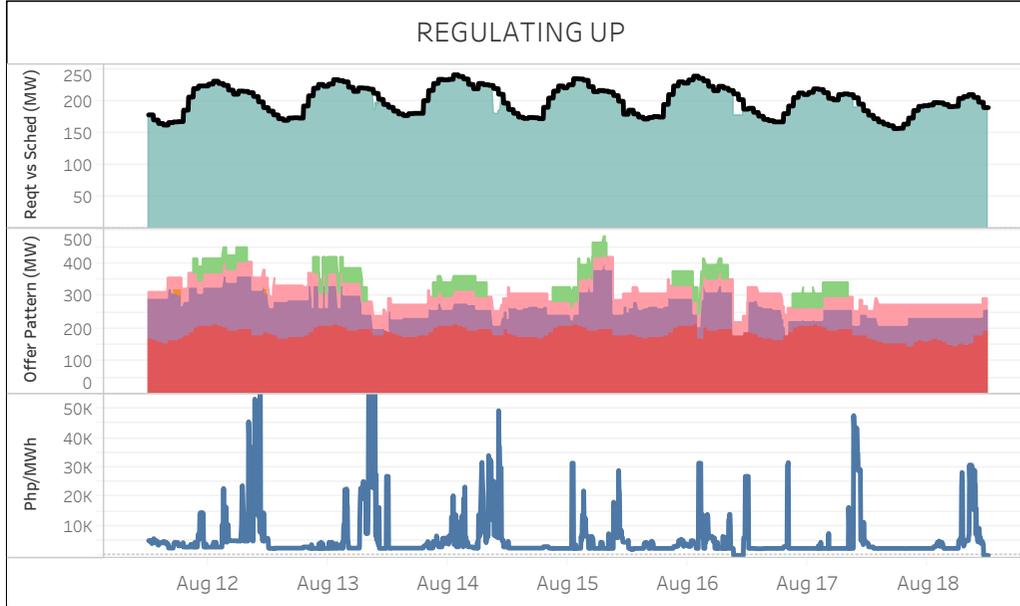


Mindanao



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



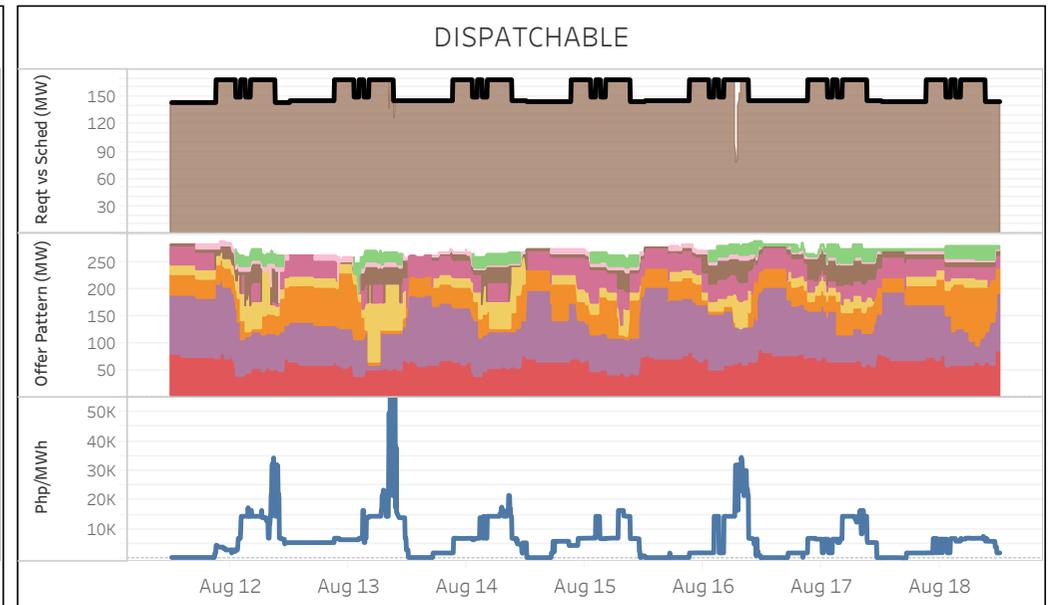
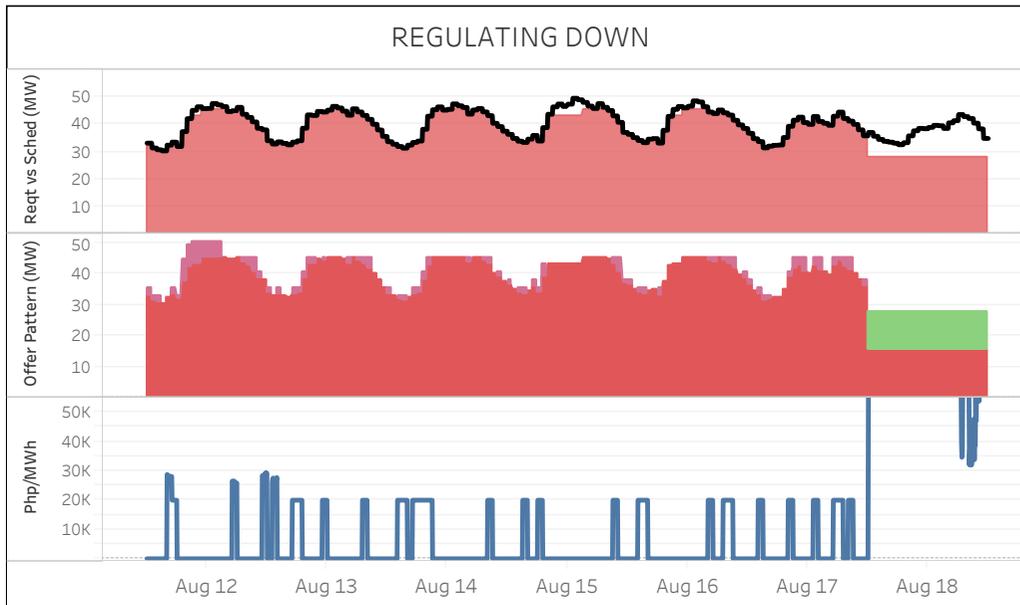
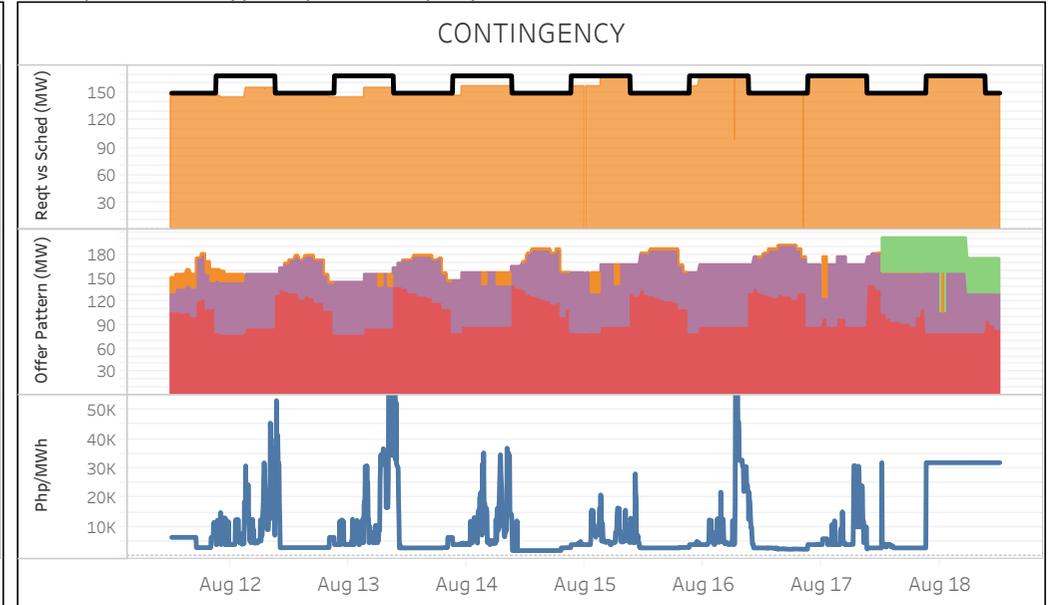
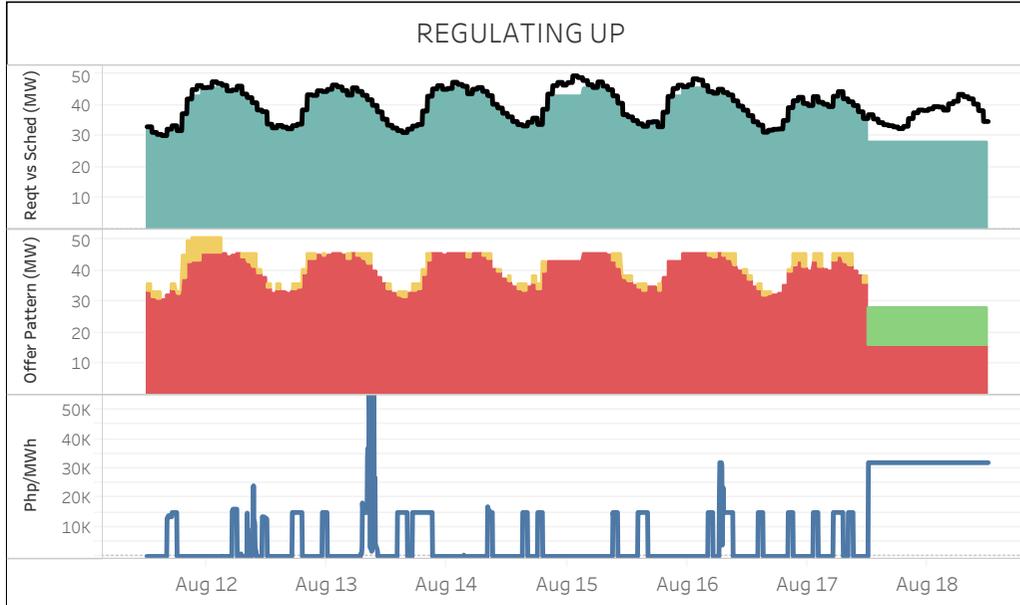
Offer Price Range

- | | | | |
|-------------------|---------------------|---------------------|---------------------|
| ■ PHP 0 and below | ■ PHP (5000,10000] | ■ PHP (15000,20000] | ■ PHP (25000,30000] |
| ■ PHP (0,5000] | ■ PHP (10000,15000] | ■ PHP (20000,25000] | ■ PHP (30000,32000] |

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

RESERVE MARKET DATA - VISAYAS

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



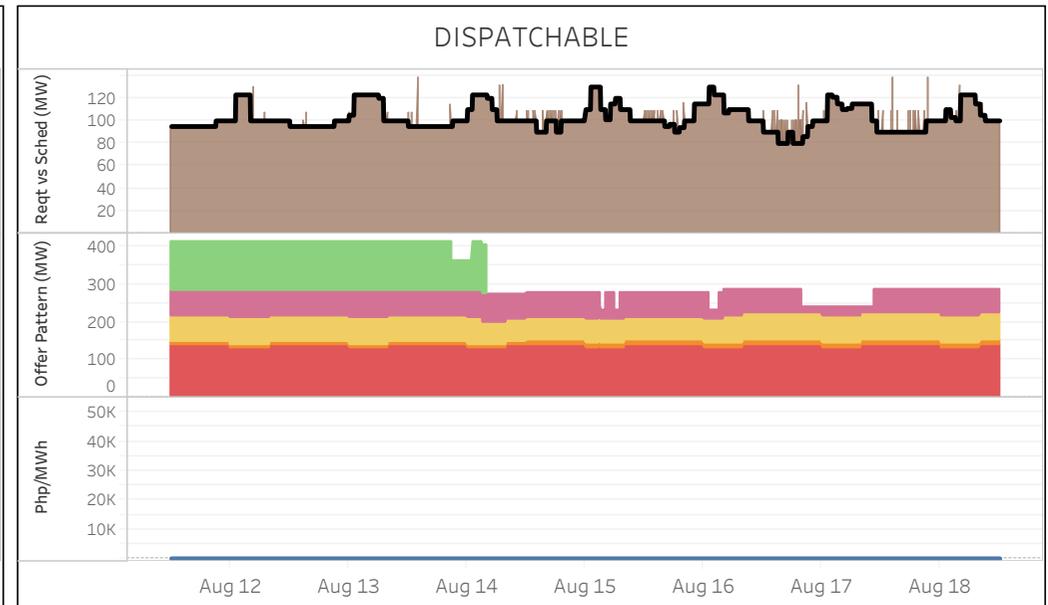
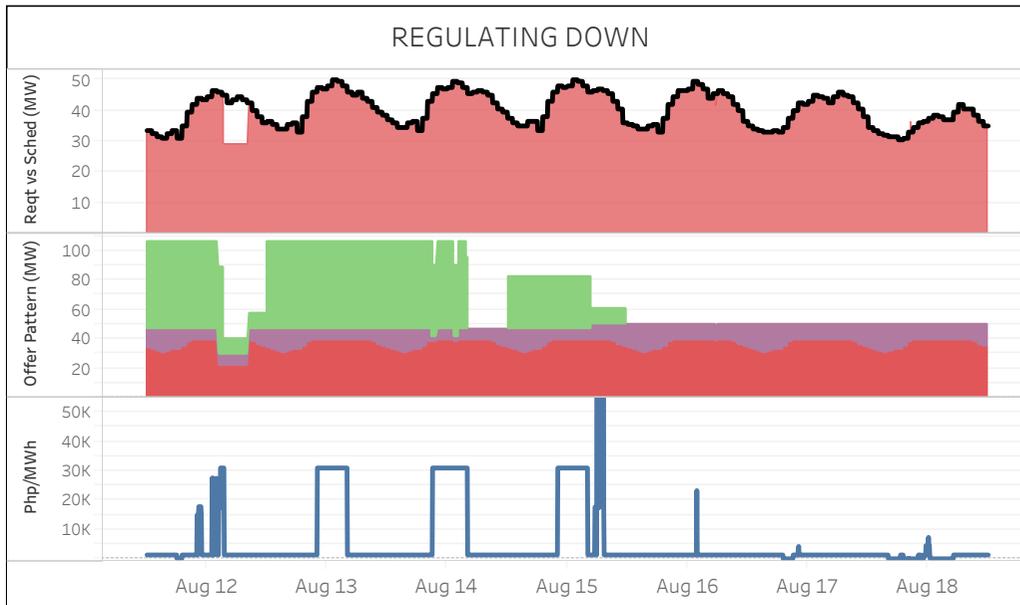
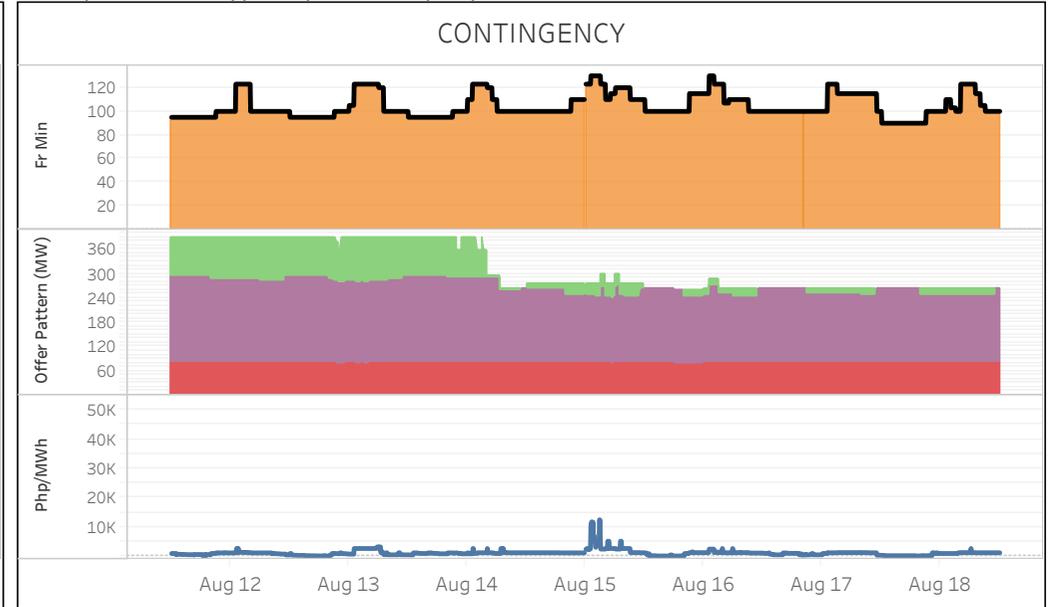
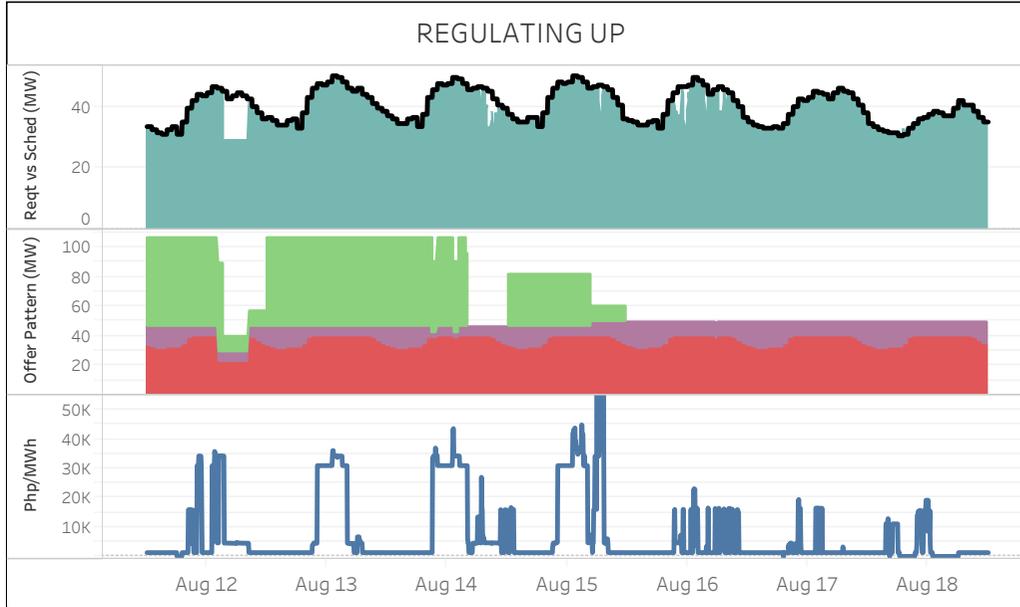
Offer Price Range

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

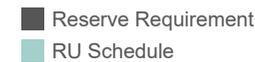
- Reserve Requirement
- RU Schedule
- RD Schedule
- FR Schedule
- DR Schedule

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



Offer Price Range



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 Maintenance* - 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.

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 1,000 - not concentrated; (2) 1,000 to 1,800 - moderately concentrated; (3) greater than 1,800 - concentrated; and (4) greater than 2,500 - highly concentrated.

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.

NOMINATED CAPACITY

The available capacity declared by self-scheduled generators.

GLOSSARY OF TERMS**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 unpredictable 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.

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.

DISCLAIMER

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