



MONTHLY OVER-RIDING CONSTRAINTS HIGHLIGHTS

26 June to 25 July 2023

The information contained in this document is based on data that are subject to continuous verification by the Philippine Electricity Market Corporation (PEMC). The same information is subject to change as updated figures come in.

SUMMARY OF OBSERVATIONS

- Decrease in over-riding constraints (OC) impositions in Luzon during the latter part of the second week of the billing period was due to the outage of Natural Gas plants undergoing performance test.
- Natural gas plants imposed with OC were likewise scheduled with the largest MW.
- In Mindanao, all OCs imposed to Oil-based plants, majority of which were attributable to designation as Must-Run Units (MRUs) to address the system voltage requirement.

AT A GLANCE

Total Over-riding
Constraints
Imposition

52,408

▼ **9.61%**
decrease from
previous billing
period



LUZON
36,068



SOLAR plants have the
HIGHEST # of OC imposition

NATGAS plants, on average,
LARGEST MW scheduled due to
performance test



MOST impositions are due to
COMMISSIONING TESTS



VISAYAS
8,474



HYDRO plants have the
HIGHEST # of OC imposition

COAL plants, on average,
LARGEST MW scheduled due to
emission test



same with Luz, **MOST** impositions are
due to **COMMISSIONING TESTS**



MINDANAO
7,866



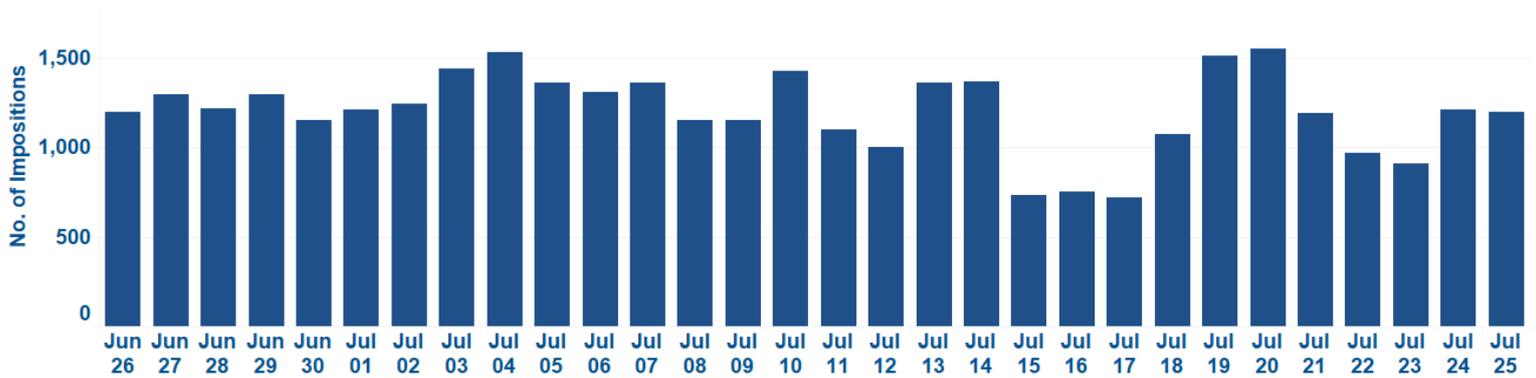
OIL-BASED plants have the
HIGHEST # of OC imposition



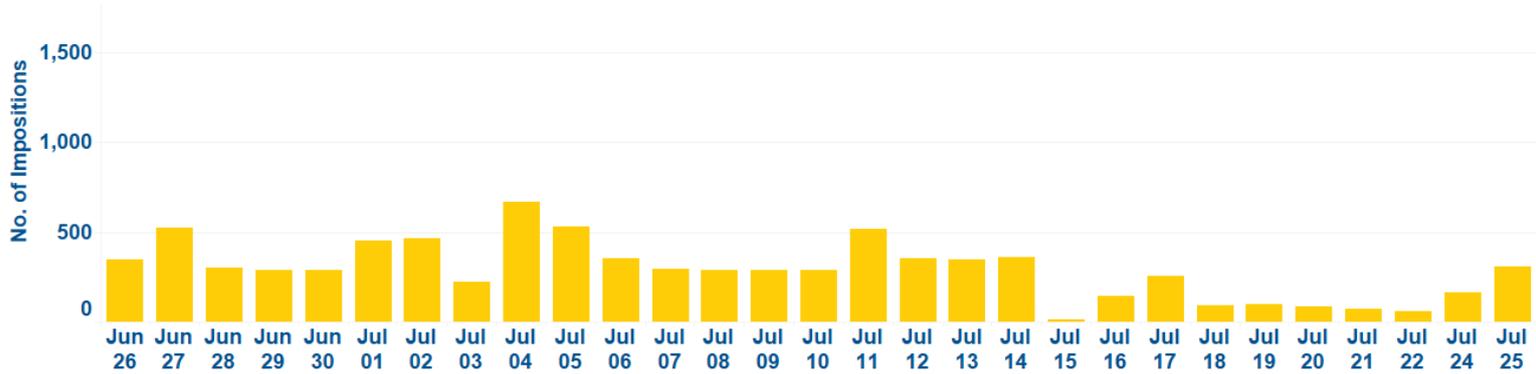
MOST impositions are due to **MUST-RUN UNIT**

Luzon

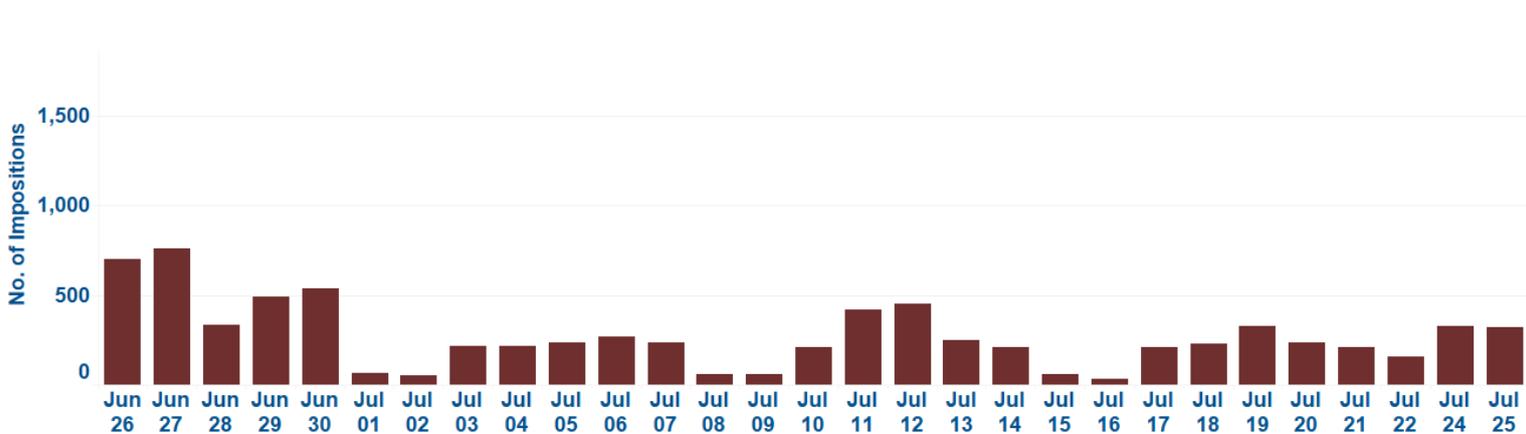
By region



Visayas



Mindanao



Majority of the OC impositions were noted to be accounted to **Luzon grid plants**, with small shares of OC impositions observed in Visayas and Mindanao regions.

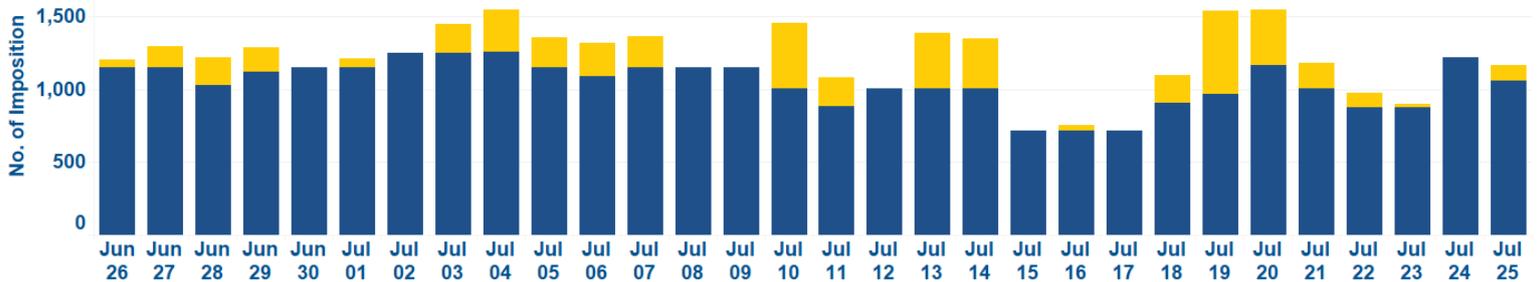
OC IMPOSITIONS

By incident

Incident

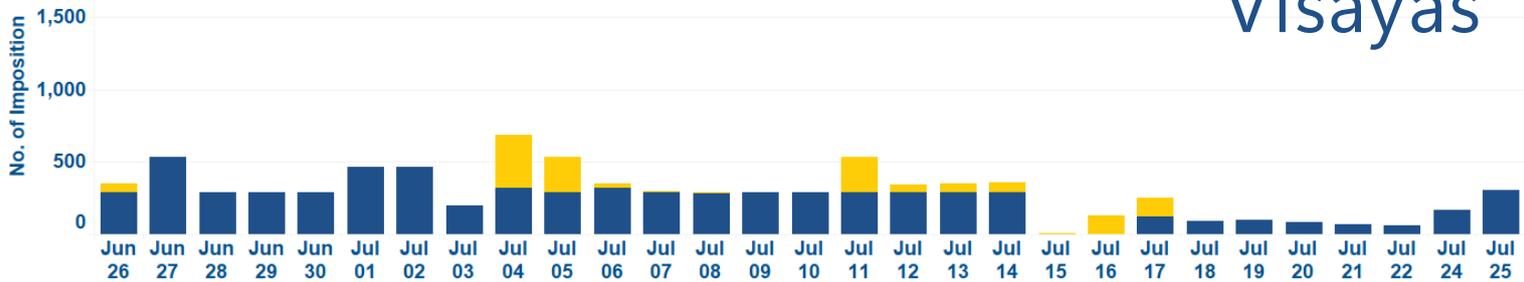
- MRU
- Commercial and Regulatory Requirements
- Commissioning Test

Luzon



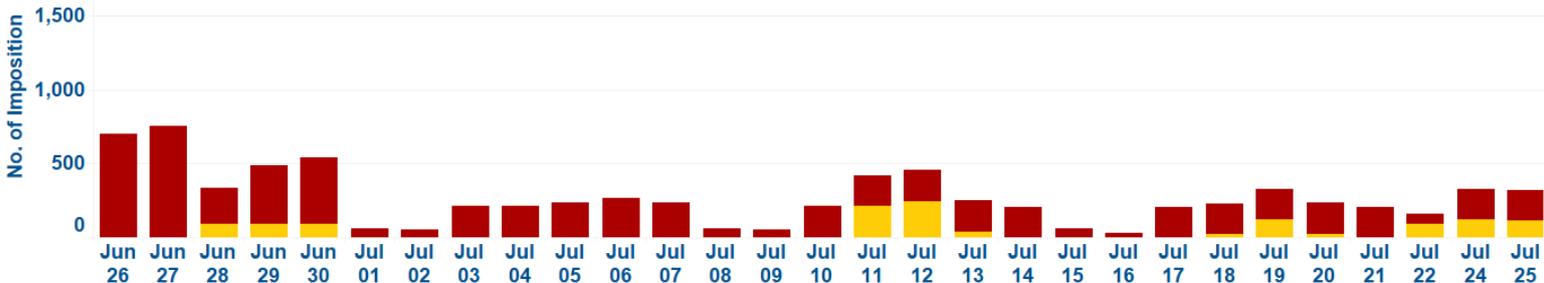
Commissioning tests were imposed majority of the time during the July 2023 billing period for Luzon Grid.

Visayas



In Visayas, a decrease in OC impositions during 3rd week of the July billing period was observed due to the start of commercial operation of one (1) plant.

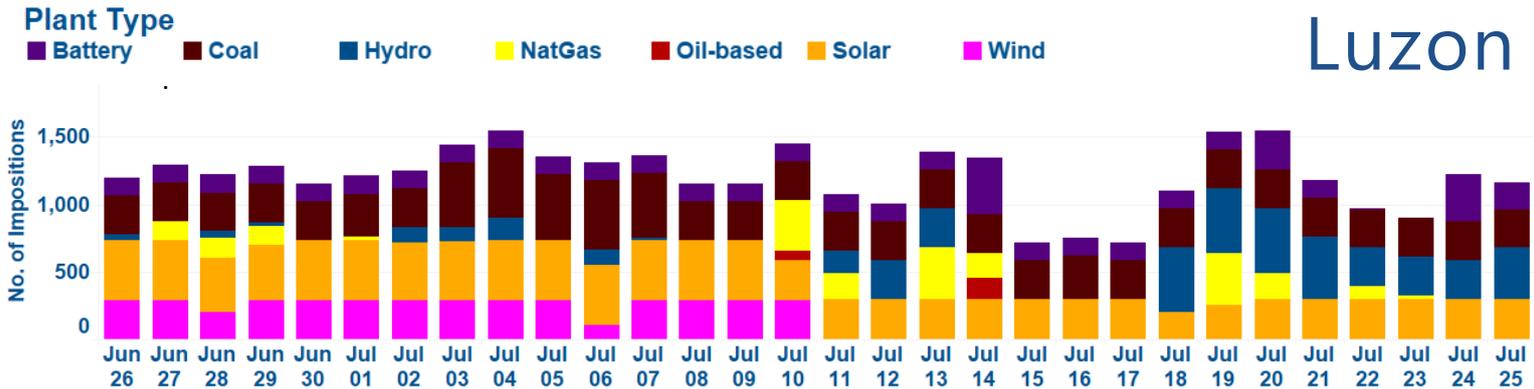
Mindanao



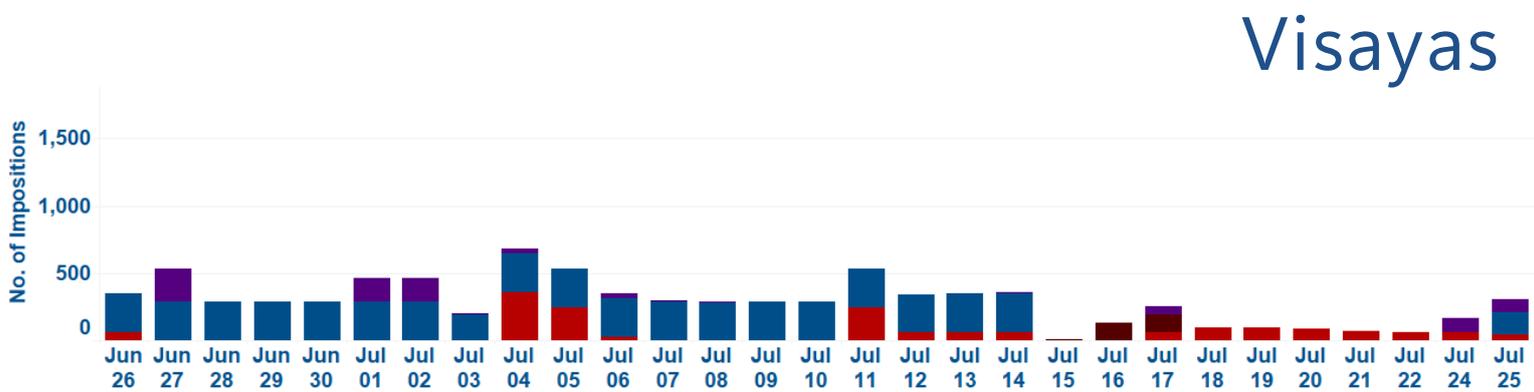
Majority of the impositions in Mindanao was attributed to MRU to address the system voltage requirement of the grid in the region.

OC IMPOSITIONS

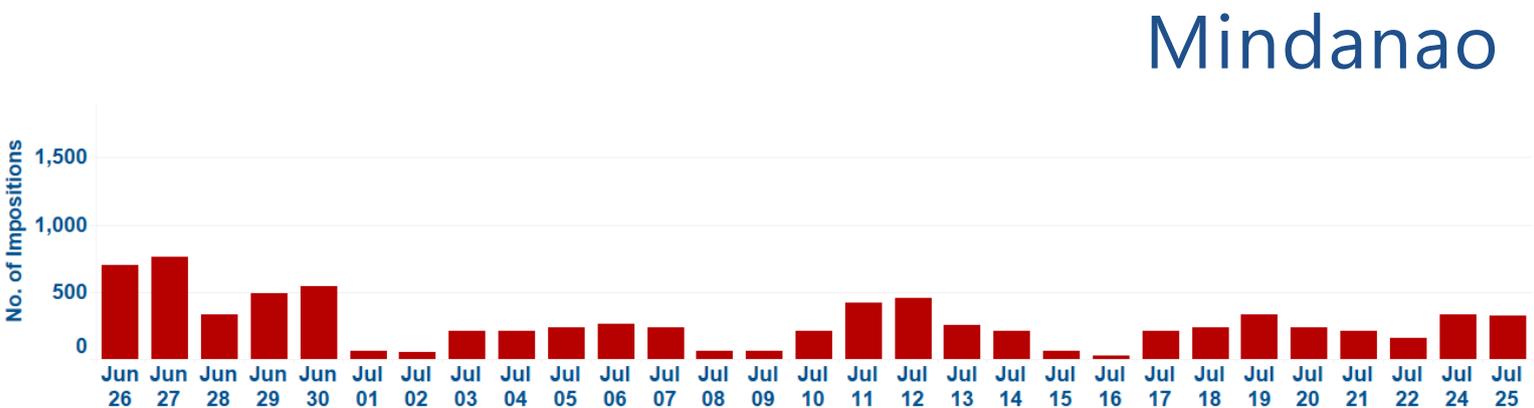
By plant type



Solar and coal plants were with the highest imposition during the July 2023 billing period in the Luzon grid.



In Visayas, the commercial operation of a hydro plant resulted in the decrease of OC imposition during the 3rd week of the billing period.

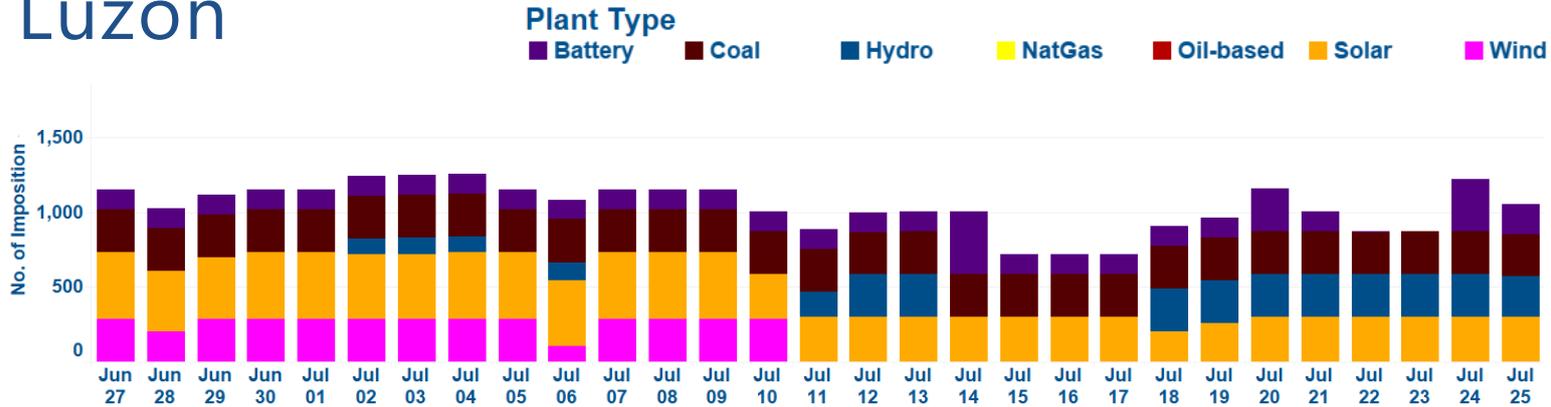


Oil-based plants was the only resource type imposed with OC in the Mindanao region.

OC IMPOSITIONS

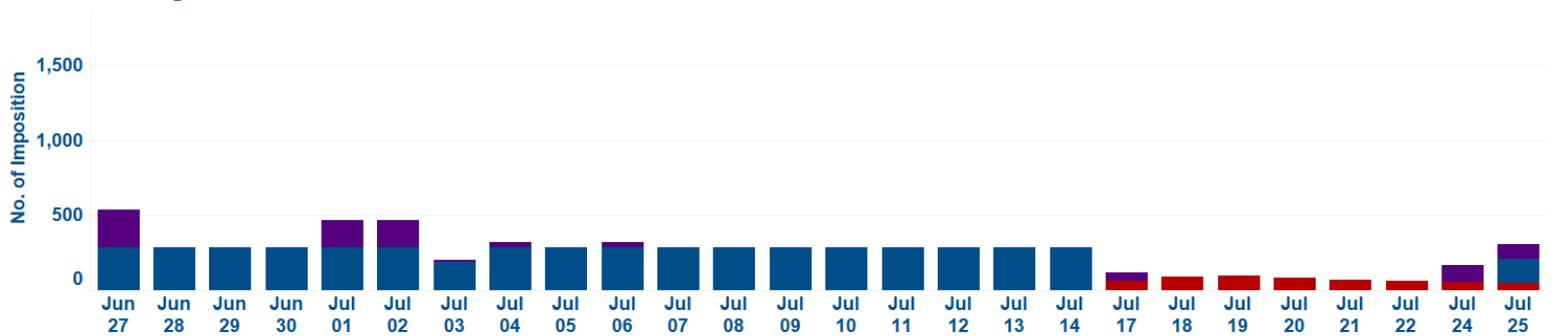
Commissioning Test

Luzon



Expiration of Provisional Certificate of Approval to Connect (PCATC) for a wind plant in Luzon prevented them to be imposed during the 2nd half of the billing period.

Visayas



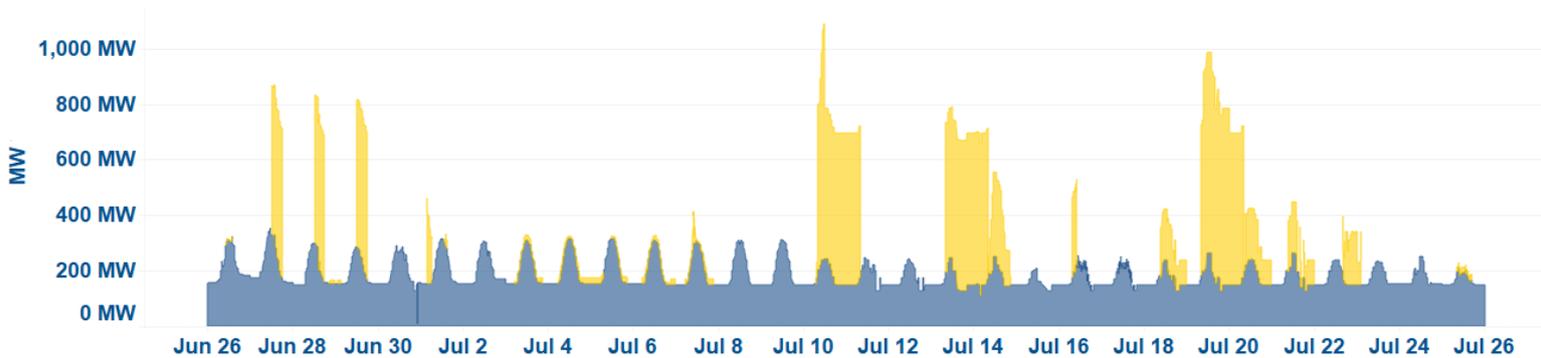
Start of commissioning test of an Oil-based plant was noted during 3rd week of July billing period.

MW SCHEDULE By Incident

Incident

- Commercial and Regulatory Requirements
- Commissioning Test
- MRU

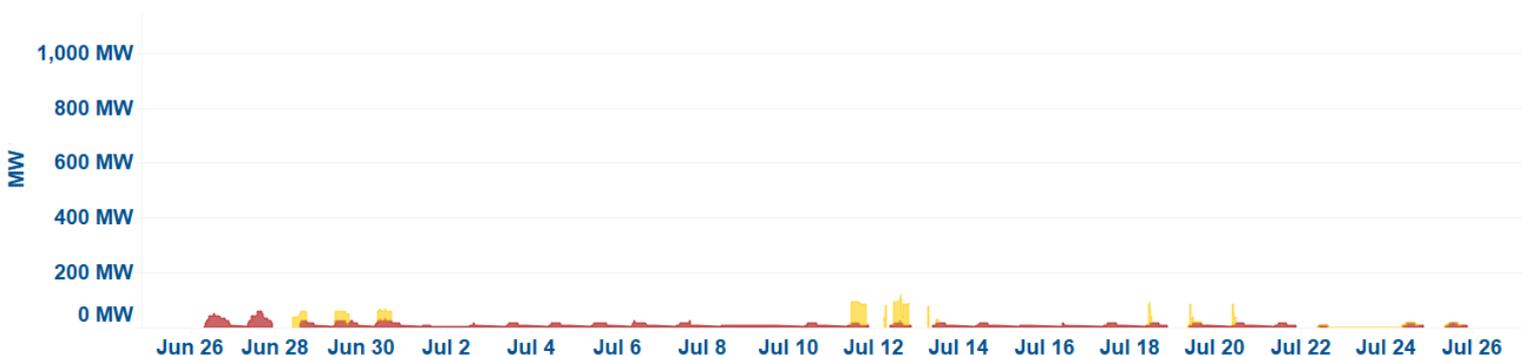
Luzon



Visayas



Mindanao

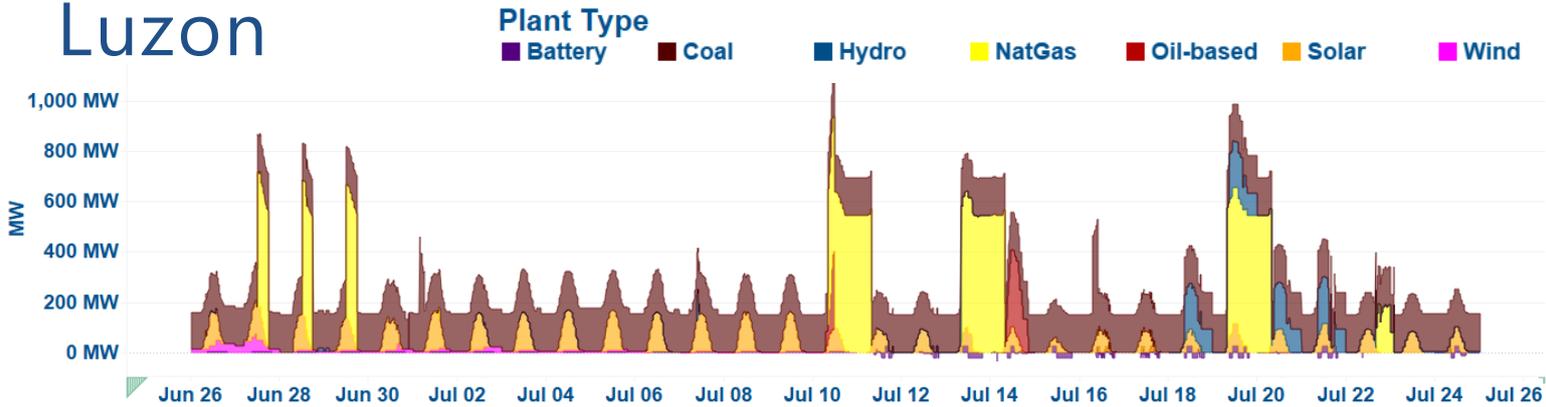


In terms of MW schedule of plants in **Luzon, Visayas, and Mindanao** with OC impositions, plants undergoing commercial and regulatory requirements were scheduled on higher MW levels than commissioning tests.

MW SCHEDULE

By plant type

Luzon



In Luzon, the highest MW scheduled during the billing period was due to net dependable capacity and performance tests of natural gas plant.

Visayas



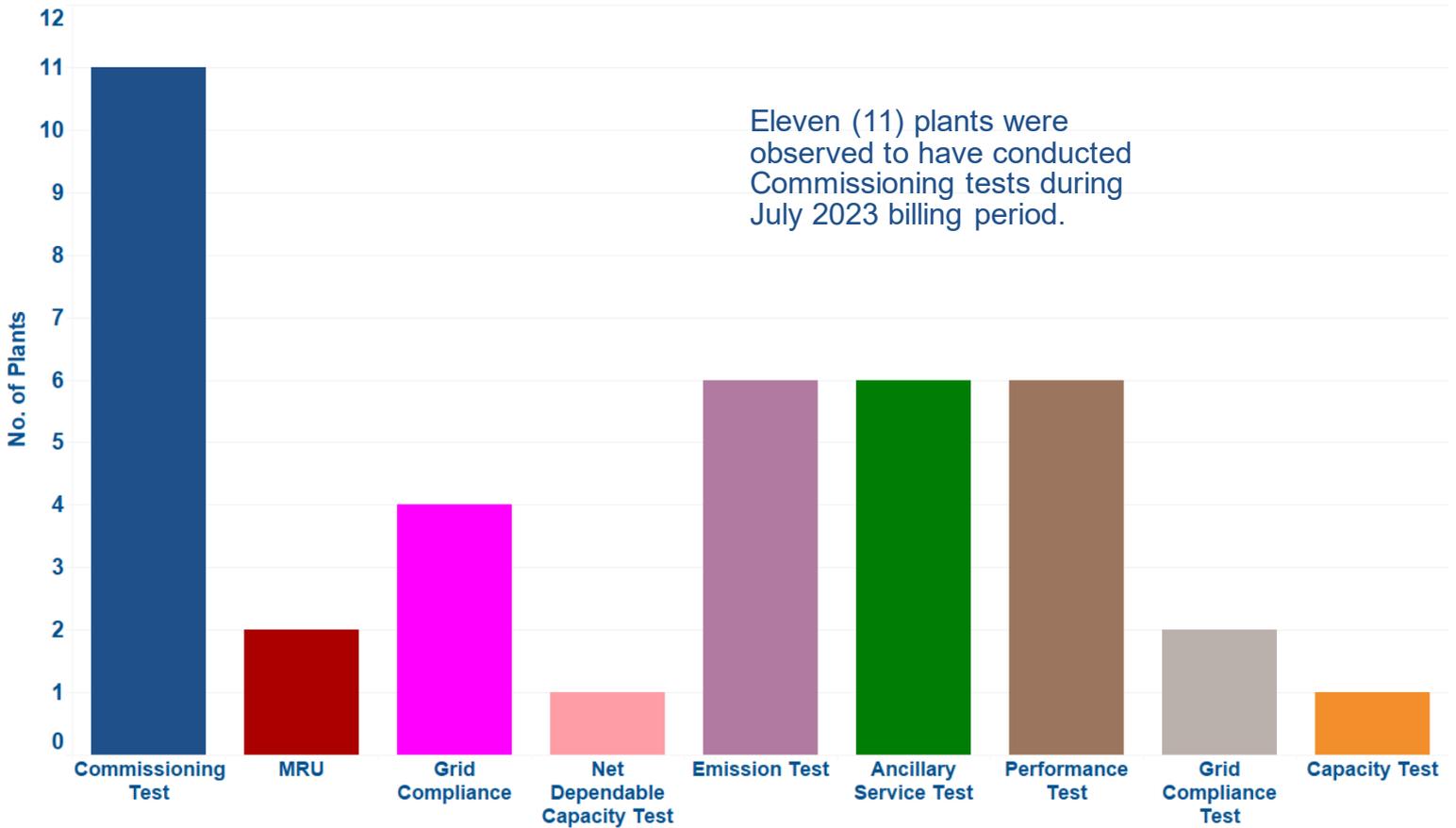
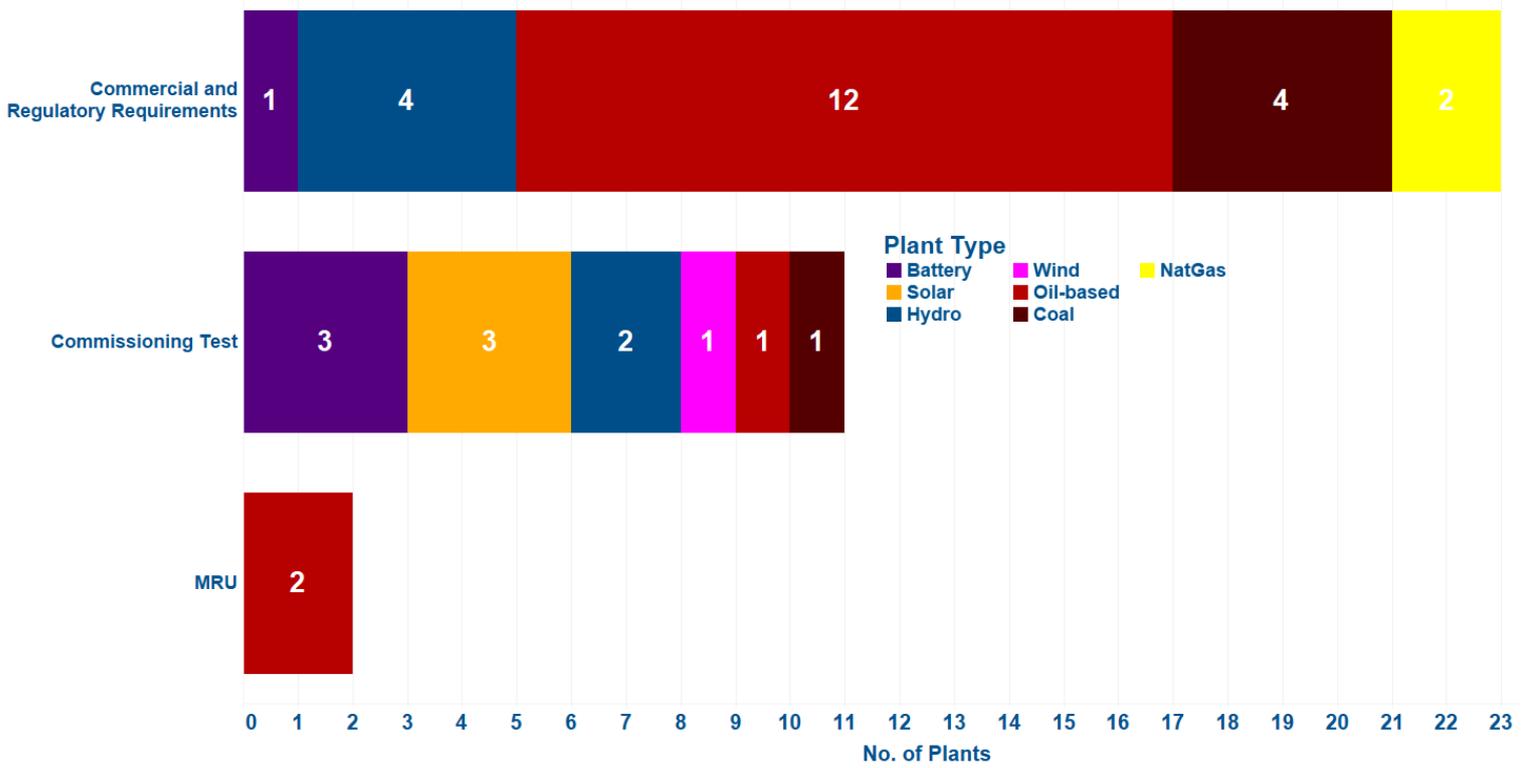
Conduct of grid compliance test of a coal plant was noted to have the highest MW scheduled level in Visayas during the billing period.

Mindanao



The MW schedule observed was a result of ancillary service testing in Mindanao region.

NUMBER OF PLANTS



ANNEX

Plants with Over-riding Constraints

Plant/Unit Name	Plant Type	Registered Capacity (MW) ¹
LUZON		
Ambuklao Hydroelectric Power Plant Unit 1	Hydro	37.5
Ambuklao Hydroelectric Power Plant Unit 2	Hydro	37.5
Ambuklao Hydroelectric Power Plant Unit 3	Hydro	37.5
Arayat-Mexico Solar Power Plant Project Phase 2	Solar	30.9
Balaoi and Caunayan Wind Power Project Phase 1	Wind	80.0
Currimao 2 Solar Power Plant	Solar	68.7
Bataan Battery Energy Storage System	Battery	40.0
Magat Battery Energy Storage System	Battery	24.0
Mariveles Coal-Fired Power Plant 2	Coal	316.0
Mariveles Coal-fired Thermal Power Plant- Phase 1	Coal	150.0
Refinery Solid Fuel-Fired Boiler Power Plant	Coal	140.0
San Roque Hydro Electric Power Plant Unit 2	Hydro	145.0
Pinugay Solar Power Plant	Solar	75.0
San Gabriel Avion Natural Gas-Fired Power Plant Unit 1	Natural Gas	47.2
Botocan Hydro Electric Power Plant	Hydro	20.8
Kalayaan Hydro Electric Power Plant 1	Hydro	180.0
Kalayaan Hydro Electric Power Plant 2	Hydro	180.0
Kalayaan Hydro Electric Power Plant 3	Hydro	180.0
Kalayaan Hydro Electric Power Plant 4	Hydro	180.0
Malaya Thermal Power Plant Unit 2	Oil-Based	130.0
Pagbilao 3 Power Plant	Coal	420.0
Sta. Rita Natural Gas Power Plant 1	Natural Gas	257.3
Sta. Rita Natural Gas Power Plant 2	Natural Gas	255.7
Sta. Rita Natural Gas Power Plant 3	Natural Gas	265.5
Sta. Rita Natural Gas Power Plant 4	Natural Gas	264.0
San Lorenzo Combined-Cycle Gas Turbine Power Plant Unit 50	Natural Gas	265.0
San Lorenzo Combined-Cycle Gas Turbine Power Plant Unit 60 (San Lorenzo CCGTPP)	Natural Gas	265.0
Tibag Hydroelectric Power Plant	Hydro	5.8
VISAYAS		
Calbayog Bunker C-Fired Diesel Power Plant	Oil-Based	11.2
Ormoc Battery Energy Storage System	Battery	40.0
KSPC Coal Fired Thermal Power Plant Unit 1	Coal	103.0
KSPC Coal Fired Thermal Power Plant Unit 2	Coal	103.0

¹ As of 26 July 2023

Plant/Unit Name	Plant Type	Registered Capacity (MW) ¹
Toledo Battery Energy Storage System	Battery	20.0
Naga Oil-Fired Power Plant Unit 1	Oil-Based	6.7
Naga Oil-Fired Power Plant Unit 2	Oil-Based	6.7
Naga Oil-Fired Power Plant Unit 3	Oil-Based	6.8
Naga Oil-Fired Power Plant Unit 4	Oil-Based	6.8
Naga Oil-Fired Power Plant Unit 5	Oil-Based	6.8
Naga Oil-Fired Power Plant Unit 6	Oil-Based	6.8
Kabankalan Battery Energy Storage System	Battery	20.0
Bohol Diesel Power Plant Unit 1	Oil-Based	4.0
Bohol Diesel Power Plant Unit 2	Oil-Based	4.0
Bohol Diesel Power Plant Unit 3	Oil-Based	4.2
Bohol Diesel Power Plant Unit 4	Oil-Based	4.0
Nabas Diesel Power Plant	Oil-Based	6.4
Power Barge 101- Unit 2	Oil-Based	6.0
Timbaban Hydro Power Plant	Hydro	18.9
MINDANAO		
Misamis Occidental Bunker C-Fired Diesel Power Plant 3	Oil-Based	15.5
Bunker-C Fired Diesel Power Plant Unit 1	Oil-Based	10.7
Bunker-C Fired Diesel Power Plant Unit 2	Oil-Based	10.7
Bunker-C Fired Diesel Power Plant Unit 3	Oil-Based	10.7
Bunker-C Fired Diesel Power Plant Unit 5	Oil-Based	10.7
Bunker-C Fired Diesel Power Plant Unit 6	Oil-Based	10.7
Bunker-C Fired Diesel Power Plant Unit 7	Oil-Based	10.7
Bunker-C Fired Diesel Power Plant Unit 8	Oil-Based	10.7
Bunker-C Fired Diesel Power Plant Unit 9	Oil-Based	10.7
Bunker-C Fired Diesel Power Plant Unit 10	Oil-Based	10.7
Agus IV Hydroelectric Power Plant Unit 1	Hydro	52.7
Agus IV Hydroelectric Power Plant Unit 2	Hydro	52.7
Agus IV Hydroelectric Power Plant Unit 3	Hydro	52.7
Iligan Diesel Power Plant (Units 1-19)	Oil-Based	102.0
NBPC 6.20 MW Bunker C Fired Diesel Power Plant	Oil-Based	5.0
Pulangi IV Hydroelectric Power Plant Unit 1	Hydro	75.0
Pulangi IV Hydroelectric Power Plant Unit 2	Hydro	75.0
Pulangi IV Hydroelectric Power Plant Unit 3	Hydro	75.0
Digos Modular Diesel Power Plant (Units 1-16)	Oil-Based	16.9
Mindanao I Geothermal Power Plant	Geothermal	50.0
Mindanao II Geothermal Power Plant	Geothermal	50.0

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