



Market Surveillance Committee Monthly Over-riding Constraints Report

26 August to 25 September 2022

January 2023

This Report is prepared by the
Philippine Electricity Market Corporation –
Market Assessment Group for the
Market Surveillance Committee

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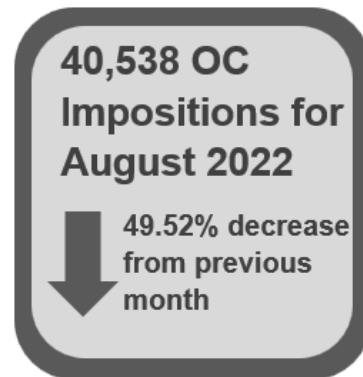
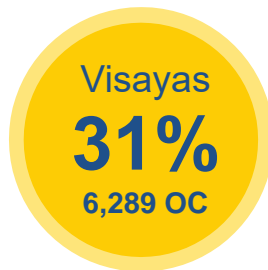
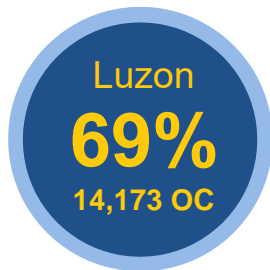
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MONTHLY REPORT ON OVER-RIDING CONSTRAINTS

IMPOSITIONS BY CATEGORY AND REGION

20,462 Total Impositions

All of which are **non-security** limits



A **49.52% decrease** to the overall impositions was observed during the September 2022 billing month. Both commissioning test, and commercial and regulatory requirements saw a decrease in impositions to **27 Luzon** and **15 Visayas plants**.

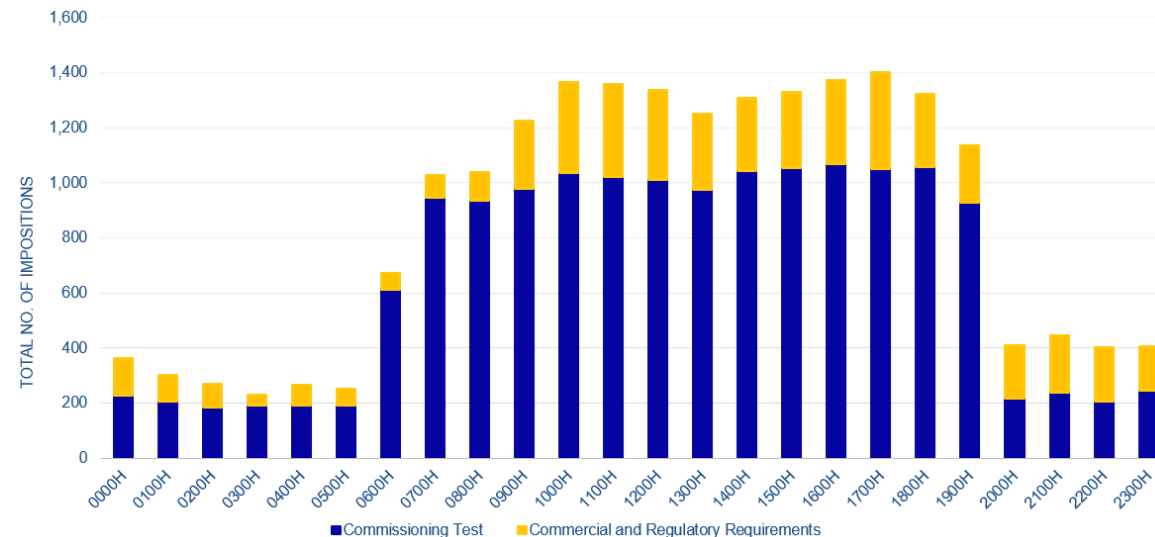
No security limits were noted during the September 2022 billing month.

Note: Under the Dispatch Protocol Manual Issue 16.0, imposition of over-riding constraints falls into 2 categories – 1) security limit i.e., MRU and other types as may be recommended by SO and 2) non-security limit. Security limit is imposed to address possible threats in system security while non-security limit is related to 1) generating unit limitations, 2) commercial and regulatory tests, and lastly, 3) conduct of commissioning test of plants.

The monitoring of the over-riding constraints is based on the data and information provided by MO (i.e., real time market results and MMS-input files on security limits) and SO (i.e., SO Data for Market Monitoring).

IMPOSITIONS BY HOUR

IMPOSITIONS BY INCIDENTS



Similar with the hourly trend for the previous month, majority of over-riding constraints imposed over a 24-hour period were caused by the conduct of commissioning tests or **74 percent of the total impositions**.

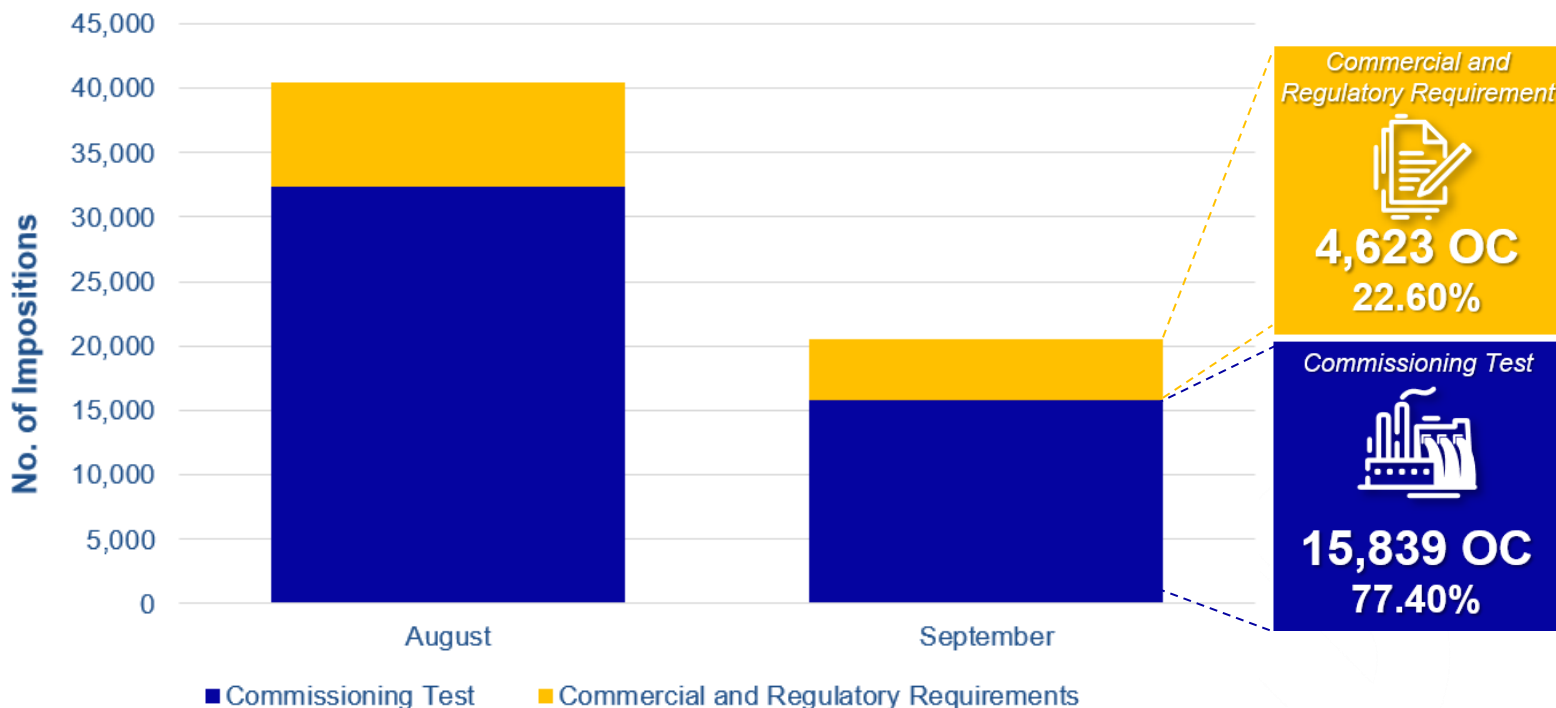
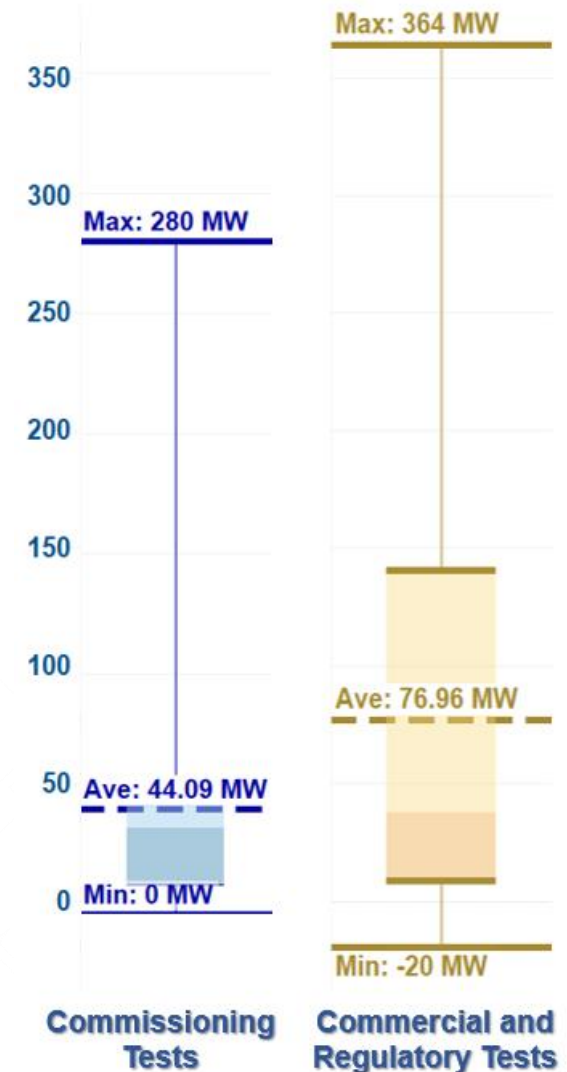
Also, lesser over-riding constraints imposition were noted during the 1300H for Hydro plants compared to other plant types.

MONTHLY REPORT ON OVER-RIDING CONSTRAINTS

The expiration of commissioning test period of several battery and solar plants, and the completion of commissioning test of a coal and solar plant resulted in the decrease in overall imposition of over-riding constraints. In addition, the drop in commercial and regulatory requirement testing was due to less ancillary service, compliance, and emission testing conducted during September 2022.

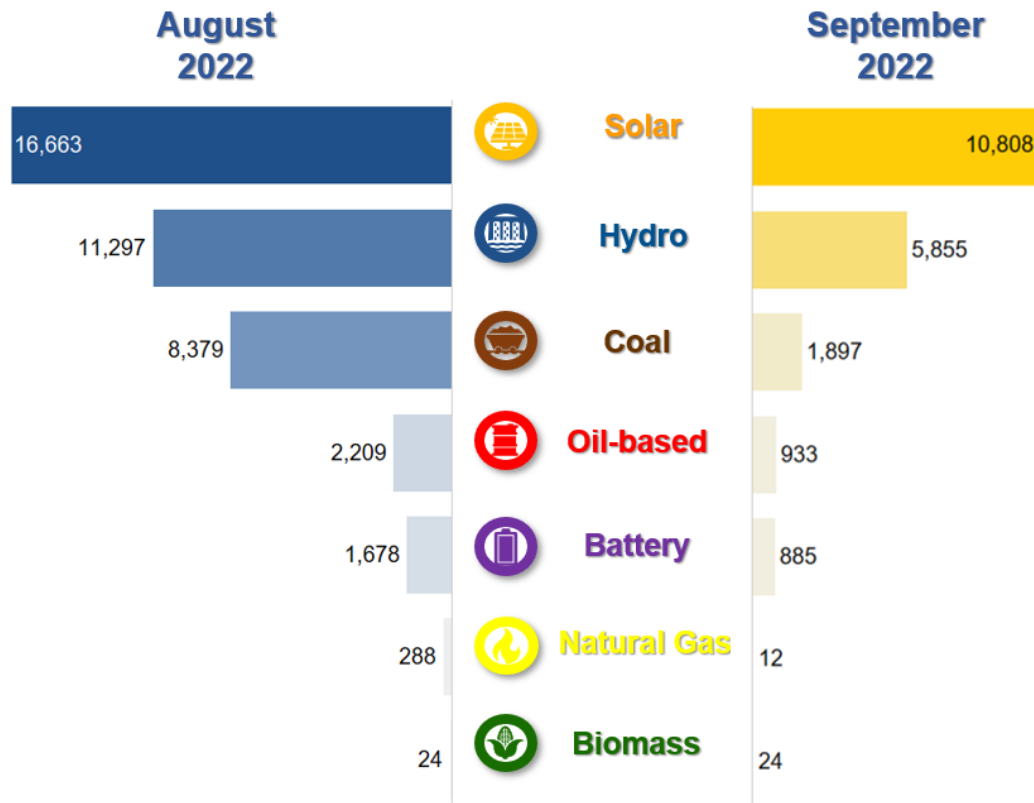
Even though commissioning tests had higher number of impositions compared to commercial and regulatory requirement tests, larger capacity plants were accounted to the latter resulting in higher MW scheduled than commissioning tests.

SCHEDULED CAPACITIES (MW)



MONTHLY REPORT ON OVER-RIDING CONSTRAINTS

IMPOSITIONS BY PLANT TYPE



Majority of the over-riding constraints impositions were accounted to commissioning tests of solar and hydro plants. A decrease in impositions were observed for both plant types due to expiration of their commissioning test periods.

The decrease noted in September 2022 billing month for coal plants was due to the completion of commissioning test of 1 coal plant. Meanwhile, the current impositions were attributable to the ancillary, capacity, compliance, emission, and performance tests. Also, a recommissioning test of a plant that was from a long force outage contributed to the imposition of over-riding constraint of coal plant.

Decrease in battery impositions was a result of expired commissioning test period.

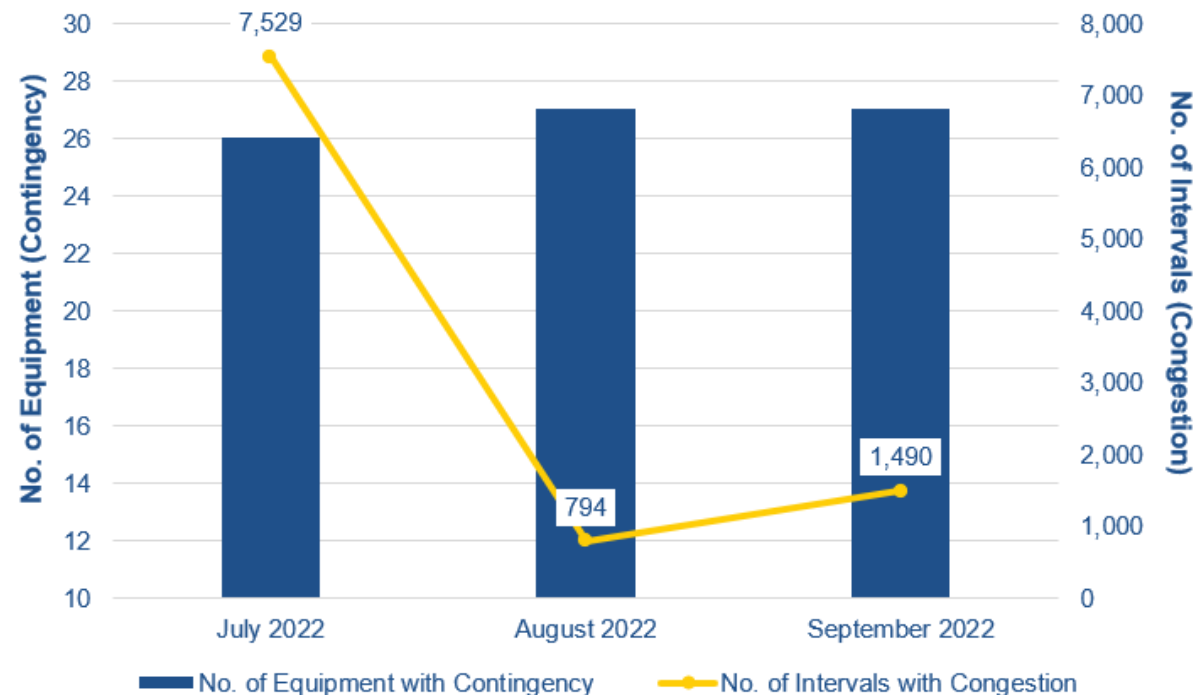
The impositions to oil-based plants are mainly attributable to the compliance and emission test while the small percentage of impositions to natural gas and biomass plants were due to performance and grid compliance tests.

MONTHLY REPORT ON OVER-RIDING CONSTRAINTS

IMPOSITIONS TO SYSTEM EQUIPMENT

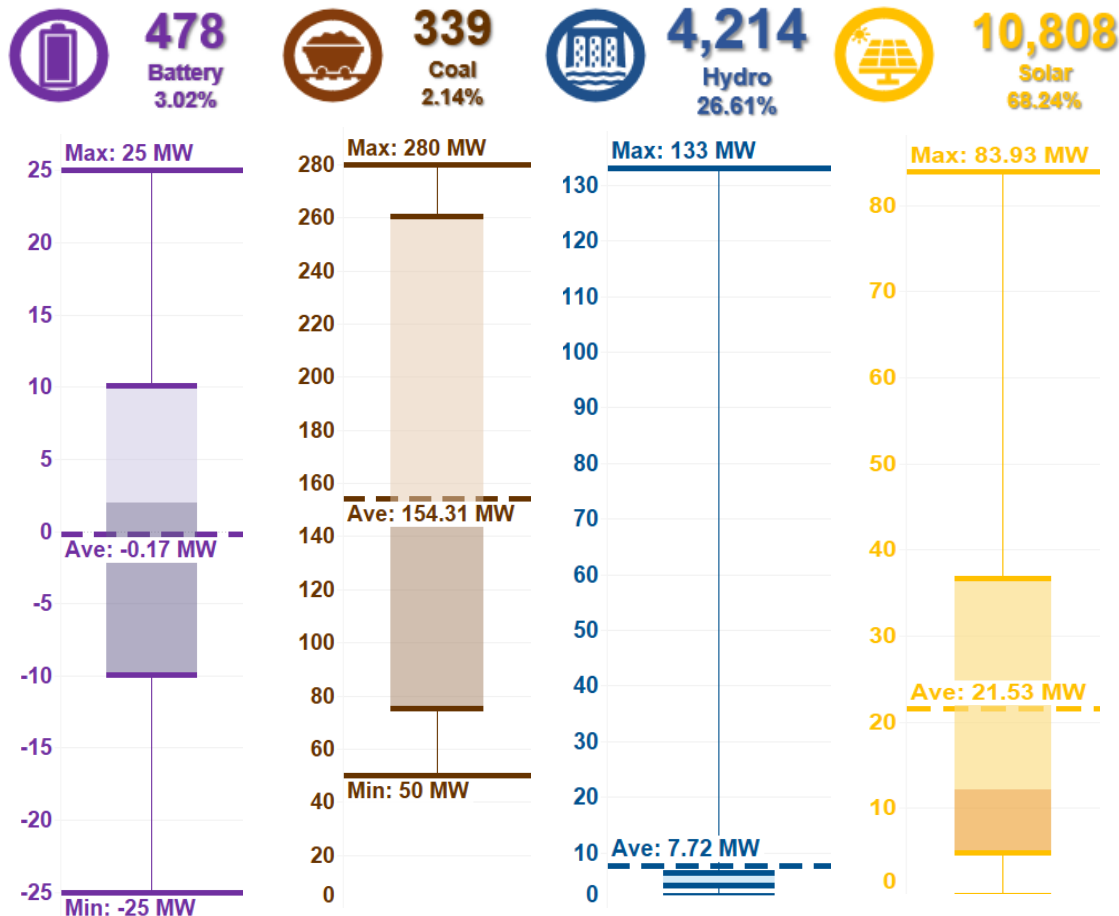
N-1 contingency requirements were imposed to **27 equipment** during the September 2022 billing month contributing to congestions for **1,490 intervals**, an 87.7% increase from the previous month. These impositions likewise contributed to the trigger for the implementation of **price substitution methodology (PSM)** for **179 intervals**. It should however be noted that there are intervals when the PSM would have been present but were overridden by the imposition of the secondary price cap due to continuous presence of high market prices.

Equipment imposed with N-1 Contingency
230kV Bauang-Latrinidad Line 1
230kV Bauang-Latrinidad Line 2
230kV Binga-Latrinidad Line 1
230kV Binga-Latrinidad Line 2
230kV Concepcion-Mexico Line 1
230kV Concepcion-Mexico Line 2
Nagsaag_EHV_Transformer 1
Nagsaag_EHV_Transformer 2
Kadampat_EHV_Transformer 1
Kadampat_EHV_Transformer 2
Kadampat_EHV_Transformer 3
Kadampat_EHV_Transformer 4
230kV San Manuel-Concepcion Line 1
230kV San Manuel-Concepcion Line 2
230kV Sucat-Binan Line 1
230kV Sucat-Binan Line 2
230kV Sucat-Binan Line 3
230kV Sucat-Binan Line 4
230kV Binan-Dasmarinas Line 1
230kV Binan-Dasmarinas Line 2
230kV Calamba-Binan Line 1
230kV Calamba-Binan Line 2
230kV Gumaca-Lumban Line 1
230kV Makban-Calamba Line 1
230kV Makban-Calamba Line 2
230kV Makban-Lumban Line 1
230kV Makban-Lumban Line 2



MONTHLY REPORT ON OVER-RIDING CONSTRAINTS

PLANTS ON COMMISSIONING TEST



The September 2022 billing month saw a decrease in impositions of over-riding constraints under commissioning tests when compared to the previous month brought about by the expiration of battery and solar plants' **Provisional Certificates of Approval to Connect (PCATCs)** which prohibited them from conducting further tests. An average of **19.63 MW** was scheduled and imposed with over-riding constraints due to commissioning tests.

This month, all impositions for commissioning tests were attributable to Solar, followed by Hydro, Battery, and Coal plants.

Based on the updates provided by the Independent Electricity Market Operator of the Philippines (IEMOP), the following were some of the updates on the **status of power plants under extended commissioning test** during the billing month:

- **1 Hydro and 2 Solar plants** were given respective extensions to their PCATCs to conduct commissioning tests
- **1 coal plant** conducted a recommissioning test after being on forced outage for extended period of time
- **4 Battery plants and 1 Hydro plant** had **expired** commissioning test periods in September 2022 and were yet to be issued with Final Certificate of Approval to Connect (FCATC) or Provisional Authority to Operate (PAO), or were yet to be given an extension for PCATC

In addition, a coal plant completed its commissioning test on 20 August 2022 and has been submitting its competitive offers to the market since.

Note: The Department of Energy (DOE) department circular no. DC2021-06-0013 (Adopting a General Framework Governing the Test and Commissioning of Generation Facilities for Ensuring Readiness to Deliver Energy to the Grid or Distribution Network) provides a transitory provision that:

- *Allows generation companies that are already on T&C, upon effectivity of the circular (especially those plants on prolonged commissioning test), to continue to conduct commissioning test for a maximum of two (2) months after the effectivity date.*

This will be in consideration in the MSC's monitoring of plants on prolonged testing commissioning test (beyond the maximum two-month period allowed also under the ERC Resolution No. 16, Series of 2014).

MONTHLY REPORT ON OVER-RIDING CONSTRAINTS

ANNEX A. LIST OF PLANTS WITH OVER-RIDING CONSTRAINTS¹

Plant/Unit Name	Plant Type	Registered Capacity (MW)
LUZON		
Ambuklao Hydroelectric Power Plant Unit 1	Hydro	35
Ambuklao Hydroelectric Power Plant Unit 2	Hydro	35
Ambuklao Hydroelectric Power Plant Unit 3	Hydro	35
Casecnan Hydro Electric Power Plant	Hydro	165
IBEC Biomass Power Plant	Biomass	18.3
Lamiao Battery Energy Storage System	Battery	20
BCCPP Battery Energy Storage System	Battery	40
Mariveles Coal-Fired Power Plant 1	Coal	316
Mariveles Coal-Fired Power Plant 2	Coal	316
Masinloc Advancion Energy Storage Array	Battery	10
NIA Baligatan Hydro Electric Power Plant	Hydro	6
Pasuquin Solar Power Plant	Solar	96
RASLAG III Solar PV Plant	Solar	15
Subic Diesel Power Plant	Oil-based	110
San Manuel Battery Energy Storage System	Battery	60
San Roque Hydro Electric Power Plant Unit 1	Hydro	145
San Roque Hydro Electric Power Plant Unit 2	Hydro	145
San Roque Hydro Electric Power Plant Unit 3	Hydro	145
Sta. Rita Solar Power Plant	Solar	56.6
Subplant 2 Alaminos Battery Energy Storage System	Battery	20

¹ In accordance with the Market Operator Information Disclosure and Confidentiality (MO IDC) Manual Issue 7.0

MONTHLY REPORT ON OVER-RIDING CONSTRAINTS

Plant/Unit Name	Plant Type	Registered Capacity (MW)
Calaca Coal-Fired Thermal Power Plant 2	Coal	300
Caliraya Hydro Electric Power Plant	Hydro	28
Malaya Oil Thermal Power Plant 1	Oil-based	130
Pagbilao Coal-Fired Power Plant 1	Coal	382
Pagbilao Coal-Fired Power Plant 2	Coal	382
Sta. Rita Natural Gas Power Plant 3	Natural Gas	265.5
VISAYAS		
Tubig Hydroelectric Power Plant	Hydro	15.9
CEDC Coal-Fired Thermal Power Plant Unit 3	Coal	82
Therma Visayas Coal-Fired Power Plant Unit 1	Coal	169
Therma Visayas Coal-Fired Power Plant Unit 2	Coal	169
PEDC Coal-Fired Thermal Power Plant Unit 1	Coal	83.7
PEDC Coal-Fired Thermal Power Plant Unit 2	Coal	83.7
PEDC Coal-Fired Thermal Power Plant Unit 3	Coal	150
PPC 2 Diesel Power Plant	Oil-based	16
PPC 1A Diesel Power Plant	Oil-based	31.5
PPC 1B Diesel Power Plant	Oil-based	31.5
Power Barge 101- Unit 1	Oil-based	6
Power Barge 101- Unit 2	Oil-based	6
Power Barge 101- Unit 3	Oil-based	6
Power Barge 101- Unit 4	Oil-based	6
Timbaban Hydro Power Plant	Hydro	18.9