MONTHLY MONITORING OF OVER-RIDING CONSTRAINTS STATISTICS

JANUARY 2025

(26 December 2024 to 25 January 2025)

Document Information Classification: Public

PUBLIC

AT A GLANCE

26 December 2024 - 25 January 2025

Total Over-riding Constraints Imposition **113,130** | **▼16.66 %** decrease from previous billing period

LUZON
91,579

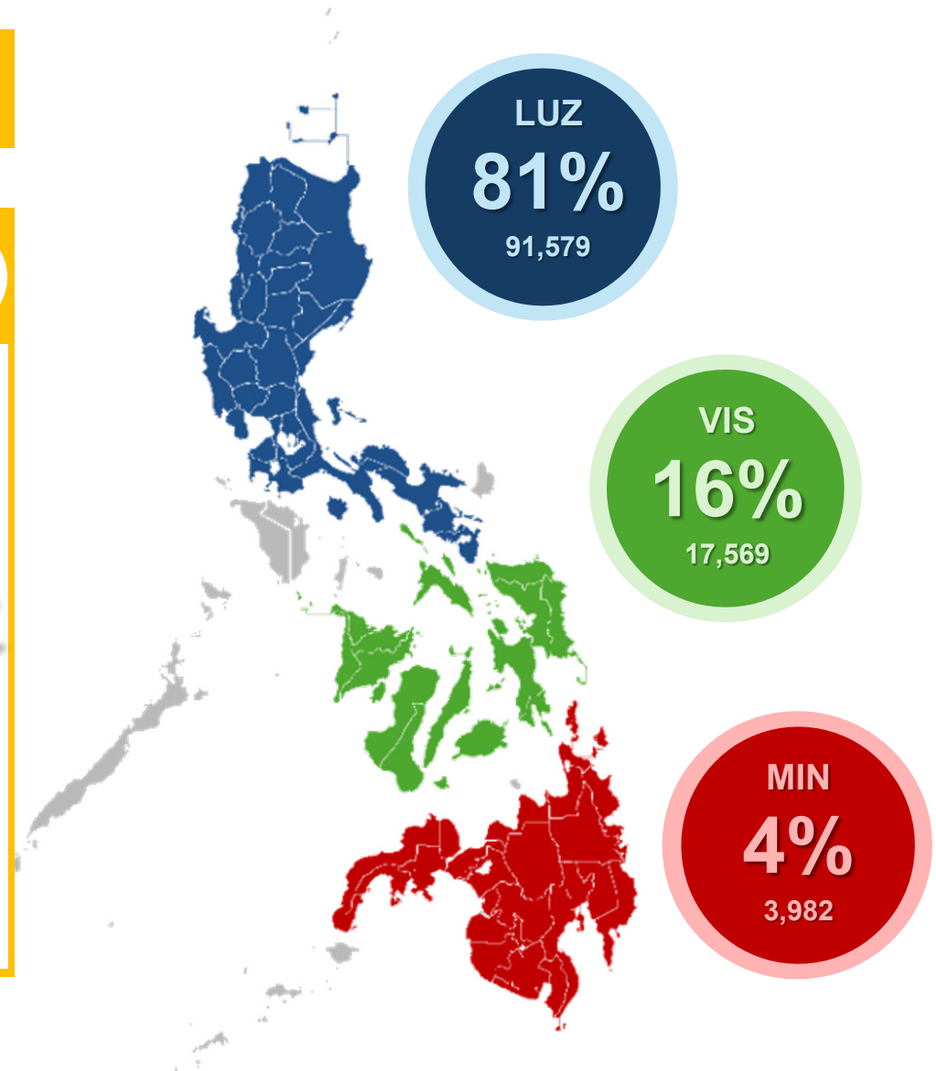
- Solar plants had the highest no. of OC*
- Coal plants, on average, had the largest capacities scheduled due to CRR*
- Most OC were due to commissioning test of solar plants

VISAYAS
17,569

- Solar plants had the highest no. of OC
- Coal plants, on average, had the largest capacities scheduled due to ancillary service test
- Most OC were due to commissioning test of solar plants

MINDANAO
3,982

- Oil-based plants had the highest no. of OC
- Coal plants, on average, had the largest capacities scheduled due to ancillary service test
- Most OC were due to dispatch of MRU for oil-based plants



*CRR – Commercial and Regulatory Requirements

*OC – Over-riding Constraints

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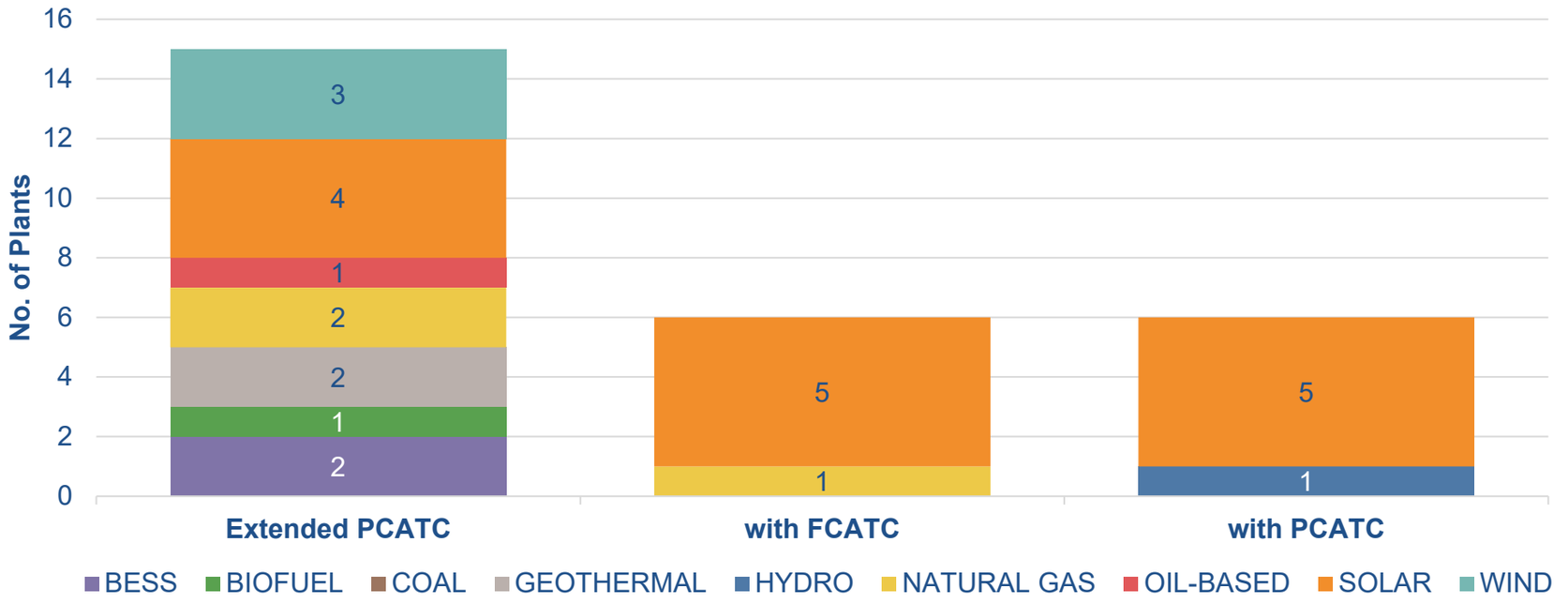
STATUS OF PLANTS UNDER COMMISSIONING TEST

26 December 2024 - 25 January 2025

Philippine Electricity Market Corporation

No. of Plants Under Commissioning Test

27



Ave. no. of days under commissioning test per plant type

Noted no. of extensions for commissioning test period

BESS	Biofuel	Geo	Hydro	Nat Gas	Oil	Solar	Wind
418	**332**	**329**	**118**	**189**	**168**	**93**	**438**
9 – Bataan BESS **7** – Lumban BESS	**9** - Biogas Power Plant (Phase 1)	**10** - Palayan BPP **7** – Tiwi Binary Geothermal BPP	**3 –** Angat HPP Unit A	**4** - Batangas CCPP Unit 2 **3** - Batangas CCPP Unit 3	**4** – Tarlac Power Corp. Bunker C FDPP	**9** - Subic New SPP **3** – Concepcion 1 SPP **1** – Raslag IV Solar & Shizen Solar	**20** – Balaoi Caunayan Wind **8** - Caparispisan Wind **8** - PWEI Nabas Wind

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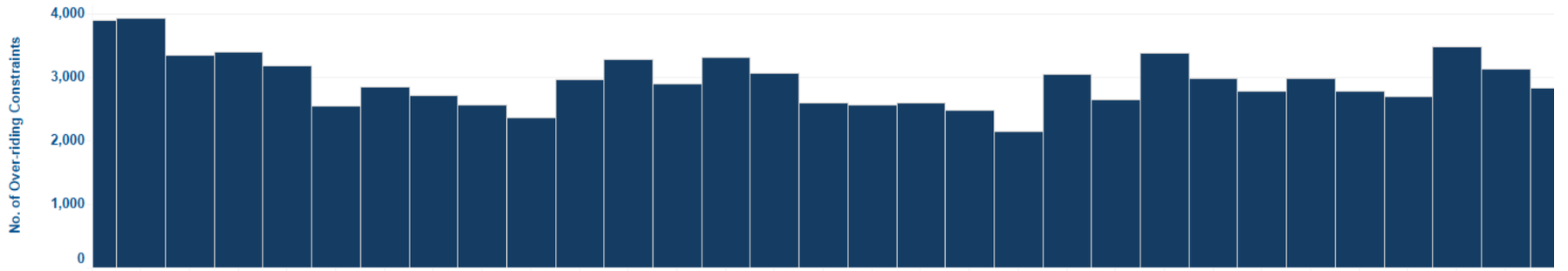
LUZON OVER-RIDING CONSTRAINTS

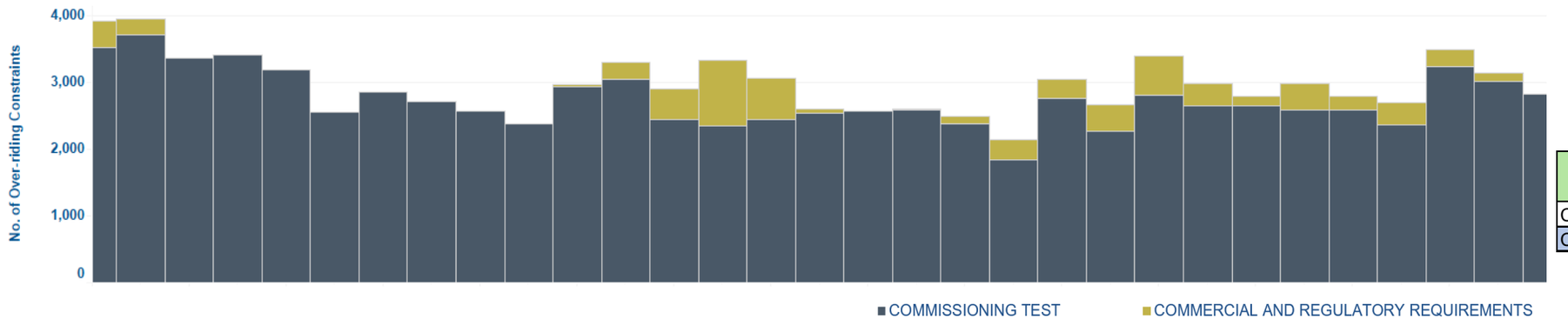
26 December 2024 - 25 January 2025

Philippine Electricity Market Corporation



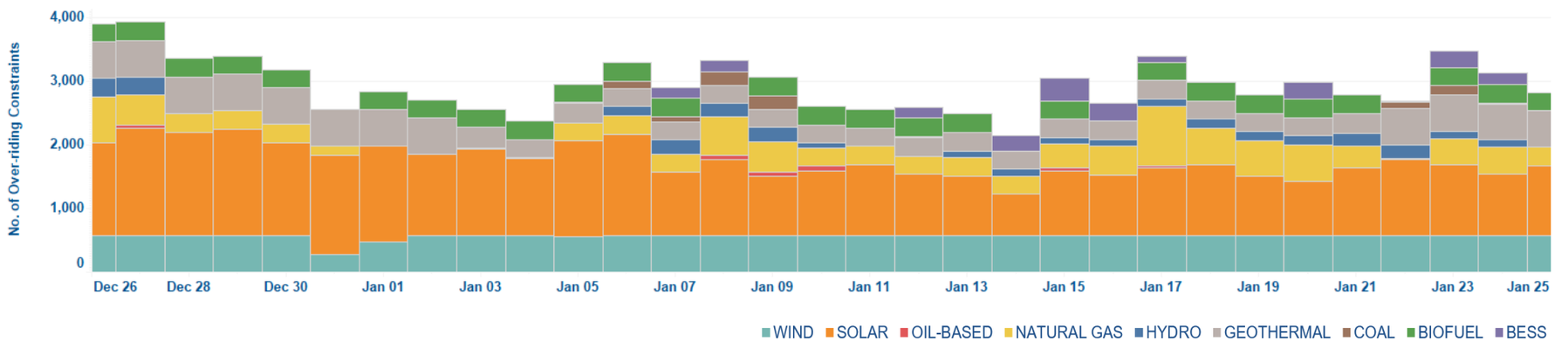
By Day

	No. of Over-riding Constraints	Date
Maximum	3,939	27 December
Average	2,954	
Minimum	2,146	14 January



By Incident

Incident	No. of Over-riding Constraints
Commissioning Test	85,051
Commercial and Regulatory Requirements	6,528



By Plant Type

Plant Type	No. of Over-riding Constraints
Solar	37,143
Wind	17,426
Geothermal	12,449
Natural Gas	10,581
Biofuel	7,486
Hydro	3,036
Battery	2,195
Coal	927
Oil-based	336

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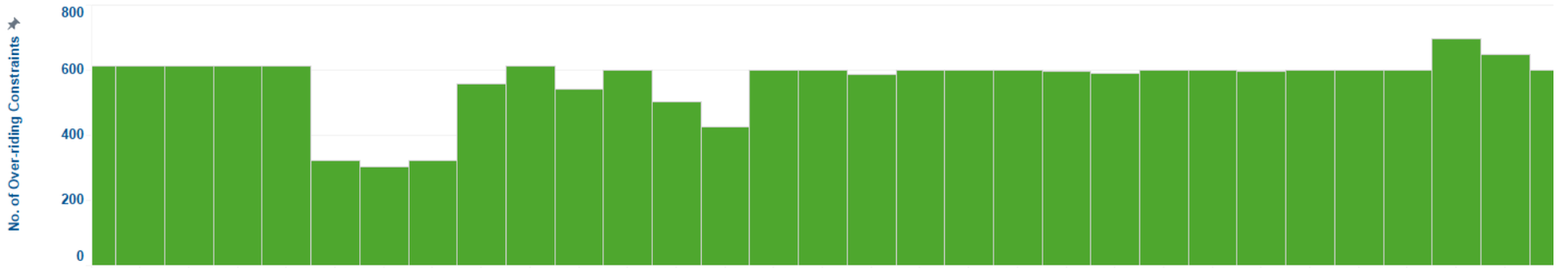
VISAYAS OVER-RIDING CONSTRAINTS

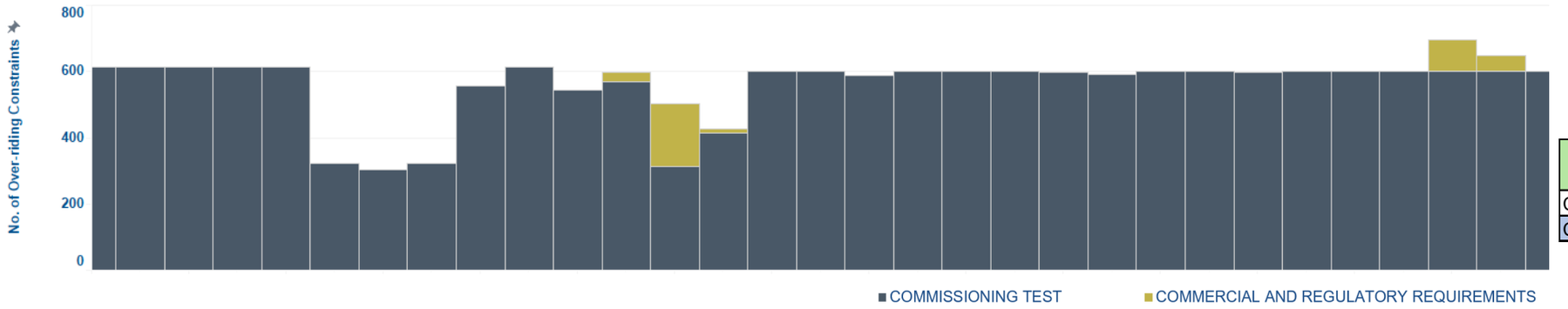
26 December 2024 - 25 January 2025

Philippine Electricity Market Corporation



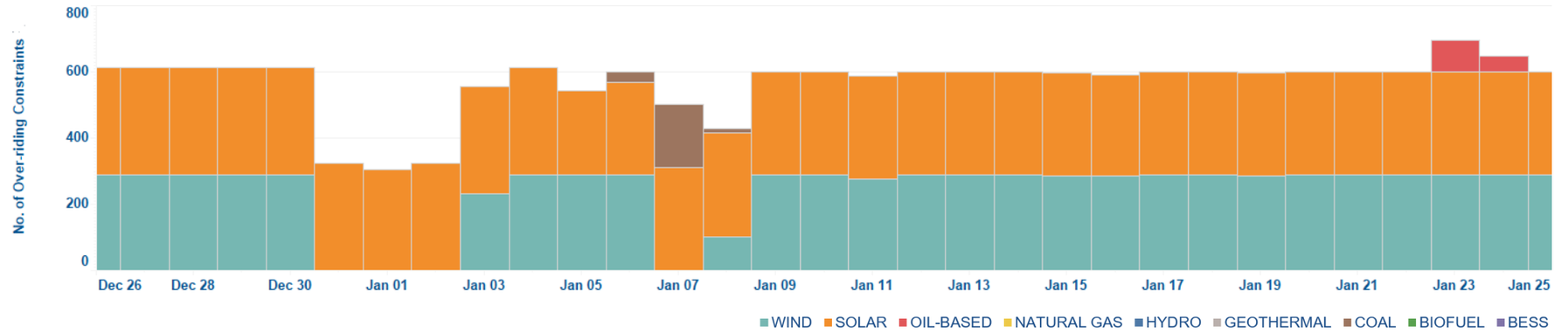
By Day

	No. of Over-riding Constraints	Date
Maximum	696	23 January
Average	567	
Minimum	304	01 January



By Incident

Incident	No. of Over-riding Constraints
Commissioning Test	17,193
Commercial and Regulatory Requirements	376



By Plant Type

Plant Type	No. of Over-riding Constraints
Solar	9,674
Wind	7,519
Coal	232
Oil	144

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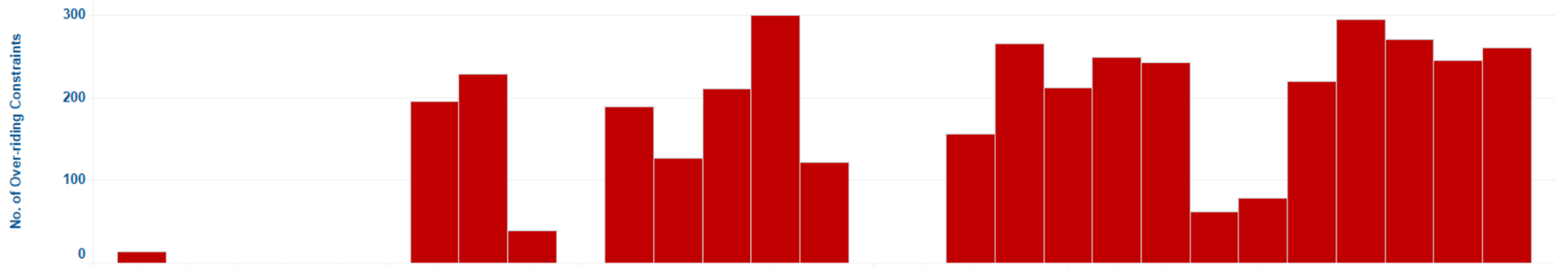
MINDANAO OVER-RIDING CONSTRAINTS

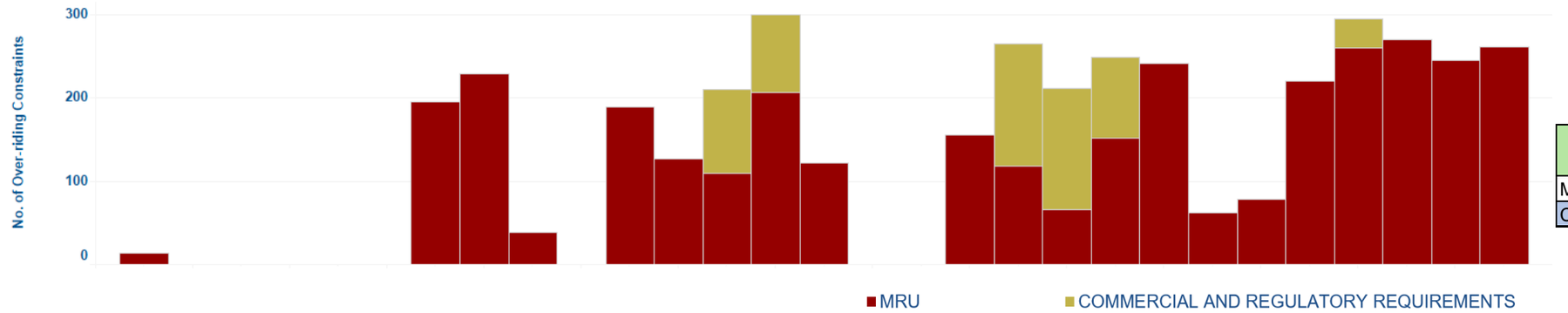
26 December 2024 - 25 January 2025

Philippine Electricity Market Corporation



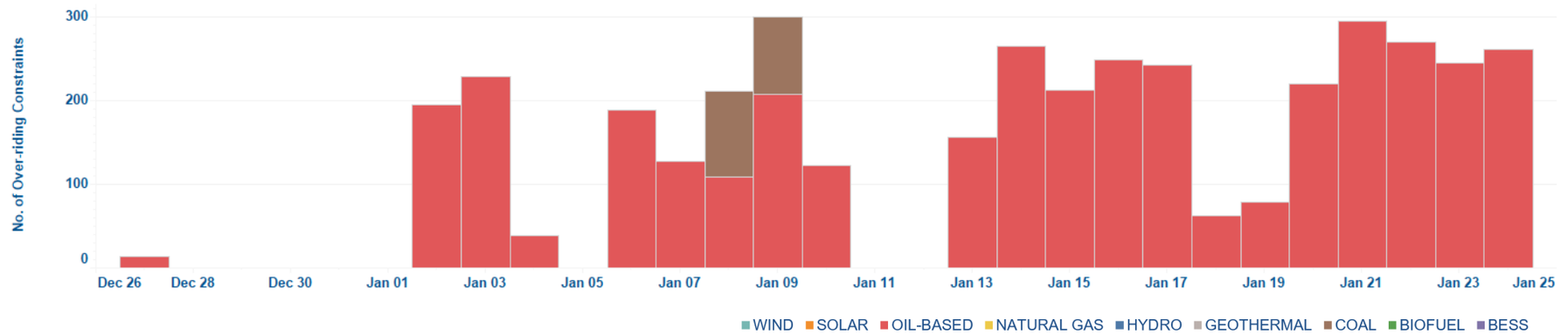
By Day

	No. of Over-riding Constraints	Date
Maximum	300	09 January
Average	190	
Minimum	14	27 December



By Incident

Incident	No. of Over-riding Constraints
MRU	3,362
Commercial and Regulatory Requirements	620



By Plant Type

Plant Type	No. of Over-riding Constraints
Oil	3,787
Coal	195

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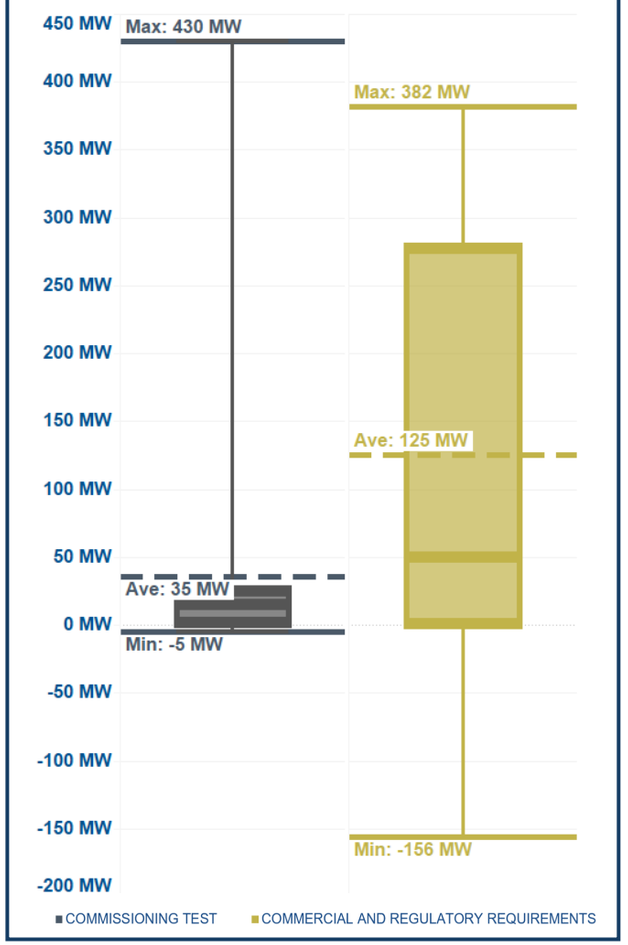
LUZON SCHEDULED CAPACITIES

26 December 2024 - 25 January 2025

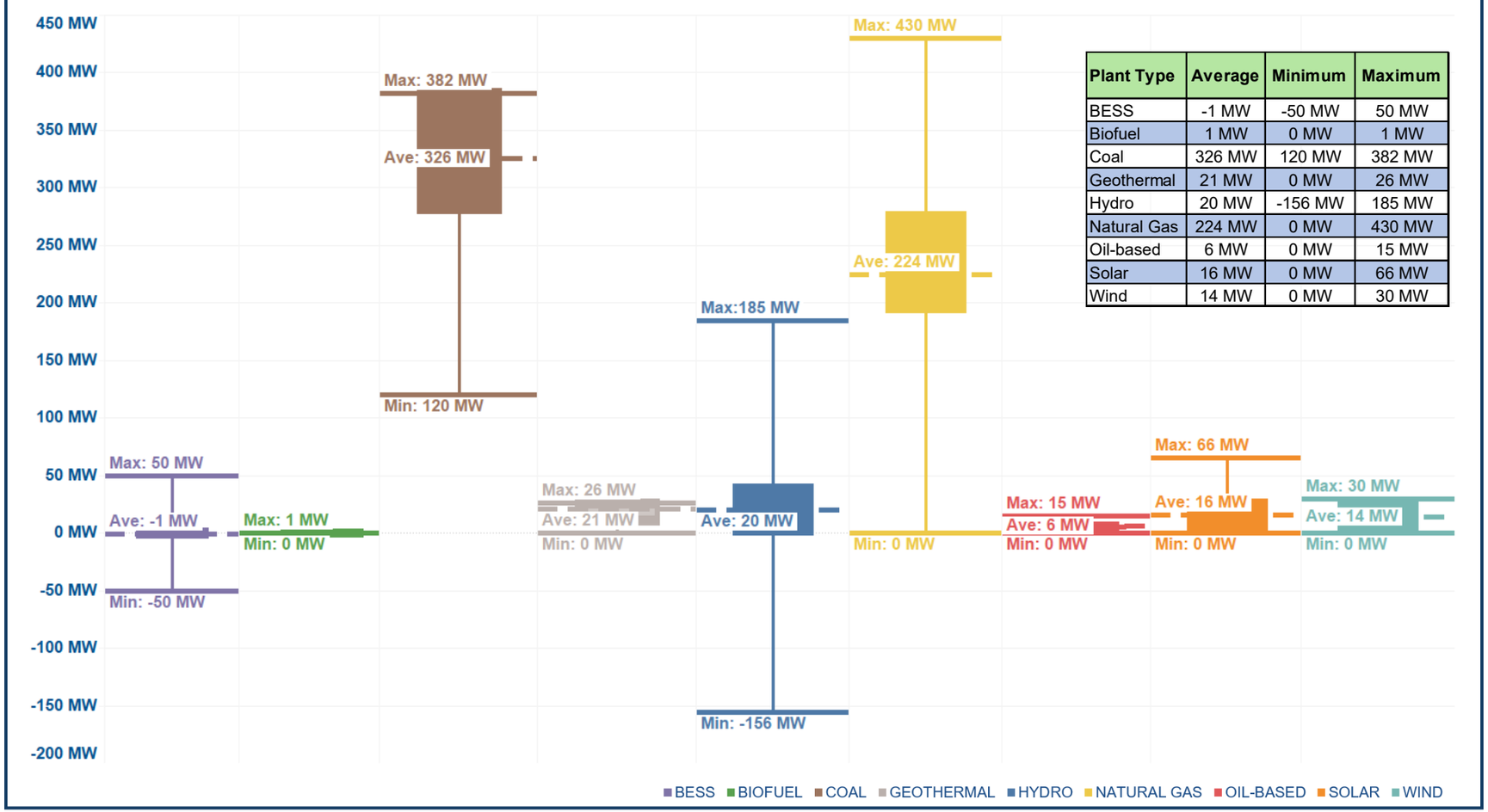
Philippine Electricity Market Corporation

By Incident



Incident	Average	Minimum	Maximum
Commissioning Test	35 MW	-5 MW	430 MW
Commercial and Regulatory Requirements	125 MW	-156 MW	382 MW

By Plant Type



Plant Type	Average	Minimum	Maximum
BESS	-1 MW	-50 MW	50 MW
Biofuel	1 MW	0 MW	1 MW
Coal	326 MW	120 MW	382 MW
Geothermal	21 MW	0 MW	26 MW
Hydro	20 MW	-156 MW	185 MW
Natural Gas	224 MW	0 MW	430 MW
Oil-based	6 MW	0 MW	15 MW
Solar	16 MW	0 MW	66 MW
Wind	14 MW	0 MW	30 MW

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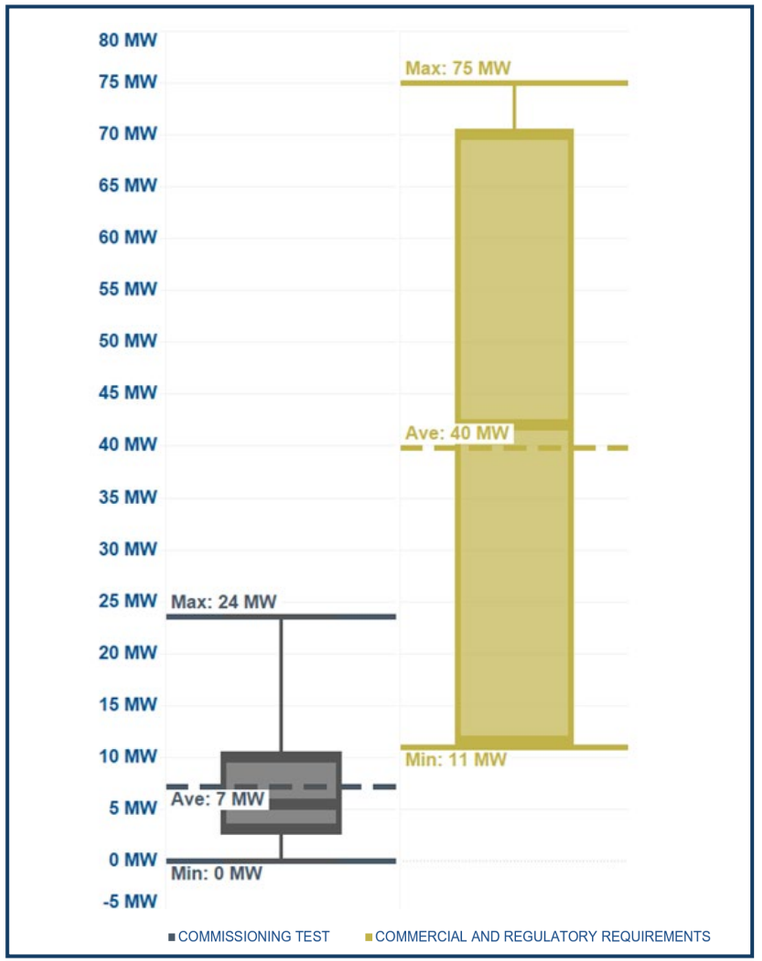
VISAYAS SCHEDULED CAPACITIES

26 December 2024 - 25 January 2025

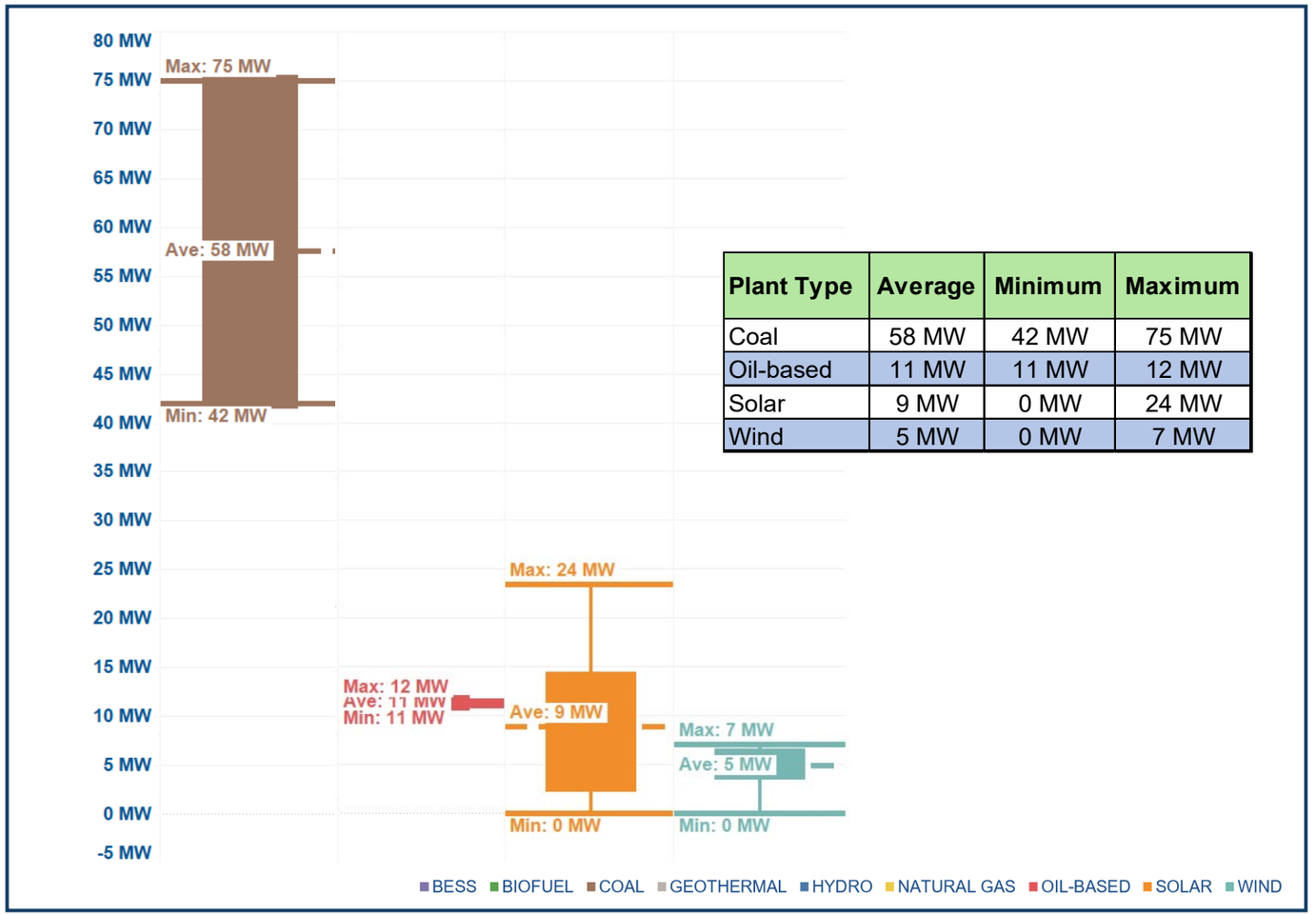
Philippine Electricity Market Corporation

By Incident



Incident	Average	Minimum	Maximum
Commissioning Test	7 MW	0 MW	24 MW
Commercial and Regulatory Requirements	40 MW	11 MW	75 MW

By Plant Type



Plant Type	Average	Minimum	Maximum
Coal	58 MW	42 MW	75 MW
Oil-based	11 MW	11 MW	12 MW
Solar	9 MW	0 MW	24 MW
Wind	5 MW	0 MW	7 MW

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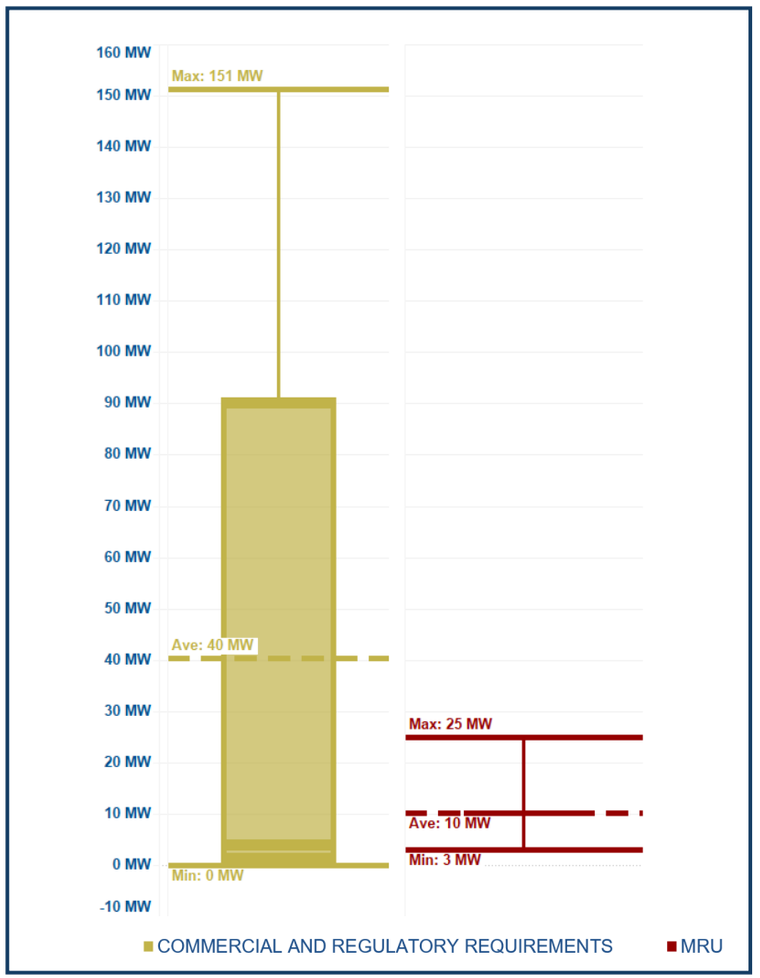
MINDANAO SCHEDULED CAPACITIES

26 December 2024 - 25 January 2025

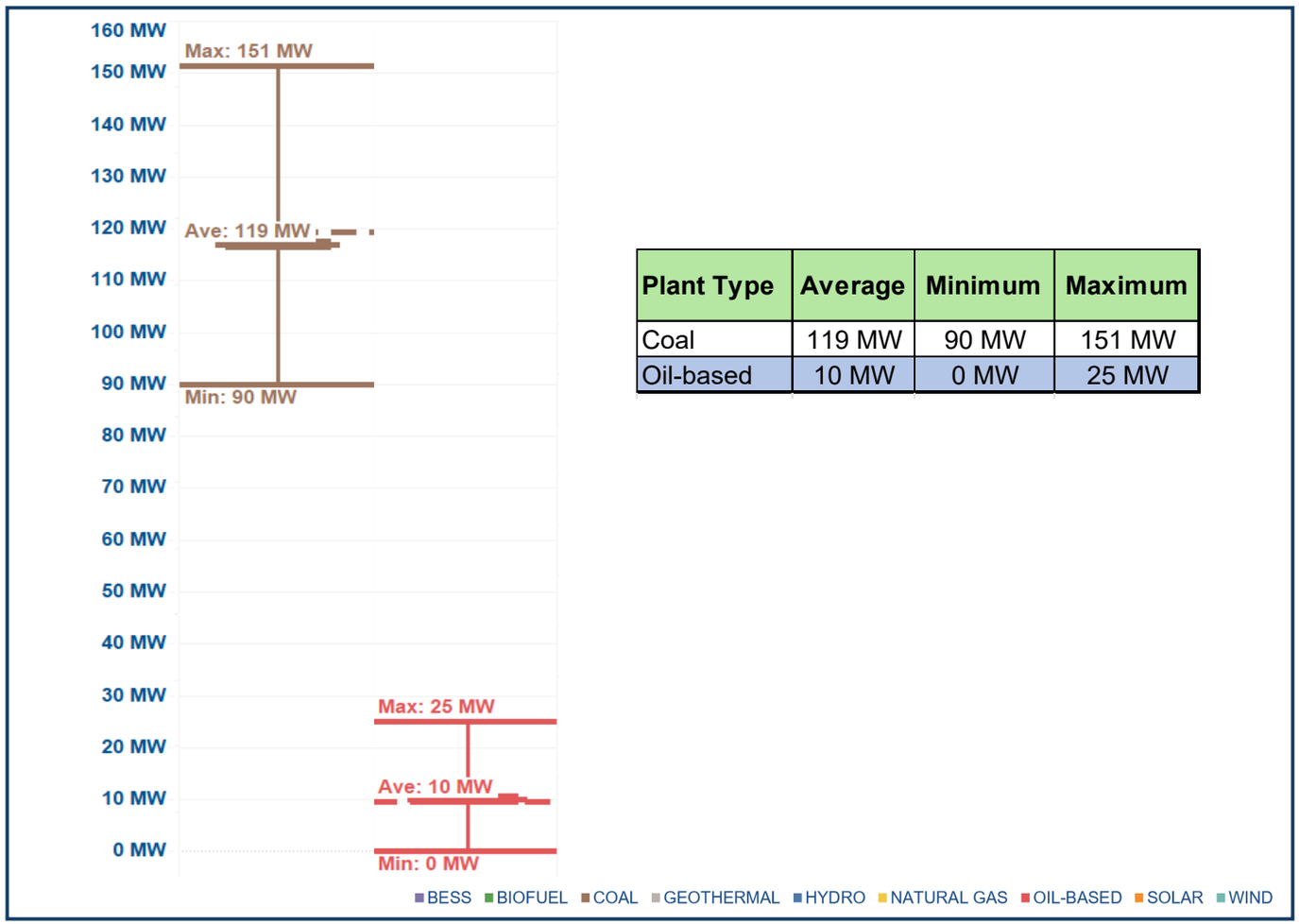
Philippine Electricity Market Corporation

By Incident



Incident	Average	Minimum	Maximum
Commercial and Regulatory Requirements	40 MW	0 MW	151 MW
MRU	10 MW	3 MW	25 MW

By Plant Type



Plant Type	Average	Minimum	Maximum
Coal	119 MW	90 MW	151 MW
Oil-based	10 MW	0 MW	25 MW

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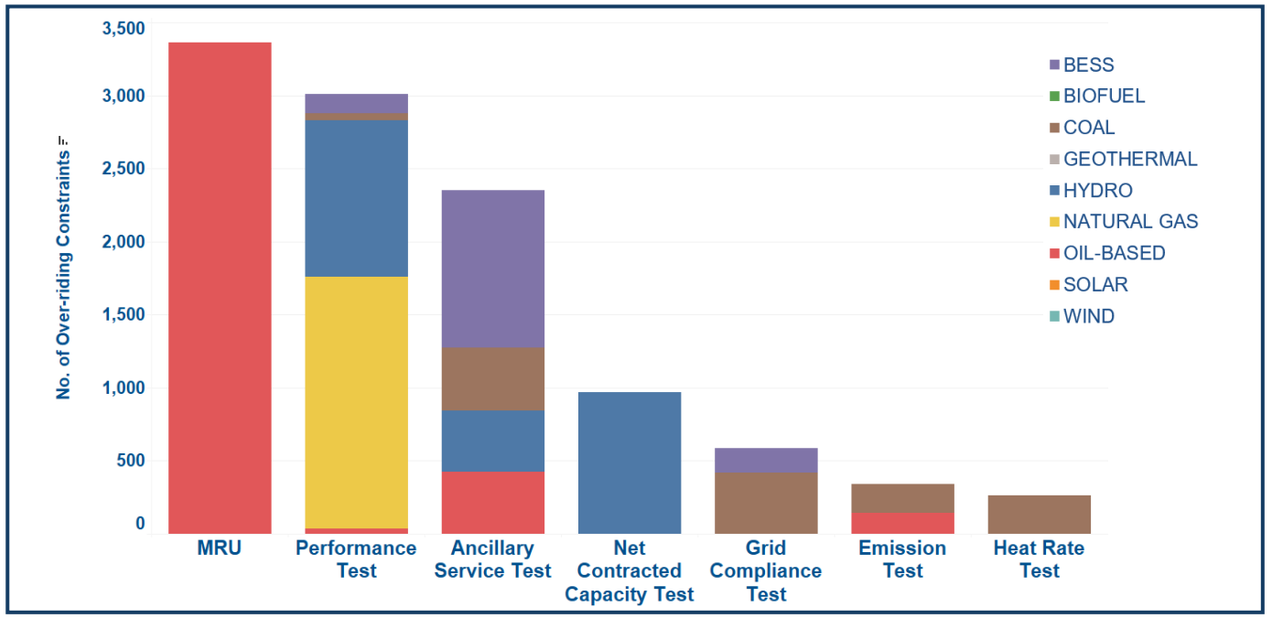
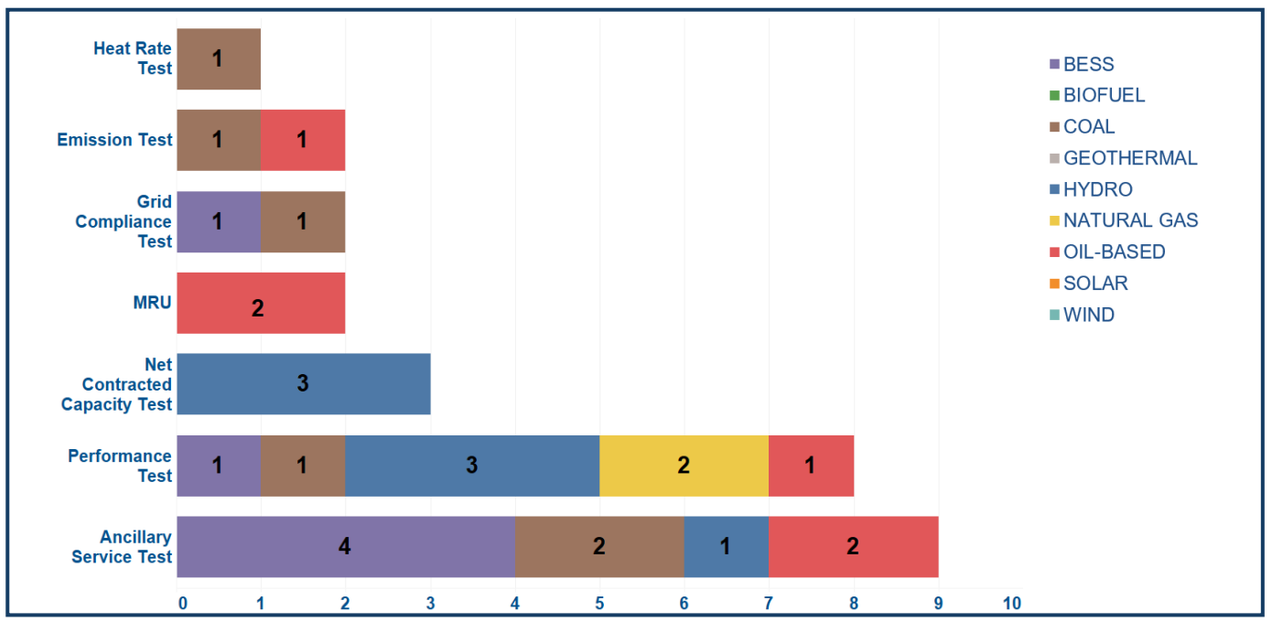
OVER-RIDING CONSTRAINTS EXCLUDING COMMISSIONING TESTS

Luzon, Visayas, Mindanao

26 December 2024 - 25 January 2025

Philippine Electricity Market Corporation





Over-riding Constraints By Incident

Reasons	No. of Over-riding Constraints
MRU	3,362
Performance Test	3,011
Ancillary Service Test	2,350
NCC Test	969
Grid Compliance Test	588
Emission Test	342
Heat Rate Test	264

Number of Plants By Incident

Reasons	No. of Plants
Heat Rate Test	1
Emission Test	2
MRU	2
Grid Compliance Test	2
NCC Test	3
Performance Test	8
Ancillary Service Test	9

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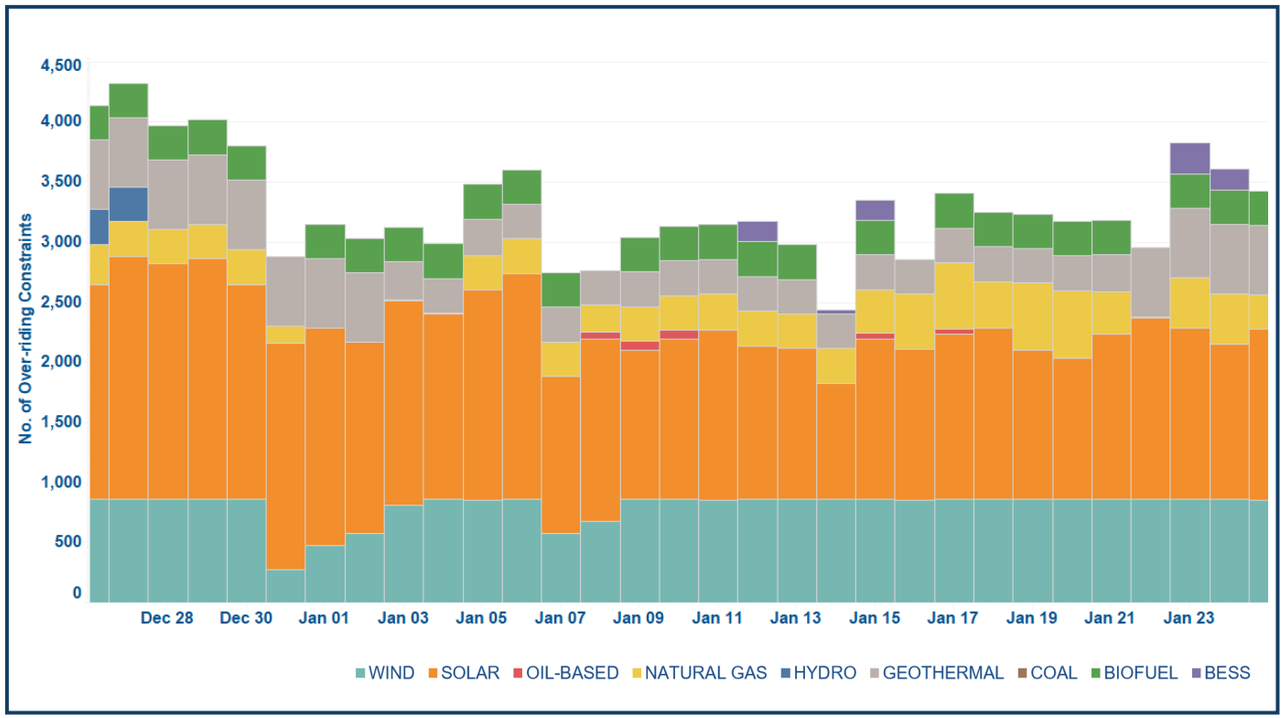
PLANTS UNDER COMMISSIONING TESTS

Luzon, Visayas, Mindanao

26 December 2024 - 25 January 2025

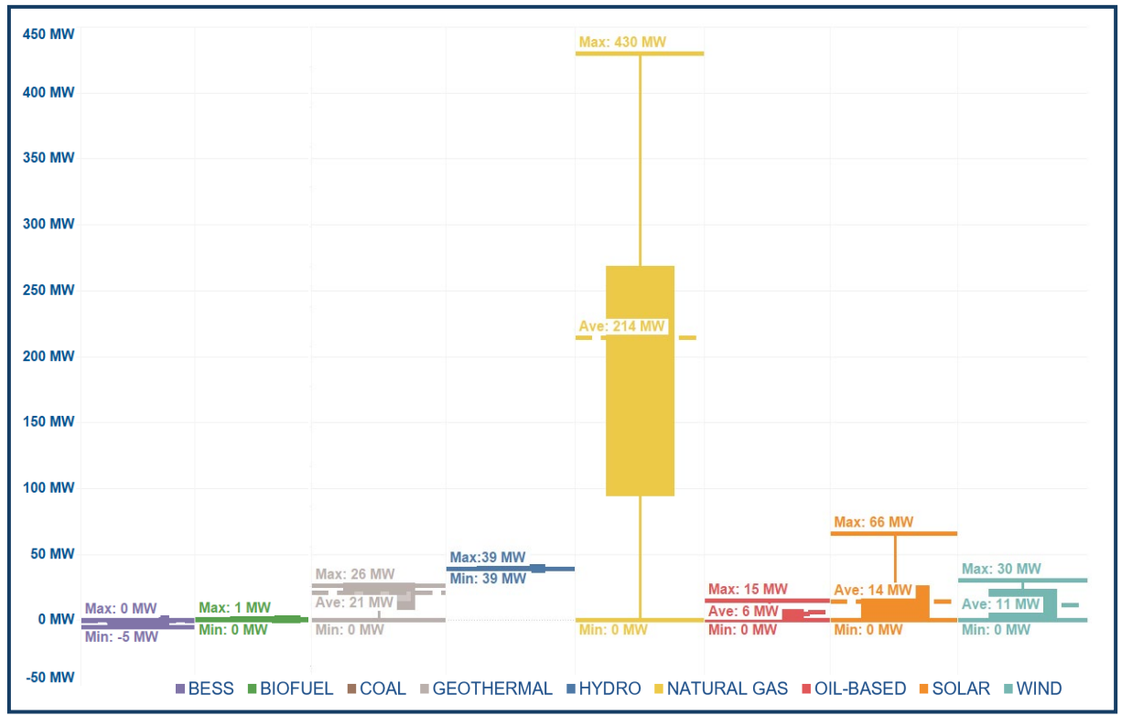
Philippine Electricity Market Corporation

Number of Over-riding Constraints
By Plant Type



Plant Type	No. of Over-riding Constraints
Solar	46,817
Wind	24,945
Geothermal	12,449
Natural Gas	8,855
Biofuel	7,486
Battery	816
Hydro	576
Oil	300

Scheduled Capacities
By Plant Type



Plant Type	Average	Minimum	Maximum
BESS	0 MW	-5 MW	0 MW
Biofuel	1 MW	0 MW	1 MW
Coal	MW	MW	MW
Geothermal	21 MW	0 MW	26 MW
Hydro	39 MW	39 MW	39 MW
Natural Gas	214 MW	0 MW	430 MW
Oil-based	6 MW	0 MW	15 MW
Solar	14 MW	0 MW	66 MW
Wind	11 MW	0 MW	30 MW

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ANNEX A PLANTS WITH OVER-RIDING CONSTRAINTS

26 December 2024 - 25 January 2025

Philippine Electricity Market Corporation

Plant/Unit Name	Plant Type	Registered Capacity(MW)
LUZON		
80.000 MW Balaoi and Caunayan Wind Power Project Phase 1	Wind	80
Caparispisan II Wind Power Project	Wind	50
Concepcion 1 Solar Power Project	Solar	76
72.128 MWp Subic New PV Power Plant Project	Solar	62.7
Biogas Power Plant (Phase 1)	Biomass	1.7
Mariveles Coal Fired Thermal Power Plant Unit 2	Coal	316
Angat Hydroelectric Power Plant Unit A	Hydro	40.7
Magat Hydroelectric Power Plant Unit 2	Hydro	97
Batangas Combined Cycle Power Plant Unit 1	Natural Gas	440
35.700 MW Palayan Binary Power Plant	Geothermal	31
Sta. Rita Natural Gas Power Plant 2	Natural Gas	263
36.646 MWp RASLAG IV Solar Power Project	Solar	26.4
75.214 MWP Palauig Solar Power Project	Solar	49.5
Kalayaan Hydro Electric Power Plant 1	Hydro	181.1
Sta. Rita Natural Gas Power Plant 1	Natural Gas	263
Sta. Rita Natural Gas Power Plant 4	Natural Gas	263
Sto. Domingo Solar Power Plant (SDSPP)	Solar	46.2
56.578 MWp Gamu Solar Power Project	Solar	46.2
42.900 MWp Bongabon Solar Power Plant	Solar	30.9
Batangas Combined Cycle Power Plant Unit 2	Natural Gas	440
Kalayaan Hydro Electric Power Plant 3	Hydro	181.4
Sta. Rita Natural Gas Power Plant 3	Natural Gas	263
46.658MWP Armenia Solar Power Project (SPP)	Solar	37.8
23.776 MWP Bongabon Solar Power Project	Solar	18.8
Mariveles Coal Fired Thermal Power Plant Unit 1	Coal	316
19.613 MWp San Jose Solar Power Plant (SPP)	Solar	15.3

***As of 25 January 2025**

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ANNEX A PLANTS WITH OVER-RIDING CONSTRAINTS

26 December 2024 - 25 January 2025

Philippine Electricity Market Corporation

Plant/Unit Name	Plant Type	Registered Capacity(MW)
LUZON		
18.6 MW Bunker C-Fired Diesel Power Plant	Oil-based	17.9
21.96MW Botocan Hydroelectric Power Plant	Hydro	23
Caliraya Hydro Electric Power Plant	Hydro	39.3
Kalayaan Hydro Electric Power Plant 2	Hydro	181
Kalayaan Hydro Electric Power Plant 4	Hydro	185
57.125 MWh Lumban Battery Energy Storage System (BESS)	Battery	50
64.206MWp/48.118MWac Maragondon Solar Power Plant	Solar	48.1
Pagbilao Coal-Fired Power Plant 2	Coal	382
San Lorenzo Combined-Cycle Gas Turbine Power Plant Unit 50	Natural Gas	265
San Lorenzo Combined-Cycle Gas Turbine Power Plant Unit 60 (San Lorenzo CCGTPP)	Natural Gas	265
64.206MWp/48.118MWac Tanauan Solar Power Plant	Solar	48.1
17MW Tiwi Geothermal Binary Power Plant	Geothermal	16.7
Angat Hydrolectric Power Plant Unit M	Hydro	200
Binga Hydroelectric Power Plant - Unit 1	Hydro	35
Binga Hydroelectric Power Plant - Unit 2	Hydro	35
Binga Hydroelectric Power Plant - Unit 3	Hydro	35
Binga Hydroelectric Power Plant - Unit 4	Hydro	35
0.531 MW/1.400 MWh Energy Storage System (ESS)	Battery	0.5
72.281 MW Concepcion Battery Energy Storage System (BESS)	Battery	50
47.486 MW Bataan Battery Energy Storage System (BESS) Market	Battery	40
Magat Hydroelectric Power Plant Unit 1	Hydro	97
Magat Hydroelectric Power Plant Unit 3	Hydro	97
Magat Hydroelectric Power Plant Unit 4	Hydro	97
Masinloc Battery Energy Storage System	Battery	10
64.655 MW SAN MANUEL BATTERY ENERGY STORAGE SYSTEM	Battery	50
54.62 MW PPGC Diesel Power Plant	Oil-based	48

***As of 25 January 2025**

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ANNEX A PLANTS WITH OVER-RIDING CONSTRAINTS

26 December 2024 - 25 January 2025

Philippine Electricity Market Corporation

Plant/Unit Name	Plant Type	Registered Capacity(MW)
LUZON		
Subplant 1 Alaminos Battery Energy Storage System	Battery	20
Alaminos Battery Energy Storage System 2	Battery	20
Batangas Combined Cycle Power Plant Unit 3	Natural Gas	440
VISAYAS		
13.200 Nabas Wind Power Plant Phase 2 (Nabas-2)	Wind	13.2
EAUC Bunker C-Fired Power Plant Unit 2	Oil-based	11
EAUC Bunker C-Fired Power Plant Unit 3	Oil-based	11.5
EAUC Bunker C-Fired Power Plant Unit 4	Oil-based	11.5
27.121 MWp Dagohoy Solar Power Project	Solar	20.2
137.400 MWAC Calatrava Solar Power Project (SPP)	Solar	137.4
PEDC Coal-Fired Thermal Power Plant Unit 1	Coal	83.7
PEDC Coal-Fired Thermal Power Plant Unit 2	Coal	83.7
MINDANAO		
112 MW Bunker-C Fired Diesel Power Plant Unit 1	Oil-based	10.2
112 MW Bunker-C Fired Diesel Power Plant Unit 4	Oil-based	10.2
112 MW Bunker-C Fired Diesel Power Plant Unit 10	Oil-based	10.2
112 MW Bunker-C Fired Diesel Power Plant Unit 6	Oil-based	10.2
114.40 MW Iligan Diesel Power Plant (Units 1-19)	Oil-based	102
112 MW Bunker-C Fired Diesel Power Plant Unit 8	Oil-based	10.1
112 MW Bunker-C Fired Diesel Power Plant Unit 9	Oil-based	10.2
112 MW Bunker-C Fired Diesel Power Plant Unit 7	Oil-based	10
100.327 MW Mobile 2 Bunker C-Fired Power Plant Unit 1	Oil-based	50
TSI Coal Fired-Power Plant Unit 1	Coal	151.4
TSI Coal Fired-Power Plant Unit 2	Coal	150
Digos Modular Diesel Power Plant (Units 1-16)	Oil-based	16.9

***As of 25 January 2025**

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ANNEX B PLANTS UNDER COMMISSIONING TEST

26 December 2024 - 25 January 2025

Philippine Electricity Market Corporation

Plant/Unit Name	Plant Type	Registered Capacity	No. of PCATC Extensions	No. of Days under Commissioning Tests
18.6 MW Bunker C-Fired Diesel Power Plant	Oil-based	18.6	4	168
80.000 MW Balaoi and Caunayan Wind Power Project Phase 1	Wind	80	20	693
Caparispisan II Wind Power Project	Wind	50	8	326
13.200 Nabas Wind Power Plant Phase 2 (Nabas-2)	Wind	13.2	8	296
Concepcion 1 Solar Power Project	Solar	20.7	3	126
72.128 MWp Subic New PV Power Plant Project	Solar	72.1	9	332
36.646 MWp RASLAG IV Solar Power Project	Solar	36.6	1	99
75.214 MWP Palauig Solar Power Project	Solar	75.2	1	91
Sto. Domingo Solar Power Plant (SDSPP)	Solar	59.8	-	72
56.578 MWp Gamu Solar Power Project	Solar	56.6	-	48
42.900 MWp Bongabon Solar Power Plant	Solar	42.9	-	61
27.121 MWp Dagohoy Solar Power Project	Solar	27.1	-	74
46.658MWP Armenia Solar Power Project (SPP)	Solar	46.7	-	56
23.776 MWP Bongabon Solar Power Project	Solar	23.8	-	57
19.613 MWp San Jose Solar Power Plant (SPP)	Solar	19.6	-	36
64.206MWp/48.118MWac Maragondon Solar Power Plant	Solar	64.2	-	95
64.206MWp/48.118MWac Tanauan Solar Power Plant	Solar	64.2	-	111
137.400 MWAC Calatrava Solar Power Project (SPP)	Solar	168.9	-	45
57.125 MWh Lumban Battery Energy Storage System (BESS)	Battery	57.1	7	244
0.531 MW/1.400 MWh Energy Storage System (ESS)	Battery	0.5	9	591
Angat Hydroelectric Power Plant Unit A	Hydro	18	3	118
Batangas Combined Cycle Power Plant Unit 1	Natural Gas	440	7	241
Batangas Combined Cycle Power Plant Unit 2	Natural Gas	440	4	190
Batangas Combined Cycle Power Plant Unit 3	Natural Gas	440	3	137
35.700 MW Palayan Binary Power Plant	Geothermal	35.7	10	409
17MW Tiwi Geothermal Binary Power Plant	Geothermal	17	7	248
Biogas Power Plant (Phase 1)	Biomass	1.7	9	332

*** Based on IEMOP's status of plants under commissioning test as of 25 January 2025**

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ANNEX B PLANTS UNDER COMMISSIONING TEST

26 December 2024 - 25 January 2025

Philippine Electricity Market Corporation

Plant/Unit Name	Plant Type	Registered Capacity	No. of PCATC Extensions	No. of Days under Commissioning Tests
22.928 Sangali Battery Energy Storage System (BESS)	BATTERY	20	8	263
45.758 MWh Gamu Battery Energy Storage System (BESS)	BATTERY	40	7	246
14.160MW Upper Taft Hydroelectric Power Plant	Run-of River Hydro	14.2	2	105

GLOSSARY

Monitoring of Over-riding Constraints

OVER-RIDING CONSTRAINTS

Constraints imposed in the market dispatch optimization model by the Market Operator, at the recommendation of the System operator, with the intention of over-riding the effect of a Trading Participant's offers or demand bids in accordance with Clause 3.5.13 of the WESM Rules.

Constraints imposed by the Market Operator, as required by the System Operator, relative to the power flow, energy generation of a specific facility in the Grid to address system security threat, mitigate the effects of a system emergency, address the need to dispatch generating units to comply with systems, regulatory and commercial test requirements, in accordance with Clause 3.5.13 of the WESM Rules and Section 5.5 of the Market Surveillance Manual.

TEST AND COMMISSIONING

Under the DOE Department Circular No. DC2024-08-0022, test and commissioning refers to the conduct of procedures to determine and certify that a Generation Facility was connected ot the grid in accordance with the Philippine Grid Code (PGC), the Philippine Distribution Code (PDC) and/or other relevant guidelines and specifications, as applicable, and to determin readiness to delivery energy to Grid or distribution network for the purpose of securing a COC from ERC.

For the purpose of this policy, Test and Commissioning includes the conduct of capability tests as specifies in the PGC, PDC, and other relevant issuances such as the Grid Compliance Test and Ancillary Services Capability Test and all other activities which require synchronization to the Grid or distribution network.

MUST-RUN UNIT (MRU)

It is a generating unit identified and instructed, by the System Operator to either a) come on-line, or b) provide additional energy on a particular dispatch interval but the dispatch of which is said to be out-of-merit, to address system security requirements. For clarity, MRU shall be utilized only after the System Operator has exhausted all available ancillary services. MRUs are classified as follows: a) Scheduled MRU - MRU designated by the System Operator before the dispatch interval and included in the real-time dispatch schedule through the imposition of security limit as defined in the WESM Dispatch Protocol Manual. B) Real-Time MRU - MRU designated by the System Operator within a dispatch interval.

PROVITIONAL CERTIFICATE OF APPROVAL TO CONNECT (PCATC)

From the DOE Department Circular No. DC2021-06-0013, it refers to the certification issued by the TNP or DU to a Generation Company, allowing the conduct of Test and Commissioning with respect to its Generation Facility/ies.

FINAL CERTIFICATE OF APPROVAL TO CONNECT (FCATC)

Under the DOE Department Circular No. DC2021-06-0013, FCATC refers to the certification issued by the TNP or DU to a Generation Company attesting that its Generation Facility/ies is ready to deliver energy to Grid or distribution network in accordance with the Philippine Grid Code (PGC), Philippine Distribution Code (PDC) and other relevant guidelines and specifications.

RENEWABLE ENERGY RESOURCE

It is an energy resource as defined in Section 4 (uu) of the Renewable Energy Act.

BATTERY ENERGY STORAGE SYSTEM (BESS)

It is a system with all related equipment essential to its functioning as a single entity which is capable of storing electrical energy through chemical reactions from which it is able to charge or discharge electrical energy to the power system.

REGISTERED CAPACITIES

It is the prevailing Maximum Stable Load or Pmax and the Minimum Stable Load or Pmin of a generating unit or generating system as registered with the Market Operator or subsequent changes confirmed and implemented by the Market Operator. The Pmax shall be the registered maximum capacity while the Pmin shall be the minimum registered capacity.