MONTHLY MARKET ASSESSMENT REPORT

26 November to 25 December 2024

FEBRUARY 2025

Document Information Classification: Public

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

ENERGY MARKET

SUMMARY OF OBSERVATIONS

- **Prices at PHP 0 or below** occurred for a total of 377 coincidental trading intervals on system-wide basis. Of these instances, 48% fell on 25 December 2024 (Christmas) contributed to the decrease on the monthly load weighted average price. Regionally, PHP 0 or below prices occurred in:
  - Luzon - 426 intervals
  - Visayas - 378 intervals
  - Mindanao - 386 intervals

AT A GLANCE

Total Registered Capacity (in MW)

29,996.2 **0.64%**

Previous Month: 29,771.6 MW

Capacity Offered/Nominated (in MW

19,965 66.63% of the total registered capacity

Previous Month: 19,328 MW

Capacity Not Offered/Nominated (in MW)

4,692 15.66% of the total registered capacity

Previous Month: 4,433 MW

Capacity of Plants on Commissioning (in MW)

1,315 4.39% of the total registered capacity

Previous Month: 997 MW

Capacity on Outage (in MW)

3,944 13.16% of the total registered capacity

Previous Month: 4,861 MW

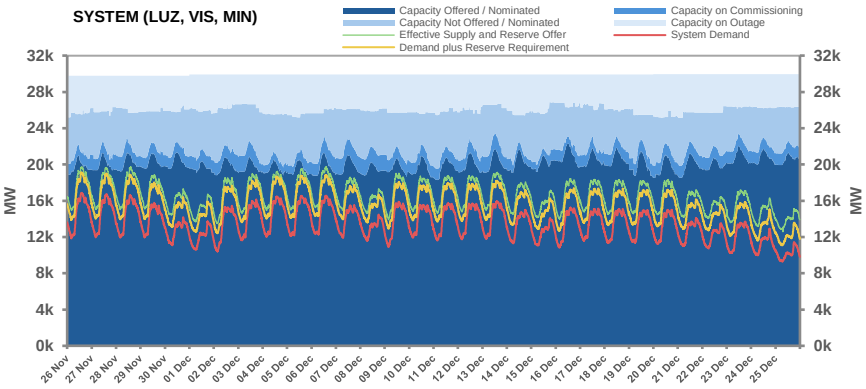
Load Weighted Average Price (LWAP) (in PHP/MWh)

3,639.04 **20.93%**

Previous Month: 4,602.59

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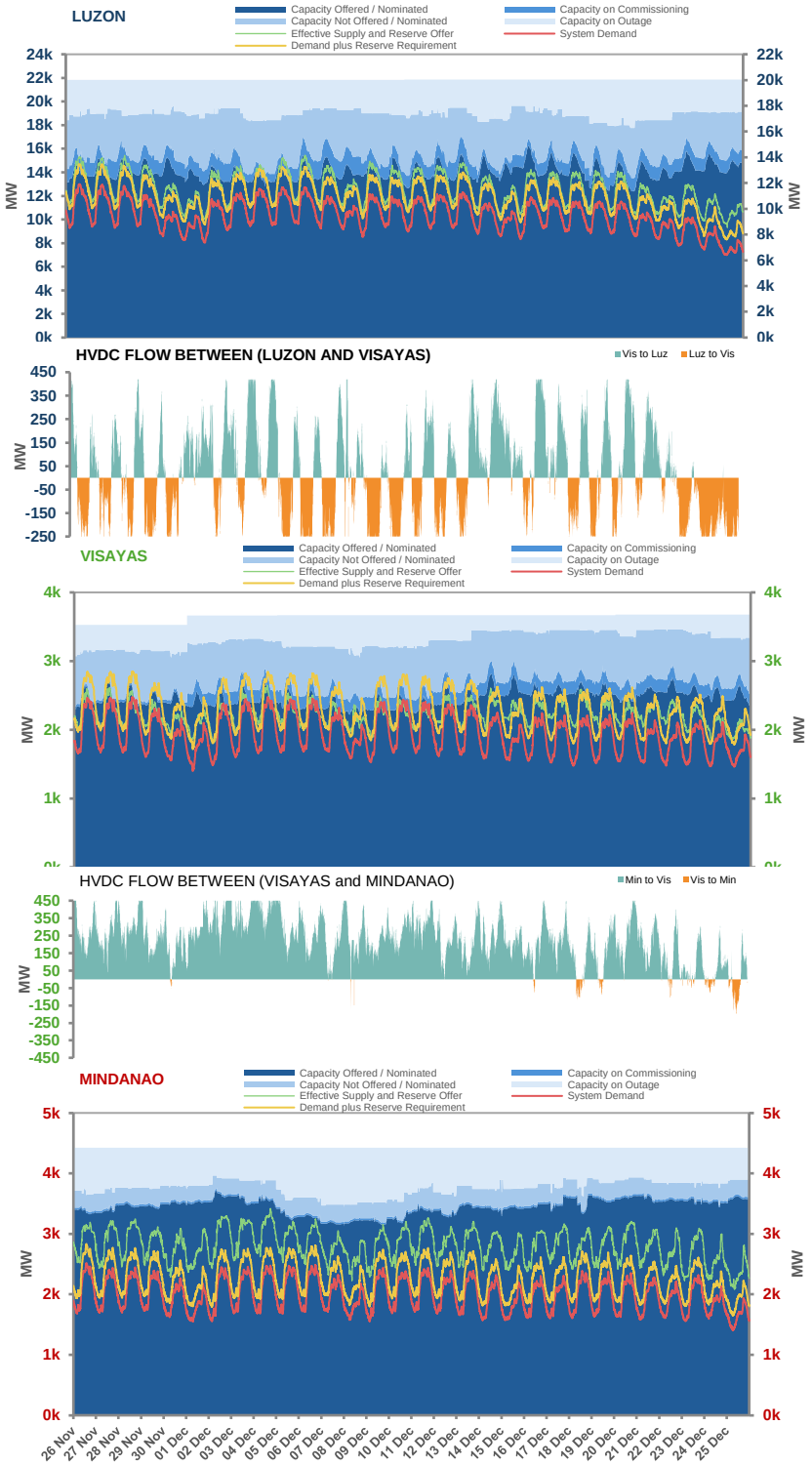
MARKET OUTCOME
CAPACITY PROFILE



Particulars	Min		Max		Ave	% Change
	(in MW)	Date and time Interval	(in MW)	Date and time Interval	(in MW)	
Effective Supply						
System	12,586.61	12/25/2024 7:25	19,775.13	11/28/2024 14:25	16,536.65	0.62%▼
Luzon	8,552.39	12/25/2024 7:25	14,149.70	12/06/2024 14:30	11,514.62	0.79%▼
Visayas	1,817.54	12/02/2024 5:05	2,649.00	12/04/2024 13:30	2,219.06	2.01%▲
Mindanao	2,085.13	12/25/2024 8:25	3,418.63	12/04/2024 17:55	2,802.98	2.10%▼
Demand Plus Reserve Requirement						
System	11,078.60	12/25/2024 6:40	19,118.64	11/26/2024 14:00	15,495.44	2.26%▼
Luzon	7,623.93	12/25/2024 6:40	13,473.08	11/26/2024 14:30	10,945.43	2.63%▼
Visayas	1,718.37	12/01/2024 6:15	2,849.67	11/28/2024 14:25	2,292.58	1.17%▼
Mindanao	1,652.87	12/25/2024 6:30	8,640.00	01/00/1900 0:00	2,258.16	1.70%▼
Outage						
System	3,031.00	12/15/2024 17:55	4,807.30	12/21/2024 0:20	3,943.84	18.87%▼
Luzon	2,206.30	12/15/2024 17:40	4,097.30	12/21/2024 0:20	2,936.09	21.89%▼
Visayas	211.60	12/13/2024 20:15	611.40	12/08/2024 15:30	343.23	21.52%▼
Mindanao	455.90	12/02/2024 4:10	987.20	12/08/2024 0:05	664.52	0.07%▲

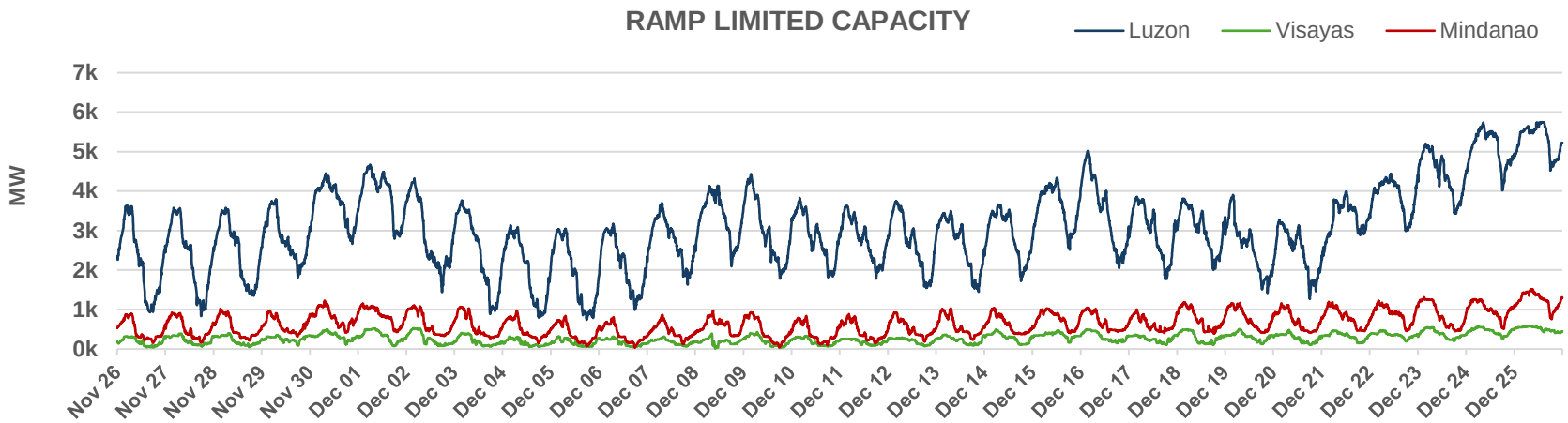
In a system-wide perspective, a 0.62% average decrease in effective supply was observed, notwithstanding the decrease in capacity on outage.

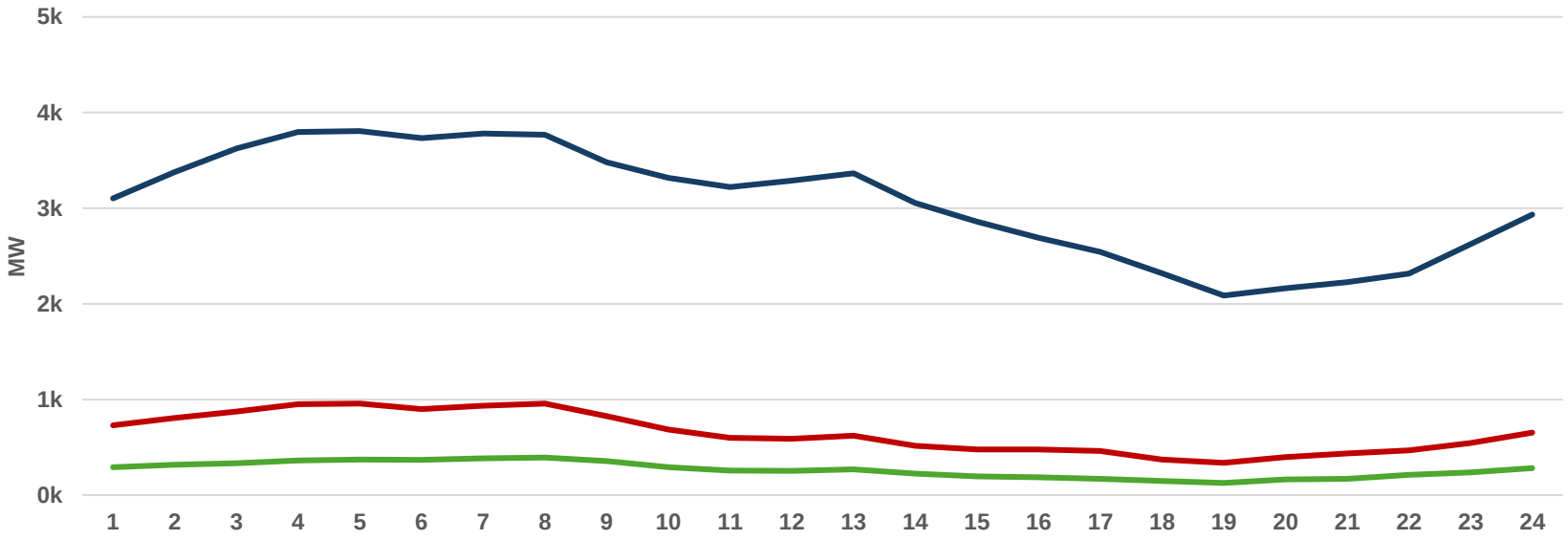
Power flow from Visayas to Luzon was recorded for fifty-two percent (52%) of the time, with an average transfer of around 193 MW (42% of the total HVDC capacity). Moreover, power flow from the Mindanao to Visayas was noted for 94% of the time, with an average flow of 246 MW (55% of the total HVDC capacity).



Public

MARKET OUTCOME
CAPACITY PROFILE





Particulars	Min		Max		Ave	% Change
	(in MW)	Date and time Interval	(in MW)	Date and time Interval	(in MW)	
Ramp Limited Capacity						
System	872.06	12/05/2024 18:00	7,701.31	12/25/2024 11:15	3,974.91	28.97%▲
Luzon	741.01	12/05/2024 18:00	5,748.87	12/25/2024 14:05	3,061.41	33.69%▲
Visayas	8.6065	12/08/2024 10:00	573.90	12/25/2024 9:00	265.11	20.26%▲
Mindanao	37.21	12/09/2024 17:55	1,518.17	12/25/2024 8:25	648.48	13.39%▲

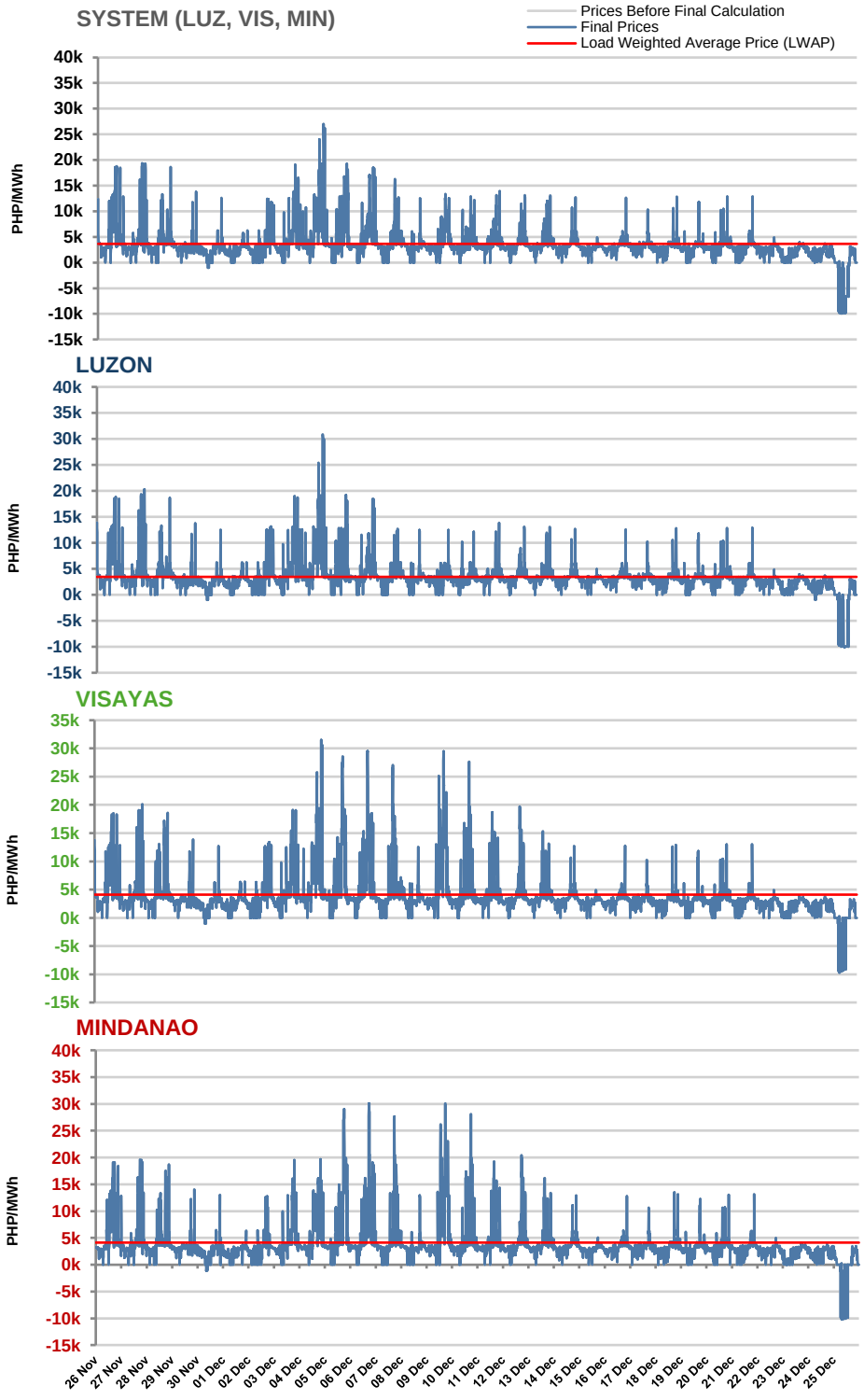
Regional ramp-limited capacities were observed on a per interval basis, with the highest ramp-limited capacity during the billing period was recorded between 0400h and 0800h, consistently peaking at the 0800h. Moreover, the lowest ramp limited capacity was recorded during the 1900h trading interval across all three regions.

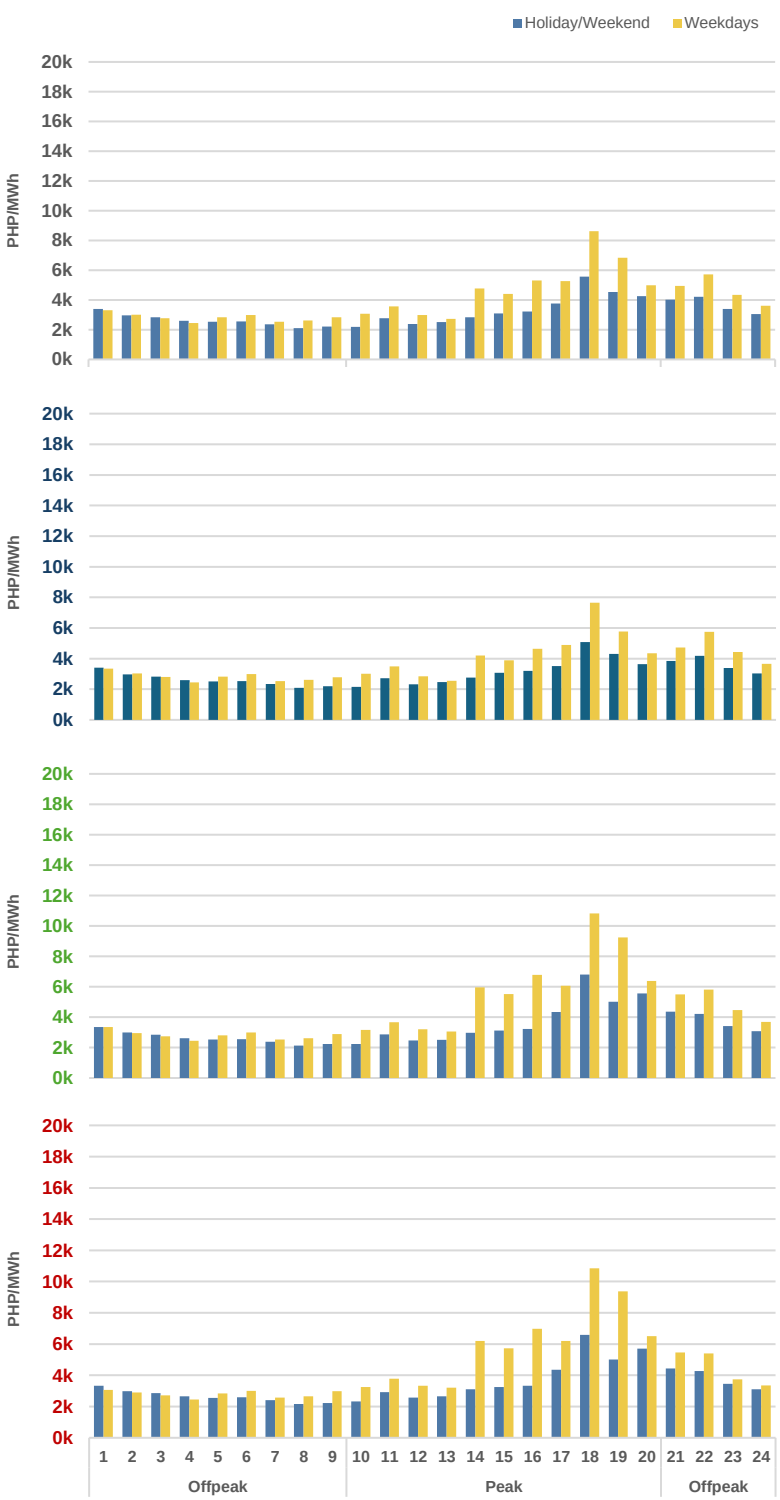
Overall, in a system-wide perspective, ramp-limited capacities increased by 29%.

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MARKET OUTCOME

MARKET PRICE

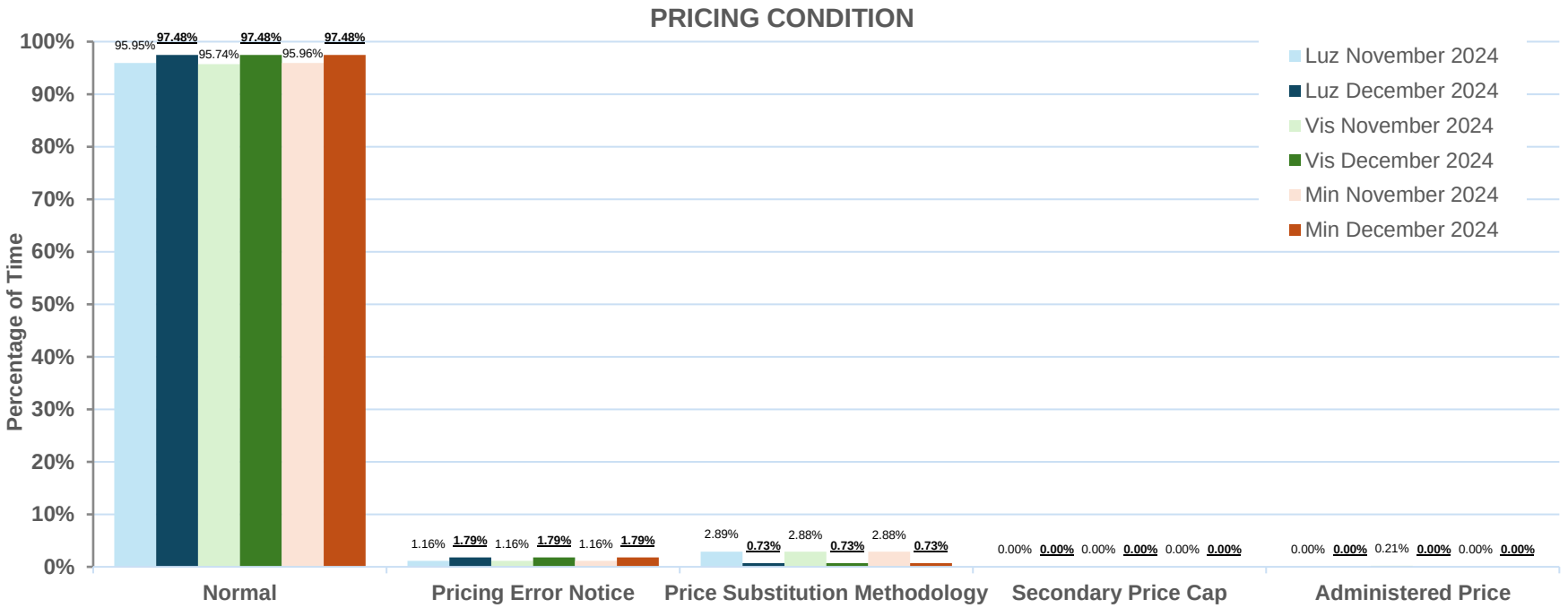




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MARKET OUTCOME

MARKET PRICE



Despite instances of high prices throughout the system, the load weighted average price (LWAP) significantly declined by 21% compared to the previous billing month. This significant drop resulted from the presence of zero prices and below for a total of 377 coincidental trading intervals on system-wide basis. Of these instances, 48% occurred on 25 December 2024 (Christmas). Moreover, there was observed reduction in the application of the price substitution methodology and the continuing non imposition of secondary price cap (SPC).

Furthermore, a daily analysis of market prices reveals a continued disparity between weekdays and weekends, with weekdays exhibiting higher average prices. This trend is likely attributable to the generally higher electricity demand characteristic of weekdays, driven by regular activities such as work, school, and other electricity-intensive operations. The 1800h trading interval was observed to have the highest price across all three regions.

With respect to zonal prices, all zonal prices within each region demonstrated general consistency with the corresponding regional average. The lowest zonal price was recorded at Leyte, with an average of PHP 3,200/MWh, representing a 13% difference when compared to the system-wide LWAP.

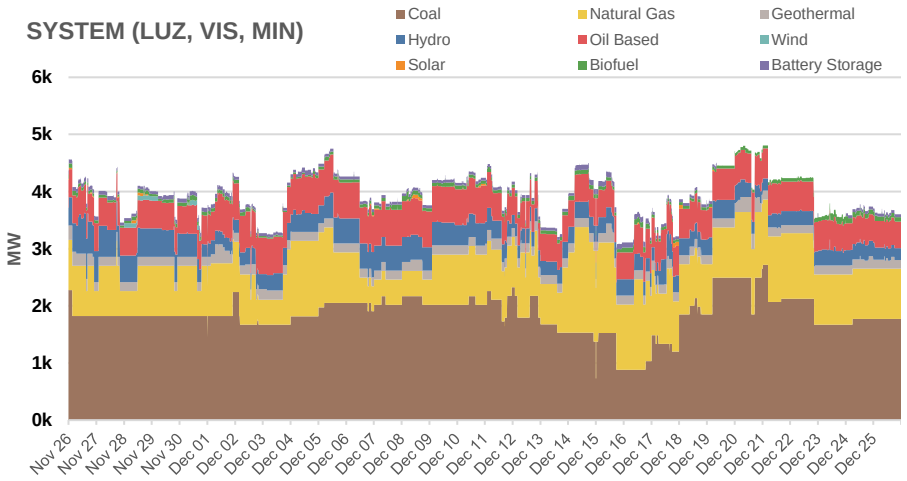
Partuculars	Min		Max		Ave	% Change
	(PHP/MWh)	Date and time Interval	(PHP/MWh)	Date and time Interval	(PHP/MWh)	
Load Weighted Average Price (LWAP)						
System	-9,930.21	12/25/2024 9:05	27,008.21	12/04/2024 22:05	3,639.04	20.93%▼
Luzon	-10,148.66	12/25/2024 12:25	30,865.02	12/04/2024 22:05	3,435.92	21.45%▼
Northern Luzon					3,451.90	20.79%▼
Metro Manila					3,488.60	21.48%▼
Southern Luzon					3,408.06	20.86%▼
Visayas	-9,729.18	12/25/2024 7:30	31,513.98	12/04/2024 22:05	4,123.17	19.61%▼
Bohol					3,940.22	25.06%▼
Cebu					4,120.11	19.65%▼
Leyte					3,200.71	37.91%▼
Negros					4,111.68	20.68%▼
Panay					4,364.20	20.50%▼
Mindanao	-10,157.59	12/25/2024 7:30	30,109.18	12/06/2024 18:00	4,134.40	20.47%▼
Lanao					3,806.82	18.17%▼
North Central Mindanao					3,966.43	20.38%▼
North-East Mindanao					4,363.32	21.33%▼
North-West Mindanao					4,444.67	19.57%▼
South-East Mindanao					4,134.96	22.10%▼
South-West Mindanao					4,191.79	22.37%▼

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MARKET OUTCOME

CAPACITY ON OUTAGE

PER PLANT TYPE

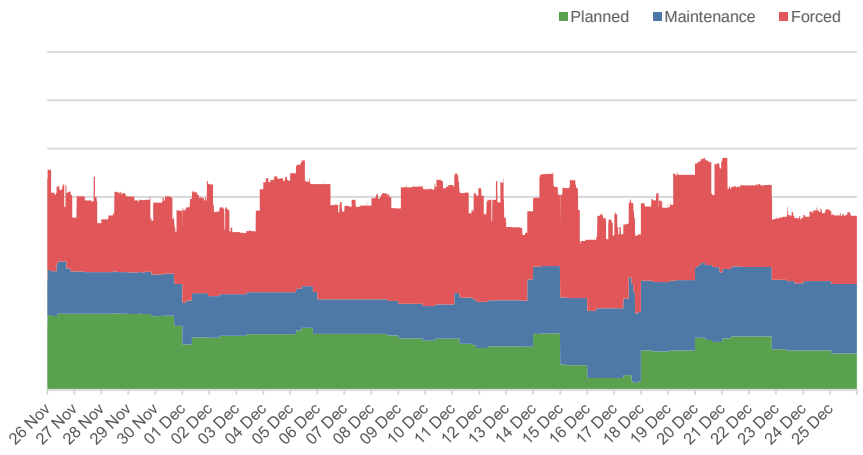


Particulars	Min		Max		Ave	% Change
	(in MW)	Date and time Interval	(in MW)	Date and time Interval	(in MW)	
Coal	729.60	12/15/2024 0:05	2,716.60	12/21/2024 0:20	1,851.32	9.82%▼
Natural Gas	440.00	11/26/2024 15:10	1,848.00	12/14/2024 5:40	927.19	38.97%▼
Geothermal	140.70	12/21/2024 12:30	328.40	12/01/2024 6:50	167.51	30.06%▼
Hydro	207.80	12/25/2024 1:10	715.90	11/26/2024 13:25	336.94	4.59%▼
Oil Based	467.60	12/13/2024 12:55	699.80	12/04/2024 19:25	541.50	2.77%▲
Wind	36.70	12/05/2024 9:10	134.00	11/30/2024 16:30	80.26	8.32%▼
Solar	1.60	11/28/2024 6:15	68.70	12/17/2024 18:35	37.61	25.49%▲
Biofuel	24.60	12/02/2024 20:20	139.10	12/08/2024 4:15	61.06	27.00%▼
Battery Storage	50.00	11/27/2024 15:05	90.00	12/04/2024 6:20	58.29	11.01%▲

The average outages decreased across most power plant types, representing a 18% reduction in capacity on outage compared to the previous billing month.

Coal-fired power plants were the primary contributors to the observed decline in capacities on outage, resulting in a total capacity improvement of 884 MW. This improvement was attributed to the return to service of four coal plans form their planned outage, namely: the Pagbilao Coal-Fired Power Plant 2, Sual Unit 1, FDCMPC Circulating Fluidized Bed (CFB) Unit 3, and Panay Energy Development Corporation (PEDC) Unit 3, representing a combined rated capacity of 1,314 MW.

PER CATEGORY



Particulars	Min		Max		Ave	% Change
	(in MW)	Date and time Interval	(in MW)	Date and time Interval	(in MW)	
Planned	145.00	12/17/2024 17:05	1,587.15	11/28/2024 10:20	1,037.47	4.82%▼
Maintenance	713.80	12/06/2024 0:15	2,026.80	12/17/2024 13:10	1,090.82	0.01%▲
Forced	1,012.40	11/27/2024 20:40	2,642.00	12/05/2024 9:20	1,814.42	32.28%▼

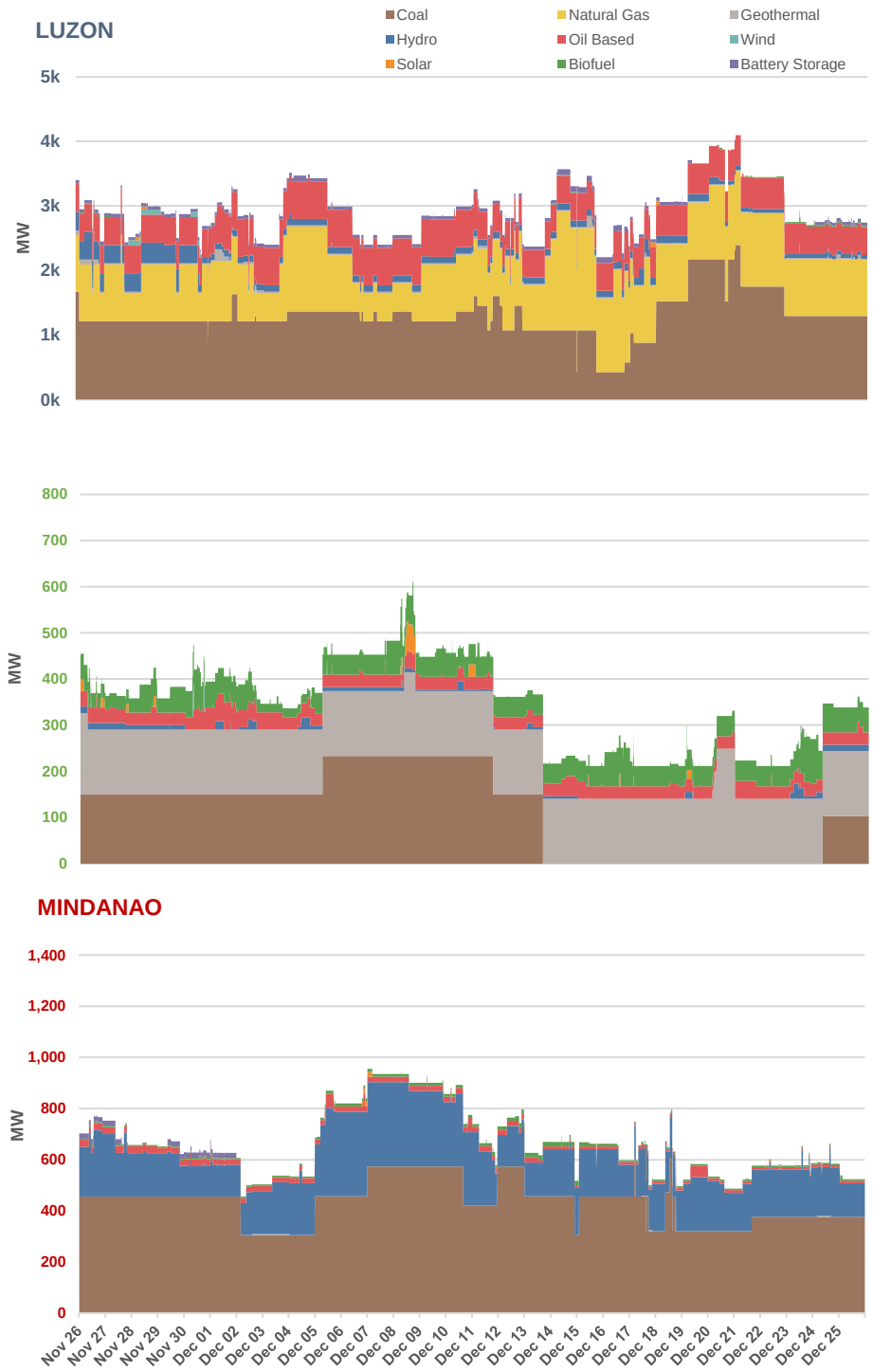
With respect to outage categories, a significant decrease of 32% (865MW) was observed in the forced outage category. The return to operation of the Excellent Energy Resources Inc. (EERI) Combined Cycle Power Plant Unit 2 and GNPK's Coal Fired Power Plant Unit 3, representing a combined capacity of 591 MW, contributed to this reduction.

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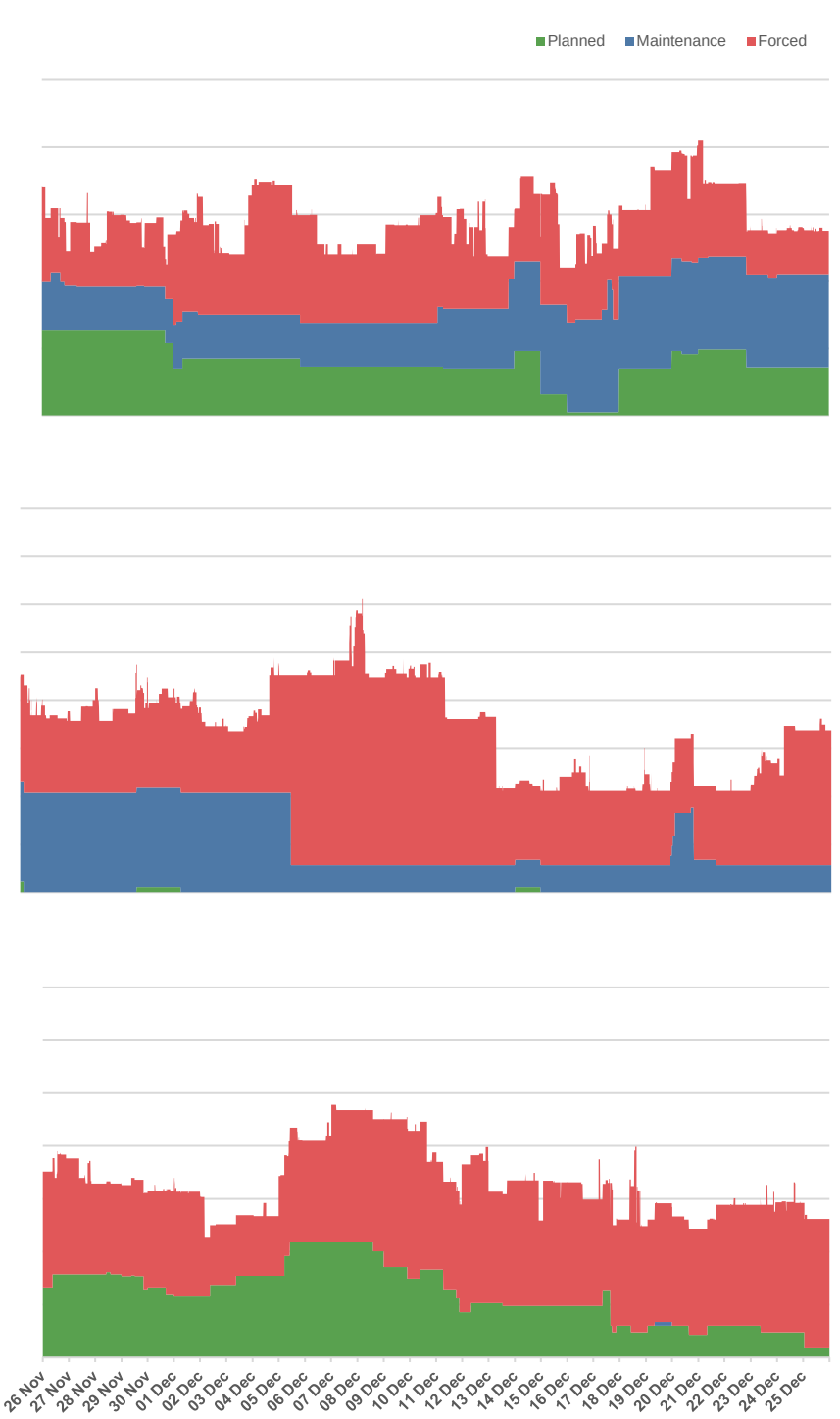
MARKET OUTCOME

CAPACITY ON OUTAGE

PER PLANT TYPE



PER CATEGORY

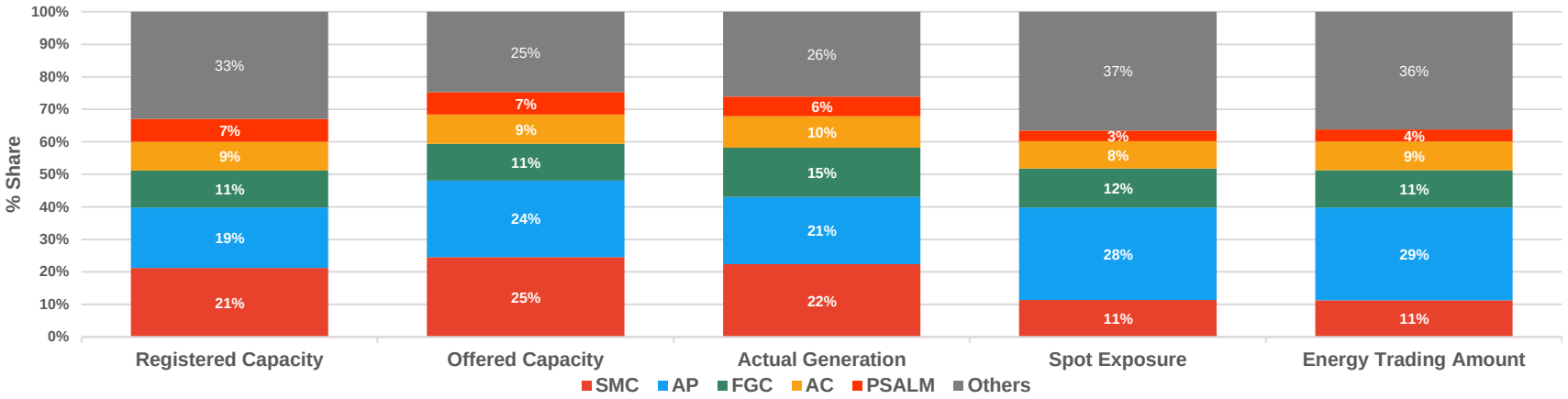


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MARKET OUTCOME

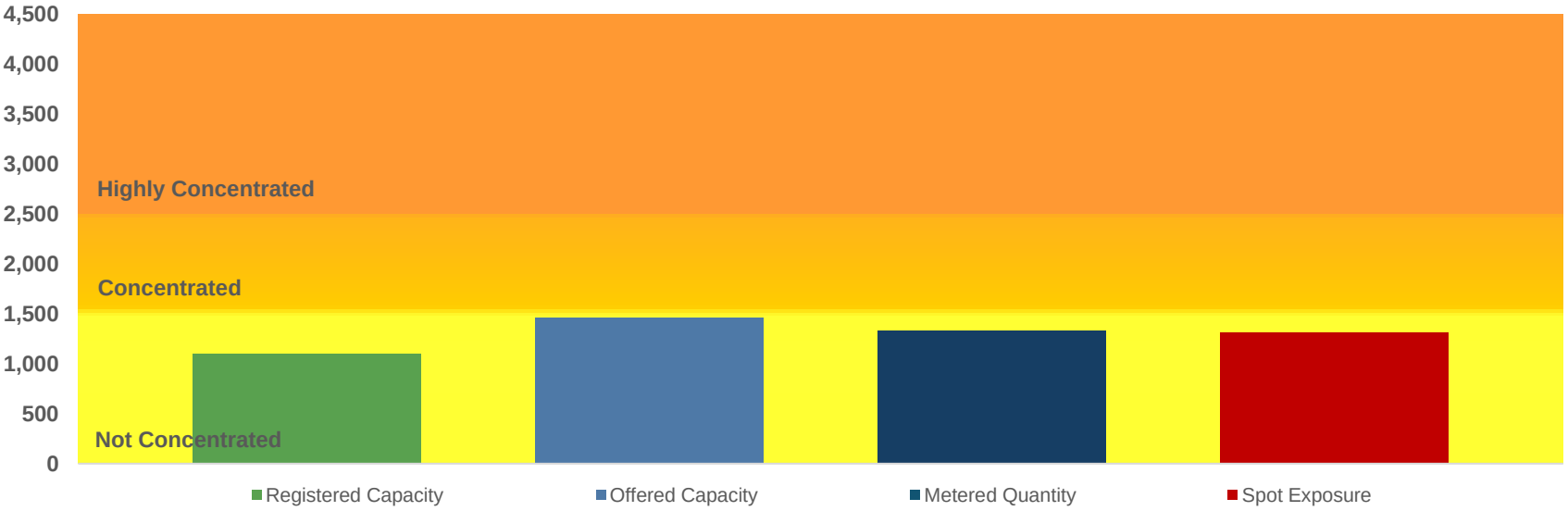
STRUCTURAL COMPETITION

SYSTEM MARKET SHARE



During the December billing period, San Miguel Corporation (SMC) maintained its position as the top major participant group, holding the largest percentage share of registered and offered capacity. The SMC's dominance in offered capacity translated to the highest percentage share of actual generation, suggesting a high degree of dispatch for SMC's offered capacity. Meanwhile, Aboitiz Power (AP) continued to exhibit a significant presence in the spot market, with 35% of its metered quantity sold through the spot market, representing 28% of the total spot market exposure. Conversely, SMC's traded energy was predominantly allocated to bilateral contracts, thereby dictating its dispatch within the market.

Herfindahl–Hirschman Index

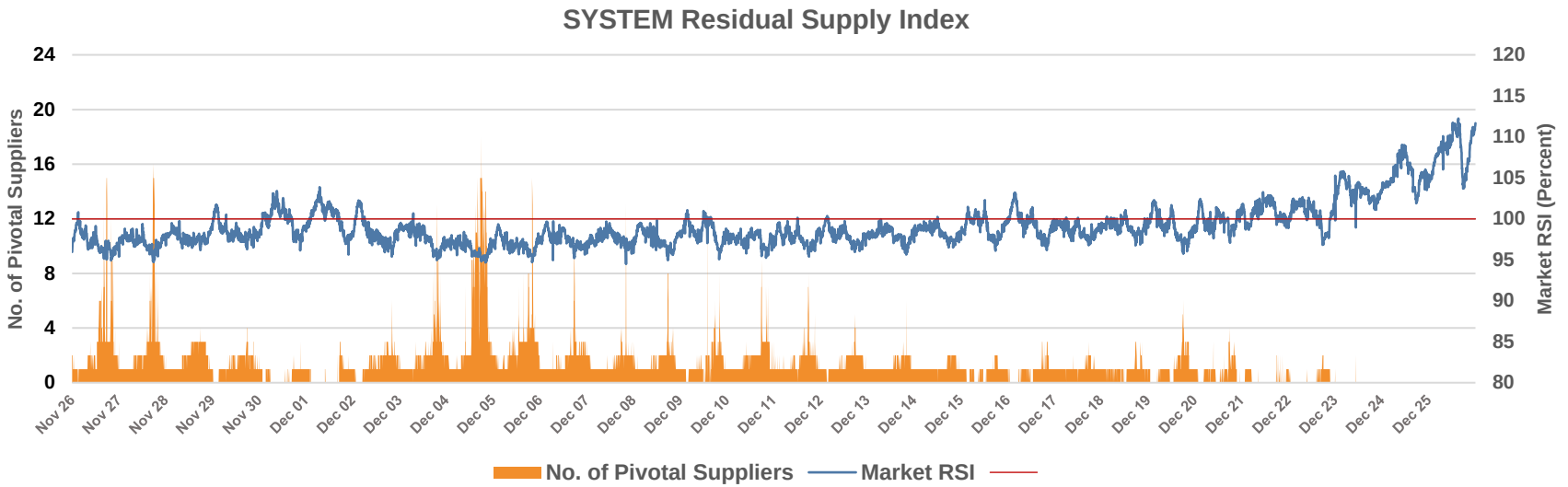


The December 2024 market, as measured by the Herfindahl-Hirschman Index (HHI), was not concentrated, indicating a competitive landscape. The low HHI values reflect distributed market power, reducing the risk of any single entity or group exerting undue influence.

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MARKET OUTCOME

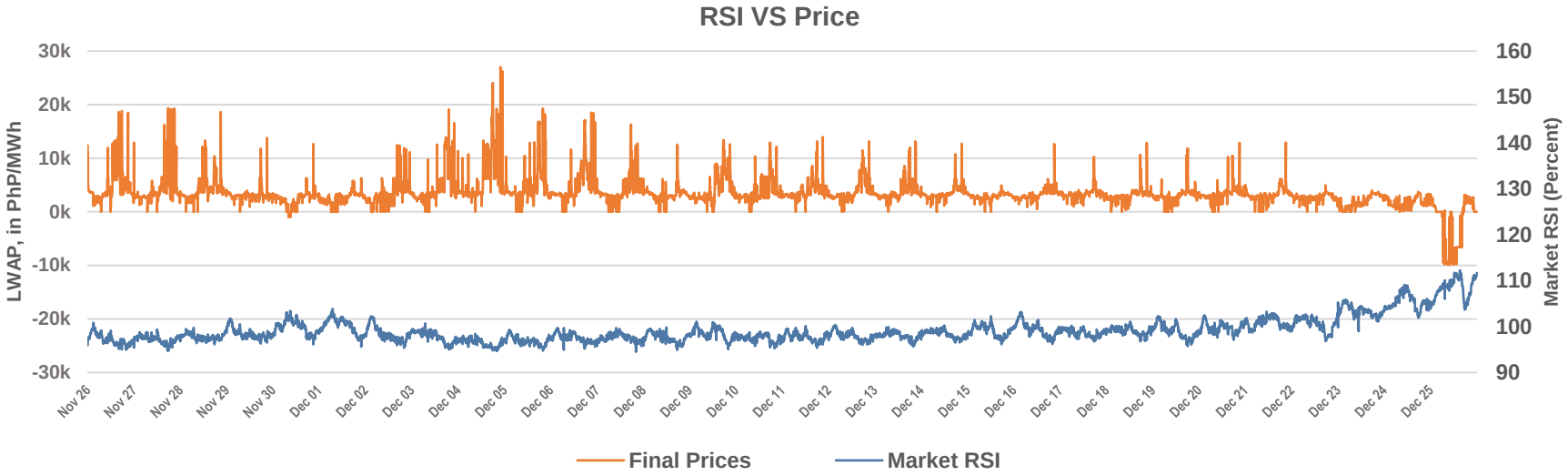
STRUCTURAL COMPETITION



A Residual Supplier Index (RSI) below 100 indicates a tight supply situation with the presence of pivotal plants owned by certain market participants. For December 2024 billing period, RSIs below 100 were recorded 76% of the time, with an average price at PHP 4,153/MWh. Conversely, when RSIs were 100 or above (24% of time), this indicated a more competitive market with ample supply and an average price being significantly lower at PHP 1,781/MWh. The increase in instances of RSI falling above the 100 mark contributed to a 21% decrease in the computed load weighted average price (LWAP) compared to the previous month.

RSI		Price	Time Interval
Max	112.24	(6,601.14)	12/25/2024 15:15
Min	94.49	8,593.67	12/07/2024 20:15

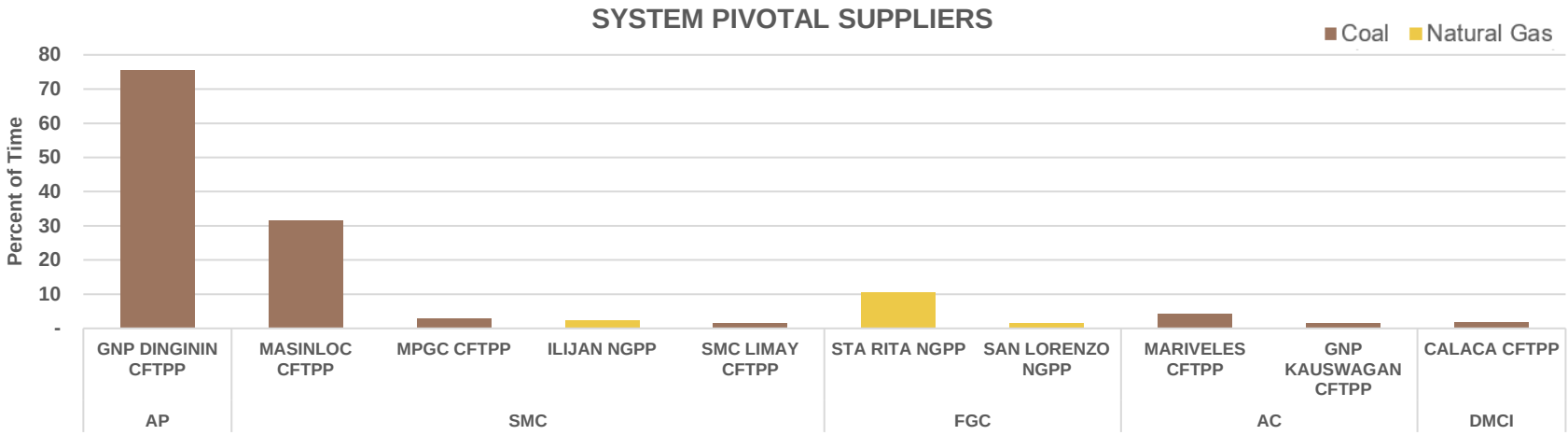
Price		RSI	Time Interval
Max	27,008.21	95.71	11/26/2024 20:00
Min	(9,930.21)	109.35	12/25/2024 9:05



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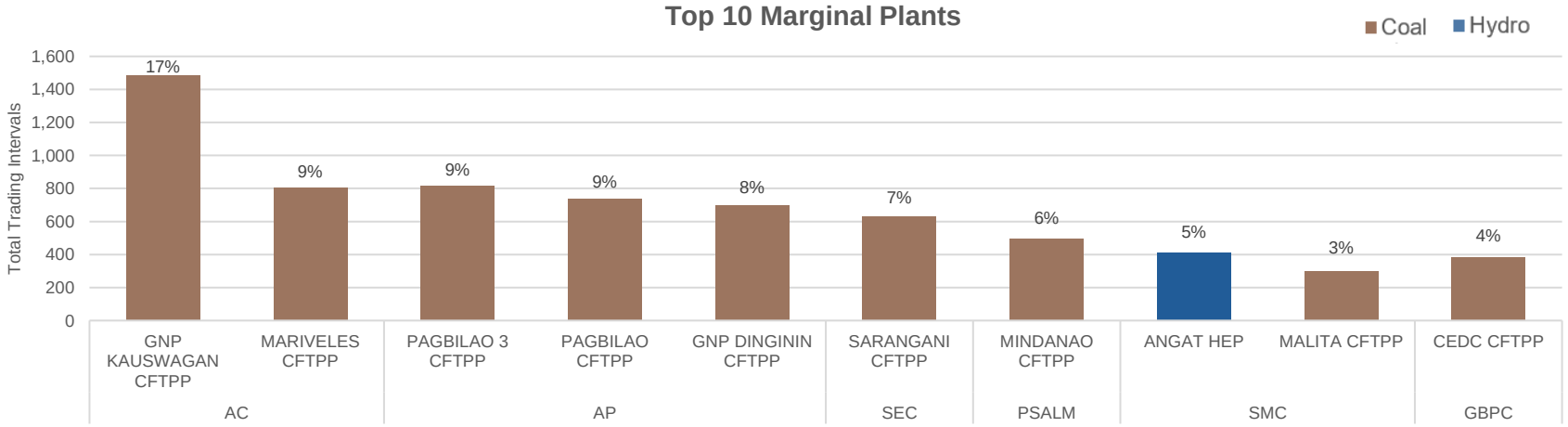
MARKET OUTCOME

STRUCTURAL COMPETITION



The GNP Dinginin Coal-Fired Thermal Power Plant (CFTPP) was a system-wide pivotal plant for the December billing period, with a total of 6,518 trading intervals, or 75% of the entire-billing period in review. A pivotal plant is one whose capacity is required to meet the system demand during a trading interval. The absence of such capacity may result in system shortages or instability.

Meanwhile, Masinloc CFTPP ranked as the second most pivotal supplier, fulfilling this role for a total of 2,725 trading intervals, equivalent to 32% of all intervals for the December billing month. The plant's pivotal status remained at second, primarily due to outages affecting Sual1 and 2 and the unavailability of Ilijan Natural Gas Power Plant (NGPP) block A due gas/fuel constraint. Both facilities belong to a single market participant group, SMC. The combined availability of these pivotal plants is critical for mitigating power shortfalls and ensuring grid reliability. Of the ten identified pivotal suppliers, seven were coal-fired power plants, while the remaining three were natural gas-powered facilities.



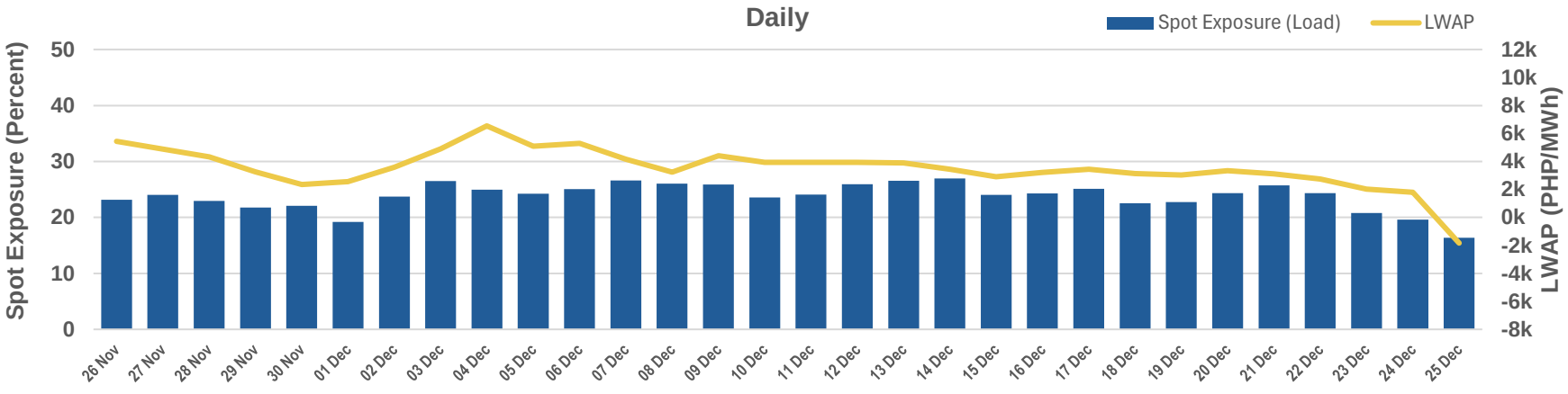
For the December 2024 billing period, the GNP Kauswagan CFTPP remained as the top marginal plant for a total of 1,488 total trading interval or 17% of time. The plant served as the system-wide marginal plant for a total of 836 trading intervals, 354 total trading interval for Visayas and Mindanao, and 298 trading interval for Mindanao. The plant also served as a pivotal supplier for 2% of the time in a system-wide perspective.

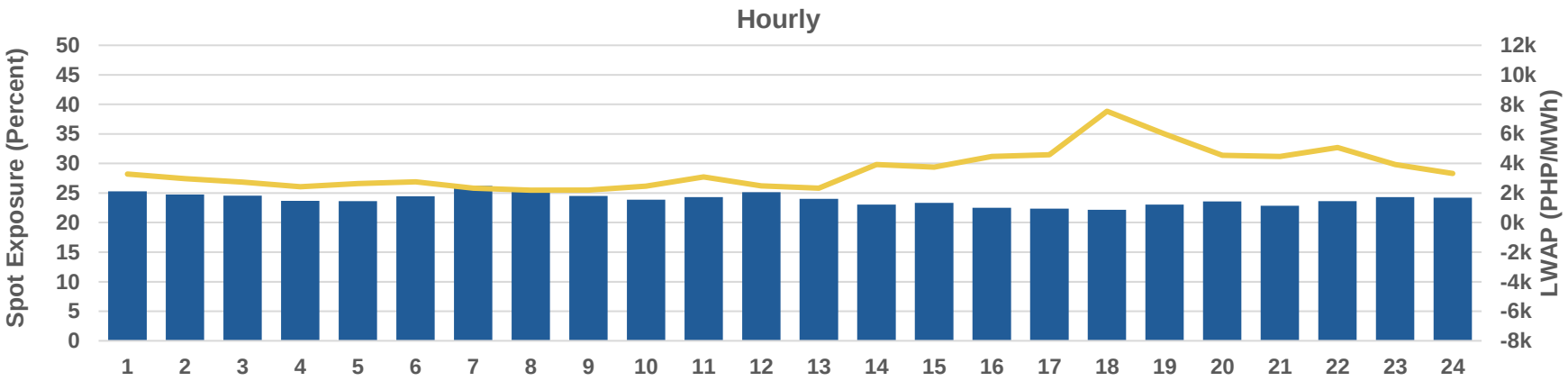
A similar pattern was observed among system-wide pivotal suppliers, with coal-fired power plants constituting a majority (nine out of the top ten).

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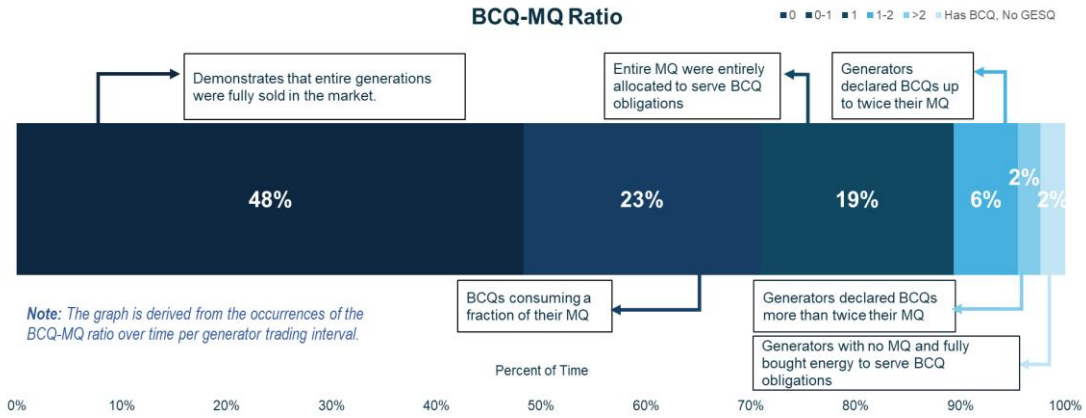
MARKET OUTCOME

SPOT EXPOSURE





The average spot quantities of load participants for the December 2024 billing period was noted at 23.77%, with an accompanying average price of PHP 3,639/MWh. Notably, the spot exposure exhibited variations based on the type of day, with weekdays recording an average of 24.11% at an average price of PHP4,118/MWh, while weekends/holidays registered an average of 23.09% at an average price of PHP 2,565/MWh.

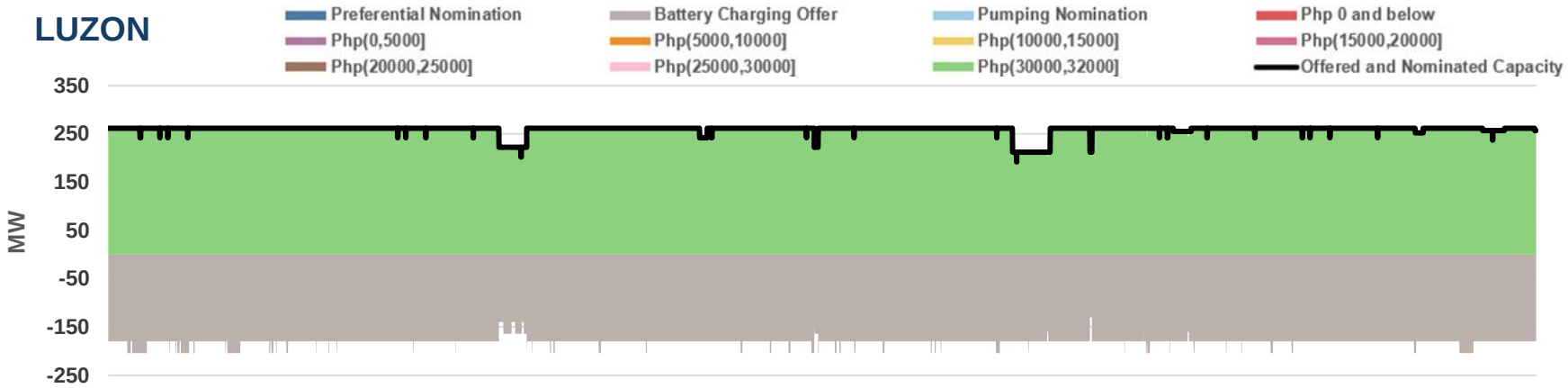


For the December 2024 billing period, majority of the metered quantities were still covered by the BCQ declarations of generator-trading participants in the market.

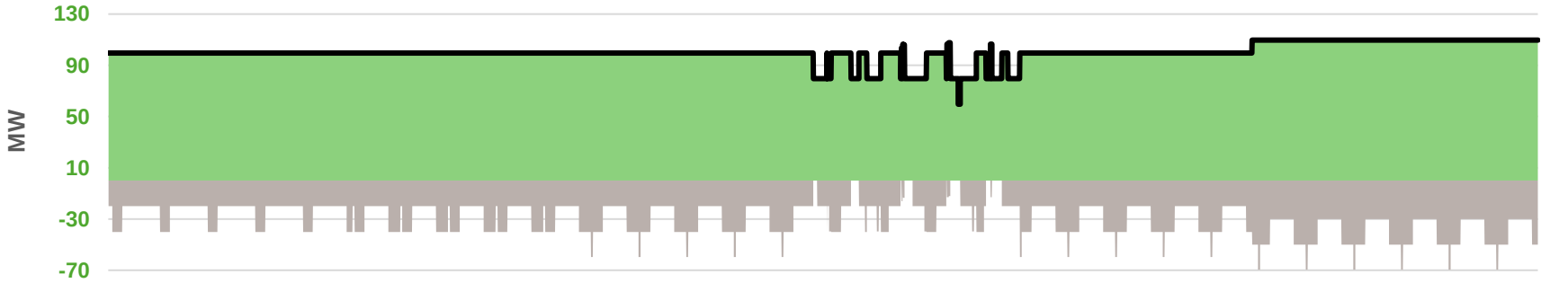
MARKET OUTCOME
OFFER PATTERN ANALYSIS

BATTERY

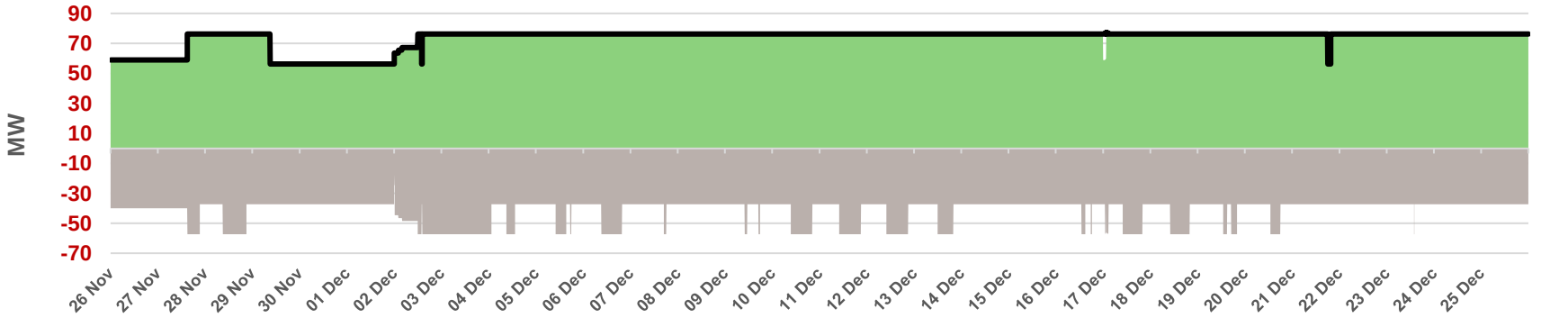
LUZON



VISAYAS



MINDANAO



The average offers for Battery Energy Storage Systems (BESS) were as follows: Generation: Luzon - 259 MW, Visayas - 104 MW, and Mindanao - 76. MW; Charging: Luzon - 181 MW, Visayas - 36 MW, and Mindanao - 40 MW.

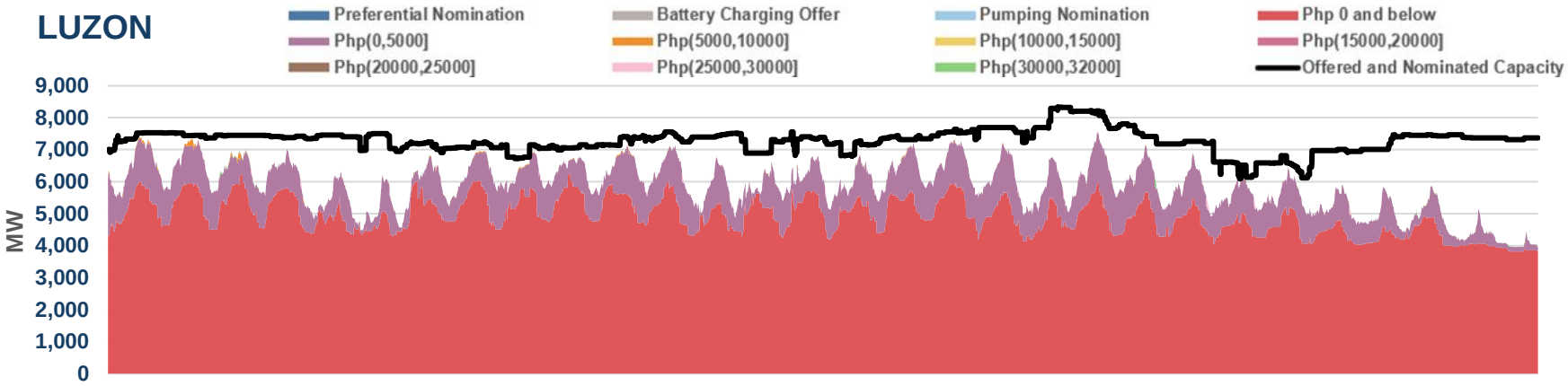
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MARKET OUTCOME

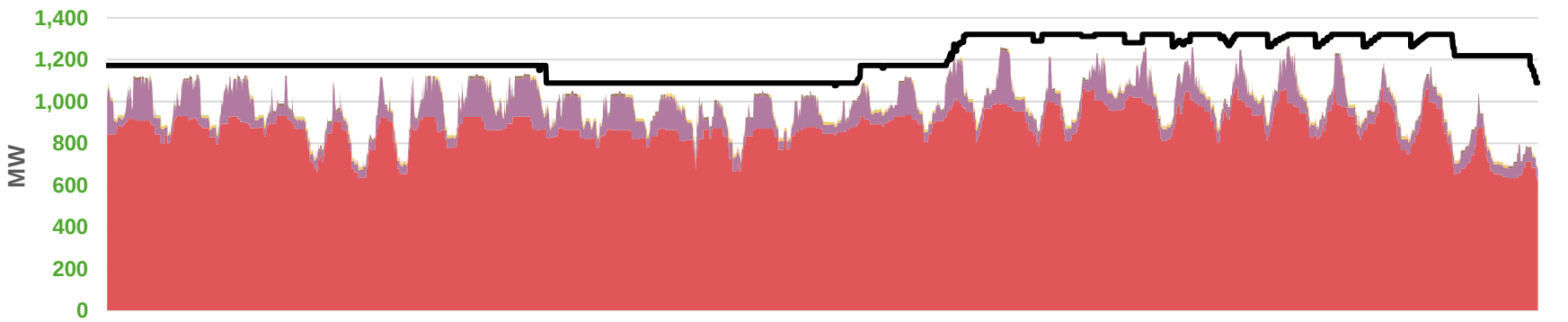
OFFER PATTERN ANALYSIS

COAL

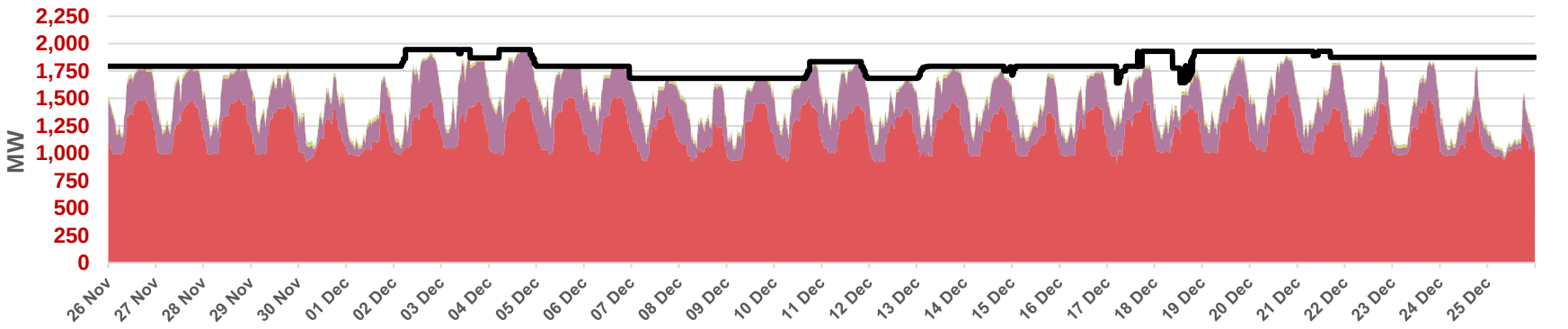
LUZON



VISAYAS



MINDANAO



Coal power plants' offers across all three regions remained predominantly at PHP 0 or below during the review period. As baseload plants, the majority of their generation capacity is committed to bilateral contracts.

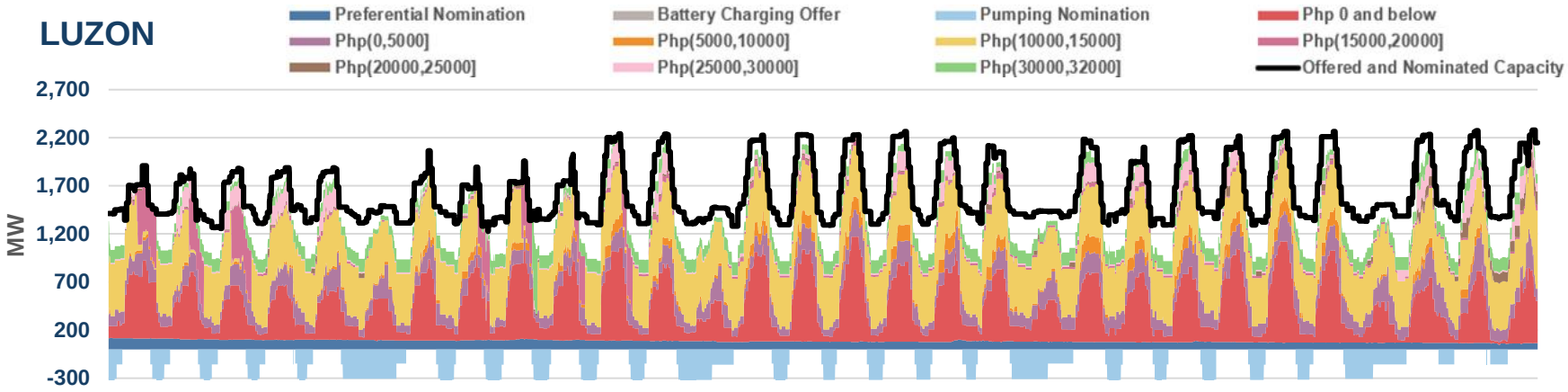
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MARKET OUTCOME

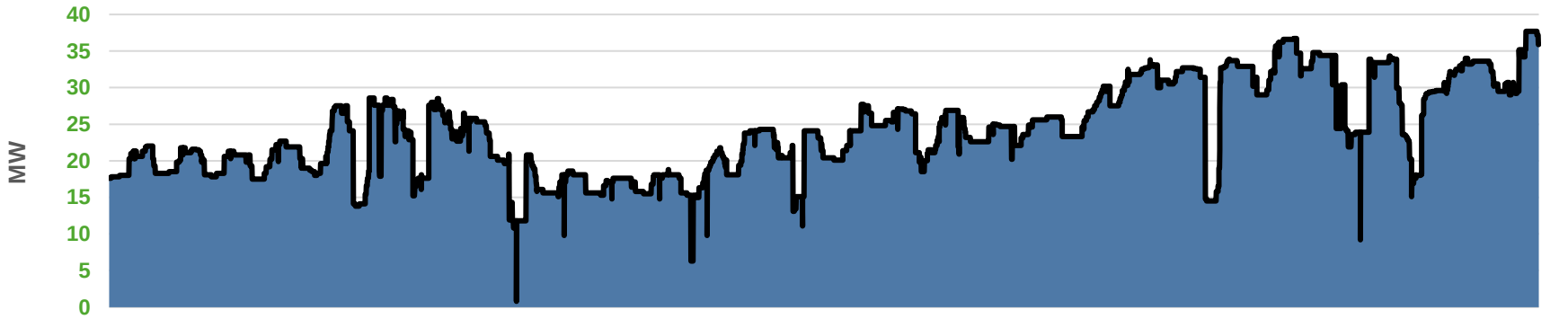
OFFER PATTERN ANALYSIS

HYDRO

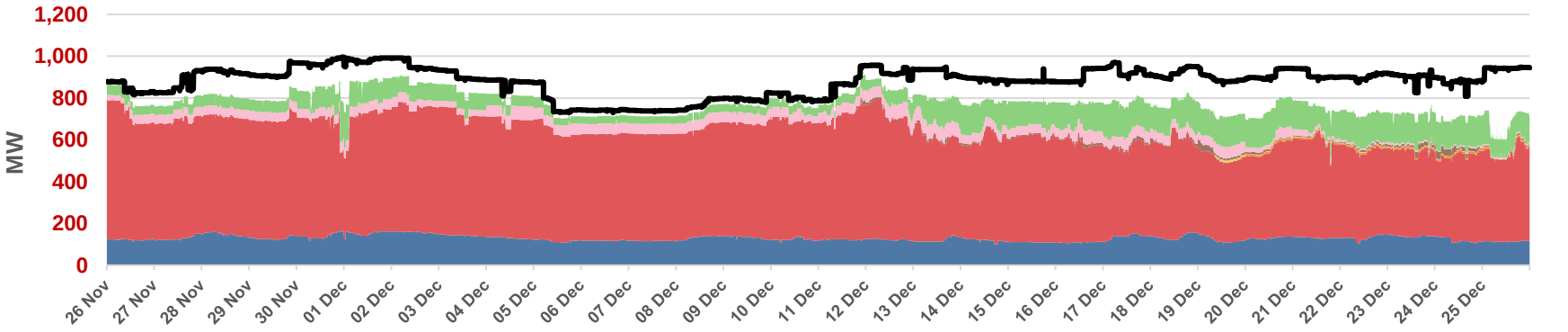
LUZON



VISAYAS



MINDANAO



Hydro power plants' offers behavior varied across the three regions during the review period, reflecting their operational flexibility and regional market dynamics. Luzon hydro plants showed the widest range of offers, while all Visayas plants were preferential based on their registration. Mindanao plants primarily offered at PHP 0 or below, with most capacity committed to bilateral contracts.

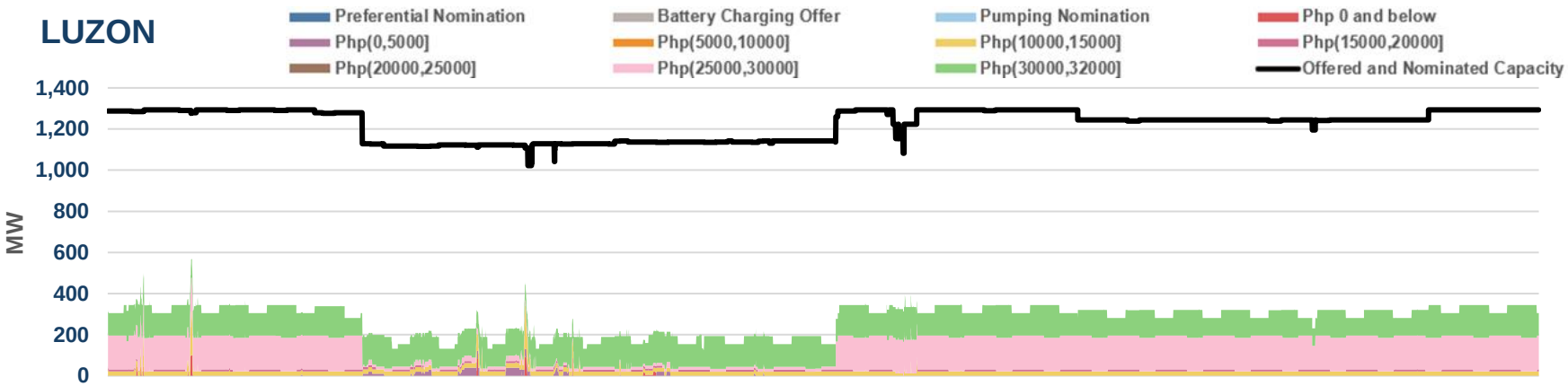
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MARKET OUTCOME

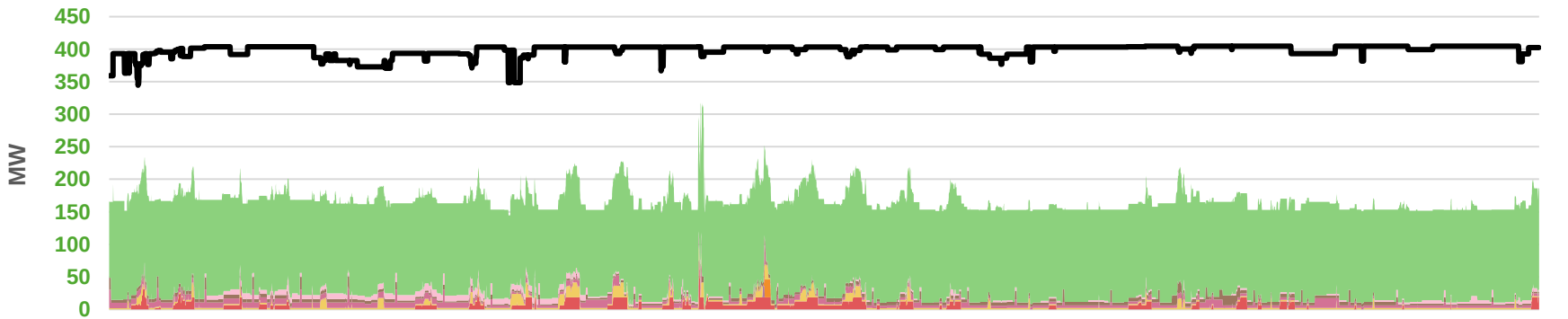
OFFER PATTERN ANALYSIS

OIL

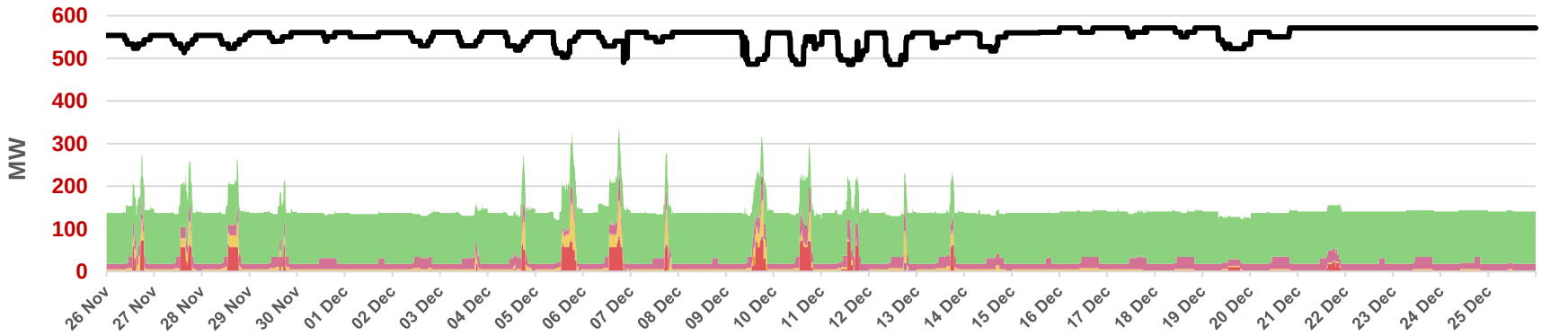
LUZON



VISAYAS



MINDANAO



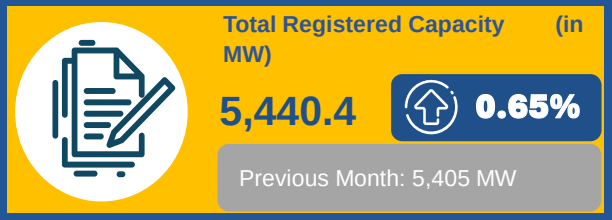
Offers from oil-based power plants across all three regions remained predominantly in the high price range during the period under review. Similar to battery, the offer price strategies of these plants align with the role they play in the energy market, particularly in addressing specific operational and market needs such ancillary service and peak demand response. Moreover, lower price range offer from oil-based plants were due to commitments to deliver capacities covered by contracts. The planned outage of a 150 MW oil plant in Luzon between 1-11 December 2024, resulted in a decrease in offers within the PHP

RESERVE MARKET

SUMMARY OF OBSERVATIONS

- Across all reserve categories, the Visayas region exhibited the highest average reserve price, followed by the Luzon and Mindanao regions, respectively. This pricing result is indicative of the varying levels of available capacity across the three regions.

AT A GLANCE

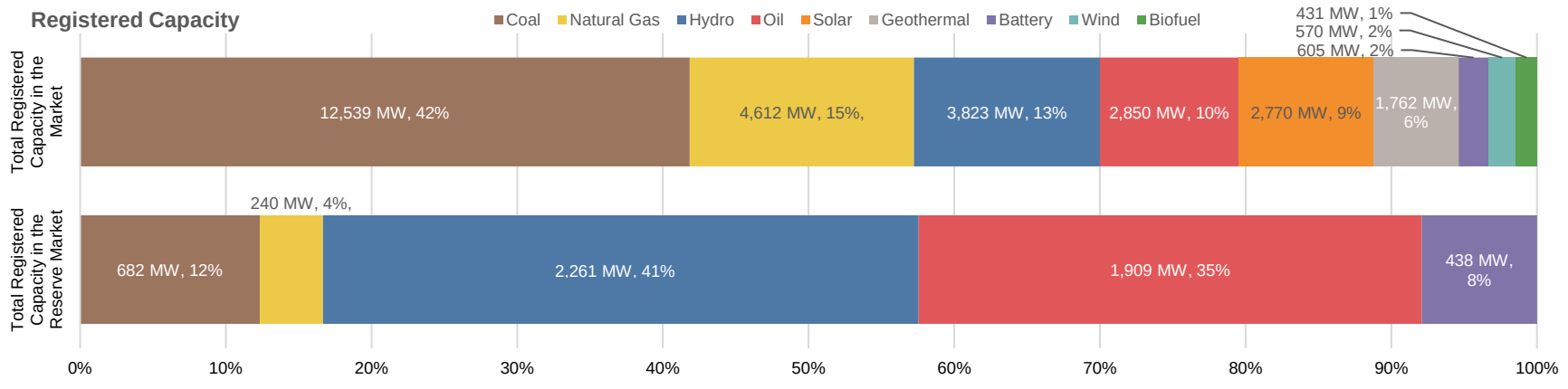


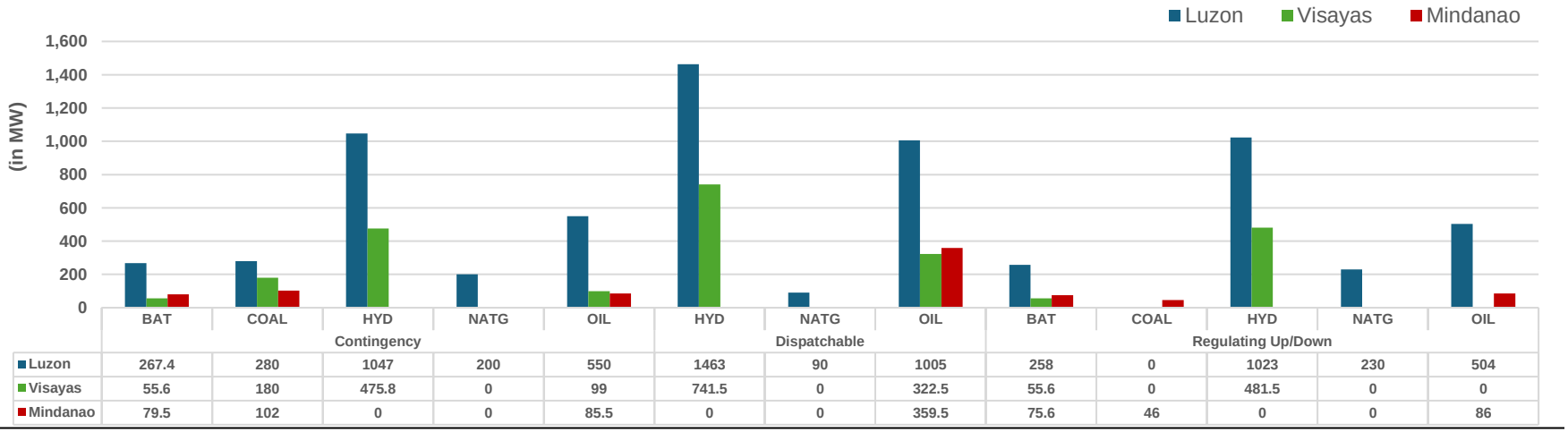
Region	Average Price (PHP/MWh)	% Change
Regulating Up		
Luzon	5,806.93	53.38%▼
Visayas	20,845.97	5.84%▼
Mindanao	9,866.79	25.33%▲
Regulating Down		
Luzon	5,871.54	42.16%▼
Visayas	25,497.11	6.54%▼
Mindanao	9,874.64	31.75%▲
Contigency		
Luzon	4,010.62	51.41%▲
Visayas	10,114.90	31.48%▲
Mindanao	1,497.32	35.39%▼
Dispatchable		
Luzon	708.37	48.05%▼
Visayas	4,225.35	43.03%▲
Mindanao	140.44	9.10%▲

Public

MARKET OUTCOME

RESERVE MARKET





	BAT	COAL	HYD	NATG	OIL	HYD	NATG	OIL	BAT	COAL	HYD	NATG	OIL
	Contingency					Dispatchable			Regulating Up/Down				
Luzon	267.4	280	1047	200	550	1463	90	1005	258	0	1023	230	504
Visayas	55.6	180	475.8	0	99	741.5	0	322.5	55.6	0	481.5	0	0
Mindanao	79.5	102	0	0	85.5	0	0	359.5	75.6	46	0	0	86

Of the total 29,771.6 MW registered capacity, approximately 18% (5,440.4 MW) are certified to participate in both the WESM and the Reserve Market. This capacity is primarily sourced from coal, natural gas, hydro, oil, and battery power plants, due to specific reserve market requirements.

Particulars	Min (in PHP/MW)	Max (in PHP/MW)	Ave (in PHP/MW)	% Change
Regulating Up				
Luzon	0.00	32,000.00	5,806.93	53.38%▼
Visayas	12,000.00	32,000.00	20,845.97	5.84%▼
Mindanao	0.00	32,000.00	9,866.79	25.33%▲
Regulating Down				
Luzon	0.00	32,000.00	5,871.54	42.16%▼
Visayas	12,000.00	32,000.00	25,497.11	6.54%▼
Mindanao	0.00	31,500.00	9,874.64	31.75%▲
Contigency				
Luzon	0.00	32,000.00	4,010.62	51.41%▲
Visayas	4,400.00	25,000.00	10,114.90	31.48%▲
Mindanao	1.99	27,759.46	1,497.32	35.39%▼
Dispatchable				
Luzon	0.00	9,000.00	708.37	48.05%▼
Visayas	10.00	32,000.00	4,225.35	43.03%▲
Mindanao	0.00	6,750.00	140.44	9.10%▲

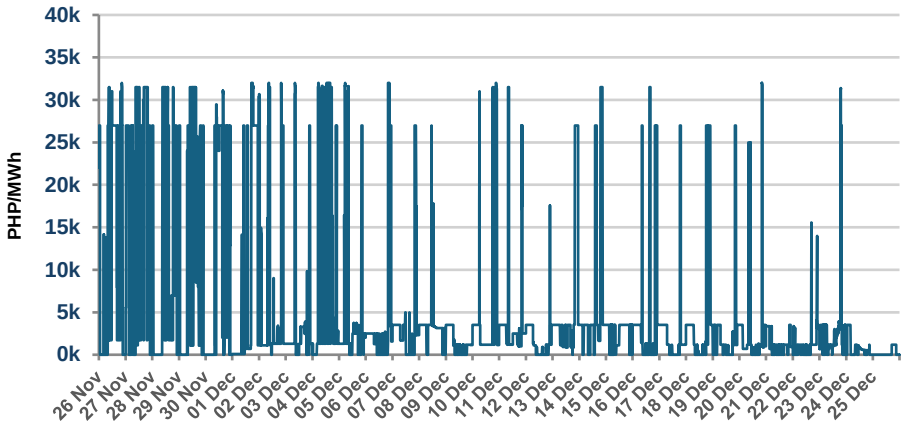
*Based on Reserve Settlement

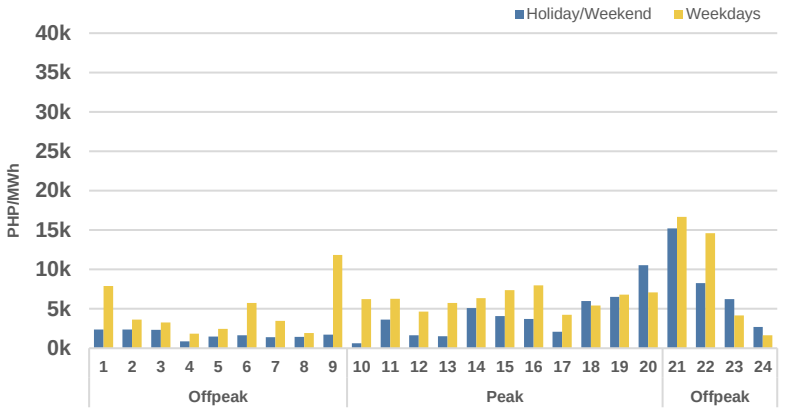
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MARKET OUTCOME
RESERVE MARKET

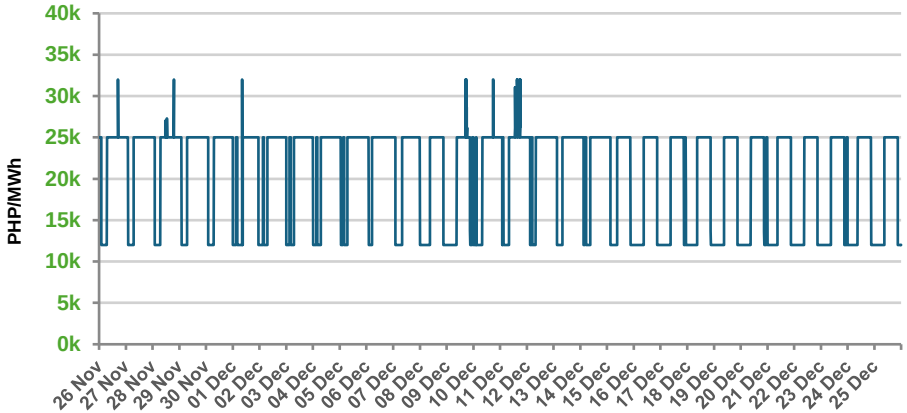
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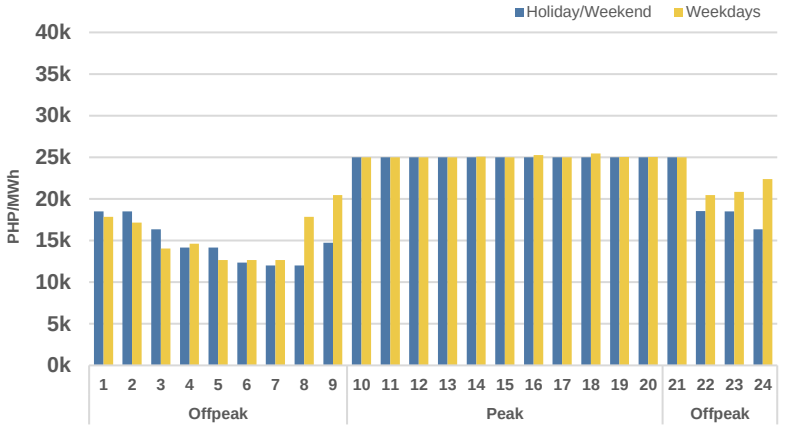
LUZON



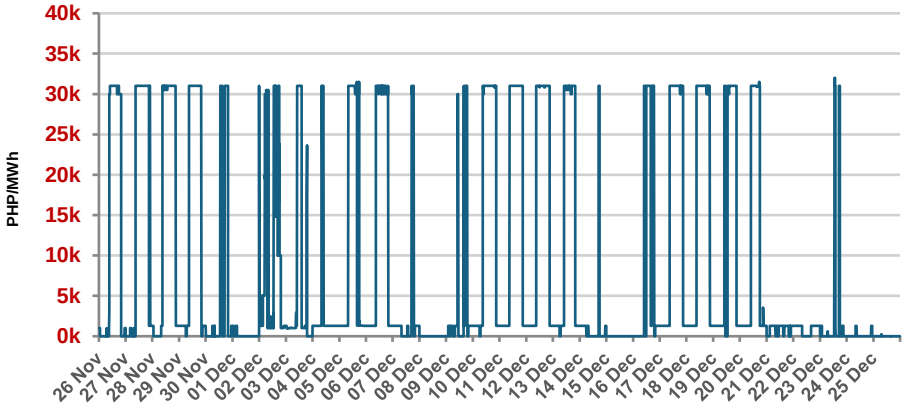


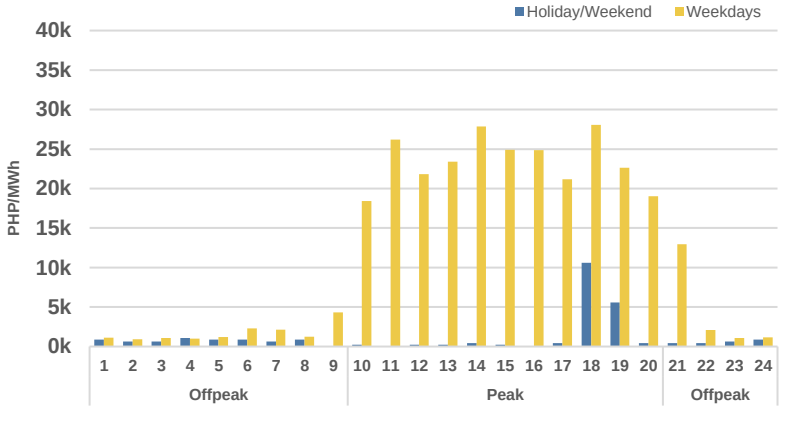
VISAYAS





MINDANAO



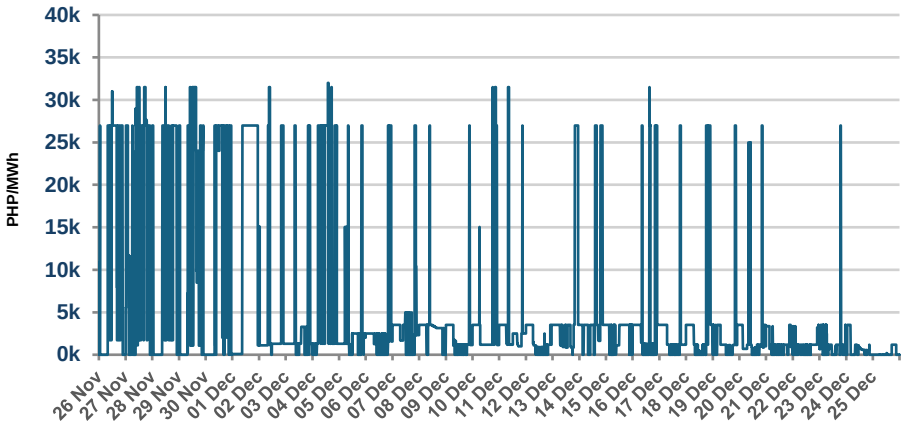


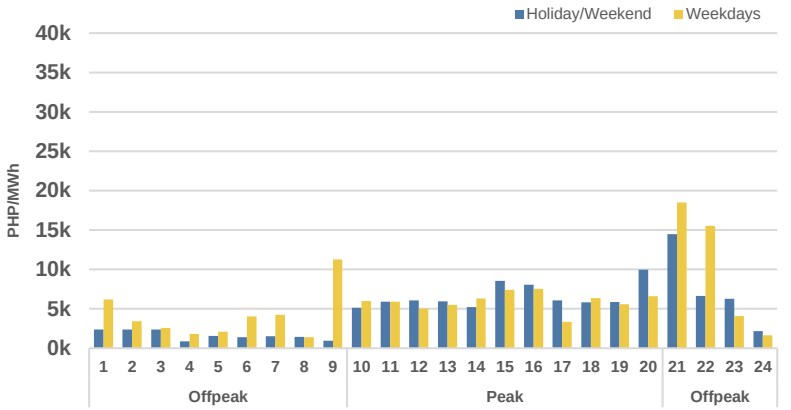
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MARKET OUTCOME
RESERVE MARKET

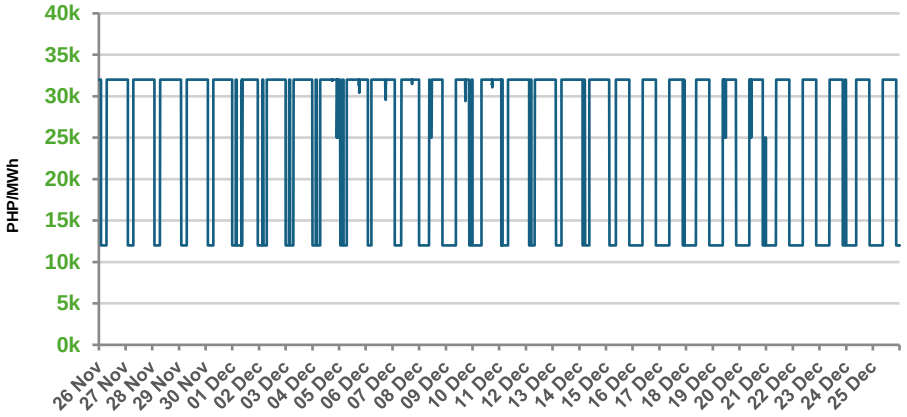
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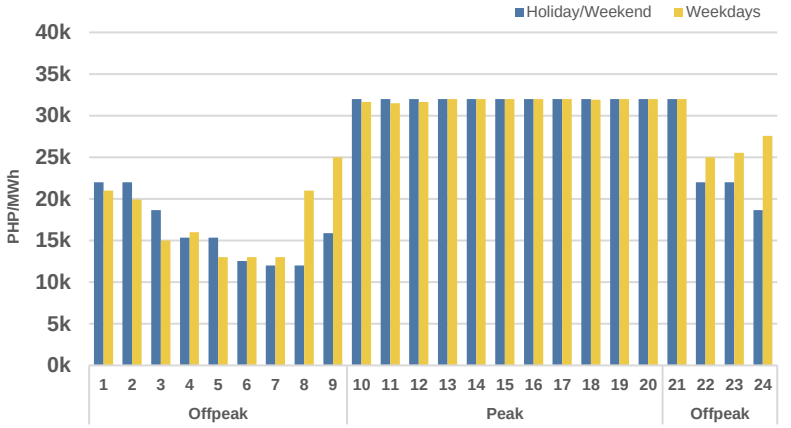
LUZON



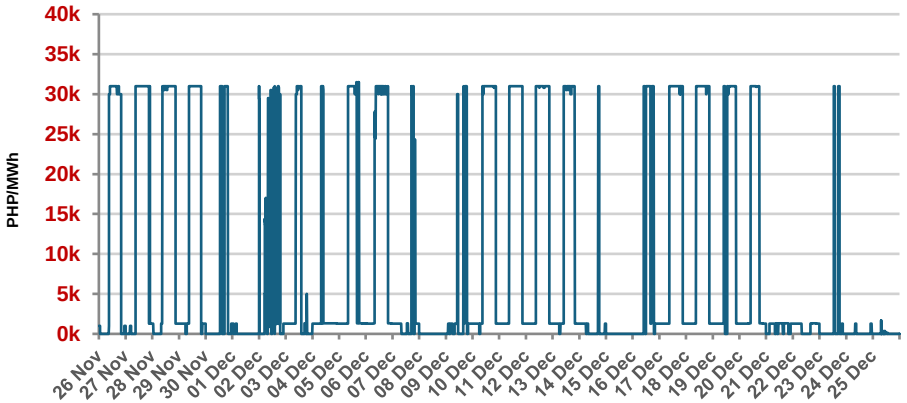


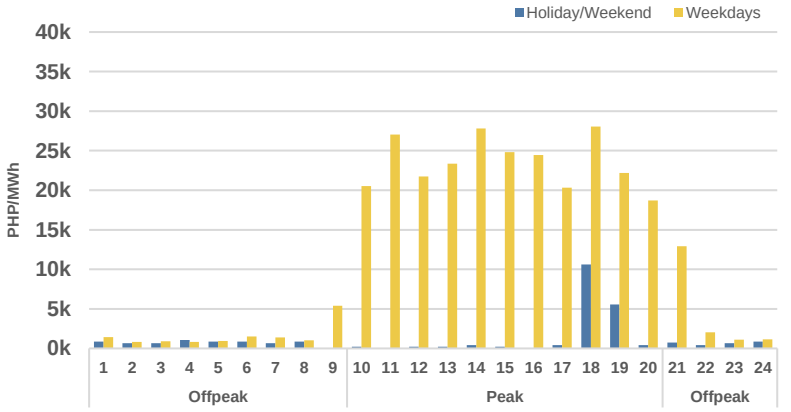
VISAYAS





MINDANAO

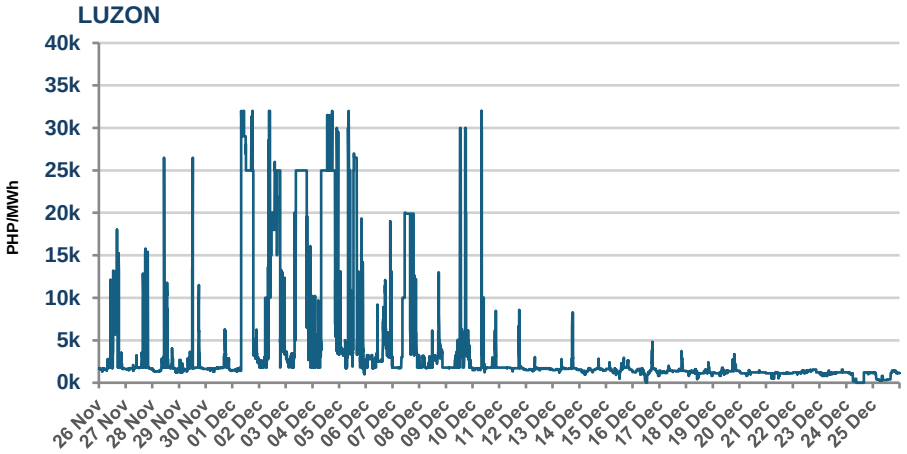


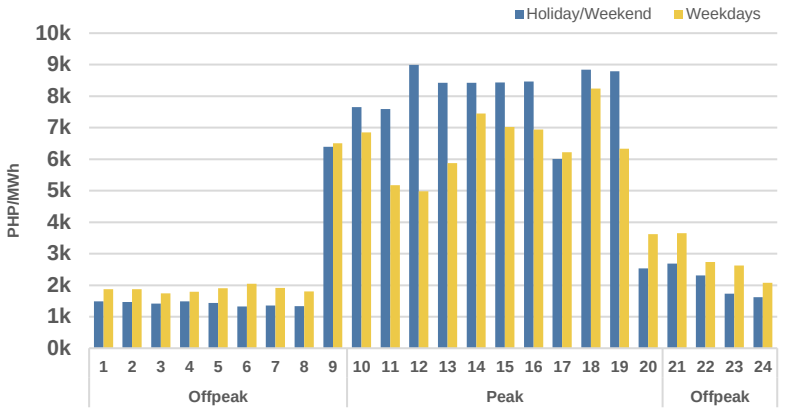


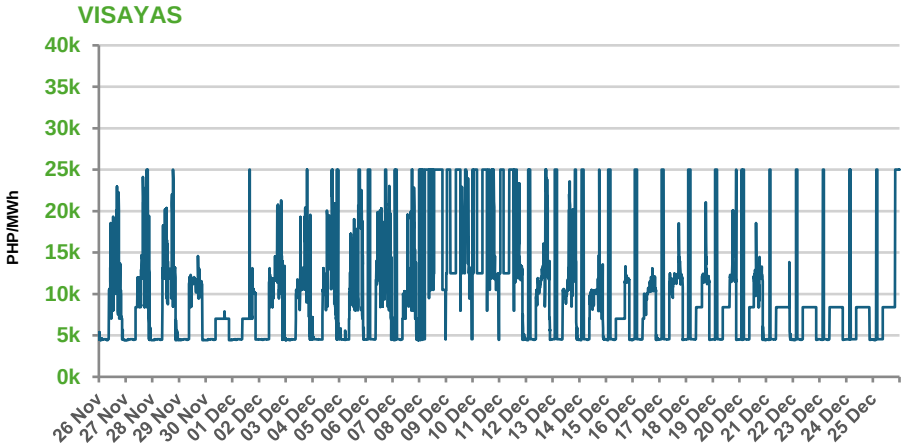
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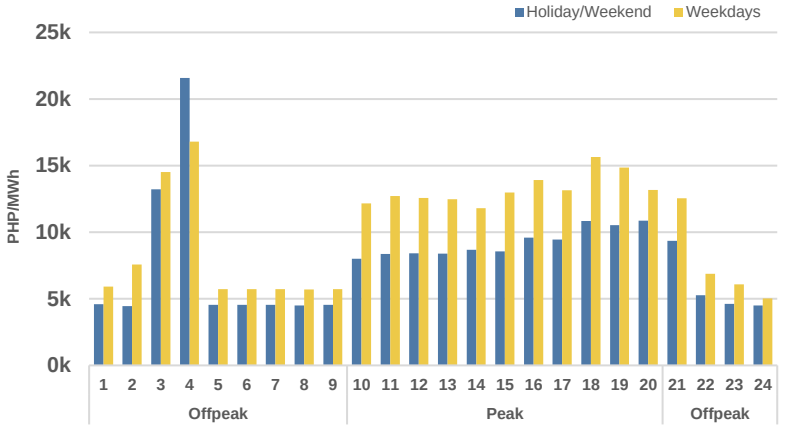
MARKET OUTCOME
RESERVE MARKET

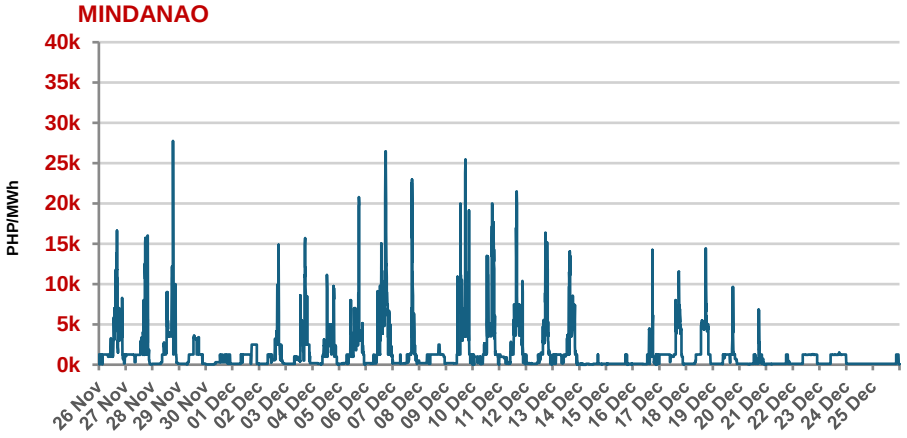
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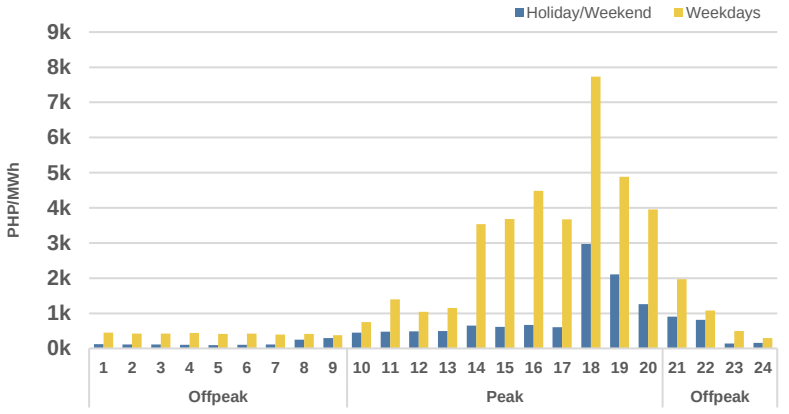










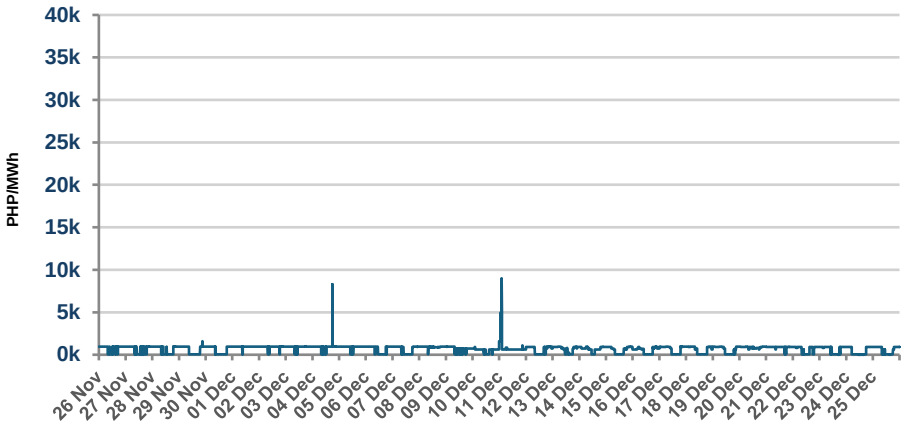


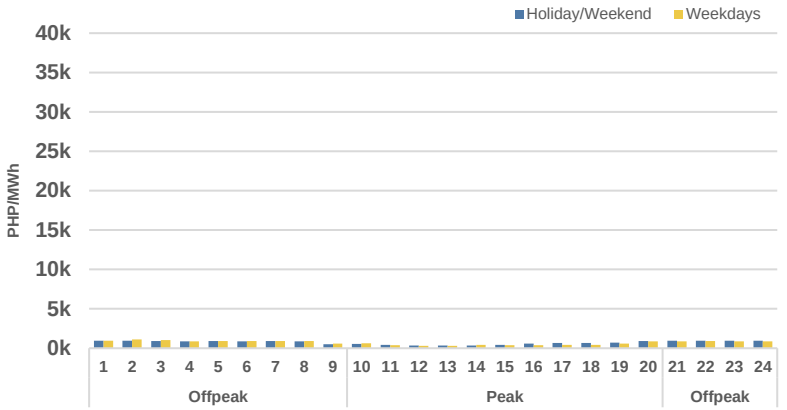
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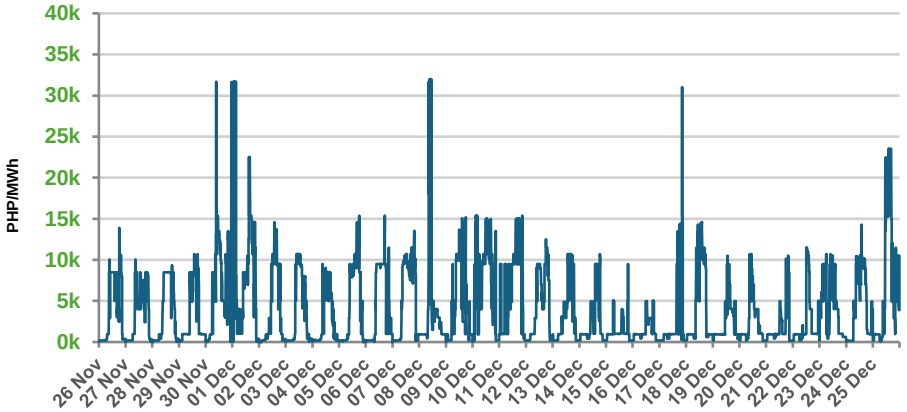
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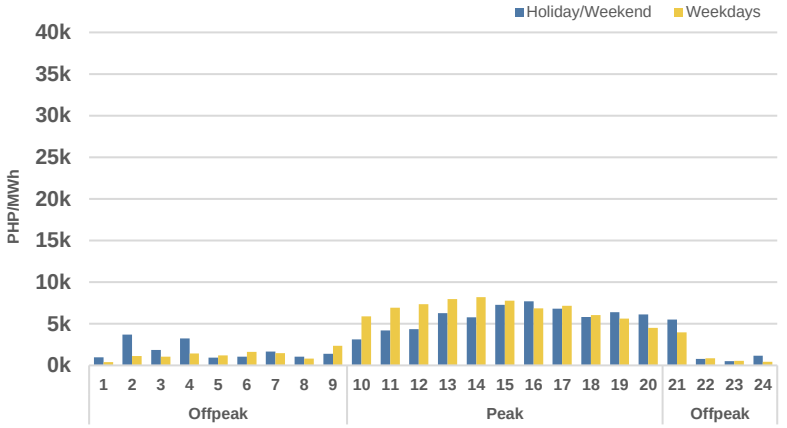
LUZON



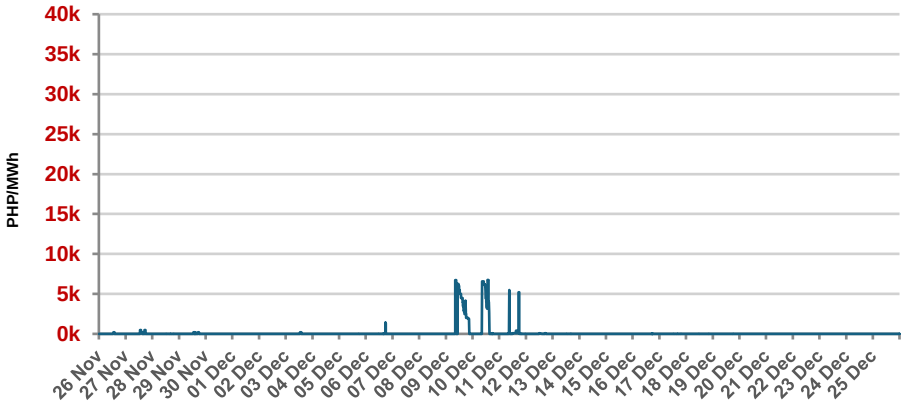


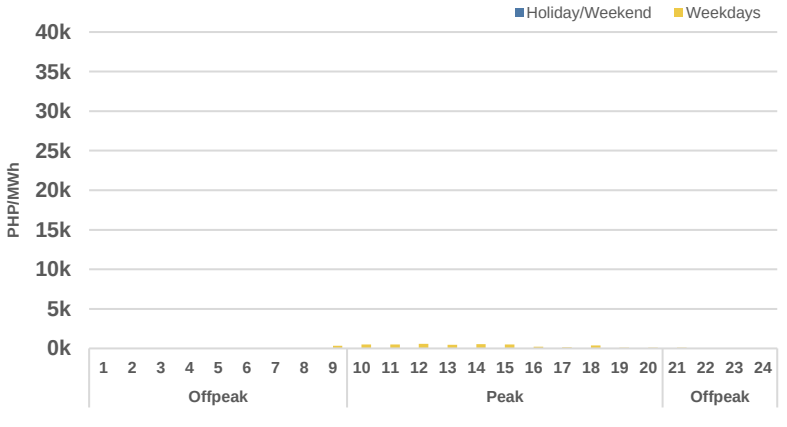
VISAYAS





MINDANAO

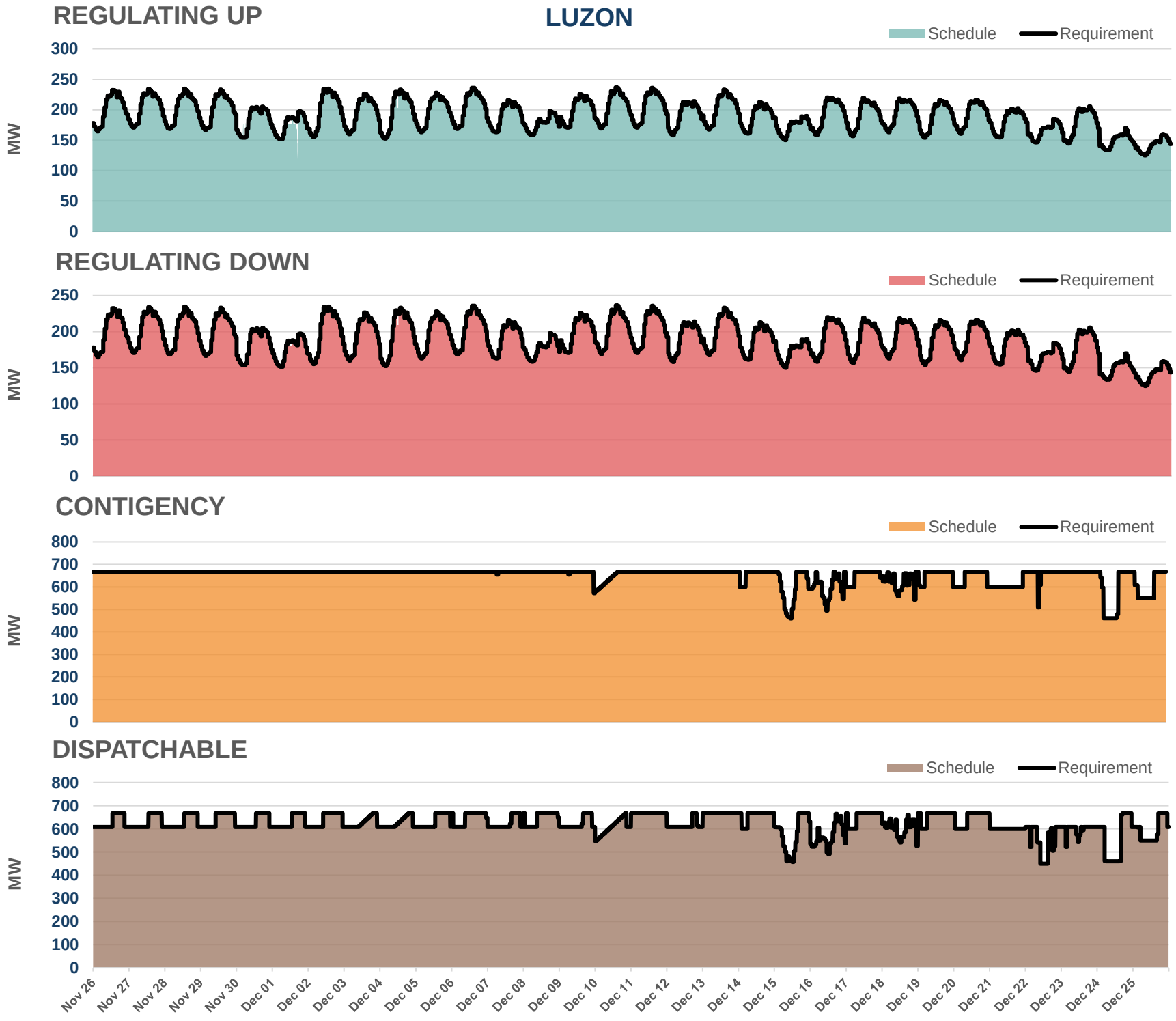




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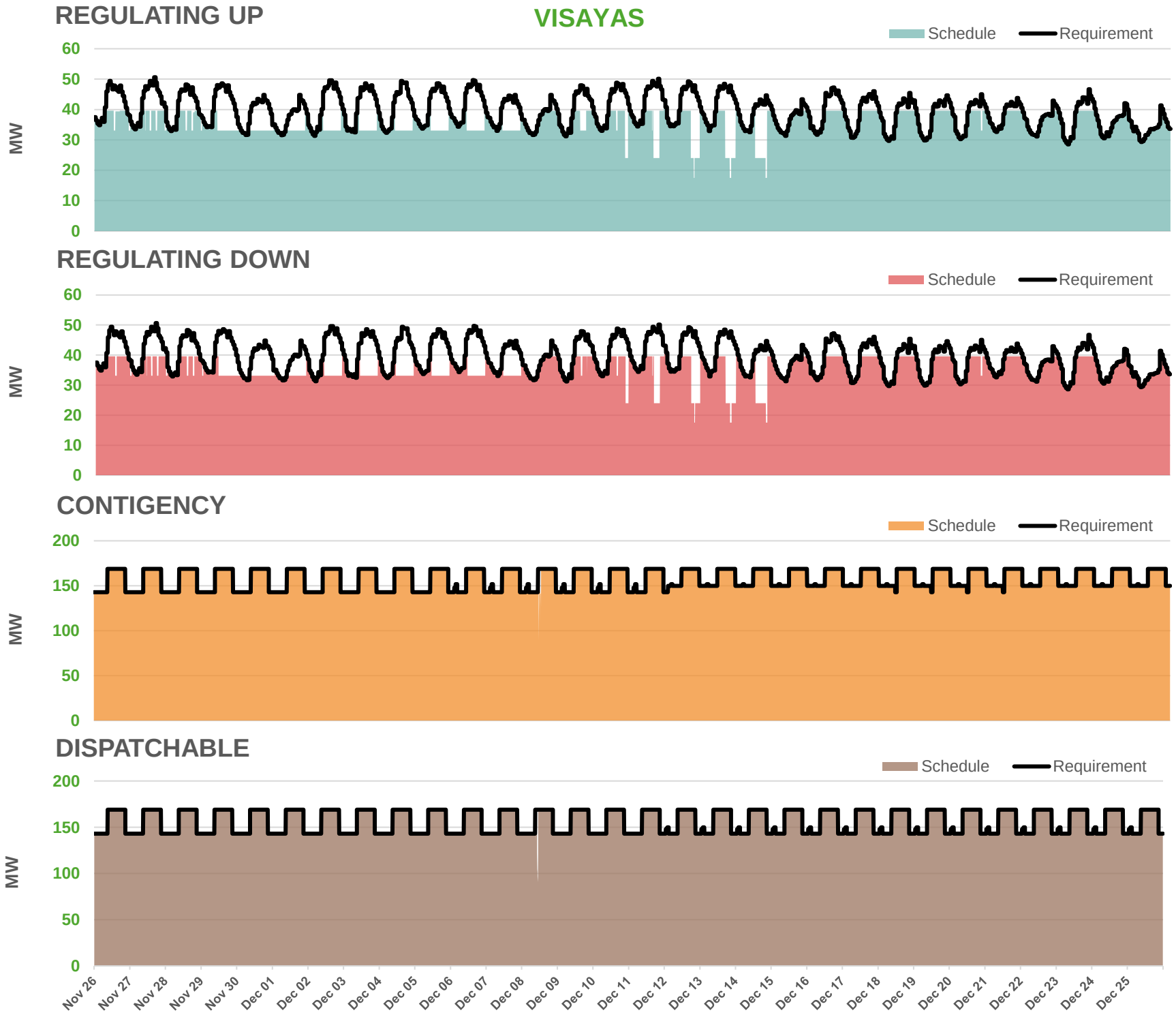
RESERVE MARKET



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MARKET OUTCOME

RESERVE MARKET



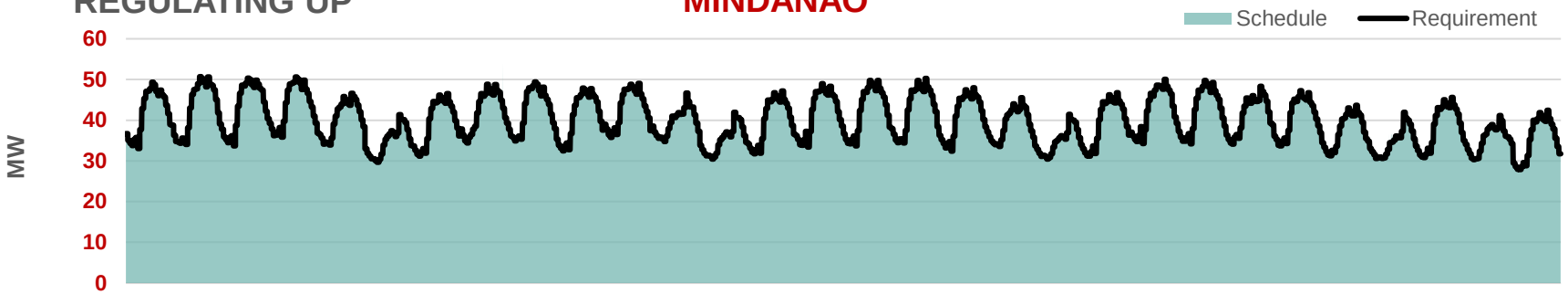
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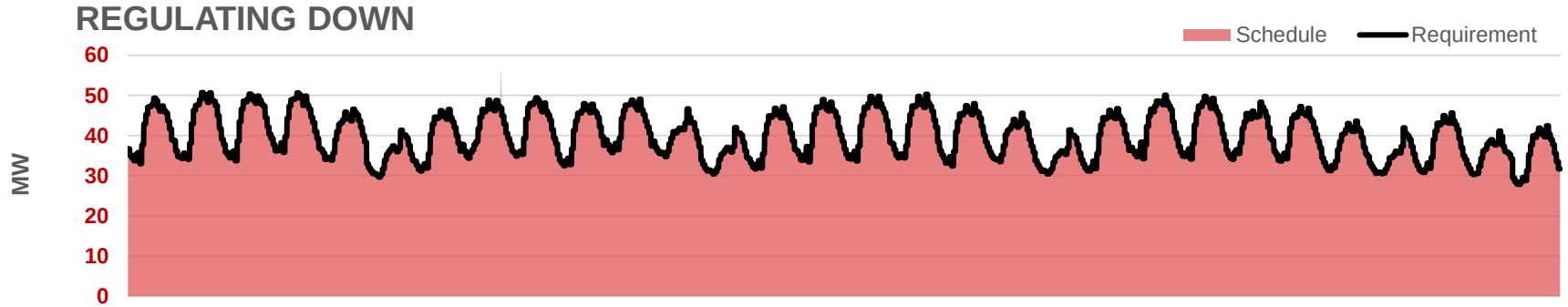
RESERVE MARKET

MINDANAO

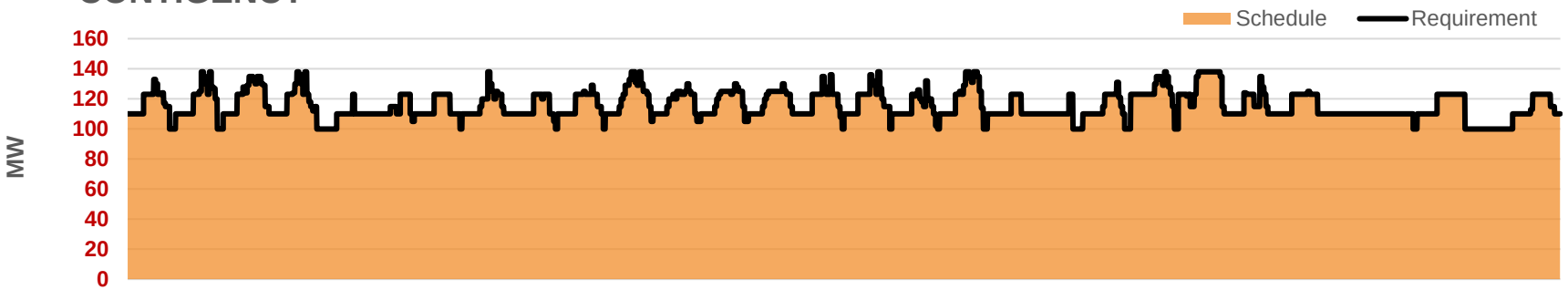
REGULATING UP



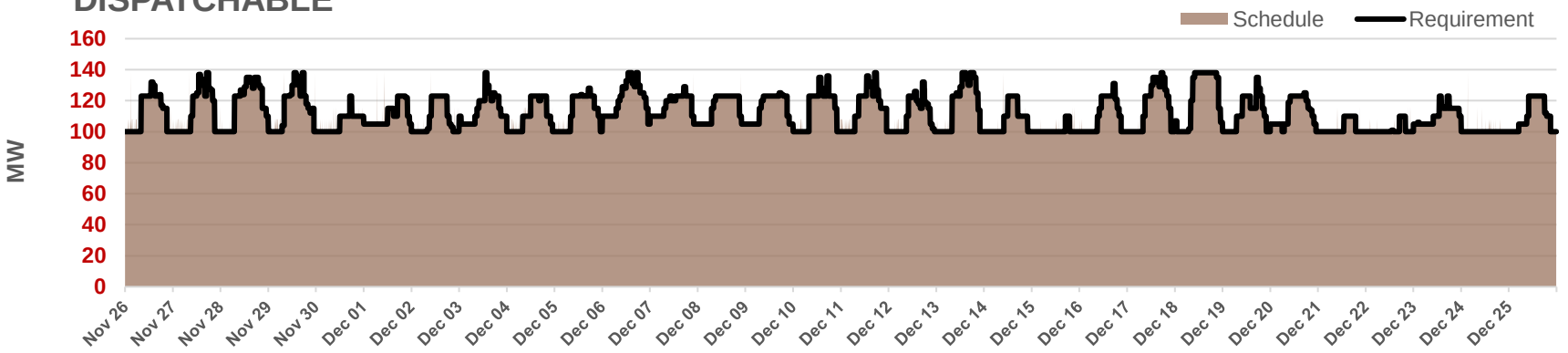
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CONTIGENCY



DISPATCHABLE



Public

MARKET OUTCOME

RESERVE MARKET - OFFER PATTERN

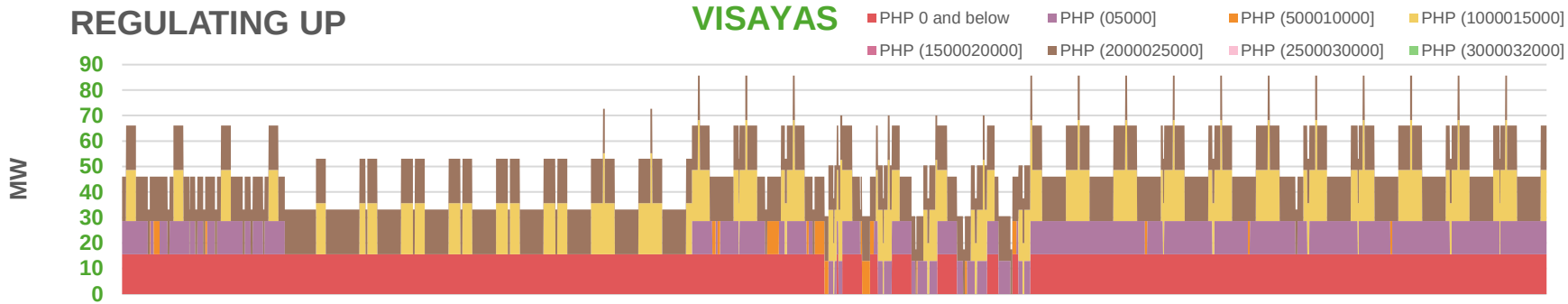


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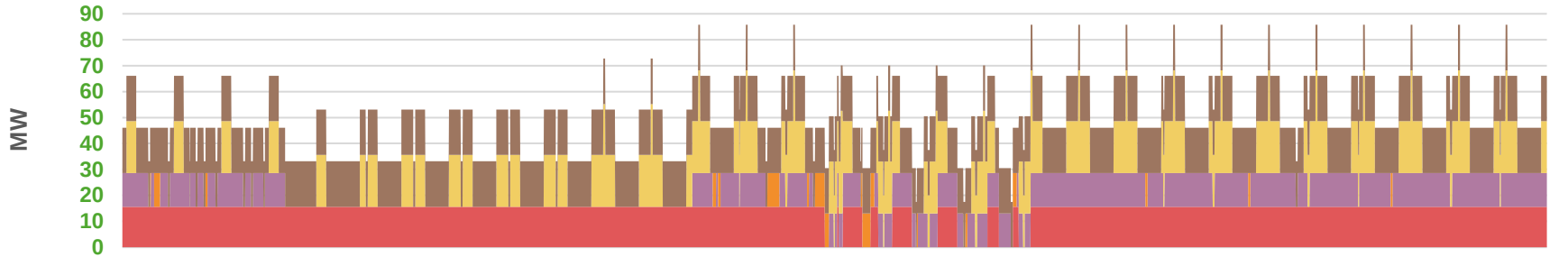
MARKET OUTCOME

RESERVE MARKET - OFFER PATTERN

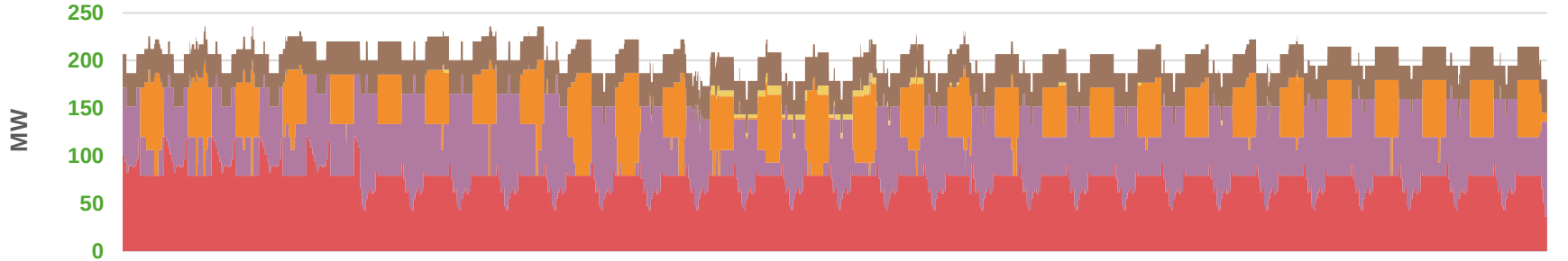
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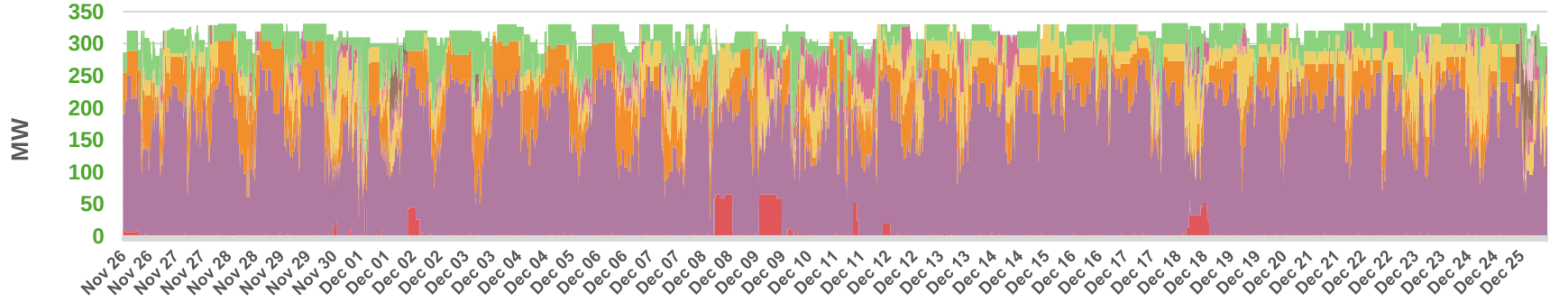
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CONTINGENCY



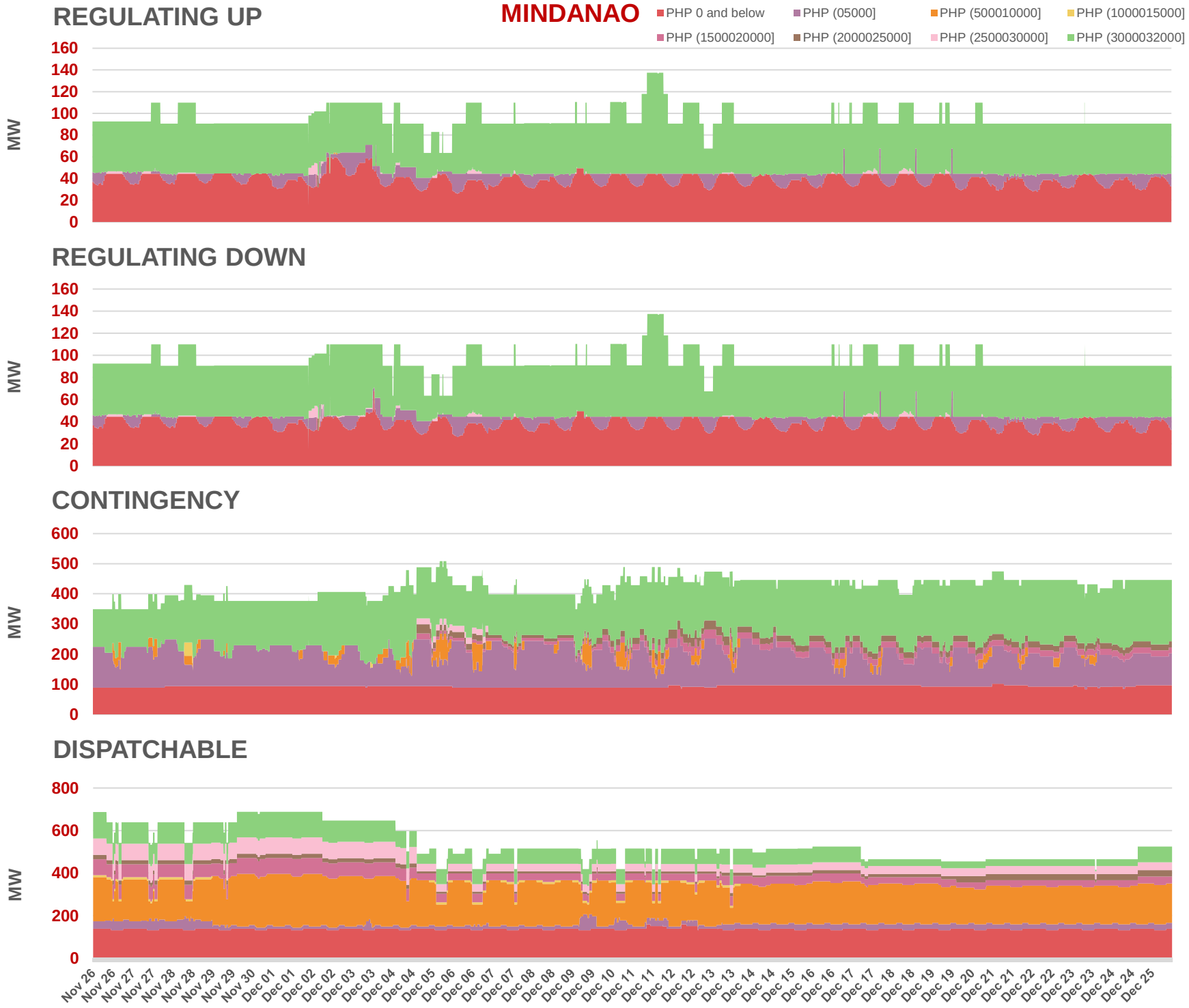
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Public

MARKET OUTCOME

RESERVE MARKET - OFFER PATTERN



MARKET OUTCOME
ANNEX

Outage Summary

Plant Type	Plant/ Unit Name	Capacity (MW)	Date Out	Date In	Duration (Day/s)	Outage Type	Remarks
Luzon							
BAT	LUMBAN BESS	50	10/26/2024 20:43	12/19/2024 8:18	54	Forced Outage	Affected by the outage of DU during the passage of Typhoon Kristine draining their backup power of the controls of panels and relay which unable to operate this equipment.
BAT	MAGAPIT BESS	40	12/14/2024 6:06	12/16/2024 21:30	2	Forced Outage	Affected by the shutdown of Tuguegarao-Magapit 69kV Line.
BAT	LUMBAN BESS	50	12/24/2024 0:16			Maintenance Outage	Ongoing testing and commissioning.
BIOF	ACN	3.2	10/30/2024 17:53	11/28/2024 13:10	29	Forced Outage	Unplanned outage. Reason for verification with plant.
BIOF	TRUST BIO	1.7	11/25/2024 15:57	11/29/2024 3:31	4	Forced Outage	Emergency shutdown to conduct tuning due to high Hydrogen Sulfide content of Biogas Supply.
BIOF	IPOWER	10.8	11/25/2024 19:01	11/27/2024 9:21	2	Maintenance Outage	Maintenance outage to correct steam leak at pressure reducer until November 27, 2024.
BIOF	GIFTC	12	12/13/2024 23:00	12/15/2024 1:27	2	Forced Outage	Tripped
BIOF	GFI	15.8	12/21/2024 9:11			Maintenance Outage	Repair and Maintenance outage
BIOF	LA SUERTE	5.1	12/22/2024 13:13			Forced Outage	Unplanned Outage reason for outage yet to be declared.
COAL	PBL2	382	09/20/2024 0:35	12/01/2024 0:00	72	Planned Outage	Planned Outage until November 30, 2024.
COAL	SLPGC 2	149.6	11/14/2024 22:51			Maintenance Outage	Maintenance outage.
COAL	SUAL 1	647	11/14/2024 23:31	12/14/2024 23:59	30	Planned Outage	Planned Outage.
COAL	SBPL	455	11/25/2024 20:31	11/26/2024 3:08	1	Forced Outage	Tripped due to control valve sudden closure.
COAL	PBL2	382	12/01/2024 0:01	12/11/2024 14:30	10	Forced Outage	Extended outage
COAL	PBL3	420	12/01/2024 21:38	12/02/2024 3:16	1	Forced Outage	Master Fuel trip.
COAL	PBL1	382	12/01/2024 21:38	12/02/2024 3:16	1	Forced Outage	Master Fuel trip.
COAL	SCPC	150	12/03/2024 23:51	12/06/2024 18:31	3	Forced Outage	Emergency shutdown due to clogging of sea water line
COAL	SLPGC 1	150	12/07/2024 23:56	12/08/2024 17:31	1	Forced Outage	Emergency shutdown due to Coal Feeder de-clogging.
COAL	SLPGC 1	150	12/10/2024 9:44	12/11/2024 5:00	1	Forced Outage	Isolated due to tripping of SLPGC 230kV Bus 1.
COAL	CLC1	240	12/11/2024 1:34			Maintenance Outage	Maintenance Outage until January 9, 2025.
COAL	SCPC 3	150	12/11/2024 17:02	12/12/2024 1:52	1	Forced Outage	Unplanned shutdown to facilitate repair of turbine control valve.
COAL	PBL2	382	12/11/2024 18:58	12/12/2024 3:58	1	Forced Outage	Tripped due to mill problem.
COAL	MPGC 3	150	12/16/2024 18:50	12/17/2024 3:28	1	Forced Outage	Tripped due to trouble on fluidizing air blower
COAL	SBPL	455	12/17/2024 0:00	12/22/2024 20:25	5	Forced Outage	Steam Leak at hot reheat.
COAL	SUAL 2	647	12/17/2024 23:40			Planned Outage	Planned shutdown until January 17, 2025.
COAL	SUAL 1	647	12/19/2024 4:25	12/20/2024 14:20	1	Forced Outage	The unit tipped due to low instrument air.
COAL	SUAL 1	647	12/20/2024 17:09	12/21/2024 4:39	1	Forced Outage	Boiler master fuel trip.
COAL	MPGC 4	150	12/20/2024 23:04			Forced Outage	Corrective maintenance on main steam line.
COAL	ANDA(APC2)	72	12/21/2024 0:05			Planned Outage	Planned shutdown until January 10, 2024.
GEO	TIWI C BINARY	16.7	10/14/2024 18:08	12/20/2024 18:15	67	Maintenance Outage	Unit shutdown to the facilitate cleaning of vaporizer and preheater. The unit is under test and commissioning.

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Outage Summary

Plant Type	Plant/ Unit Name	Capacity (MW)	Date Out	Date In	Duration (Day/s)	Outage Type	Remarks
Luzon							
GEO	TW 6	56.8	11/09/2024 0:02	11/26/2024 20:30	17	Maintenance Outage	Declared unavailable to facilitate essential repairs on the hot well on Transformer.
GEO	MB O1	3	11/25/2024 18:19	11/26/2024 0:25	1	Forced Outage	Brine optimization for the capacity testing of Unit 12.
GEO	BACMAN3	20	12/02/2024 8:29	12/03/2024 3:20	1	Forced Outage	Steam Reinjection system problem
GEO	TIWI C BINARY	16.7	12/20/2024 19:04	12/21/2024 15:10	1	Forced Outage	Emergency shutdown due to high vibration on brine D pressure. On test and commissioning.
GEO	TIWI C BINARY	16.7	12/22/2024 20:41	12/24/2024 15:56	2	Forced Outage	Emergency shutdown due to system (pipeline) hammering. On commissioning test.
GEO	TIWI C BINARY	16.7	12/24/2024 17:47	12/25/2024 9:28	1	Forced Outage	Emergency shutdown due to insufficient brine flow (On Commissioning Test)
GEO	MB O2	3	12/25/2024 14:14			Forced Outage	Tripped due to loss of feedback power.
GEO	MB O1	3	12/25/2024 14:14	12/26/2024 0:00	1	Forced Outage	Tripped due to loss of feedback power.
HYD	ANG M U4	50	02/14/2022 0:00	12/20/2024 9:01	1040	Planned Outage	Planned outage.
HYD	ANG A U2	6	11/06/2023 8:01			Planned Outage	Total Plant shutdown (Planned Outage)
HYD	ANG M U1	50	06/28/2024 8:01			Maintenance Outage	Replacement of Main Unit No.1 in relation to the ongoing AHEPP Modernization and Rehabilitation Project (December 31, 2024 2400h).
HYD	INARIHAN	1.6	10/22/2024 4:29	11/26/2024 8:48	35	Forced Outage	Affected by the outage of CASURECO.
HYD	KAL 4	185	11/26/2024 0:00	11/30/2024 16:35	4	Planned Outage	Planned outage until November 30, 2024.
HYD	BAK 2	37	11/28/2024 10:20	11/29/2024 8:31	1	Forced Outage	Tripped due to governor oil high level
HYD	UPPER LABAYAT	3.5	12/08/2024 17:41	12/09/2024 10:15	1	Forced Outage	Affected by the tripping of Famy-Comon 69kV Line.
HYD	TIBAG	5.8	12/08/2024 17:41	12/09/2024 10:23	1	Forced Outage	Affected by the tripping of Famy-Comon 69kV Line
HYD	L LABAYAT	1.5	12/08/2024 17:41	12/09/2024 10:39	1	Forced Outage	Affected by the tripping of Famy-Comon 69kV Line(RECLASSIFIED FROM FORCE OMC OUTAGE)
HYD	MAJAYJAY	2.19	12/11/2024 22:00	12/12/2024 6:32	1	Forced Outage	Affected by the Botocan Substation maintenance by Meralco.
HYD	MAS	12	12/16/2024 11:55			Forced Outage	Tripped due to AVR control error.
HYD	CAL U2	14	12/24/2024 23:35	12/25/2024 0:55	1	Forced Outage	Affected by the tripping of Lumban - Caliraya 69kV Line.
HYD	CAL U1	14	12/24/2024 23:35	12/25/2024 0:55	1	Forced Outage	Affected by the tripping of Lumban - Caliraya 69kV Line
HYD	BOTCN	0.8	12/24/2024 23:35	12/25/2024 0:55	1	Forced Outage	Affected by the tripping of Lumban - Caliraya 69kV Line
NATG	EERI3	440	10/02/2024 16:56			Maintenance Outage	Under test and commissioning.
NATG	EERI2	440	11/19/2024 21:22	11/26/2024 14:59	7	Forced Outage	Tripped due to HP bypass valve signal error.
NATG	EERI2	440	11/28/2024 11:26	11/29/2024 19:45	1	Forced Outage	Compressor bearing high vibration
NATG	EERI2	440	11/29/2024 21:41	11/30/2024 15:02	1	Forced Outage	On test and commissioning.
NATG	EERI2	440	11/30/2024 18:34	12/02/2024 17:46	2	Forced Outage	Tripped due to HP Bypass signal error. On test and commissioning.
NATG	EERI1	440	12/03/2024 17:04	12/05/2024 12:50	2	Forced Outage	Tripped due to high pressure steam high
NATG	EERI2	440	12/03/2024 20:29	12/06/2024 11:33	3	Forced Outage	Tripped due to erratic main steam bypass
NATG	EERI2	440	12/09/2024 1:33	12/12/2024 15:58	3	Forced Outage	Tripped due to bypass valve trouble. On commissioning test.
NATG	ST. RITA 30	263	12/12/2024 6:19	12/14/2024 17:51	2	Forced Outage	The unit tripped. The cause of tripping is still under investigation.
NATG	EERI1	440	12/13/2024 18:40			Maintenance Outage	Unit shutdown as part of testing and commissioning.
NATG	SAN LO 60	265	12/13/2024 23:54	12/15/2024 23:59	2	Planned Outage	Planned Outage until December 15, 2024.
NATG	EERI2	440	12/14/2024 4:57	12/15/2024 15:44	1	Forced Outage	Tripped while on commissioning.

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Outage Summary

Plant Type	Plant/ Unit Name	Capacity (MW)	Date Out	Date In	Duration (Day/s)	Outage Type	Remarks
Luzon							
NATG	SAN LO 60	265	12/16/2024 0:00	12/17/2024 2:40	1	Forced Outage	Extended Outage
NATG	SAN LO 50	265	12/19/2024 23:54	12/22/2024 20:04	3	Planned Outage	Planned Outage from December 20 - 22, 2024
OIL	MAL 1	300	05/03/2019 18:21			Forced Outage	Declared unavailable due to motorization of unit generator caused by the non-opening of phase B of PCB 8-05CB08MAL
OIL	MAL 2	130	07/24/2024 21:24			Forced Outage	Tripped due to loss prime of CWP
OIL	INGRID 4	28	12/01/2024 8:29	12/11/2024 6:54	10	Planned Outage	Planned Outage until December 11, 2024
OIL	INGRID 6	28	12/01/2024 8:29	12/05/2024 20:00	4	Planned Outage	Planned Outage until December 10, 2024
OIL	INGRID 5	22	12/01/2024 8:29	12/05/2024 20:00	4	Planned Outage	Planned Outage until December 10, 2024
OIL	INGRID 3	22	12/01/2024 8:29	12/05/2024 20:00	4	Planned Outage	Planned Outage until December 10, 2024
OIL	INGRID 2	22	12/01/2024 8:29	12/05/2024 20:00	4	Planned Outage	Planned Outage until December 10, 2024
OIL	INGRID 1	28	12/01/2024 8:29	12/05/2024 20:00	4	Planned Outage	Planned Outage until December 10, 2024
OIL	INGRID 6	28	12/05/2024 20:00	12/11/2024 6:04	6	Forced Outage	Declared early unit availability from Planned Outage. Plant availability now affected by Malaya-Ingrid 230kV Line 2 outage.
OIL	INGRID 5	22	12/05/2024 20:00	12/11/2024 6:04	6	Forced Outage	Declared early unit availability from Planned Outage. Plant availability now affected by Malaya-Ingrid 230kV Line 2 outage.
OIL	INGRID 3	22	12/05/2024 20:00	12/11/2024 6:04	6	Forced Outage	Declared early unit availability from Planned Outage. Plant availability now affected by Malaya-Ingrid 230kV Line 2 outage.
OIL	INGRID 2	22	12/05/2024 20:00	12/11/2024 6:04	6	Forced Outage	Declared early unit availability from Planned Outage. Plant availability now affected by Malaya-Ingrid 230kV Line 2 outage.
OIL	INGRID 1	28	12/05/2024 20:00	12/11/2024 6:04	6	Forced Outage	Declared unit availability from Planned Outage. Plant availability now affected by Malaya-Ingrid 230kV Line 2 outage.
OIL	TRANS A	48	12/16/2024 8:00	12/23/2024 16:10	7	Maintenance Outage	Total plant shutdown until December 23, 2024 due to condensate line tapping.
SOLR	CURRIMAO	68.7	12/17/2024 18:22	12/18/2024 2:59	1	Forced Outage	Affetced by the unplanned shutdown of Paguludan-Currimao Solar 2 69kV line.
WIND	CAPA II	50	11/07/2024 22:09	12/03/2024 14:57	26	Forced Outage	Overspeed tripping due to TS Marce
WIND	BALAOI WIND	80	11/07/2024 23:18			Forced Outage	Affected by Laoag-Balaoi Windfarm 115kV Line tripping
Visayas							
BIOF	SCBI U0	7.4	03/31/2023 10:35			Forced Outage	Plant shutdown
BIOF	HPC U1 U0	2	11/12/2023 20:00			Forced Outage	Defective auxiliary of vibration meter.
BIOF	CASA 2 U1	7	04/15/2024 12:44			Forced Outage	Due to internal trouble
BIOF	VMC U0	2.5	04/21/2024 16:20			Forced Outage	Weekly maintenance.
BIOF	CABI U0	12	10/28/2024 14:59	12/02/2024 14:00	35	Forced Outage	End of plant test run.
BIOF	NNBP U1	25	11/24/2024 3:50	11/26/2024 8:15	2	Forced Outage	Shutdown due to conveyor problem.
BIOF	NNBP U1	25	11/29/2024 9:33	12/02/2024 12:22	3	Forced Outage	Shutdown at 0933H due to conveyor problem.
BIOF	NNBP U1	25	12/04/2024 18:55			Forced Outage	Emergency shutdown due to boiler problem.
BIOF	BISCOM U0	30	12/07/2024 15:18	12/08/2024 5:57	1	Forced Outage	Boiler trouble.
BIOF	CASA U1	8	12/09/2024 12:36	12/10/2024 6:48	1	Forced Outage	Conduct repair of boiler tube
BIOF	BISCOM U0	30	12/15/2024 22:22	12/16/2024 21:58	1	Forced Outage	Emergency shutdown due to boiler problem.
BIOF	HPC U2 U0	9.5	12/16/2024 9:25	12/17/2024 0:07	1	Forced Outage	Tripped with indication Turbine trip.
BIOF	FFHC U0	9	12/23/2024 5:33	12/24/2024 15:33	1	Forced Outage	Shutdown due to weekly maintenance.

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Outage Summary

Plant Type	Plant/ Unit Name	Capacity (MW)	Date Out	Date In	Duration (Day/s)	Outage Type	Remarks
Visayas							
BIOF	VMCI U0	35	12/23/2024 9:26	12/24/2024 1:52	1	Forced Outage	Shutdown due to boiler problem.
BIOF	HPC U2 U0	9.5	12/23/2024 14:10			Forced Outage	Shutdown due to weekly maintenance.
COAL	PEDC U3	150	10/27/2024 0:30	12/06/2024 0:00	40	Maintenance Outage	PMS-major overhauling
COAL	CEDC U1	83.2	12/05/2024 4:50	12/11/2024 16:56	6	Forced Outage	Steam drum low
COAL	PEDC U3	150	12/06/2024 0:01	12/13/2024 14:15	7	Forced Outage	Additional essential maintenance works on generator.
COAL	KSPC U2	103	12/24/2024 5:42			Forced Outage	Unit emergency shutdown due to tube leak
GEO	MALITBOG U2	77.5	07/08/2024 5:43			Forced Outage	Due to high vibration
GEO	BAGO BINARY U1	4.7	09/24/2024 19:57			Forced Outage	Turbine tripped under test and commissioning.
GEO	BILIRAN U1	1	10/05/2024 4:39			Forced Outage	Turbine high vibration trip
GEO	UMPP U2	30	10/23/2024 8:21			Maintenance Outage	Emergency repair of air-cooled condenser
GEO	UMPP U4	27.5	10/23/2024 8:25			Maintenance Outage	Emergency repair of air-cooled condenser
GEO	PGPP1 U3	35.5	11/25/2024 22:06	11/26/2024 6:21	1	Forced Outage	Emergency shutdown due to excessive leak of its generator air cooler D drain line.
GEO	PGPP1 U1	37.5	12/19/2024 7:32	12/21/2024 2:15	2	Forced Outage	Emergency shutdown due to steam leak.
HYD	UPPER TAFT U2	4.7	11/21/2024 6:32	11/29/2024 10:04	8	Forced Outage	Under test & commissioning
HYD	THC U2	5.1	11/25/2024 18:28	11/27/2024 17:04	2	Forced Outage	Affected by normalization of Taft Feeder
HYD	UPPER TAFT U3	4.7	11/25/2024 18:31	11/30/2024 14:14	5	Forced Outage	Affected by normalization of Taft Feeder. Under test and commissioning
HYD	UPPER TAFT U1	4.7	11/29/2024 9:58	11/30/2024 18:38	1	Forced Outage	Change unit (under test and commissioning).
HYD	UPPER TAFT U1	4.7	12/01/2024 14:17	12/02/2024 12:48	1	Forced Outage	Under Test & Commissioning
HYD	UPPER TAFT U3	4.7	12/04/2024 6:00	12/08/2024 15:07	4	Forced Outage	Affected by pre-arranged maintenance activity at Paranas-Quinapondan 69kV Line. (Under test and commissioning)
HYD	Villasiga U2	3.6	12/04/2024 10:26	12/11/2024 18:40	7	Forced Outage	Failure of Transformer Protection
HYD	THC U3	5.1	12/12/2024 22:13	12/14/2024 22:35	2	Forced Outage	Installation of differential protection relay
HYD	UPPER TAFT U1	4.7	12/12/2024 23:52	12/13/2024 20:30	1	Forced Outage	Under test and commissioning
HYD	UPPER TAFT U2	4.7	12/13/2024 20:20	12/15/2024 6:42	2	Forced Outage	Under test and commissioning
HYD	UPPER TAFT U1	4.7	12/15/2024 6:11	12/17/2024 2:56	2	Forced Outage	Affected by pre arranged maintenance activity of 69kV Sta. Rita-Quinapondan line.
HYD	UPPER TAFT U1	4.7	12/23/2024 0:03			Forced Outage	Due to cutting of flat bar at trash rack and connection of lifting rod for the flushing gate. (Under test and commissioning)
HYD	UPPER TAFT U2	4.7	12/23/2024 0:04			Forced Outage	Due to cutting of flat bar at trash rack and connection of lifting rod for the flushing gate. (Under test and commissioning)
HYD	UPPER TAFT U3	4.7	12/23/2024 0:05			Forced Outage	Due to cutting of flat bar at trash rack and connection of lifting rod for the flushing gate. (Under test and commissioning)
HYD	THC U1	5	12/23/2024 7:42	12/24/2024 0:04	1	Forced Outage	Emergency shutdown due to water leakage at the unit.
HYD	SMHC U1	1.25	12/25/2024 23:59			Forced Outage	Overtime of drain pumps.
OIL	EAUC U1	11.5	05/13/2024 22:55			Forced Outage	CYLINDER NO. 7 CRANKCASE EXPLOSION
OIL	TPC (Carmen) U4	10	08/24/2024 0:00			Forced Outage	Detached connecting rods and crank shaft for machining
OIL	TPVI U1	5.5	10/28/2024 21:53			Forced Outage	Unable to cut-in unit due to main bearing #6 temperature high
OIL	EAUC U2	11	11/30/2024 7:00	12/01/2024 22:16	1	Planned Outage	GOMP

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Outage Summary

Plant Type	Plant/ Unit Name	Capacity (MW)	Date Out	Date In	Duration (Day/s)	Outage Type	Remarks
Visayas							
OIL	TPC (Carmen) U3	10	11/30/2024 10:26	12/03/2024 16:23	3	Forced Outage	Corrective maintenance of right turbo charger
OIL	EAUC U2	11	12/14/2024 7:00	12/15/2024 5:30	1	Planned Outage	Preventive Maintenance Services
OIL	EAUC U3	11.5	12/20/2024 19:00	12/21/2024 17:00	1	Maintenance Outage	Rehabilitation of Turbo charger bearing housing
SOLR	SOLEQ U0	24.5	11/25/2024 18:29	11/26/2024 2:52	1	Planned Outage	Annual PMS of FSEC HVE.
SOLR	ISLASOL II U0	27.1	12/10/2024 18:14	12/11/2024 0:51	1	Forced Outage	PMS of their High Voltage Equipment.
Mindanao							
BAT	MSS U0	20	11/25/2024 9:18	11/27/2024 14:03	2	Forced Outage	Maintenance Outage (ETC Nov. 27, 2024, 1500h)
BAT	MBS U1	20	11/29/2024 9:01	12/01/2024 23:58	2	Forced Outage	PMS(Non-GOMP).
BIOF	BBM U0	5.7	10/08/2024 15:56			Forced Outage	Auto-tripped due to SOCOTECO 1 69KV(SRB)line power outage. (OMC Outage)
BIOF	CSC U1	3.4	12/03/2024 23:00	12/04/2024 0:04	1	Forced Outage	Accumulation of Fuel
BIOF	SPG U1	6	12/05/2024 8:59	12/16/2024 12:54	11	Forced Outage	Emergency shutdown due to abnormal boiler parameters brought by wet fuel. Forced Outage.
BIOF	LPE U1	6	12/12/2024 15:14	12/15/2024 12:03	3	Forced Outage	Auto-tripped. Cause Economizer tube leakage. ETC December 21, 2024
COAL	MCO U2	150	10/11/2024 1:12			Forced Outage	Auto-tripped. Indication Failure of induced draft fan. ETC November 25, 2024. (Forced Outage)
COAL	PPE U1	20	10/11/2024 6:34			Forced Outage	Auto-tripped. Cause for verification. (Forced Outage)
COAL	FMP U3	135	10/28/2024 4:04	12/17/2024 14:46	50	Planned Outage	(Planned Outage GOMP). ETC Dec. 10, 2024, 2359h
COAL	GKP U3	151.3	11/23/2024 0:09	12/02/2024 3:15	9	Forced Outage	PMS (Non-GOMP). ETC December 2, 2024.
COAL	GKP U1	151.9	12/05/2024 0:03	12/10/2024 15:01	5	Forced Outage	PMS (Non-GOMP). ETC December 09, 2024.
COAL	STE U2	116	12/07/2024 0:00	12/12/2024 23:38	5	Forced Outage	Emergency shutdown due to boiler tube leak. ETC December 12, 2024 (Forced Outage)
COAL	GKP U1	151.9	12/11/2024 23:07	12/14/2024 21:52	3	Forced Outage	Emergency Shutdown due to Boiler tube leak. ETC Dec. 13, 2024. (Forced Outage)
COAL	GKP U2	151	12/15/2024 2:01			Forced Outage	PMS(Non-GOMP). GN Power Kauswagan U2 shutdown. ETC December 25, 2024
COAL	MCC U1	55	12/21/2024 16:04			Forced Outage	Plant shutdown due to suspected tube leak at economizer 2
GEO	MA3 U1	3.6	12/02/2024 13:36	12/04/2024 0:47	2	Forced Outage	Auto-tripped and low expansion ratio. (Unplanned Outage)
HYD	ALP U0	2.6	07/28/2024 8:05			Forced Outage	Plant on shutdown. Generating Units 1 & 2 were totally damaged by landslide. (Forced Outage)
HYD	NBT U0	3	09/02/2024 10:01			Forced Outage	Plant shutdown due to weir repair. ETC December 02, 2024. (Forced outage)
HYD	MHP U0	0.5	09/13/2024 13:20			Forced Outage	Emergency shutdown due to bearing temperature rising. (Forced Outage)
HYD	AG5 U2	27.5	11/20/2024 8:06	11/30/2024 16:30	10	Planned Outage	PMS - GOMP. ETC December 15, 2024.
HYD	AG2 U1	60	11/22/2024 8:43	12/08/2024 23:59	16	Planned Outage	PMS - and GOMP. ETC December 8, 2024.
HYD	AG7 U2	25.3	11/23/2024 9:02	12/18/2024 10:13	25	Planned Outage	PMS(GOMP). ETC December 31, 2024
HYD	PG4 U2	75	11/24/2024 15:35	11/26/2024 10:40	2	Forced Outage	Emergency shutdown. Minor adjustment of Governor control.
HYD	TU2 U1	5.5	11/25/2024 8:54			Forced Outage	Plant shutdown due to runout check of runner and bearing check-up check the RTD placements and clearance verification.
HYD	AG6 U3	50	11/26/2024 9:03	11/29/2024 19:27	3	Planned Outage	Planned Outage NON-GOMP. ETC (November 29, 2024)

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Outage Summary

Plant Type	Plant/ Unit Name	Capacity (MW)	Date Out	Date In	Duration (Day/s)	Outage Type	Remarks
Mindanao							
HYD	SBL B U1	14	11/26/2024 12:30			Forced Outage	Plant remained shutdown to conduct run out check of DE journal of the shafting. (Forced Outage)
HYD	PG4 U2	75	11/26/2024 13:12	11/27/2024 9:08	1	Forced Outage	Forced Outage due to Minor adjustment of Governor control.
HYD	TL1 U2	0.5	11/29/2024 19:52	11/30/2024 2:08	1	Forced Outage	Plant shutdown due to clogged H224:H241weir intake. (Forced Outage)
HYD	TL1 U1	0.5	11/29/2024 19:53	11/30/2024 2:03	1	Forced Outage	Plant shutdown due to clogged weir intake. (Forced Outage)
HYD	AG5 U2	27.5	11/30/2024 16:31	12/12/2024 19:06	12	Forced Outage	Declared available starting Nov. 30, 2024 at 1630h.Remaining works at Agus 5 S Y under P&E to be completed on Dec. 15, 2024.
HYD	AG6 U5	43.8	12/02/2024 9:01	12/09/2024 21:30	7	Planned Outage	PMS(GOMP). ETC December 11, 2024
HYD	AG6 U1	34.5	12/03/2024 9:04	12/08/2024 14:20	5	Planned Outage	Planned outage. GOMP. ETC December 8, 2024.
HYD	PG4 U3	75	12/05/2024 5:00	12/11/2024 5:53	6	Planned Outage	PMS (GOMP). ETC December 11, 2024.
HYD	AG4 U3	52.7	12/05/2024 10:01	12/11/2024 21:00	6	Planned Outage	PMS (GOMP). ETC December 13, 2024
HYD	AG2 U1	60	12/09/2024 0:00	12/16/2024 14:16	7	Forced Outage	Extended GOMP. ETC Dec. 10, 2024
HYD	AG6 U2	34.5	12/10/2024 9:02	12/11/2024 18:17	1	Planned Outage	Planned Outage GOMP (ETC Dec. 17, 2024)
HYD	AG1 U1	35	12/12/2024 8:02	12/20/2024 15:07	8	Planned Outage	PMS(GOMP). ETC January 1, 2025
HYD	AG4 U1	52.7	12/13/2024 16:25			Forced Outage	Auto-tripped caused by SEL 700G Gen Protection Relay. (Forced Outage). ETC Jan 20, 2025.
HYD	AG2 U3	60	12/17/2024 8:06	12/25/2024 0:32	8	Planned Outage	PMS (GOMP). ETC December 25, 2024
HYD	AG7 U2	25.3	12/19/2024 1:27	12/23/2024 9:19	4	Planned Outage	Part of GOMP Activity. GOMP from November 23 to December 30, 2024.
HYD	LPP U1	11.9	12/19/2024 8:05	12/20/2024 11:19	1	Forced Outage	Clearing of debris at trash rack and repair of headrace. (Forced Outage)
HYD	AG1 U2	35	12/21/2024 8:02			Planned Outage	Agus 1 Unit 2 HEP shutdown. Planned Outage (PMS-GOMP). ETC December 31, 2024
HYD	AG1 U1	35	12/23/2024 22:17	12/24/2024 8:11	1	Forced Outage	Tripped due to generator step indication. (Forced Outage)
HYD	MN1 U3	16.2	12/24/2024 8:28			Forced Outage	Emergency shutdown to conduct repair of penstock. (Unplanned Outage) ETC December 27, 2024
HYD	MN1 U4	16.2	12/24/2024 8:32			Forced Outage	Emergency shutdown to conduct repair of penstock. (Unplanned Outage) ETC December 27, 2024
OIL	KEG U0	10.6	04/15/2024 15:05			Forced Outage	Failed to synchronize due to low SF6 Pressure on PCB. (Forced Outage)
OIL	WMP U9	10.2	10/21/2024 0:01	12/13/2024 12:42	53	Planned Outage	PMS-Non-GOMP. ETC December 05, 2024.
OIL	MEG U2	6.4	11/19/2024 0:01			Planned Outage	PMS. ETC December 3 2024
OIL	SGH U1	34.9	12/10/2024 20:18	12/11/2024 0:08	1	Forced Outage	Tripped due to triggered generator protection. (Forced Outage).
OIL	SGH U1	34.9	12/19/2024 7:52	12/20/2024 0:08	1	Forced Outage	Siguil HEPP shutdown for NDME interface termination and testing. (Planned Outage)
SOLR	ADG U0	20	12/06/2024 19:00	12/07/2024 4:30	1	Forced Outage	Annual PMS. (Maintenance Outage)

Congestion

Equipment Name	Trading Intervals	Percent of Time
CEBU_TO_NEGROS	202	2.3%
5MNDUE_TR1	192	2.2%
1SRAF_1SJO1	52	0.6%
5LAPU_TR2	37	0.4%
3STRO_3CLA1	22	0.3%
5DAAN_4TAB2	16	0.2%
3STROSA_TR4	9	0.1%
LEYTE_TO_CEBU	5	0.1%
3MKBNB_TR4	4	0.0%
3BINA_3CLA1	2	0.0%
1CNCEPCN_TR2	1	0.0%

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

MARGINAL PLANT

The last generating unit scheduled to meet the system demand.

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.

OFFERED CAPACITY
The available capacity declared by scheduled generators.

PRICING CONDITIONS
A price imposed by the Market Operator to the Market/Trading Participant in cases:

Administered Price (AP)	- Interval affected by the declaration of market suspension and intervention.
Pricing Error Notice PEN]	- Calculated prices are believed to be inerror due to erroneous, inconsistent, or inappropriate input data.
Price Substitution Methology (PSM)	- Undesirable market pricing situations arising from the effects of network congestion in the power system, particularly during the occurrence of extreme nodal price separation.
Secondary Price Cap (SPC)	- Applied upon breaching the PHP9,000/MWh rolling average price over a seventy-two (72) hours period .

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.

DISCLAIMER

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