Market Assessment Report for 2nd Quarter of 2025

26 March to 25 June 2025

September 2025

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

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EXECUTIVE SUMMARY

As of the end of Q2-2025, the total registered capacity in the WESM was recorded at 29,724.8 MW. This represents a 0.46% decrease, or a decline of 136.2 MW, compared to the 29,861 MW recorded for Q1-2025. While this is the case, only 72% or an average of 21,422 MW was offered/nominated in the market. This is a 7.12% increase compared to 19,998 MW during Q1-2025. The observed increase in offered/nominated capacity is attributed to the decline in capacity on outage during this period.

The capacity not offered/nominated has also noted an increase of 14.40% by the end of Q2-2025 which averaged at 5,433 MW when compared to Q1-2025 at 4,749 MW. This represents 18% of the total registered capacity.

The capacity of plants under Commissioning test decreased during the period by 38.67% at 643 MW when compared to 1,048 MW in Q1-2025. This translates to a 2% share in the total registered capacities.

Capacities on outage for the quarter represent 8% of the total registered capacities. By the end of the period in review, the capacities on outage declined by 44.67%, averaging at 2,278 MW compared to Q1-2025 at 4,118 MW.

The observed decrease in total outages outage was primarily attributed to the reduction in all types of outages, except for the deactivated outage as it was noted that a 33 MW oil-based plant in the Visayas underwent a deactivated shutdown starting on 31 March 2025 at the 1000h trading interval, and as of the end of Q2-2025, the plant remained in the same status.

Coal power plants, which held the largest share of registered capacity, consistently generated the highest portion of electricity across all monthly billing periods. Similarly, they remain to contribute more than half of the total generation during the entire quarter. This dominance highlights the country's heavy reliance on coal as a primary energy source, emphasizing its crucial role in the power generation sector.

The overall system demand for electricity increased by an average of 12.23% during the covered period, reaching an average consumption of 14,970 MWh. This increase was anticipated, as Q2 2025 coincided with the summer season, with the highest recorded demand recorded at 19,052 MW which occurred on 23 April 2025 at 1440h trading interval.

The load-weighted average price (LWAP) during Q2-2025 was recorded at an average of PHP4,327.31/MWh – a 13.12% increase when compared to the previous quarter. Meanwhile, the per interval LWAP exhibited fluctuating patterns, primarily influenced by the interplay between supply and demand across the system.

The load-market participants' spot market transactions experienced a minimal decline during Q2-2025, averaging at 20.81%, compared to 21.28% in Q1-2025. This indicates that majority of total energy purchases remained covered by bilateral contracts.

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QUARTERLY MARKET ASSESSMENT REPORT

This quarterly report presents an assessment on the results of the WESM operations for the Second Billing Quarter of 2025 (Q2-2025), covering the period 26 March to 25 June 2025, and how the market performed compared with the previous quarters.

I. SUPPLY

A. Registered Capacity

By the end of Q2-2025, the total registered capacity in the WESM was recorded at 29,724.8 MW. This represents a 0.46% decrease, or a decline of 136.2 MW, compared to the 29,861 MW recorded for Q1-2025.

Despite the continued registration of new plants in the market, with an aggregated total capacity of 56.9 MW as provided in Table 1, the overall decrease in registered capacity was primarily due to the net decrease of 193.1 MW in capacity from changes in registered capacities from 19 plants participating in the WESM (details are provided in *Annex A – Plants with Change in Capacity*).

Table 1. New Generation Facilities for Q2-2025

Plant Type	Registered Capacity (MW)	Facility Name
Luzon		
Battery	28.5	Bac-Man Energy Storage System
Visayas		
Battery	14.2	Southern Negros Battery Energy Storage System
Battery	14.2	Tongonan Battery Energy Storage System

As illustrated in Figure 1, the WESM registered capacity is still dominated by coal and natural gas plants, with a combined share of 56% by the end of Q2-2025. The changes in registered capacity mix by plant type when compared to the previous quarter are likewise exhibited in this illustration. Particularly, coal, hydro, oil, solar, and geothermal plants showed decreases in registered capacities, supporting the discussion in the preceding discussion.

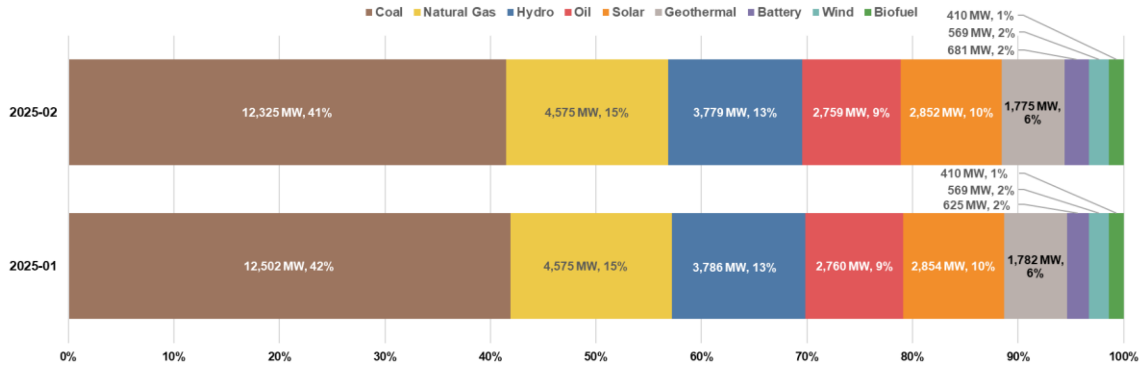

Figure 1. Registered Capacity by Plant type, as of the end of each billing quarter, Q1-2025 and Q2-2025

B. Capacity Profile

This section provides an analysis and discussion on the capacity profile, encompassing capacity offered/nominated, capacity not offered/nominated, capacity on commissioning test, and capacity on outage (detailed statistics are provided in *Annex B – Capacity Profile*).

It should be noted that the observed gap during the covered period was related to the Market Intervention (MI) events declared by the Market Operator (MO) on 10 April, 11 and 14 June 2025. A detailed discussion of these MI events is provided in Administered Price (AP) section.

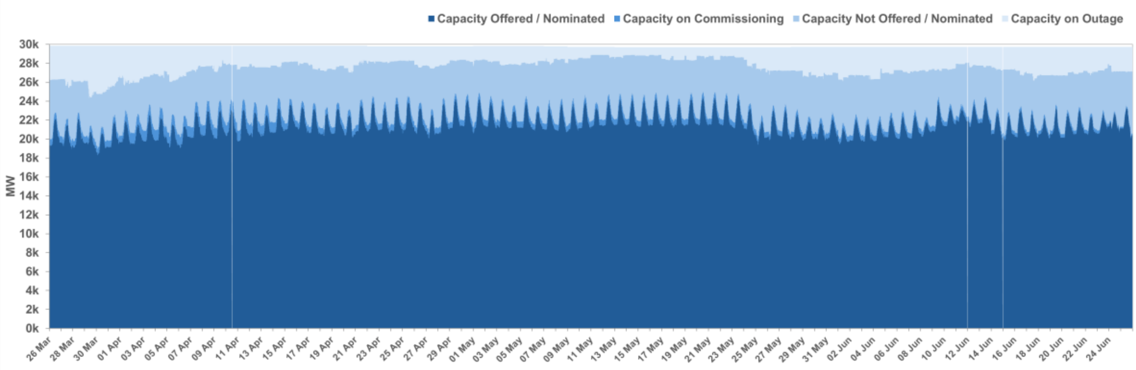

Figure 2. System: Capacity Profile, Q2-2025

Note: Missing portions represent the occurrence of Market Interventions

i. Capacity Offered/Nominated

While the WESM recorded a total registered capacity of 29,724.8 MW by the end of the billing quarter, only 72% or an average of 21,422 MW was offered/nominated in the market. This is a 7.12% increase compared to 19,998 MW during Q1-2025. The observed increase in offered/nominated capacity is attributed to the decline in capacity on outage during this period.

Looking on a per plant type basis, coal-fired power plants, having the largest share in the registered capacities, also accounted for the largest share in offered capacity at 51%, almost reflecting their proportion in the total registered capacity. The average offered capacity for coal increased by 1,172 MW compared to the previous quarter, as a result of a decrease in capacity on outage. Natural gas power plants followed with an average share of 15% in the total offer/nominated capacities.

In contrast, renewable energy (RE) plants, which consist of geothermal, hydro, solar, wind, and biofuel plants, contributed to 21% of the total offered/nominated capacity in the market. These capacities accounted 54% or the total RE capacities enjoy preferential dispatching in the WESM and thus do not need to participate competitively. The slight decrease as compared with the previous quarter was due to lower hydro and wind nomination, with a combined average reduction of 217.48 MW.

There were notable dips in the offered capacity during the following dates:

- 29 March 2025 – A maintenance outage of four (4) large natural gas, with a total registered capacity of 1,871.9 MW, were due to the fuel tank commissioning and this outage went on for 2 days for the 3 large plants, while 1 large plant went on outage for 17 days.

- 25 May 2025 – A forced outage was recorded from one (1) large coal plant and one (1) large natural gas plant with a combined capacity of 1,067.6 MW. The coal unit was on outage due to a boiler tube leak and remained unavailable for five (5) days, while the natural gas unit experienced high-pressure control valve issues and was on outage for four (4) days.
- 14 June 2025 – A total of 340 MW of capacity was on forced outage, coming from one (1) large coal plant and one (1) large natural gas plant. In addition, five (5) large natural gas units were derated by a combined 1,017.5 MW due to plant operations-related concerns, further reducing offered capacities.

It should be noted that these derations were subjected to extensive investigation by PEMC's Enforcement and Compliance Office (ECO) and were all found to be justified.

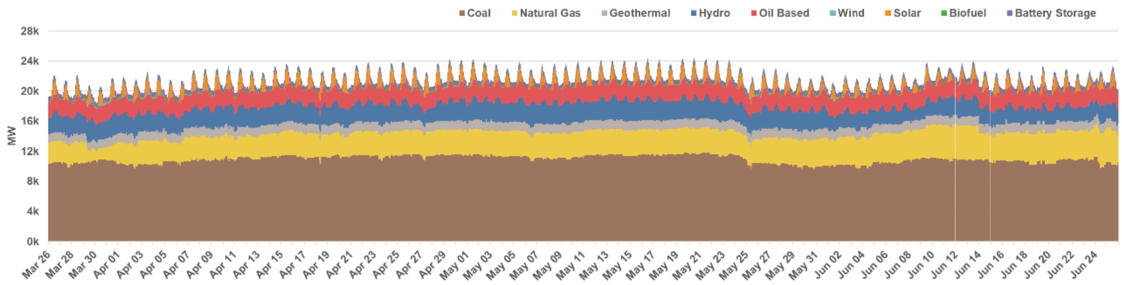

Figure 3. System: Offered/Nominated Capacity by Plant Type, Q2-2025

For the covered period, the average effective supply[1] was recorded at 18,025 MW, which is a 10.57% increase when compared to the 16,119 MW average effective supply during the Q1-2025. This is in line with the earlier discussion on the reduction in capacity due to outages, which consequently affected the offer and nominated capacity, thereby contributing to the increase in the effective supply.

The decrease observed from 18 to 20 April 2025, was primarily driven by the Holy Week holidays, during which reduced commercial and industrial activities led to lower electricity demand. During these low-demand periods, the loading levels of scheduled generators declined, resulting in lower effective supply, as calculated per Footnote 1.

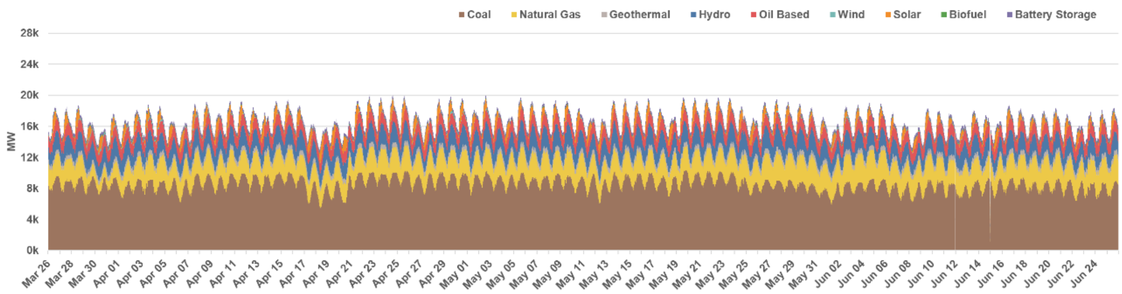

Figure 4. System: Effective Supply by Plant Type, Q2-2025

[1] 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 non-scheduled 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.

In Figure 5, real-time dispatch (RTD) schedule by plant type in the WESM was reviewed. As expected, coal-fired power plants accounted for the largest share of the RTD schedule at 58%, increased by 21% from Q1-2025 and consistent with their dominant share in registered capacity. This outcome was further reinforced by the increase in demand and reduction in capacity on outage, which increased the relative share of coal-fired generation in the RTD schedule. For the natural gas power plants, it was recorded to be 20% of the RTD schedule which is a 15% increase from Q1-2025. Like coal plants, the increased availability of natural gas power plants was closely linked to the 2% reduction in capacity on outage of natural gas.

On the other hand, RE plants accounted only 19% of the total RTD schedule which shows high commitment in the capacities of these plants based on their forecasted availability.

The observed dips in RTD schedules during Q2 2025 were due to reduced system demand during weekends and non-working holidays that fell on weekdays. These demand reductions are consistent with historical load patterns, where commercial and industrial consumptions decline while residential consumption does not fully offset the decrease. The specific holidays within the quarter were 17 April (Maundy Thursday), 18 April (Good Friday), 01 May (Labor Day), 12 May (National and Local Elections), 05 June (Eid al-Adha), and 12 June (Independence Day). The alignment of these holidays with regular working days contributed to noticeable dips in the RTD schedules compared to typical weekday demand levels.

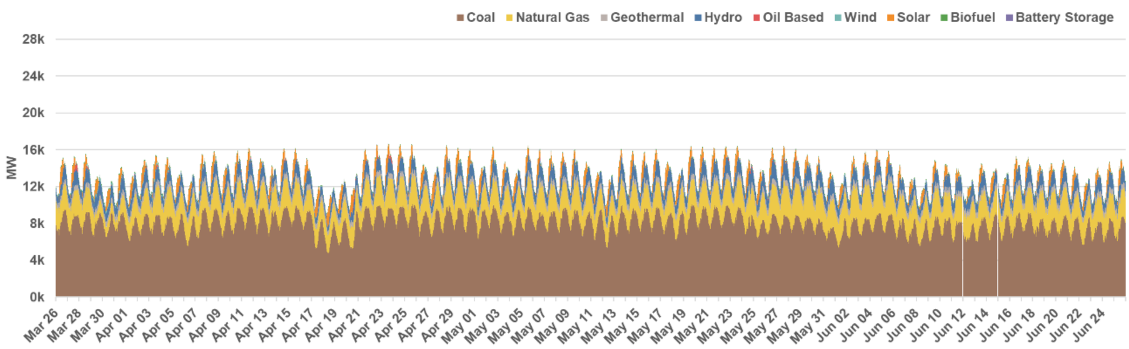

Figure 5. System: RTD Schedule by Plant Type, Q2-2025

ii. Capacity Not Offered/Nominated

The capacity not offered/nominated has also noted an increase of 14.40% by the end of Q2-2025 which averaged at 5,433 MW when compared to Q1-2025 at 4,749 MW. This represents 18% of the total registered capacity.

Figure 6 provides for the causes of capacities not offered/nominated with market system constraints[2] resulting as the most frequent reason for the covered period. However, the main causes that affect the actual availability of power plants were the outages and resource constraints from various plants thereby having acceptable reasons for not submitting offers/nominations. Furthermore, these are subject to the rigorous compliance monitoring procedures of the ECO.

[2] WESM Compliance Bulletin Issue No. 11.1

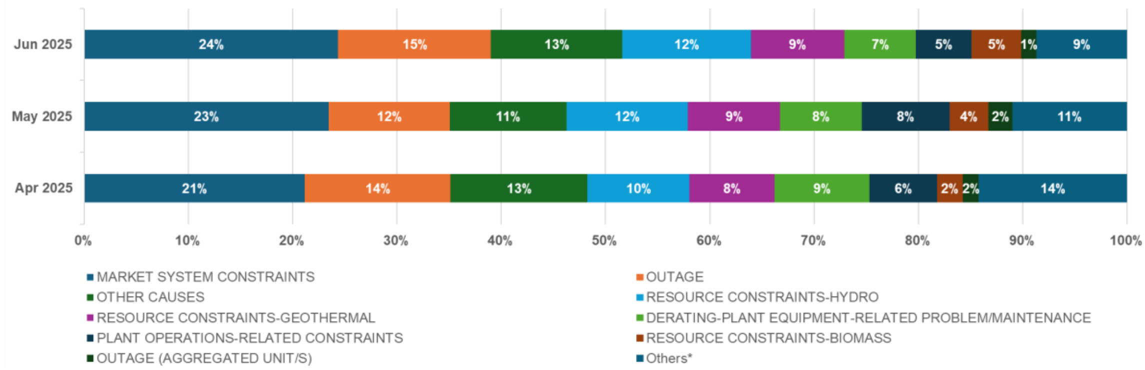

Figure 6. Reasons for Capacities not Offered/Nominated for Apr to Jun 2025

The details and breakdown of Others*, which groups the remaining reasons for not submitting offers or nominations, are provided in *Annex C*.

iii. Capacity on Commissioning Test

The capacity of plants under Commissioning test decreased during the period by 38.67% at 643 MW when compared to 1,048 MW in Q1-2025. This translates to a 2% share in the total registered capacities.

It was also observed that five (5) plants in Luzon had completed their commissioning test and commenced commercial operations during the period, as shown in Table 2 below.

Table 2. Plants that started Commercial Operations, Q2-2025

Plant Type	Facility Name	Registered Capacity (MW)	Remarks
Geothermal	Bac-Man Geothermal Inc., Palayan Binary Power Plant	31	Commercial operations started on 03 June 2025
Natural Gas	Excellent Energy Resources Inc., Batangas Combined Cycle Power Plant Unit 1	440	Commercial operations started on 11 April 2025
Battery	SMGP BESS Power Inc., Gamu Battery Energy Storage System (BESS)	40	Commercial operations started on 06 June 2025
Solar	Megasol Energy 1 Inc., Gamu Solar Power Project	46.2	Commercial operations started on 11 April 2025
Solar	RE Resources, Inc., Armenia Solar Power Project (SPP)	37.8	Commercial operations started on 26 April 2025

iv. Capacity on Outage

Capacities on outage for the quarter represent 8% of the total registered capacities. By the end of the period in review, the capacities on outage declined by 44.67%, averaging at 2,278 MW compared to Q1-2025 at 4,118 MW.

The changes in the capacities on outage are further discussed in the succeeding sub-sections.

1. Capacities on Outage by Plant Type

A breakdown of capacity on outage by plant type shows that coal-fired power plants accounted for the largest share, comprising 30% of the total capacity on outage during the billing quarter. While this is the case, the average capacity on outage of coal plants declined by 68.10% compared to Q1-2025 mainly caused by the resumption in operations of a large coal plant and remained online during the period in review.

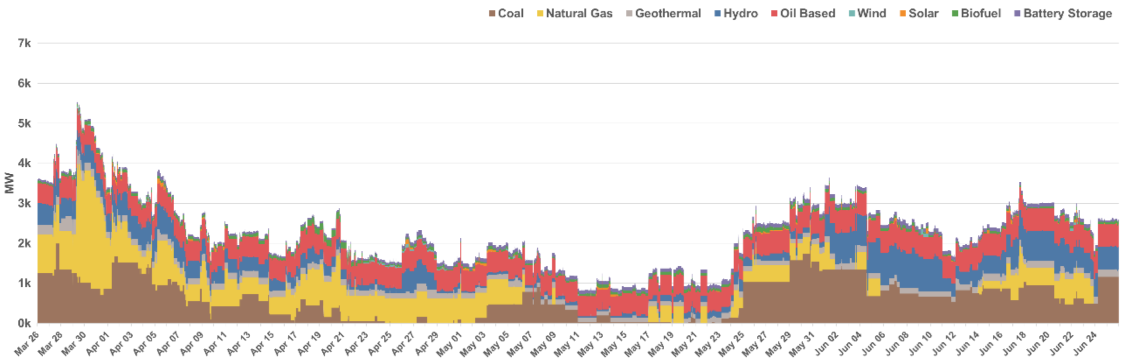

Figure 7. System: Capacity on Outage by Plant Type, Q2-2025

Outages from natural gas power plants represented 29%, the second largest in terms of registered capacities. Most of the long-duration outages for these plants were attributed to oil leak bearings of gas turbine, and fuel or gas supply constraints.

Furthermore, a month-on-month analysis showed that the April 2025 billing month recorded the highest average monthly outage level at 2,729 MW. The peak outage of 5,540 MW occurred on 29 March 2025 during the 0920h trading interval, when a large natural gas power plant went on maintenance outage for fuel tank commissioning, in addition to the 3,775.5 MW of capacity already on outage that day. The outage escalation began at the 0640h trading interval with the initial maintenance outage of a natural gas plant and peaked when four (4) large natural gas plants also went on maintenance outage for fuel tank commissioning.

2. Capacities on Outage by Category

In conjunction with the previous subsection, this part discusses the outages observed during the billing quarter by category. Overall, the decrease in total outage was primarily attributed to the reduction in all types of outages, except for the deactivated outage as it was noted that a 33 MW oil-based plant in the Visayas underwent a deactivated shutdown starting on 31 March 2025 at the 1000h trading interval, and as of the end of Q2-2025, the plant remained in the same status.

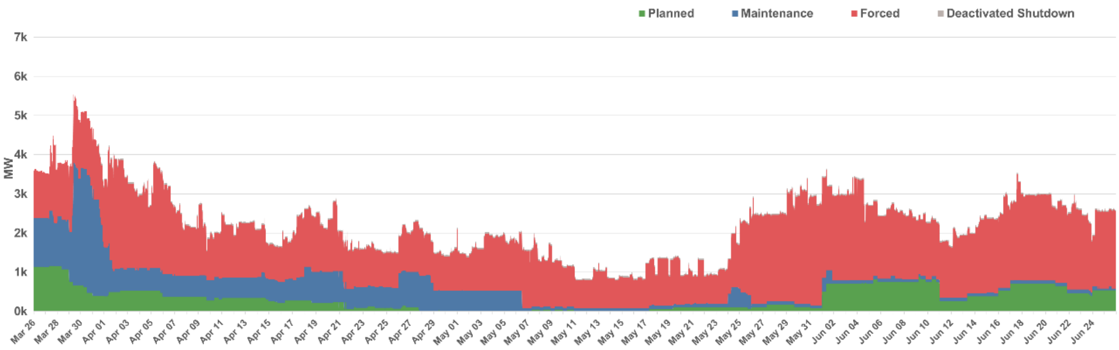

Figure 8. System: Capacity on Outage by Category, Q2-2025

C. Generation Mix

Looking at the generation mix, coal power plants, which held the largest share of registered capacity, consistently generated the highest portion of electricity across all monthly billing periods. Similarly, they remain to contribute more than half of the total generation during the entire quarter. This dominance highlights the country's heavy reliance on coal as a primary energy source, emphasizing its crucial role in the power generation sector.

Natural gas generation also showed a notable increase across all the months throughout the billing quarter, consistent with earlier discussion on the return of service of several large natural gas plants which previously experienced fuel/gas constraint.

Moreover, RE plants recorded to have a combined 22.7% share of the total generation mix for Q2-2025. Although this share has remained relatively low, the DOE has reaffirmed its commitment to transitioning toward a cleaner energy future. As outlined in the Philippine Development Plan (PDP) 2023-2050, the government has set a national target (including off-grid areas) of increasing the RE share in the power generation mix to 35% by 2030. As of writing, the country should target 12.3% more of the generation mix in the next five (5) years to achieve the country’s goal. It should be noted, however, that seasonal variations significantly affect the share of RE in the generation mix, particularly for hydro, wind, and solar resources.

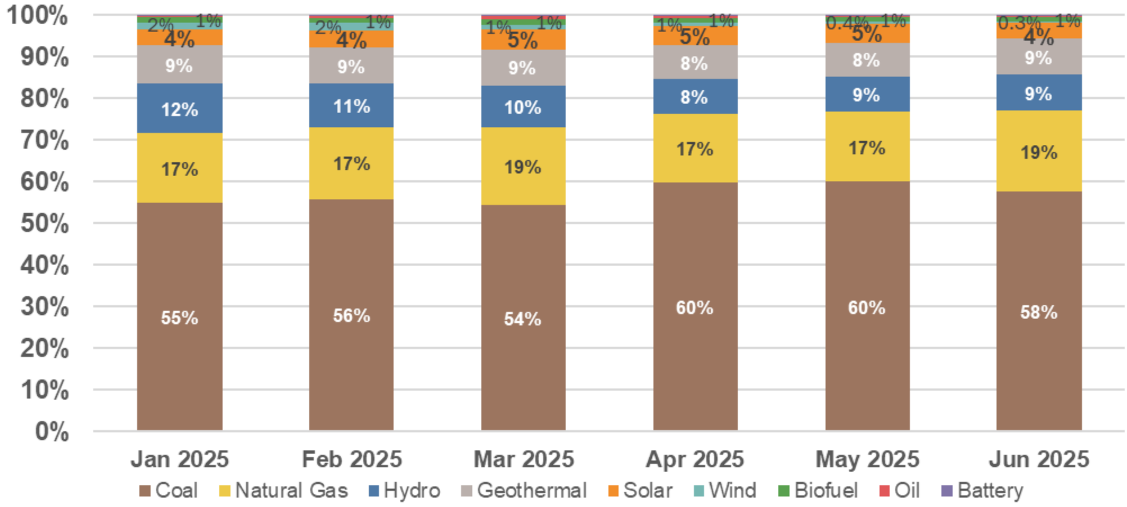

Figure 9. Generation Mix (Based on Metered Quantity) – January to June 2025

Figure 10 illustrates hourly generation by plant type, highlighting a notable decrease from 18 to 20 April. This, in conjunction with the previous discussion, was experienced during Holy Week holidays, during which, reduced commercial and industrial activity led to lower electricity demand, thereby resulting in lower dispatched generators.

Consistent with the earlier discussion on RTD schedules, the observed dips were attributed to reduced system demand during weekends and non-working holidays that coincided with weekdays resulting in reduced metered quantity or energy output.

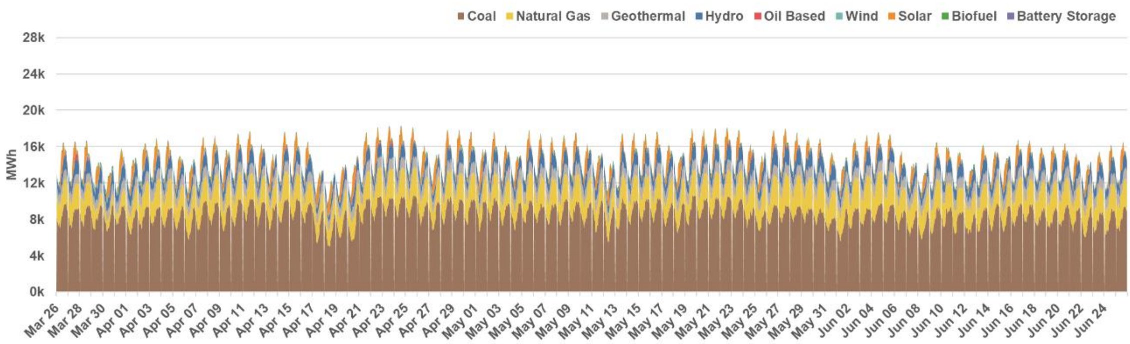

Figure 10. Hourly Generation Metered Quantity – Q2-2025

II. DEMAND

The overall system demand for electricity increased by an average of 12.23% during the covered period, reaching an average consumption of 14,970 MWh. This increase was anticipated, as Q2 2025 coincided with the summer season, with the highest recorded demand recorded at 19,052 MW which occurred on 23 April 2025 at 1440h trading interval. Coincidentally, the heat index was recorded to have peaked at 45 degrees Celsius[3] during the same day. These events normally lead to higher consumption, as cooling appliances tend to be utilized to lower down the ambient temperatures. Meanwhile, the lowest demand was recorded at 10,339 MW which occurred on Good Friday, 18 April 2025 at 0655h trading interval due to the naturally low demand during holiday season.

Figure 11 presents the temporal dynamics among effective supply, system demand, and the demand inclusive of reserve requirements across all dispatch intervals for the quarter. With the lowering of plant outage level to just an average of 8% of the total registered capacity, the system's effective supply consistently met both the energy and reserve requirements. As a result, no grid alert notices were issued during the reporting period, indicating adequacy of system resources. The observed dips were driven by reduced system demand during weekends and non-working holidays that coincided with weekdays, resulting in lower dispatch levels.

[3] Dominique Nicole Flores, *Blistering heat to persist in 25 areas, up to 45°C*. Link: https://www.philstar.com/headlines/weather/2025/04/23/2437766/blistering-heat-persist-25-areas-45c

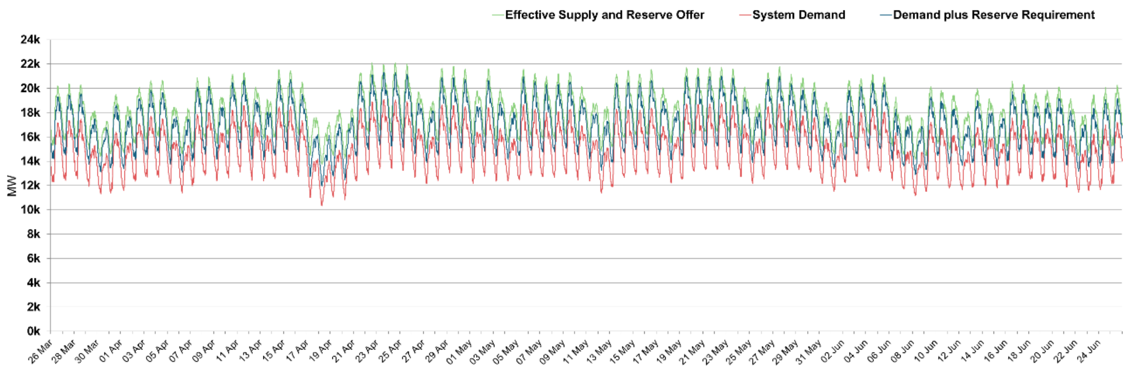

Figure 11. Demand, Supply, and Demand plus Reserve Schedule, Q2-2025

Figure 12 further illustrates the correlation between electricity demand and the heat index, showing that demand generally follows the trend of the heat index. However, the observed variations may also be attributed to the type of day—such as holidays or weekends—when electricity demand typically declines due to reduced commercial and industrial activity specifically on 12 May 2025 (Election Day) and 12 June 2025 (Independence Day) 14 June 2025 (Saturday), when demand was lower despite elevated heat index levels.

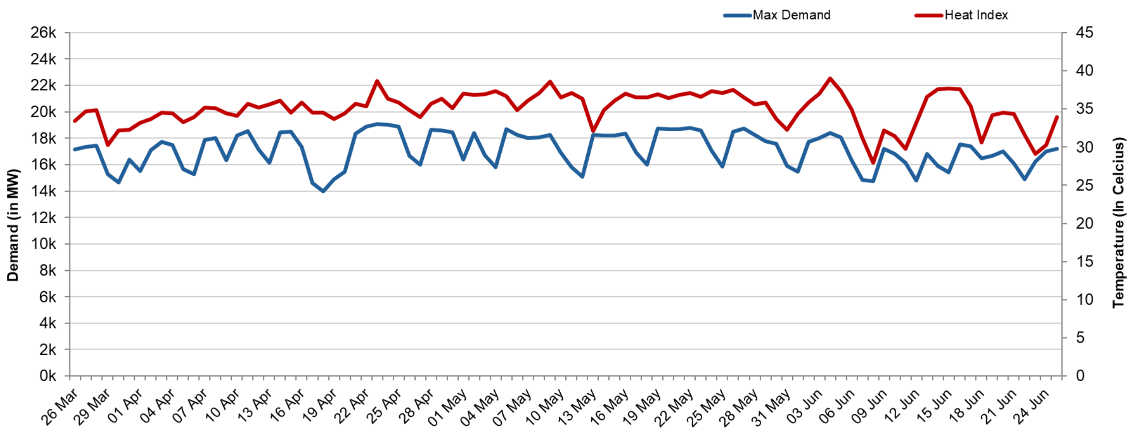

Figure 12. Daily Max Demand and Max Heat Index[4], Q1-2025

III. MARKET PRICE OUTCOME

A. Market Prices

The LWAP during Q2-2025 was recorded at an average of PHP4,327.31/MWh – a 13.12% increase when compared to the previous quarter. Meanwhile, the per interval LWAP exhibited fluctuating patterns, primarily influenced by the interplay between supply and demand across the system. Notably, during Q2-2025, price spikes occurred during off-peak hours on 27 March 2025, Thursday, for twenty-nine (29) instances: a single (1) spike at the 1555h interval, affecting the entire system and twenty-eight (28) spikes affecting the Luzon-Visayas region.

The price spikes were caused by the following events: a decline in supply due to forced outage of a large coal plant with rated capacity of 647 MW of from 1420h to 2106h

[4] Visual Crossing Corporation: https://www.visualcrossing.com/weather-history/Philippines/us/ - Maximum feels like temperature

trading interval, a 60 MW dip in solar output in Luzon-Visayas region during the afternoon, and simultaneously increases in demand in Luzon-Visayas region of 86 MW, and a decrease in offered capacity in hydro plants in Luzon during the evening.

Furthermore, the power flow through the High Voltage Direct Current (HVDC) link between Mindanao and Visayas was maximized at 450 MW, resulting in price separation in Mindanao during the incident.

Other notable spike was on 20 April 2025, Monday, when three (3) price spikes occurred, two (2) affecting the Luzon and Visayas regions separately at 1845h trading interval and one (1) spike Luzon-Visayas region at 1850h trading interval. The spikes were caused by high capacities on outage, averaging 2,085 MW throughout the day, along with increased demand in the Luzon and Visayas regions during the evening peak hours. Notable outages included the 417 MW of one (1) large coal plant, which went offline at 0901h and remained unavailable until 1930h, and another large coal plant with capacity of 240 MW, which went on outage at 0023h and lasted until 1949h. Luzon also experienced an increase in demand during tight supply 1845h which triggered the spike and also affected the next trading interval.

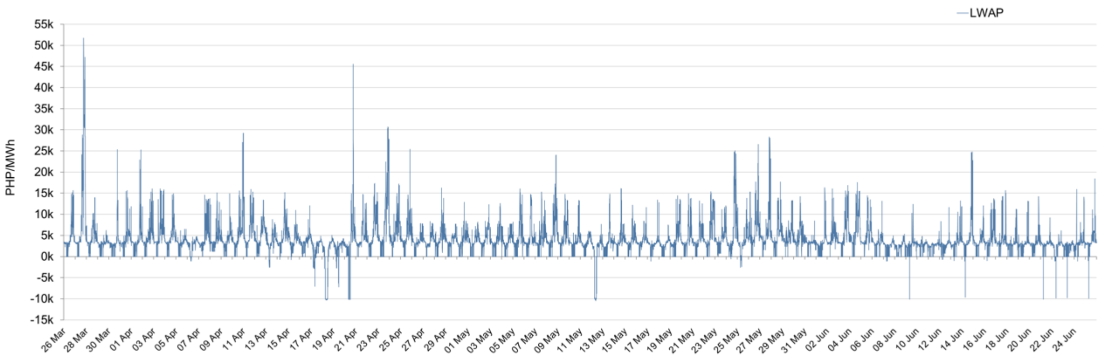

Figure 13. System: Market Price Trend, Q2-2025

In line with the earlier discussion on reduced load during weekends and holidays, Table 3 presents the corresponding LWAP by day type. The data shows that LWAP levels during weekends and holidays were lower compared to weekdays.

Table 3. LWAP per Day Type, Q2-2025

	LWAP PHP/MWh
WEEKDAYS	4,220.74
WEEKEND	2,969.28
HOLIDAY	2,705.46

B. Price Distribution

During Q2-2025, as illustrated in Figure 14, LWAP was predominantly low, with 76% of trading intervals registering prices within the PHP 0/MWh to PHP 5,000/MWh range. The persistence of low-price levels, despite the increase in demand, was primarily driven by the reduction in outage levels, which improved available supply and consequently lower price offers.

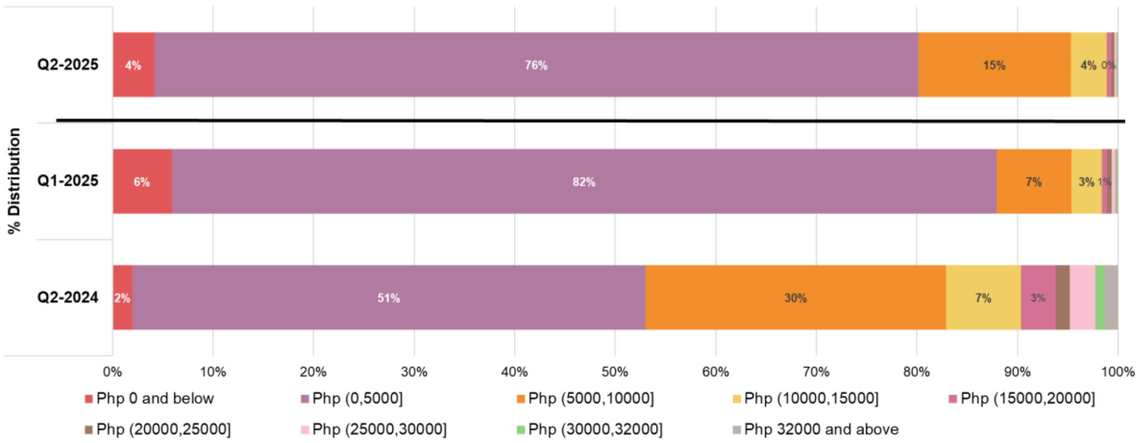

Figure 14. System: Market Price Band, Q2-2024, Q1-2025, and Q2-2025

Table 4 presents the tabular distribution of market prices for the billing periods covered in this quarter.

Table 4. Market Price Band, Q2-2025

Price Range (Php/MWh)	% Distribution		
	April 2025	May 2025	June 2025
Php 0 and below	5%	4%	4%
Php (0,5000]	71%	78%	80%
Php (5000,10000]	18%	15%	12%
Php (10000,15000]	4%	3%	4%
Php (15000,20000]	0.87%	0.32%	0.27%
Php (20000,25000]	0.24%	0.28%	0.26%
Php (25000,30000]	0.55%	0.01%	0.09%
Php (30000,32000]	0.32%		
Php 32000 and above	0.17%		

C. Market Price Conditions

During Q2-2025, the WESM was mostly under normal pricing conditions for 25,636 trading intervals or at 97% of the time. However, other intervals were placed under various market pricing adjustments / corrections as follows:

i. Pricing Error Notice (PEN) [5]

There were 475 total trading intervals observed with system-wide PEN issuances during Q2-2025 which were related to inappropriate input data that subsequently affected the market outcomes.

On 24 May 2025 at 1805h trading interval, the Visayas and Mindanao grids were subjected to PEN due to inappropriate input data. Meanwhile, the Luzon grid was placed under the Price Substitution Methodology (PSM) as congestion on the Mexico-Hermosa 230 kV Line 2 occurred. On the same day, the HVDC link connecting Luzon and Visayas was on planned outage starting on 23 May 2025 at 0603h and was restored and became fully operational on 25 May 2025 at 1912h that resulted to a regional PSM for Luzon.

[5] Section 5 of the Price Determination Methodology provides that the Market Operator (MO) performed a pricing re-run upon issuance of pricing error notice, notwithstanding the application of an automatic pricing re-run.

ii. Price Substitution Methodology (PSM)[6]

As a result of congestion events in the electricity transmission network, PSM was applied on a system-wide basis across 321 trading intervals—reflecting a 184% increase compared to Q1-2025. The increase indicates higher instances wherein market prices required adjustment to address extreme price separations due to N-1 contingency requirement wherein the transmission network infrastructure experienced network congestions. The average price during the instances of PSM imposition was noted at PHP4,419.40/MWh. Table 5 provides the network lines and equipment that caused the PSM.

Table 5. Congested Lines Caused PSM

Line ID	Line Name and Rating	Frequency of Congestion
1MEXI_1HER2	MEXICO-HERMOSA 230 kV LINE 2	158
DASMA_CORR	DASMARINAS CORRIDOR	112
1MEXI_1HER1	MEXICO-HERMOSA 230 kV LINE 1	38
3BINA_3DAS2	BINAN-DASMAEHV 230 kV LINE 2	21
3BINA_3DAS1	BINAN-DASMAEHV 230 kV LINE 1	11
1BALI_1KDA2	BALINGUEO-KDAMEHV 230 kV LINE 2	4
1BAUA_1BAL1	BAUANG-BALINGUEO 230 kV LINE 1	4
1BING_1NGS2	BINGA-EHVNAGSAAG 230 kV LINE 2	4
1BAUA_1BPP1	BAUANG-BPPC 230 kV LINE 1	4
1BALI_1KDA1	BALINGUEO-KDAMEHV 230 kV LINE 1	4
1AMBK_1BIN2	AMBKLAO-BINGA 230 kV LINE 2	2
1BPPC_1BAL1	BPPC-BALINGUEO 230 kV LINE 1	1
1EHVNGS_TR1	EHV NAGSAAG TRANSFORMER 1 600MVA 500/230kV	1
1EHVNGS_TR2	EHV NAGSAAG TRANSFORMER 2 600MVA 500/230kV	1

iii. Administered Price (AP)

Market Interventions (MIs) remained a recurring factor in the pricing dynamics during the billing quarter. Recent MIs affecting thirty (30) trading intervals were placed under system-wide Administered Prices (AP) following force majeure events that prompted the Market Operator (MO) to declare MI. The specific triggers were as follows:

- 10 April 2025 - Failure to generate the RTD schedule caused by network connection issues; and
- 11 and 14 June 2025 - Failure in Market Participant Interface (MPI) bid data transfers, resulting in incomplete transfer of offers and nominations that disrupted the RTD, Hour-Ahead Projection (HAP), and Base Application (BAPP) pre-processing that led to a core dump, subsequently preventing successful market run execution.

The APs during the MI events vary differently caused by the dissimilar market conditions at which the prices are being referred to, in order to determine the prices to be imposed. This causes certain economic impact on both the generators and the consumers as additional compensation are allowed for these instances and will be recovered in prolonged periods.

[6] Section 6.2.5 of the Price Determination Methodology provides the price substitution methodology shall be implemented in all the regions where the WESM is in operation. In cases where a region/s has no interconnection with other regions, or has no exchange of power with other regions, this region/s shall be separately assessed for the application of the price substitution methodology.

As of writing, the MSC is looking into enhancing the methodology in determining APs to accurately reflect prevailing market conditions when applying substitute pricing.

Table 6. Generator Weighted Administered Prices on Market Intervention Events

Date	Affected Interval	Region	Price Before the MI (PHP/MWh)	Administered Price During the MI (PHP/MWh)			Price After the MI (PHP/MWh)
10-Apr-25	8 intervals (1155h-1230h)	Luzon, Visayas, Mindanao	2,909.37	▼ 16.62%	2,425.75	▼ 31.27%	3,529.14
11-Jun-25	11 intervals (2310h - 2400h)		2,491.72	▲ 74.91%	4,358.18	▲ 52.69%	2,854.24
14-Jun-25	11 intervals (2310h - 2400h)		8,745.87	▼ 51.48%	4,243.78	▼ 5.07%	4,470.33

D. Secondary Price Cap (SPC)[7]

For Q2-2025, no SPC issuance was observed. This indicates that despite the increase in demand during the summer months, market prices did not sustain levels high enough to trigger the SPC mechanism. The absence of SPC events imply that the supply conditions, supported by lower outage levels and adequate available capacity, were sufficient to meet the system demand without prolonged exposure to high price intervals.

Table 7 details the monthly price data for Q2-2025.

Table 7. Monthly Pricing Condition for Q2-2025

		Normal		Pricing Error Notice		Price Substitution Methodology		Secondary Price Cap		Administered Price	
Region/Grid	Billing Month	Count/Total No. of Trading Interval/s	%	Count/Total No. of Trading Interval/s	%	Count/Total No. of Trading Interval/s	%	Count/Total No. of Trading Interval/s	%	Count/Total No. of Trading Interval/s	%
Luzon	April 2025	8,575	96.05%	187	2.09%	158	1.77%	0	0.00%	8	0.09%
	May 2025	8,527	98.69%	26	0.30%	87	1.01%	0	0.00%	0	0.00%
	June 2025	8,537	95.62%	262	2.93%	107	1.20%	0	0.00%	22	0.25%
Visayas	April 2025	8,578	96.08%	187	2.09%	155	1.74%	0	0.00%	8	0.09%
	May 2025	8,554	99.00%	27	0.31%	59	0.68%	0	0.00%	0	0.00%
	June 2025	8,537	95.62%	262	2.93%	107	1.20%	0	0.00%	22	0.25%
Mindanao	April 2025	8,578	96.08%	187	2.09%	155	1.74%	0	0.00%	8	0.09%
	May 2025	8,554	99.00%	27	0.31%	59	0.68%	0	0.00%	0	0.00%
	June 2025	8,537	95.62%	262	2.93%	107	1.20%	0	0.00%	22	0.25%

IV. GENERATOR OFFER PATTERN

This section examines generator-trading participants' offer patterns, as submitted to the WESM via the MPI, in accordance with WESM Rules Clause 3.5.

As illustrated in Figure 15, the offer price patterns of coal-fired power plants remained consistent with the preceding quarter, with a significant portion of capacity being offered at or below PHP 0/MWh. This trend reflects the typical operational strategy of coal plants, which functions as baseload generators committed to high dispatch levels to secure the delivery of their contracted quantities. The prevalence of zero or negative offers are also influenced by bilateral contract obligations or cost recovery mechanisms that are independent of spot market revenues.

On a quarter-on-quarter basis, a slight variation was observed, with a 2% increase in offers within the PHP 0 to 5,000/MWh range and a 2% decrease in offers at PHP 0 and below. Despite these shifts, coal-based offers remained predominantly at the PHP 0 and

[7] ERC Resolution No. 7 Series of 2021, if the Cumulative Price Threshold (CPT) was breach on the 72nd hours regional/islanding, Secondary Price Cap (SPC) will be imposed

below bandwidth, which contributed to sustained competitive pricing in the market and continued suppression of marginal costs.

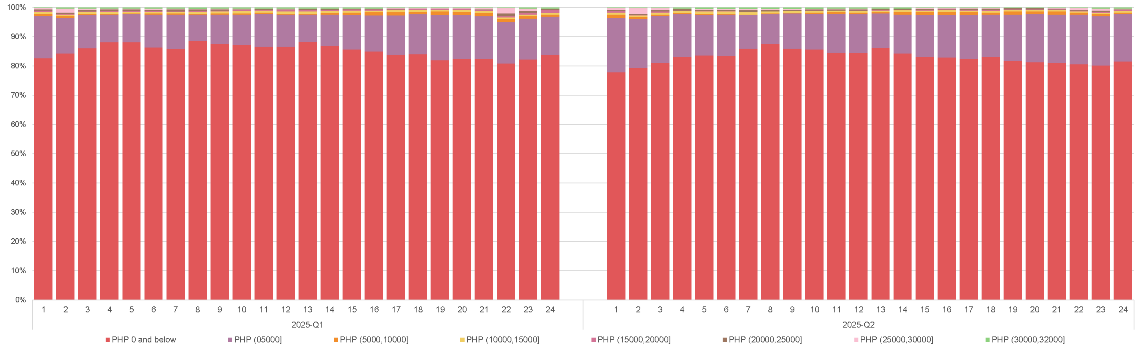

Figure 15. Coal Power Plants Offer Pattern – Q1-2025 and Q2-2025

Similarly, natural gas power plants demonstrated offer behavior predominantly concentrated at PHP 0/MWh and below, consistent with their role in baseload. This behavior is largely influenced by long-term bilateral contracts and regulatory cost-recovery mechanisms, which reduce exposure to spot market price volatility. Offering at zero or negative prices secures their position in the dispatch stack, ensuring reliability while meeting contractual obligations.

In addition, this trend is reinforced by fuel supply arrangements, including the operational requirements of combined-cycle units, which necessitate stable load factors to sustain efficiency.

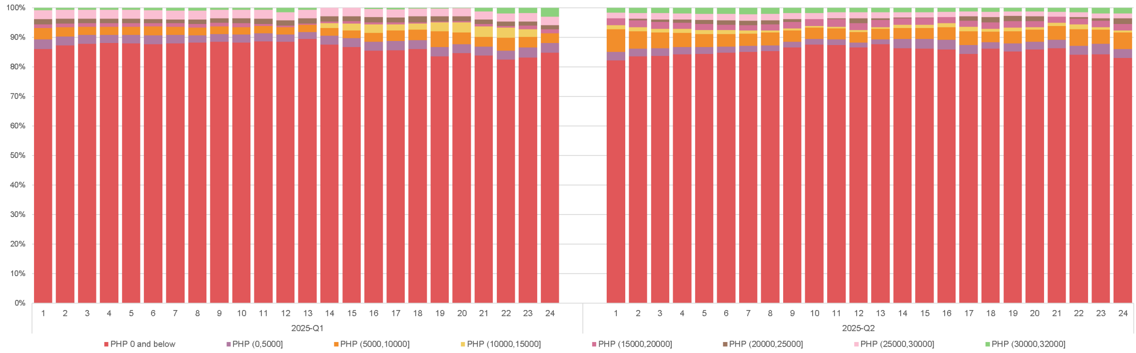

Figure 16. Natural Gas Power Plants Offer Pattern – Q1-2025 and Q2-2025

Figure 17, exhibited a notable increase in offers within the PHP 5,000 to 10,000/MWh range during the period under review, as reflected in the market offer distribution. The data also highlights visible pumping nominations, particularly from the Kalayaan Pumped Storage Plant, which absorbed excess supply during low-price hours and repositioned energy for subsequent use.

The increase in high-price offers can be attributed to reduced water supply during the summer season, which limited the availability of hydro resources for continuous dispatch. Specifically, impounding hydro units—classified as scheduled generators—contributed to offers in the higher price range. At the same time, pumping activity indicated optimization of reservoir operations to conserve water while maintaining flexibility for grid support.

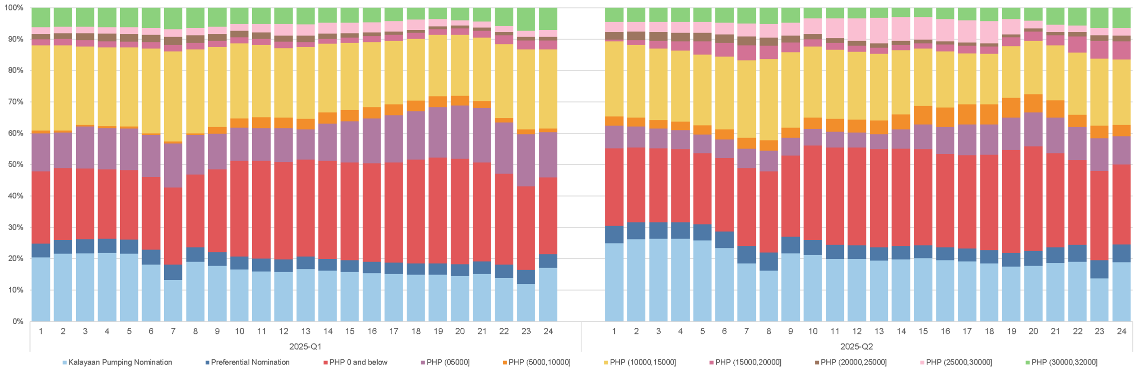

Figure 17. Hydro Power Plants Offer Pattern – Q1-2025 and Q2-2025

Oil-based power plants showed a clear concentration of offers in the higher price ranges, particularly between PHP 20,000/MWh to PHP 32,000/MWh, across both Q1-2025 and Q2-2025. The persistence of this offer behavior reflects their role as peaking units, which are typically dispatched only during periods of tight supply or high demand, coupled with the fact that most of oil-based plants participate in the Reserve Market and are thus required to ensure availability once scheduled and dispatched by the SO.

Compared to Q1-2025, Q2-2025 data shows a slight increase in offers above PHP 25,000/MWh, while the share of offers at PHP 0 and below remained minimal mostly due to contractual obligations averaging at 28% of the time.

The offer strategy is consistent with cost structures, as oil-fired generation is more expensive relative to coal, natural gas, or hydro resources. As a result, these plants contribute to price spikes in the market only when cheaper resources are insufficient to meet demand.

Figure 18. Oil-based Power Plants Offer Pattern – Q1-2025 and Q2-2025

V. STRUCTURAL COMPETITION INDICES

A. Residual Supply

Market Residual Supply Index (Market RSI)[8] plotted against the corresponding number of pivotal supplier/s in the market is shown in Figure 19.

[8] For a generator, the Residual Supply Index (RSI) is a dynamic continuous index measured as ratio of the available generation without that generator to the total generation required to supply the demand. The Market RSI is measured as the lowest RSI among all generators in the market. A Market RSI less 100% indicates the presence of pivotal generator/s or supplier/s.

During the review period, the market recorded an average RSI of 99.16%. This supports the previous discussion wherein an increase in offered/nominated capacity was observed due to lower outage levels, allowing the market to remain sufficient and competitive under high demand conditions during summer months.

Notably, the average market prices for intervals where RSI below 100% was PHP 4,913/MWh, whereas intervals with RSIs above 100% recorded a lower average price of PHP 2,461/MWh. This demonstrates the typical inverse relationship between RSI and market prices.

It is also worth noting that when the RSI peaked at 109.12%, the corresponding market price was negative PHP 2,895/MWh. Conversely, when the RSI was at its minimum recorded at 93.87%, the price was at PHP 16,991.51/MWh, underscoring the correlation between the supply, demand, and prices. Table 8 presents the occurrences of both minimum and maximum RSI values along with their corresponding market prices, and vice versa.

As previously discussed, holidays typically exhibit lower demand levels. On 18 April 2025, the highest RSI was recorded, while 12 May 2025 registered the lowest market price. Additionally, 27 March 2025 recorded the highest price, coinciding with price spikes as discussed in Market Prices section. Furthermore, 20 April 2025, which fell on a Sunday, saw the lowest RSI value during the review period.

Table 8. RSI vs LWAP, Q2-2025

	RSI		Date and Time Interval	Price		Date and Time Interval
Max	109.12	(2,895.59)	4/18/2025 6:30	51,759.75	95.20	3/27/2025 18:25
Min	93.87	16,991.51	4/20/2025 18:25	(10,466.61)	108.67	5/12/2025 9:05

The increase in instances of RSIs above 100% was primarily driven by the lower capacity on outage which resulted in higher available and offered capacity to meet the increase in demand, particularly during the summer season covered in the review period.

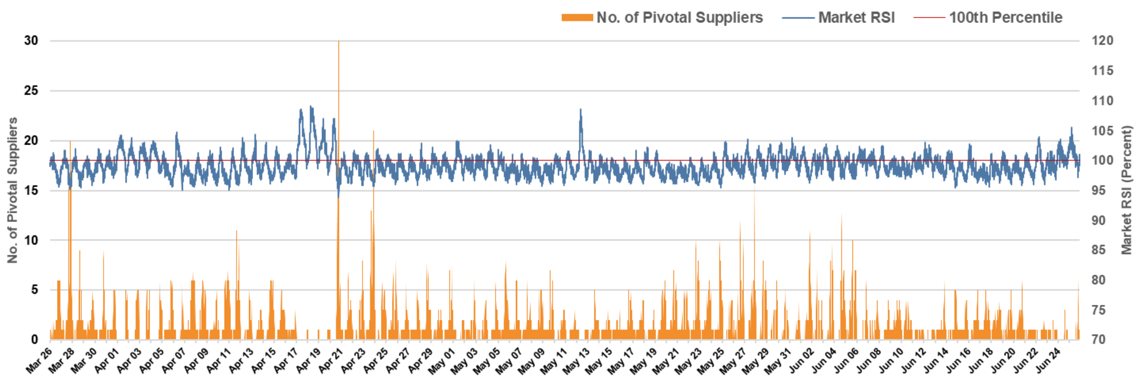

Figure 19. Market RSI vs. Pivotal Suppliers, Q2-2025

B. Pivotal Suppliers[9]

Figure 20 presents the top 10 system-wide pivotal suppliers in the market during the billing quarter in review. The GNP Dinginin Coal-Fired Thermal Power Plant (CFTPP)

[9] The Pivotal Supply Index (PSI) measures how critical a particular generator is in meeting the total demand at a particular time. It is a binary variable (1 for pivotal and 0 for not pivotal) which measures the frequency that a generating is pivotal for a particular period.

remained the most pivotal plant for Q2-2025 similar with Q1-2025, being pivotal for 18,075 trading intervals or 68% of the 26,496 total intervals for the quarter.

It was distantly followed by the second pivotal supplier, the Sta. Rita Natural Gas Power Plant (NGPP), identified as pivotal for 8,999 intervals or 34% of the time. This significant disparity from the top pivotal supplier reinforces the earlier discussion on the increase in the effective supply and aligns with the high average RSI of 99.15%. The elevated RSI indicates sufficient available capacity in the system, reducing dependence on any single pivotal supplier. The same was noted for the succeeding pivotal suppliers, further confirming that the market remained competitive and adequately supplied even under high demand conditions.

Additionally, it is worth noting that seven (7) out of the ten (10) pivotal suppliers were coal-fired power plants, while two (2) were natural gas power plants and one (1) hydro power plant.

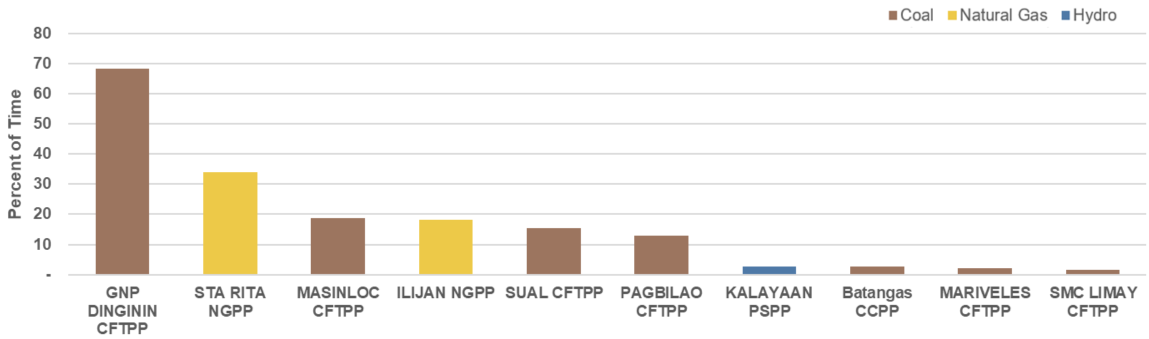

Figure 20. Top 10 System: Pivotal Suppliers, Q2-2025

VI. CAPACITY FACTOR

The Capacity Factor, which measures the efficiency of generating units based on actual metered output relative to their maximum potential generation, averaged 48% during the quarter under review, which increased compared to the 42% recorded in the previous quarter. The improvement was primarily driven by higher system demand during the period.

In addition, prevailing offer prices resulted in greater dispatch requirements, leading to increased electricity generation from power plants.

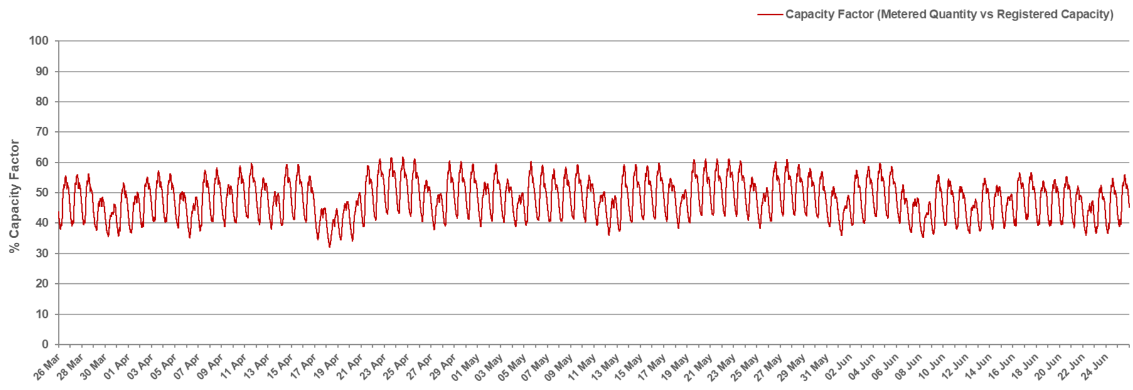

Figure 21. System: Capacity Factor (Metered Quantity vs Registered Capacity), Q2-2025

By resource type, baseload power plants accounted for the highest share of dispatch in the WESM, reflecting their dominant role in system utilization. Within this group, coal power plants recorded the highest capacity factor at 69%, as shown in

Figure 22, mainly attributable to the reduced capacity on outage and lower offer prices during the quarter, which enabled coal plants to sustain higher dispatch levels and reinforce their position as the primary baseload supply source.

Geothermal power plants ranked second in terms of utilization at 68%, largely due to their priority dispatch classification. While resource availability remained steady, the reduced outage levels and competitive price offers of coal plants positioned them above geothermal in capacity factor ranking.

Natural gas plants ranked third at 56%, with their capacity factors improving in a manner like coal plants. Lower capacity on outage combined with increased demand and competitive offers supported their higher dispatch levels during the period.

In contrast, variable renewable energy resources recorded significantly lower capacity factors. Wind plants declined by 23% from the previous quarter, resulting in 12% for Q2 2025. solar plants increased by 3%, reaching 22%, supported by higher irradiance during the summer season.

Hydro plants posted a slight decrease in capacity factor for 36% from the previous quarter to 32% for Q2-2025. Although the onset of rainy season[10] officially began on 02 June 2025, majority of the billing quarter under review still fell within the summer period. During this time, reduced reservoir/dam[11] levels limited generation from hydro plants, leading to the decline in utilization.

Biofuel, battery, and oil-based power plants showed only marginal changes in their capacity factors, maintaining the same relative order observed in Q2 2025. Among these, oil-based and battery plants continued to record the lowest utilization levels at 2%, consistent with their function as peaking units. Their dispatch was limited to periods of system stress or high demand conditions.

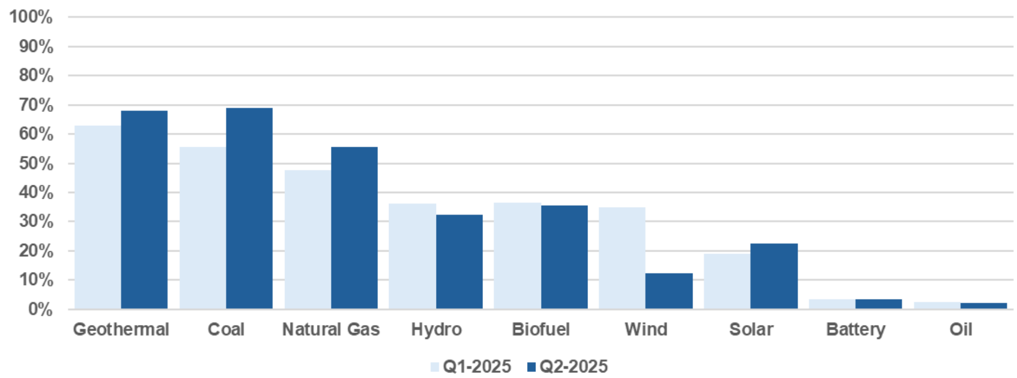

Figure 22. System Capacity Factor Per Resource Type (Registered Capacity vs Actual Generation) – Q1-2025 and Q2-2025

[10] PAGASA Press Release: *Onset of the Rainy Season*: DOST-PAGASA S&T Media: Link https://www.pagasa.dost.gov.ph/pressrelease/181#:~:text=02%20June%202025&text=This%20signifies%20the%20onset%20of,referred%20to%20as%20monsoon%20breaks.

[11] PAG-ASA Dam Information: https://www.pagasa.dost.gov.ph/flood

VII. SPOT EXPOSURE

The load-market participants' spot market transactions experienced a minimal decline during Q2-2025, averaging at 20.81%, compared to 21.28% in Q1-2025. This indicates that majority of total energy purchases remained covered by bilateral contracts.

As shown in Figure 23, the daily analysis indicates variations in spot exposure between Q2 for 2024 and 2025. Instances were observed where Q2-2024 spot exposure was lower, with the maximum difference recorded at 2.7% on 21 April 2025. However, in most cases, spot exposure in Q2-2025 was significantly lower, with the largest difference of 10.5% observed on 13 May 2025. The reduction in spot exposure in 2025 can be attributed to generating units with bilateral contracts remaining available and delivering their committed energy to their respective loads, rather than relying on the spot market. This behavior was also linked to lower market prices, as generators offered at lower price levels to ensure dispatch and fulfill their bilateral obligations which resulted in a lower average price for Q2-2025.

Daily LWAP in Q2-2025 shows a marked improvement compared to Q2-2024. In the same quarter last year, the system experienced Yellow and Red Alert declarations, which led to Market Suspension as Ordered[12] by the ERC. In contrast, Q2-2025 recorded no alert status and no instances of supply margin thinning. This operational stability contributed to reduced price volatility and more consistent market outcomes.

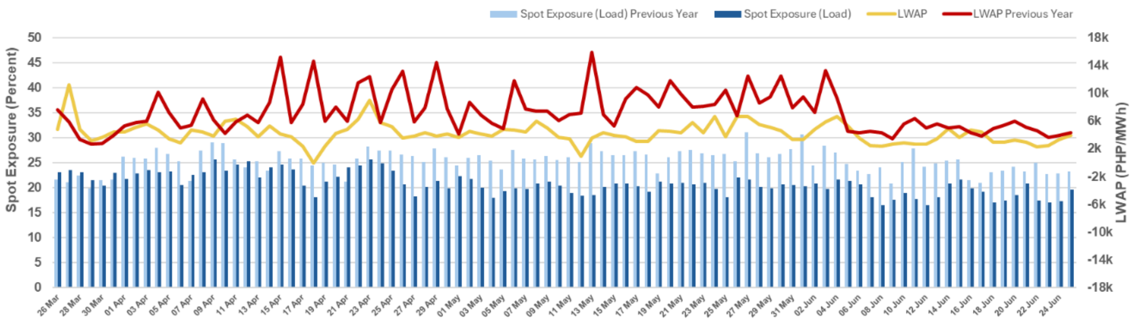

Figure 23. Daily Profile of Spot Market Exposure, Q2 2024 vs Q2-2025

Figure 24 illustrates the hourly fluctuations in spot exposure alongside the corresponding average hourly prices. Spot exposure peaked at 1200h, driven by higher demand and need for additional spot market transactions to cover the increase. A secondary peak was observed at 2000h, coinciding with the evening demand ramp when solar output had fully declined and additional dispatchable capacity was required coupled with the increase in demand.

Despite higher spot exposure during these intervals, prices remained relatively low as sufficient capacity was available. On the other hand, LWAP recorded peak at 1600h, 1900h, and 2100h, which aligned with the transition periods when demand increased while variable renewable energy output declined, tightening supply-demand balance and driving prices upward.

[12] ERC Case No. 2024-017 MC, "*In the Matter of Declaration of Market Suspension During Red Alerts During the Summer Months of 2024*", dated 30 April 2024

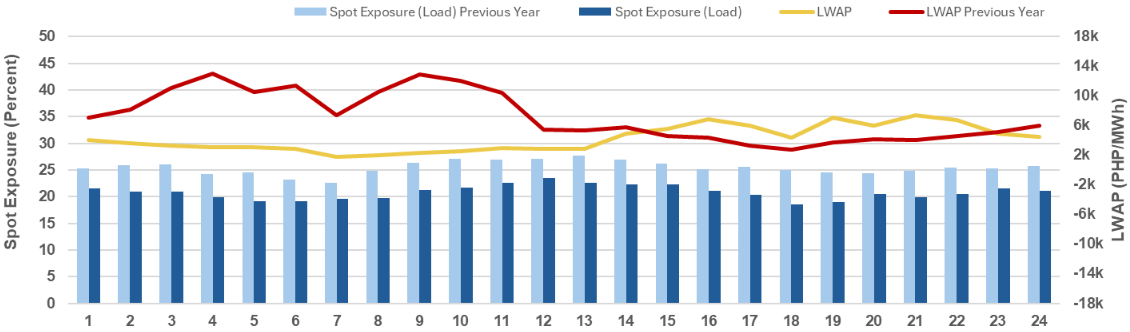

Figure 24. Hourly Profile of Spot Market Exposure, Q2 2024 vs Q2-2025

Annex A. Plants with Change in Capacity

Plant Type	Resource ID	Facility Name	Registered Capacity (MW)		Quarter-on-Quarter Change (in MW)
			2025-Q1	2025-Q2	
Luzon					
HYD	01ANGAT_A	Angat Hydroelectric Power Plant Unit A	40.7	44.6	3.90
HYD	01ANGAT_M	Angat Hydrolectric Power Plant Unit M	148.9	149.5	0.60
COAL	01MSINLO_G01	Masinloc Coal-Fired Thermal Power Plant Unit 1	344	322.7	-21.30
COAL	01MSINLO_G02	Masinloc Coal-Fired Thermal Power Plant Unit 2	344	322.7	-21.30
COAL	01MSINLO_G03	Masinloc Coal-Fired Thermal Power Plant Unit 3	335	307.2	-27.80
COAL	01PETRON_G01	Refinery Solid Fuel-Fired Boiler Power Plant (RSFFBPP)	183.3	141.4	-41.90
COAL	01SMC_G01	SMC Limay Coal Power Plant 1	150	134	-16.00
COAL	01SMC_G02	SMC Limay Coal Power Plant 2	150	134	-16.00
COAL	01SMC_G03	SMC Limay Coal Power Plant 3	150	134	-16.00
COAL	01SMC_G04	SMC Limay Coal Power Plant 4	150	134	-16.00
SOLR	01SUPSOL_G01	Jobin-SQM Inc. - Subic New PV Power Plant Project	62.7	61.6	-1.10
GEO	03PALAYAN_G01	Bac-Man Geothermal Inc., Palayan Binary Power Plant	31	24	-7.00
COAL	03SLTEC_G02	South Luzon Thermal Energy Corporation Coal-Fired Thermal Power Plant Unit 2	124	123	-1.00
HYD	01CASECN_U01*	Casecnan Hydroelectric Power Plant Unit 1	168	79.1	-10.00
HYD	01CASECN_U02*	Casecnan Hydroelectric Power Plant Unit 1		78.9	
Visayas					
SOLR	05TOLSOL_G01	Toledo Solar Power Plant	49	48	-1.00
Mindanao					
HYD	10LIAN_G01	Liangan Hydroelectric Power Project	11.9	11.6	-0.30
HYD	11MINBU_G01	Bubunawan Hydroelectric Power Plant	6.6	6.2	-0.40
OIL	13MATIBNK_G01	SPC Mati Bunker C-Fired Diesel Power Plant	11	10.9	-0.10
OIL	14SUPKOR_G01	SPC Koronadal Bunker C-Fired Diesel Power Plant	11.9	11.5	-0.40

*Note: * Disaggregated*

Annex B-1. Capacity Profile by Category

	1st Quarter 2025 (26 Dec 2024 to 25 Mar 2025)		2nd Quarter 2025 (26 Mar to 25 Jun 2025)		Quarter-on-Quarter % Change
	Average (in MW)	% of RegCap	Average (in MW)	% of RegCap	
Capacity Offered / Nominated	19,998	67%	21,422	72%	7.12%▲
Capacity Not Offered / Nominated	4,749	16%	5,433	18%	14.40%▲
Capacity on Commissioning	1,048	4%	643	2%	38.67%▼
Capacity on Outage	4,118	14%	2,278	8%	44.67%▼

	April 2025 (26 Mar to 25 Apr 2025)		May 2025 (26 Apr to 25 May 2025)		June 2025 (26 May to 25 Jun 2025)	
	Average (in MW)	% of RegCap	Average (in MW)	% of RegCap	Average (in MW)	% of RegCap
Capacity Offered / Nominated	21,028	70%	22,047	74%	21,212	71%
Capacity Not Offered / Nominated	5,237	18%	5,659	19%	5,410	18%
Capacity on Commissioning	858	3%	612	2%	458	2%
Capacity on Outage	2,729	9%	1,435	5%	2,645	9%
Registered Capacity (end of the billing Month)	29,852	100%	29,753	100%	29,725	100%

Annex B-2. Capacity Profile by Plant Type

Offered/Nominated Capacity by Plant Type

	1st Quarter 2025 (26 Dec 2024 to 25 Mar 2025)		2nd Quarter 2025 (26 Mar to 25 Jun 2025)		Quarter-on-Quarter % Change
	Average (in MW)	% of RegCap	Average (in MW)	% of RegCap	
Coal	9,794.94	49%	10,966.64	51%	11.96%▲
Natural Gas	3,133.30	16%	3,300.01	15%	5.32%▲
Geothermal	1,098.85	5%	1,201.46	6%	9.34%▲
Hydro	2,598.59	13%	2,491.31	12%	4.13%▼
Oil Based	2,125.20	11%	2,167.91	10%	2.01%▲
Wind	171.81	1%	61.61	0%	64.14%▼
Solar	473.26	2%	605.38	3%	27.92%▲
Biofuel	162.82	1%	160.50	1%	1.43%▼
Battery Storage	438.79	2%	466.57	2%	6.33%▲

Effective Supply by Plant Type

	1st Quarter 2025 (26 Dec 2024 to 25 Mar 2025)		2nd Quarter 2025 (26 Mar to 25 Jun 2025)		Quarter-on-Quarter % Change
	Average (in MW)	% of RegCap	Average (in MW)	% of RegCap	
Coal	7,163.70	48%	8,519.96	52%	18.93%▲
Natural Gas	2,455.91	16%	2,822.37	17%	14.92%▲
Geothermal	564.43	4%	601.20	4%	6.51%▲
Hydro	2,265.43	15%	2,061.51	12%	9.00%▼
Oil Based	1,437.77	10%	1,478.16	9%	2.81%▲
Wind	164.88	1%	54.08	0%	67.20%▼
Solar	451.96	3%	535.35	3%	18.45%▲
Biofuel	89.89	1%	95.97	1%	6.76%▲
Battery Storage	334.51	2%	361.18	2%	7.97%▲

RTD Capacity by Plant Type

	1st Quarter 2025 (26 Dec 2024 to 25 Mar 2025)		2nd Quarter 2025 (26 Mar to 25 Jun 2025)		Quarter-on-Quarter % Change
	Average (in MW)	% of RegCap	Average (in MW)	% of RegCap	
Coal	6,676.11	58%	8,050.11	62%	20.58%▲
Natural Gas	2,215.28	19%	2,553.67	20%	15.28%▲
Geothermal	562.73	5%	599.90	5%	6.61%▲
Hydro	1,309.21	11%	1,154.60	9%	11.81%▼
Oil Based	22.31	0%	17.61	0%	21.05%▼
Wind	164.87	1%	54.06	0%	67.21%▼
Solar	451.54	4%	534.54	4%	18.38%▲
Biofuel	89.88	1%	95.92	1%	6.73%▲
Battery Storage	1.48	0%	1.43	0%	3.34%▼

Annex C. Details and Breakdown for the Others*

April 2025

Event Category	Total Count per Hour Inteval
TEST AND COMMISSIONING	4255
OTHER CAUSES (EXEMPTED)_EXPIRED T&C STATUS	3072
CO-GENERATION POWER PLANTS	1488
OUTAGE (AGGREGATED UNIT/S) AND DERATING-PLANT PROBLEM	1474
WITH PENDING/ONGOING REGISTRATION UPDATE	813
OUTAGE (AGGREGATED UNIT/S) AND RESOURCE CONSTRAINTS-GEOTHERMAL	778
TRANSMISSION-RELATED CONSTRAINTS	739
DERATING-PLANT DEGRADATION/CONDITION	707
START-UP PROCEDURES	499
RESOURCE CONSTRAINTS-SOLAR	320
OUTAGE (AGGREGATED UNIT/S) AND RESOURCE CONSTRAINTS-HYDRO	265
DISTRIBUTION-LINE RELATED CONSTRAINTS	124
DERATING-PLANT EQUIPMENT-RELATED MAINTENANCE (PLANT TEST)	41
SHUTDOWN PROCEDURES	20
PUMP STORAGE POWER PLANTS	5
RESOURCE CONSTRAINTS-GEOTHERMAL & TRANSMISSION-RELATED CONSTRAINTS	4
RESOURCE CONSTRAINTS-GEOTHERMAL & DERATING-PLANT PROBLEM/MAINTENANCE	3

May 2025

Event Category	Total Count per Hour Inteval
TESTING AND COMMISSIONING	3697
OTHER CAUSES (EXEMPTED)_EXPIRED T&C STATUS	2160
CO-GENERATION POWER PLANTS	1467
WITH PENDING/ONGOING REGISTRATION UPDATE	856
DERATING-PLANT DEGRADATION/CONDITION	720
OUTAGE (AGGREGATED UNIT/S) AND RESOURCE CONSTRAINTS-GEOTHERMAL	696
TRANSMISSION-RELATED CONSTRAINTS	565
RESOURCE CONSTRAINTS-SOLAR	318
START-UP PROCEDURES	199
DISTRIBUTION-LINE RELATED CONSTRAINTS	162
OUTAGE (AGGREGATED UNIT/S) AND CO-GENERATION	152
RESOURCE CONSTRAINTS-WIND	80
ONGOING REGISTRATION UPDATE	40
OUTAGE (AGGREGATED UNIT/S) AND RESOURCE CONSTRAINTS-HYDRO	33
DERATING-PLANT EQUIPMENT-RELATED MAINTENANCE (PLANT TEST)	25
SECURITY LIMIT CANCELLATION (PLANT TEST)	16
SHUTDOWN PROCEDURES	9
INADEQUATE EXPLANATION	9
FORCE MAJEURE	5
LEGAL OR REGULATORY COMPLIANCES	4
PUMP STORAGE POWER PLANTS	1

June 2025

Event Category	Total Count per Hour Inteval
TESTING AND COMMISSIONING	2410
CO-GENERATION POWER PLANTS	1221
WITH PENDING/ONGOING REGISTRATION UPDATE	813
DERATING-PLANT DEGRADATION/CONDITION	740
OUTAGE (AGGREGATED UNIT/S) AND RESOURCE CONSTRAINTS-GEOTHERMAL	732
TRANSMISSION-RELATED CONSTRAINTS	564
OUTAGE (AGGREGATED UNIT/S) AND CO-GENERATION	433
OUTAGE (AGGREGATED UNIT/S) AND DERATING-PLANT PROBLEM	400
RESOURCE CONSTRAINTS-SOLAR	322
START-UP PROCEDURES	316
DERATING-AMBIENT CONDITIONS	243
DISTRIBUTION-LINE RELATED CONSTRAINTS	237
RESOURCE CONSTRAINTS-WIND	99
RESOURCE CONSTRAINTS-HYDRO & TRANSMISSION-RELATED CONSTRAINTS	48
DERATING-PLANT EQUIPMENT-RELATED MAINTENANCE (PLANT TEST)	39
LEGAL OR REGULATORY COMPLIANCES	26
SHUTDOWN PROCEDURES	19
OUTAGE (AGGREGATED UNIT/S) AND RESOURCE CONSTRAINTS-HYDRO	16
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Annex D-1.1. Capacity on Outage by Plant Type (Quarterly)

	1st Quarter 2025 (26 Dec 2024 to 25 Mar 2025)				
	Min		**Max**		**Average**
	(in MW)	Date and Time Interval	(in MW)	Date and Time Interval	(in MW)
Coal	759	2/6/2025 0:05	3,850	1/11/2025 0:15	2,162
Natural Gas	190	1/15/2025 10:40	1,596	1/4/2025 0:05	672
Geothermal	141	12/27/2024 1:15	429	3/9/2025 11:00	245
Hydro	123	1/1/2025 20:20	967	2/25/2025 0:45	422
Oil-based	468	12/26/2024 0:05	683	3/3/2025 19:50	553
Wind	13	2/26/2025 5:25	183	3/15/2025 6:40	107
Solar	8	3/24/2025 17:55	114	2/26/2025 18:20	21
Biofuel	33	2/12/2025 10:10	212	2/24/2025 14:25	71
Battery Storage	30	1/14/2025 13:05	80	1/14/2025 7:25	53

	2nd Quarter 2025 (26 Mar to 25 Jun 2025)					**Quarter-on-Quarter % Change**
	Min		**Max**		**Average**	
	(in MW)	Date and Time Interval	(in MW)	Date and Time Interval	(in MW)	
Coal	24	5/10/2025 23:30	2,047	5/30/2025 18:15	690	68.10% ▼
Natural Gas	190	5/17/2025 0:00	2,823	3/29/2025 9:00	657	2.14% ▼
Geothermal	113	4/29/2025 20:50	373	3/28/2025 9:30	152	37.90% ▼
Hydro	35	5/11/2025 16:20	1,007	6/8/2025 10:05	359	14.81% ▼
Oil-based	475	3/30/2025 22:20	631	4/30/2025 23:25	526	4.88% ▼
Wind	13	3/29/2025 5:35	131	6/9/2025 4:50	42	60.81% ▼
Solar	8	4/13/2025 6:50	147	6/9/2025 14:05	48	124.86% ▲
Biofuel	18	6/19/2025 2:40	171	4/19/2025 8:20	64	8.88% ▼
Battery Storage	40	6/24/2025 9:15	160	5/30/2025 5:15	78	47.03% ▲

Annex D-1.2. Capacity on Outage by Plant Type (Monthly)

	April 2025 (26 Mar to 25 Apr 2025)				
	Min		**Max**		**Average**
	(in MW)	Date and Time Interval	(in MW)	Date and Time Interval	(in MW)
Coal	55	4/20/2025 20:05	1,993	3/27/2025 14:45	713
Natural Gas	422	4/1/2025 18:40	2,823	3/29/2025 9:00	842
Geothermal	130	4/17/2025 0:25	373	3/28/2025 9:30	173
Hydro	70	4/20/2025 16:00	697	4/5/2025 15:20	376
Oil-based	475	3/30/2025 22:20	624	4/17/2025 22:05	514
Wind	13	3/29/2025 5:35	53	4/12/2025 6:20	37
Solar	8	4/13/2025 6:50	137	4/5/2025 4:30	54
Biofuel	29	4/23/2025 21:05	171	4/19/2025 8:20	77
Battery Storage	50	3/26/2025 0:05	150	4/5/2025 6:15	52

	May 2025 (26 Apr to 25 May 2025)				
	Min		**Max**		**Average**
	(in MW)	Date and Time Interval	(in MW)	Date and Time Interval	(in MW)
Coal	24	5/10/2025 23:30	1,033	5/25/2025 1:05	286
Natural Gas	190	5/17/2025 0:00	893	5/1/2025 0:00	537
Geothermal	113	4/29/2025 20:50	247	5/2/2025 13:15	130
Hydro	35	5/11/2025 16:20	653	4/27/2025 13:25	139
Oil-based	495	5/5/2025 8:05	631	4/30/2025 23:25	508
Wind	32	4/26/2025 0:05	82	4/26/2025 7:20	38
Solar	8	5/7/2025 15:35	114	4/26/2025 7:35	52
Biofuel	29	4/29/2025 11:30	134	5/5/2025 23:00	57
Battery Storage	80	5/23/2025 15:05	150	5/23/2025 8:50	91

	June 2025 (26 May to 25 Jun 2025)				
	Min		**Max**		**Average**
	(in MW)	Date and Time Interval	(in MW)	Date and Time Interval	(in MW)
Coal	475	6/21/2025 10:15	2,047	5/30/2025 18:15	948
Natural Gas	190	6/14/2025 0:55	1,040	6/17/2025 13:45	452
Geothermal	113	5/26/2025 13:30	302	6/12/2025 4:25	152
Hydro	106	5/26/2025 0:05	1,007	6/8/2025 10:05	556
Oil-based	502	6/12/2025 8:40	610	6/16/2025 15:50	556
Wind	51	5/30/2025 3:00	131	6/9/2025 4:50	74
Solar	8	6/21/2025 6:10	147	6/9/2025 14:05	40
Biofuel	18	6/19/2025 2:40	139	5/26/2025 10:30	59
Battery Storage	40	6/24/2025 9:15	160	5/30/2025 5:15	90

Annex D-2.1. Capacity on Outage by Category (Quarterly)

	1st Quarter 2025 (26 Dec 2024 to 25 Mar 2025)				
	Min		**Max**		**Average**
	(in MW)	Date and Time Interval	(in MW)	Date and Time Interval	(in MW)
Planned Outage	754	12/26/2024 0:05	2,496	3/7/2025 14:50	1,644
Maintenance Outage	108	1/23/2025 12:55	1,956	12/31/2024 12:20	797
Forced Outage	704	2/13/2025 17:20	3,242	3/22/2025 11:35	1,676
Deactivated Shutdown	-		-		-

	2nd Quarter 2025 (26 Mar to 25 Jun 2025)					**Quarter-on-Quarter % Change**
	Min		**Max**		**Average**	
	(in MW)	Date and Time Interval	(in MW)	Date and Time Interval	(in MW)	
Planned Outage	0	5/3/2025 0:15	1,163	3/27/2025 7:35	335	79.60%▼
Maintenance Outage	30	5/23/2025 15:05	3,125	3/29/2025 9:00	410	48.56%▼
Forced Outage	698	5/22/2025 0:05	3,186	5/30/2025 18:15	1,517	9.49%▼
Deactivated Shutdown	33	3/31/2025 10:15	33	3/31/2025 10:15	33	

Annex D-2.2. Capacity on Outage by Category (Monthly)

	April 2025 (26 Mar to 25 Apr 2025)				
	Min		**Max**		**Average**
	(in MW)	Date and Time Interval	(in MW)	Date and Time Interval	(in MW)
Planned Outage	52	4/20/2025 16:00	1,163	3/27/2025 7:35	407
Maintenance Outage	520	4/21/2025 8:05	3,125	3/29/2025 9:00	843
Forced Outage	731	4/9/2025 16:55	2,989	4/1/2025 19:20	1,452
Deactivated Shutdown	33	3/31/2025 10:15	33	3/31/2025 10:15	33

	May 2025 (26 Apr to 25 May 2025)				
	Min		**Max**		**Average**
	(in MW)	Date and Time Interval	(in MW)	Date and Time Interval	(in MW)
Planned Outage	0	5/3/2025 0:15	138	4/26/2025 8:05	45
Maintenance Outage	30	5/23/2025 15:05	926	4/28/2025 8:05	294
Forced Outage	698	5/22/2025 0:05	2,223	5/25/2025 20:10	1,068
Deactivated Shutdown	33	4/26/2025 0:05	33	4/26/2025 0:05	33

	June 2025 (26 May to 25 Jun 2025)				
	Min		**Max**		**Average**
	(in MW)	Date and Time Interval	(in MW)	Date and Time Interval	(in MW)
Planned Outage	75	5/31/2025 0:15	872	6/9/2025 4:50	506
Maintenance Outage	41	6/24/2025 9:15	345	5/31/2025 23:55	89
Forced Outage	1,280	6/11/2025 22:40	3,186	5/30/2025 18:15	2,016
Deactivated Shutdown	33	5/26/2025 0:05	33	5/26/2025 0:05	33

Annex E-1. Supply and Demand (Quarterly)

	1st Quarter 2025 (26 Dec 2024 to 25 Mar 2025)				
	Min		**Max**		**Average**
	(in MW)	Date and Time Interval	(in MW)	Date and Time Interval	(in MW)
System Demand	8,822	12/26/2024 4:25	17,090	3/6/2025 14:50	13,139
Reserve Schedule	1,379	3/5/2025 18:30	2,214	3/12/2025 13:35	1,927
Demand plus Reserve Schedule	10,606	12/26/2024 4:25	19,248	3/6/2025 14:50	15,066
Effective Supply	12,450	1/1/2025 7:00	19,803	3/7/2025 13:55	16,119

	2nd Quarter 2025 (26 Mar to 25 Jun 2025)					**Quarter-on-Quarter % Change**
	Min		**Max**		**Average**	
	(in MW)	Date and Time Interval	(in MW)	Date and Time Interval	(in MW)	
System Demand	10,339	4/18/2025 6:55	19,052	4/23/2025 14:40	14,970	12.23% ▲
Reserve Schedule	1,471	4/20/2025 8:05	2,286	4/29/2025 13:20	2,043	5.66% ▲
Demand plus Reserve Schedule	11,978	4/18/2025 6:55	21,311	4/23/2025 14:40	17,013	11.44% ▲
Effective Supply	13,775	4/18/2025 7:25	22,102	4/22/2025 14:00	18,025	10.57% ▲

Annex E-2. Supply and Demand (Monthly)

	April 2025 (26 Mar to 25 Apr 2025)				
	Min		**Max**		**Average**
	(in MW)	Date and Time Interval	(in MW)	Date and Time Interval	(in MW)
System Demand	10,339	4/18/2025 6:55	19,052	4/23/2025 14:40	14,869
Reserve Schedule	1,471	4/20/2025 8:05	2,270	4/25/2025 15:35	2,015
Demand plus Reserve Schedule	11,978	4/18/2025 6:55	21,311	4/23/2025 14:40	16,884
Effective Supply	13,775	4/18/2025 7:25	22,102	4/22/2025 14:00	17,925

	May 2025 (26 Apr to 25 May 2025)				
	Min		**Max**		**Average**
	(in MW)	Date and Time Interval	(in MW)	Date and Time Interval	(in MW)
System Demand	11,344	1/30/2024 7:45	18,762	5/22/2025 14:20	15,345
Reserve Schedule	1,713	4/27/2025 9:20	2,286	4/29/2025 13:20	2,101
Demand plus Reserve Schedule	13,221	5/12/2025 7:50	21,027	5/22/2025 14:20	17,446
Effective Supply	14,853	5/12/2025 7:10	21,814	4/29/2025 14:35	18,445

	June 2025 (26 May to 25 Jun 2025)				
	Min		**Max**		**Average**
	(in MW)	Date and Time Interval	(in MW)	Date and Time Interval	(in MW)
System Demand	11,185	6/8/2025 6:05	18,729	5/27/2025 14:20	14,707
Reserve Schedule	1,651	6/6/2025 6:05	2,268	5/26/2025 13:10	2,015
Demand plus Reserve Schedule	12,908	6/8/2025 6:05	20,983	5/27/2025 14:20	16,722
Effective Supply	14,147	6/8/2025 6:15	21,791	5/27/2025 14:15	17,717

Annex F. Load Weighted Average Prices

Load Weighted Average Prices (Quarterly)

	1st Quarter 2025 (26 Dec 2024 to 25 Mar 2025) (in PHP/MWh)			2nd Quarter 2025 (26 Mar to 25 Jun 2025) (in PHP/MWh)			Quarter-on-Quarter % Change
	Min	Max	Average	Min	Max	Average	
System	(10,182.50)	51,285.70	3,825.41	(10,466.61)	51,759.75	4,327.31	13.12%▲

Load Weighted Average Prices (Monthly)

	April 2025 (26 Mar to 25 Apr 2025)			May 2025 (26 Apr to 25 May 2025)			June 2025 (26 May to 25 Jun 2025)		
	Min	Max	Average	Min	Max	Average	Min	Max	Average
System	(10,263.10)	51,759.75	4,789.03	(10,466.61)	25,078.37	4,170.89	(10,095.69)	28,342.74	4,018.43
Luzon	(10,265.99)	56,218.46	4,847.14	(10,407.00)	33,463.24	4,376.87	(10,042.47)	32,014.00	4,064.99
Visayas	(10,153.03)	55,154.65	4,856.86	(10,453.50)	32,712.80	3,960.97	(10,152.78)	34,323.08	4,129.08
Mindanao	(10,659.02)	30,219.21	4,427.47	(10,793.00)	27,391.55	3,278.59	(10,853.94)	18,537.27	3,676.16

Zonal Prices (Monthly)

	April 2025 (26 Mar to 25 Apr 2025)	May 2025 (26 Apr to 25 May 2025)	June 2025 (26 May to 25 Jun 2025)
Luzon			
Northern Luzon	4,238.76	4,453.86	4,105.17
Metro Manila	4,232.12	4,419.17	4,137.62
Southern Luzon	4,069.98	4,245.37	3,959.75
Visayas			
Bohol	4,229.91	3,727.05	4,148.83
Cebu	4,169.51	3,957.85	4,105.40
Leyte	4,272.26	3,311.99	4,002.09
Negros	4,131.75	3,929.20	4,090.44
Panay	4,345.44	4,076.32	4,256.91
Mindanao			
Lanao	3,471.92	2,952.74	3,323.97
North Central	3,633.54	3,079.09	3,425.82
North-East	4,029.41	3,407.09	3,941.62
North-West	4,184.49	3,549.05	3,854.12
South-East	3,806.45	3,241.69	3,653.49
South-West	3,858.07	3,303.13	3,715.03