Over-riding Constraints Report for 4th Quarter of 2024

26 September to 25 December 2024

February 2025

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

EXECUTIVE SUMMARY

This report provides the results of the monitoring of over-riding constraints imposed by the System Operator (SO) on generators during the fourth quarter of 2024. The findings highlight trends and significant changes in the impositions across different regions and plant types in comparison with 2023.

For the 4th quarter of 2024, the total number of over-riding constraints imposed by the SO saw a minimal decline compared to the previous quarter. Despite this slight reduction, the overall trend remained consistent with previous reports, with non-security limits continuing to dominate the total impositions.

Security limit impositions were all associated with Must-Run Units (MRUs) for oil-based plants. The deployment of MRUs—primarily to support voltage stability in the Mindanao region—increased compared to the previous quarter. Meanwhile, commissioning tests remained the leading cause of non-security limit impositions. A decline in commissioning test-related impositions was recorded compared to the previous quarter, driven by the completion of commissioning tests for various solar, hydro, and coal plants.

A year-on-year comparison showed that commissioning test-related constraints surged by 264% compared to the same period last year. The system-wide total number of impositions increased by 103% year-on-year, primarily due to: i) the entry of new power plants into the market, and ii) extended testing periods for certain facilities.

It can also be observed that over-riding constraints peaked between 0500h and 2000h, following a trend similar to previous quarters. The peak period was largely driven by:

- Solar plant commissioning tests, which must be conducted during daylight hours.
- Commercial and regulatory compliance tests, which are typically scheduled during peak demand hours for accurate performance assessments.

Additionally, renewable energy plants accounted for the highest number of constraints, with solar, wind, and hydro plants experiencing the most impositions.

During this billing period, the Market Surveillance Committee (MSC) has noted multiple extensions of commissioning tests, despite the prescribed two-month allowable period with a one-month extension in the Department of Energy's (DOE's) Department Circular[1]. In response to these ongoing trends, the MSC has formally communicated its concerns to the DOE and the Energy Regulatory Commission (ERC). In addition, the MSC reiterated its long-standing recommendations (initially proposed in 2016) to the ERC and the Grid Management Committee (GMC) to re-evaluate the allowable commissioning periods for power plants, and establish differentiated commissioning timelines based on plant type, technology, and complexity to ensure more efficient and enforceable testing schedules.

[1] DOE Department Circular No. DC2021-06-0013 entitled "Adopting a General Framework Governing the Test and Commissioning of Generation Facilities for Ensuring Readiness to Deliver Energy to the Grid or Distribution Network"

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1. OVER-RIDING CONSTRAINTS MONITORING

In accordance with Clause 1.6.2 of the WESM Rules and Sections 3.1 and 5.5 of the Market Surveillance Manual, the Market Surveillance Committee (MSC) shall undertake an assessment and analysis of the results of the monitoring of over-riding constraints[2] imposed by the System Operator (SO) on generators. Hence, this report is prepared covering the period of the 4th quarter of 2024 (26 September to 25 December 2024).

1.1. Over-riding Constraints by Category

For the quarter in review, a minimal decline of 0.73% (equivalent to 2,567 fewer impositions) was observed in the total number of over-riding constraints by the SO compared to the previous period. Despite this minimal reduction, the overall trend in impositions remained consistent with prior quarterly and monthly reports, where non-security limits continued to dominate. As shown in Table 1, majority (96%) of the impositions[3] were categorized as non-security limits.

The remaining 4% of impositions were classified as security limits, all of which were associated with Must-Run Units (MRUs) for oil-based plants. The use of MRUs—mainly to support voltage stability requirements—experienced a notable 29% increase compared to the previous quarter.

A sudden spike in over-riding constraints was recorded towards the end of the 4th quarter, as illustrated in Figure 1. This increase can be attributed to several reasons, including the entry of new generation capacities requiring commissioning tests or several other tests necessary for commercial or regulatory requirements. A more detailed analysis of these drivers is discussed in Section 1.2 of the report).

Table 1. Summary of Over-riding Constraints by Category

By Category	Q3				Q4				Change (Q-on-Q)	
	July	August	September	Total	October	November	December	Total	Diff	% Change
Non-Security Limit	121,190	116,534	101,643	339,367	106,167	99,953	127,500	333,620	▼ - 5,747	▼ -1.69%
Security Limit	3,466	4,196	3,341	11,003	4,711	4,997	4,475	14,183	▲ 3,180	▲ 28.90%
Total	**124,656**	**120,730**	**104,984**	**350,370**	**110,878**	**104,950**	**131,975**	**347,803**	**▼ - 2,567**	**▼ -0.73%**

[2] WESM Rules Clause 3.5.13.1 states that the SO may require the Market Operator (MO) to impose constraints on the power flow, energy generation of a specific facility in the grid to address system security threat, to mitigate the effects of a system emergency, or to address the need to dispatch generating units to comply with systems, regulatory and commercial tests requirements.

[3] The monitoring of the over-riding constraints on generators is done on a per generator trading node per trading interval. A constraint imposed on a generator trading node on a particular trading interval is considered as one **over-riding constraints**. The monitoring of the over-riding constraints is based on the data and information provided by MO (i.e., real time market results and MMS-input files on security limits) and SO (i.e., SO Data for Market Monitoring).

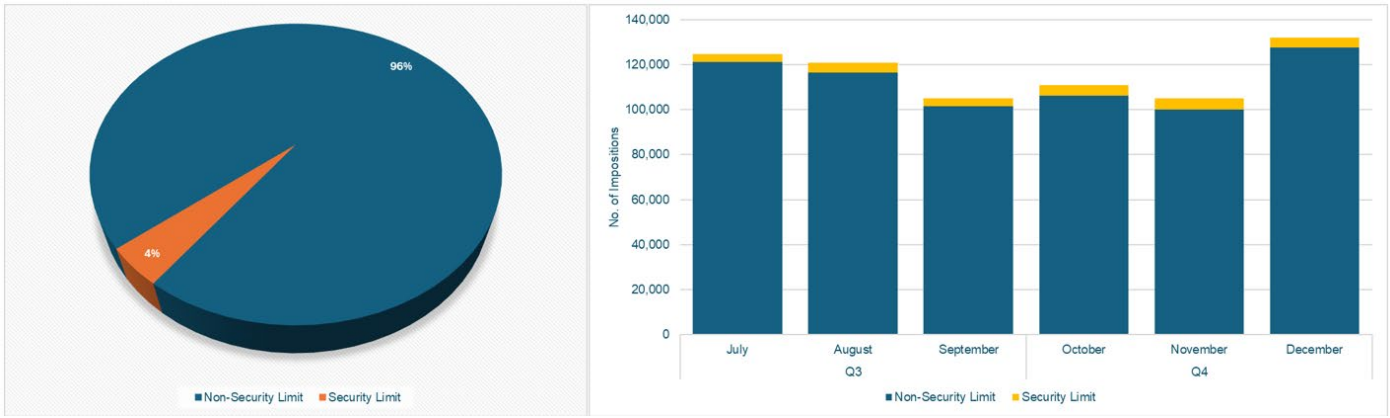

Figure 1. Monthly Comparison of Over-riding Constraints, by Category

As depicted in Figure 2, a significant contributor to the increase in over-riding constraints was the increasing number of power plants subjected to impositions related to the conduct of commissioning tests. The influx of newly-built generation facilities entering the WESM resulted in heightened SO impositions to accommodate testing requirements while maintaining grid stability.

Furthermore, the slight but continuous rise in impositions at the start of the quarter was linked to the extension of Provisional Certificates of Approval to Connect (PCATCs). These extensions were granted to power plants to continue undertaking commissioning tests beyond the prescribed period under the DOE Department Circular (DC), either due to delays in technical validation, additional testing requirements, or regulatory compliances. The reasons for these PCATC extensions are further discussed in Section 1.4 of the report. Meanwhile, the dip in November was related to the completion of commissioning testing recorded during the period.

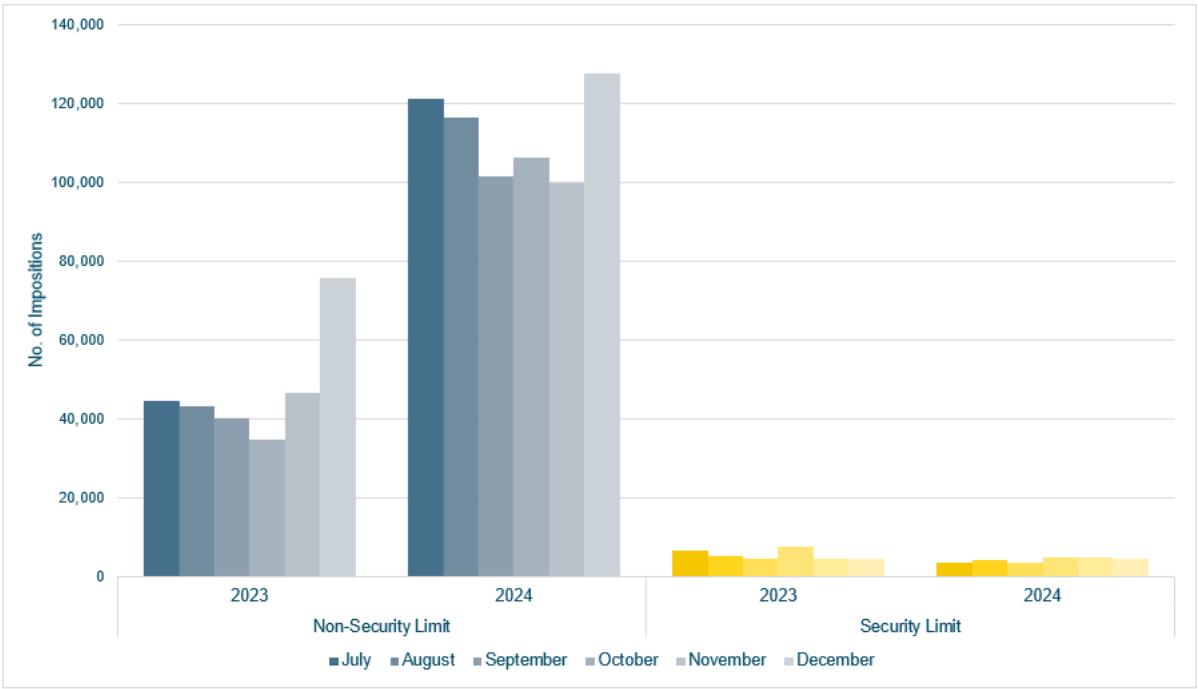

Figure 2. Comparison of Over-riding Constraints by Category, 2023 vs 2024

Most over-riding constraints were recorded in Luzon, which accounted for 77% of total system

impositions. The Visayas region followed, contributing 17%, while Mindanao had the smallest share at 6%. The relatively lower impositions in Mindanao were mainly due to MRU-related dispatches, where oil-based plants were scheduled to maintain voltage stability in certain areas.

While a dip in impositions was observed in November, a sharp increase occurred towards the end of the year, driven by the addition of newly commissioned plants and those conducting performance tests. This pattern aligns with observations where commissioning-related constraints tend to rise in the final months of the year since 2023, which may be related to participants' goal to complete their testing phases before the next operational period.

Generally, there was a minimal decline in the total number of impositions during Q4 2024. However, a closer look at monthly trends reveals that the December billing period recorded the highest number of constraints in the second half of the year[4].

Table 2. Summary of Over-riding Constraints by Category per Region

By Category	Q3				Q4				Change (Q-on-Q)	
	July	August	September	Total	October	November	December	Total	Diff	% Change
Luzon	101,961	90,550	73,491	266,002	84,659	79,496	102,536	266,691	▲ 689	▲ 0.26%
Visayas	10,670	15,311	19,283	45,264	17,277	19,727	23,185	60,189	▲ 14,925	▲ 32.97%
Mindanao	12,025	14,869	12,210	39,104	8,942	5,727	6,254	20,923	▼ - 18,181	▼ -46.49%
Total	**124,656**	**120,730**	**104,984**	**350,370**	**110,878**	**104,950**	**131,975**	**347,803**	▼ **- 2,567**	▼ **-0.73%**

Compared to the previous quarter, a notable surge in constraints in the Visayas region was observed toward the end of the period under review. This rise was primarily driven by the entry of new power plants into the region and the subsequent need for plant-related system adjustments during their commissioning tests. In contrast, Mindanao saw a significant decline in constraints, largely due to a reduction in MRU-related impositions and the completion of commissioning tests for certain plants. (See Figure 3).

Despite an initial decline from October to November in constraints in the early part of the quarter, the total number of impositions surged again towards the end of the period. This was driven by the issuance of PCATCs for new plants entering the WESM, allowing them to conduct commissioning tests, in addition to extended PCATCs for existing plants still undergoing compliance testing.

This indicates a surge in the number of imposed constraints on power plants, where energy generation was needed to address system security threats or comply with plant-related systems adjustments, regulatory, and commercial test requirements.

[4] https://www.wesm.ph/market-outcomes/over-riding-constraints-report/quarterly-over-riding-constraints-report

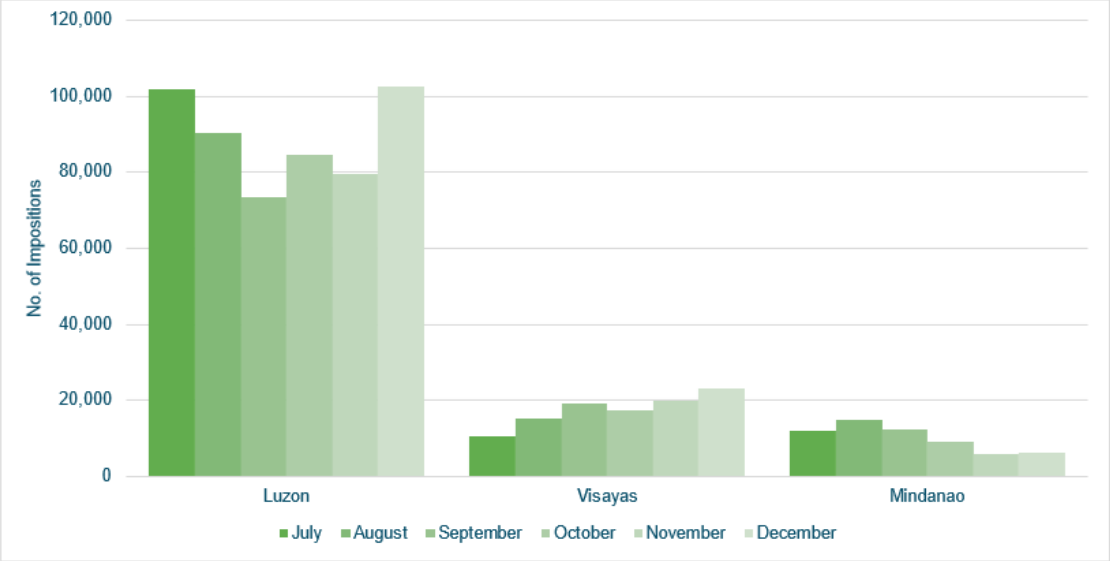

Figure 3. Monthly Comparison of Over-riding Constraints, by Region

1.2. Over-riding Constraints by Incidents

A detailed classification of over-riding constraints impositions (as shown in Table 3) reveals that in the 4th quarter of the year, all security limit incidents were imposed on oil-based plants designated as Must Run Units (MRUs). This observation is consistent with previous quarters, where MRUs were required primarily to support system voltage requirements in the Mindanao region. For non-security limits, the conduct of commissioning tests remained the primary reason for over-riding constraint impositions. These tests were either related to the entry of new power plants into the market or extensions of commissioning periods for existing plants that had not yet secured final approval. Additionally, various commercial and regulatory compliance tests also contributed to the substantial share of over-riding constraints during the period under review.

Table 3. Summary of Over-riding Constraints by Incidents

	Q3				Q4			
Incidents	**July**	**August**	**September**	**Total**	**October**	**November**	**December**	**Total**
Per Security Limit								
Must Run Units	3,466	4,196	3,341	**11,003**	4,711	4,997	4,475	**14,183**
Total	***3,466***	***4,196***	***3,341***	11,003	***4,711***	***4,997***	***4,475***	14,183
Per Non-security Limit								
Testing and Commissioning	111,829	109,256	94,999	**316,084**	96,848	92,024	109,296	**298,168**
Commercial and Regulatory Requirements	9,361	7,278	6,644	**23,283**	9,319	7,929	18,204	**35,452**
Total	***121,190***	***116,534***	***101,643***	339,367	***106,167***	***99,953***	***127,500***	333,620
Grand Total	***124,656***	***120,730***	***104,984***	***350,370***	***110,878***	***104,950***	***131,975***	***347,803***

The number of commissioning test-related impositions initially declined due to the issuance of Final Certificates of Approval to Connect (FCATCs) for various solar and hydro plants, which had successfully completed their required testing phases. The drop was also partially due to some plants postponing or not conducting tests (see Figure 4).

However, despite this initial decline, a sharp increase in over-riding constraints was observed towards the end of the quarter, driven by:

- An influx of ancillary services testing, particularly for hydro and battery plants; and
- Performance tests for hydro plants, notably the Angat Hydroelectric Power Plant Unit A, which conducted Pmax capability tests in preparation for Grid Compliance Testing (GCT), a critical step for commercial operations.

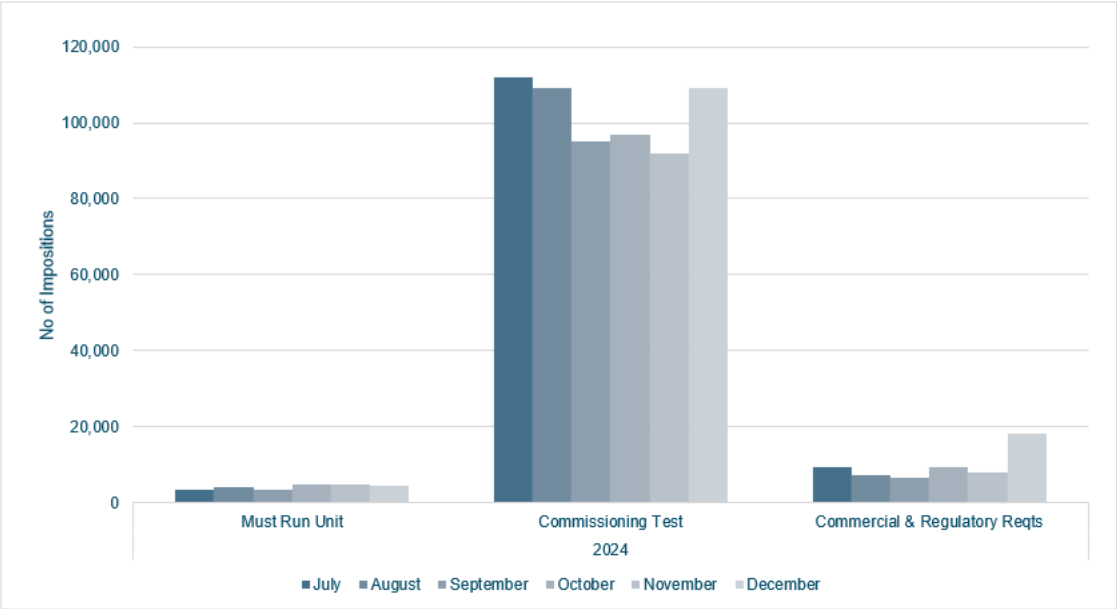

Figure 4. Monthly Comparison of Over-riding Constraints, by Incidents

A comparison with the same period last year (see Figure 5) shows a significant increase in constraints related to commissioning tests, marking a 264% surge year-on-year. Meanwhile, system-wide impositions posted a 103% increase for the period in review, reflecting:

- The entry of more power plants into the market.
- Extended testing periods for certain facilities.

The number of power plants/facilities subjected to over-riding constraints for commercial and regulatory tests increased, aligning with the observed rise on the similar period of 2023. Similar trend but the actual recorded impositions in 2024 are much lower as compared with the same period last year.

Minimal decline in the impositions related to MRUs from last year was noted at about 3%. However, system voltage issues in Mindanao remained a persistent challenge, continuing the trend from previous quarters.

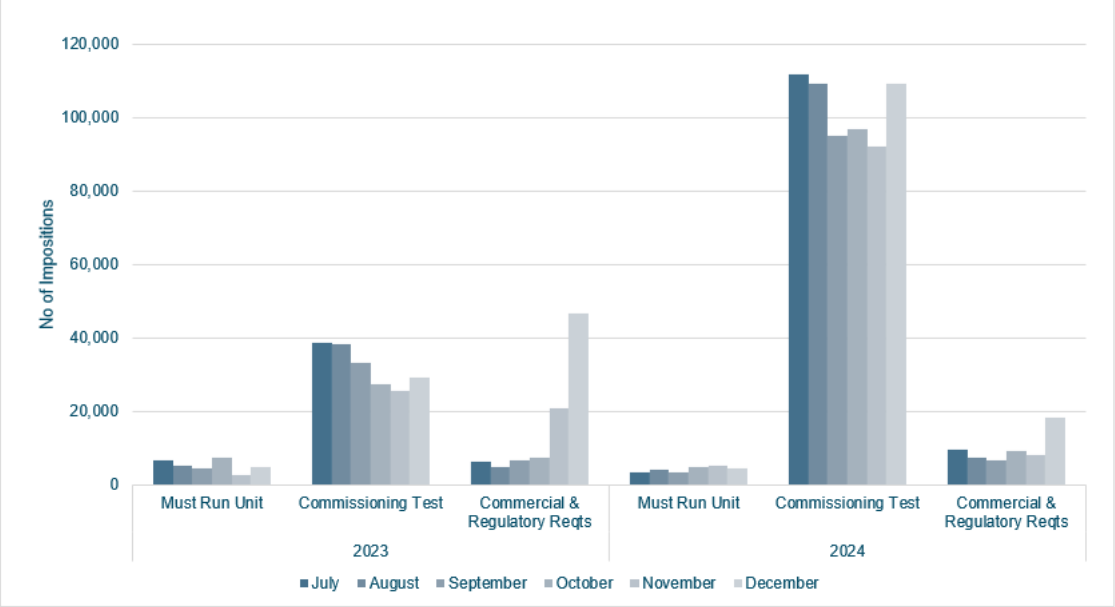

Figure 5. Comparison of Over-riding Constraints by Incidents, 2023 vs 2024

Table 4. Year-on-Year Comparison of Over-riding Constraints per Incidents

Incidents	Year-on-Year Comparison		
	Must Run Unit	Commissioning Test	Commercial & Regulatory Reqts
July	▼ -3,125	▲ 73,336	▲ 3,251
August	▼ -914	▲ 70,947	▲ 2,338
September	▼ -1,146	▲ 61,723	▼ -49
October	▼ -2,701	▲ 69,568	▲ 2,027
November	▲ 2,393	▲ 66,338	▼ -12,900
December	▼ -153	▲ 80,279	▼ -28,562

Examining the types of tests that were imposed as over-riding constraints, commissioning tests remained the leading cause of impositions throughout the year. However, MRU dispatches and performance tests alternated in the second place, both experienced respective increases compared to the previous quarter.

Notably, the decline in commissioning test-related impositions was due to the successful completion of tests and the issuance of FCATCs for solar, hydro, and coal plants. Performance test-related impositions surged by 116% quarter-on-quarter, mainly due to Angat Hydroelectric Power Plant Unit A, which conducted a Pmax capability test as part of its Grid Compliance Testing (GCT). Despite the dip observed in Q3 2024, impositions attributed to Ancillary Services testing remained among the top five reasons for over-riding constraints. Additionally, there was a significant decline in impositions related to the Net Contracted Capacity (NCC) test, mainly due to the completion of testing for six units of the Sta. Rita Natural Gas Plant, which had been subjected to over-riding constraints in July 2024.

The next most common reasons for over-riding constraints include capacity/capability tests,

emission compliance tests, and grid compliance tests. These categories, however, recorded significantly lower numbers compared to commissioning and performance tests.

Table 5. Quarterly Comparison of Over-riding Constraints per Specific Tests

By Incidents	Q3				Q4				Q-on-Q Comparison
	July	August	September	Total	October	November	December	Total	
Ancillary Service Test	3,053	1,164	877	5,094	3,834	1,887	3,650	9,371	4,277
Capacity Test	-	-	433	433	-	-	-	-	-433
NCC Test	1,726	-	-	1,726	-	-	539	539	-1,187
NDC Test	576	-	-	576	75	-	-	75	-501
Capability Test	191	-	329	520	297	-	191	488	-32
Commissioning Test	111,949	109,256	94,999	316,204	96,848	92,024	109,296	298,168	-18,036
Emission Test	1,030	3,036	1,191	5,257	2,297	1,498	1,358	5,153	-104
Grid Compliance Test	-	283	478	761	168	418	79	665	-96
MRU	3,466	4,196	3,341	11,003	4,711	4,997	4,475	14,183	3,180
Performance Test	2,665	2,792	3,336	8,793	2,648	4,030	12,303	18,981	10,188
Heat Rate Test	-	-	-	-	-	96	84	180	180
ERC Audit	-	3	-	3	-	-	-	-	-3
Total	**124,656**	**120,730**	**104,984**	**350,370**	**110,878**	**104,950**	**131,975**	**347,803**	**-2,567**

As shown in Figure 6, the distribution of over-riding constraints throughout the day follows a pattern similar to the previous quarter. Impositions normally experience peak during the early morning and extend until early evening, specifically starting at 0500h and gradually declining after 2000h. This trend is largely due to:

- The fact that commissioning tests of solar plants need to be conducted during daylight hours.
- Conducting commercial and regulatory compliance tests to schedule them during peak demand hours, ensuring they can accurately assess operational performance under real market conditions.

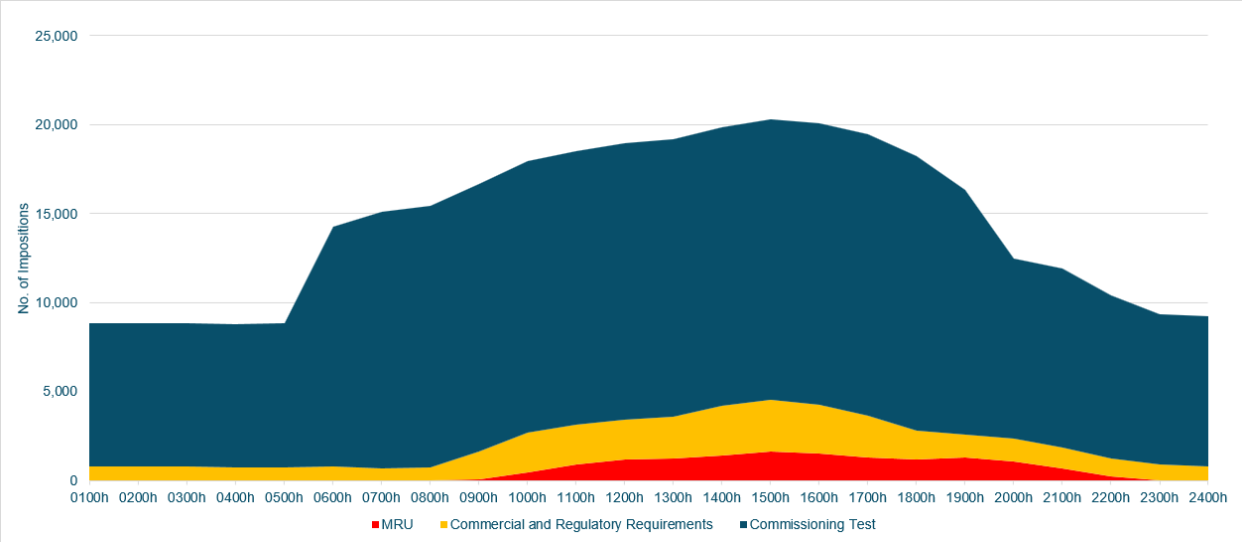

Figure 6. Hourly Profile of Over-riding Constraints Imposition per Incident

1.3. Over-riding Constraints by Plant Type

During the 4th quarter of 2024, renewable energy (RE) plants continued to account for the highest number of over-riding constraints. Solar plants topped the list, contributing 28% of the total

impositions. This dominance was largely attributable to the extended commissioning tests conducted during the period. Wind and hydro plants followed at 20% and 19%, respectively, while geothermal plants accounted for a smaller share at 8%.

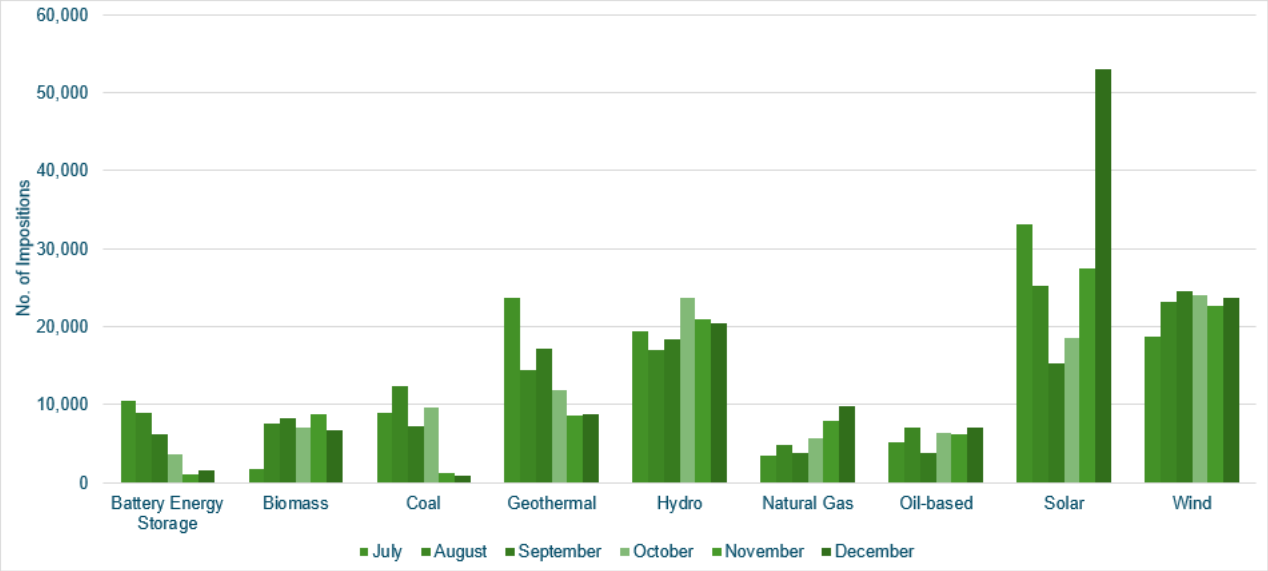

Figure 7. Over-riding Constraints by Plant Type, Q3 to Q4 2024

Table 6. Quarterly Comparison of Over-riding Constraints by Plant Type

Plant type	Q3				Q4				Q-on-Q
	July	August	September	Total	October	November	December	Total	Comparison
Battery Energy Storage	10,494	8,906	6,222	25,622	3,630	1,004	1,519	6,153	-19,469
Biomass	1,788	7,636	8,248	17,672	7,076	8,820	6,801	22,697	5,025
Coal	8,910	12,465	7,236	28,611	9,600	1,323	858	11,781	-16,830
Geothermal	23,651	14,420	17,126	55,197	11,931	8,640	8,848	29,419	-25,778
Hydro	19,380	16,994	18,443	54,817	23,721	20,962	20,505	65,188	10,371
Natural Gas	3,511	4,804	3,823	12,138	5,778	7,880	9,849	23,507	11,369
Oil-based	5,191	7,162	3,896	16,249	6,462	6,216	7,008	19,686	3,437
Solar	33,053	25,234	15,362	73,649	18,597	27,442	52,929	98,968	25,319
Wind	18,678	23,109	24,628	66,415	24,083	22,663	23,658	70,404	3,989
Total	**124,656**	**120,730**	**104,984**	**350,370**	**110,878**	**104,950**	**131,975**	**347,803**	**-2,567**

Compared to the previous quarter, impositions on solar plants increased by 34%, primarily due to 1) the issuance of PCATCs for new power plants entering the market; and 2) the additional PCATC extensions granted to existing plants still undergoing commissioning tests. This trend underscores the continuous expansion of solar generation capacity and the accompanying compliance requirements before full commercial operations.

Wind plant-related impositions increased by 6% compared to the previous quarter, concentrated in the same three wind plants:

- Balaoi and Caunayan Wind Power Project Phase 1
- Caparispisan II Wind Power Project
- Nabas Wind Power Plant Phase 2 (Nabas-2)

While RE plants dominated the impositions, notable increases were observed in constraints affecting natural gas and oil-based plants:

- The increase in natural gas plant impositions was largely attributed to the continuous commissioning testing of Batangas Combined Cycle Power Plant Unit 1 and 2 throughout the period.
- Impositions for oil-based plants surged due to their designation as MRUs to address system voltage requirements in the Mindanao region. This reflects the ongoing challenge of maintaining voltage stability, especially in areas with limited reactive power support from generating sources.

Meanwhile, impositions related to Battery Energy Storage System (BESS) were primarily due to commissioning tests; however, the total number of impositions decreased compared to the previous quarter. In addition, a decline for coal plant-related impositions was observed following the completion of commissioning tests for Mariveles Coal-fired Thermal Power Plant Unit 4. The plant successfully secured its Final Certificate of Approval to Connect (FCATC) on 18 October 2024, allowing it to transition to full commercial operations.

Impositions on geothermal plants also declined, primarily due to lower or intermittent constraints on plants under commissioning tests. This variability may be attributed to a combination of factors, including:

- Phased testing schedules, where plants were not consistently subjected to constraints throughout the period.
- Operational adjustments, such as plant output modifications or temporary postponement of testing due to grid conditions.

1.4. Plants under Commissioning Test

As part of its mandate under the Market Surveillance Manual (MSM) to regularly monitor over-riding constraints, particularly for plants under commissioning tests, the Market Surveillance Committee (MSC) consistently coordinates with both the Market Operator (MO) and the System Operator (SO). These coordination efforts verify the reasons for extended tests, ensuring transparency and compliance. The responses received are recorded and maintained by the Market Assessment Group (MAG) to facilitate market monitoring and assessment.

Section 4.7.1 of Department Circular No. 2024-08-0022 stipulates that when a generation facility experiences unsatisfactory test and commissioning results due to technical issues or internal challenges, the Transmission Network Provider (TNP) or the Distribution Utility (DU) may extend the validity of the PCATC for a maximum of one (1) month following the evaluation of results. However, this extension is subject to the availability of a testing schedule, as confirmed by the TNP or DU.

Consistent with previous billing periods, the conduct of commissioning tests remained the primary driver of over-riding constraint impositions throughout the covered period. However, compared to the previous quarter, there was a 6% decline in the total number of impositions related to commissioning tests. This reduction was mainly due to the completion of the commissioning period

for various solar, hydro, and coal plants.

While the Department Circular prescribes a two-month commissioning period with a one-month allowable extension, the MSC continues to note multiple extensions for several plants since the start of 2024. This ongoing trend raises concerns about potential inefficiencies in the commissioning process and the need for stricter enforcement of regulatory timelines.

In response to these observations, the MSC has formally communicated with both the Department of Energy (DOE) and the Energy Regulatory Commission (ERC). The letters sent to these regulatory bodies include:

- A consolidated report on power plant responses regarding commissioning test extensions.
- A status update on plants currently under commissioning tests.
- A summary of observed extension trends and their market implications.

Additionally, the MSC reiterated its long-standing recommendations (first raised in 2016) to the ERC and the Grid Management Committee (GMC) to re-evaluate the allowable commissioning test periods for various types of power plants, and establish differentiated commissioning timelines based on plant type, technology, and complexity to ensure realistic yet enforceable testing periods. These recommendations aim to encourage realistic and transparent commissioning phases, and prevent any significant effect on market operations, system planning and overall grid stability. Since 2015, the MSC has actively engaged with SO and concerned power plants regarding over-riding constraint impositions due to commissioning tests. This ongoing coordination has been instrumental in identifying trends and refining regulatory interventions.

During the covered period, the MSC continued to observe plants undergoing prolonged commissioning tests with multiple PCATC extensions. Examining the profile of these plants at the end of the review period, wind plants had the highest number of multiple extensions, with one plant conducting commissioning tests for up to 19 months with a capacity of 80 MW. Wind plants under commissioning tests had capacities ranging from 13 MW to 80 MW.

Solar plants followed, having the largest share of over-riding constraints during the period. As of December 2024, there were three solar power plants with recorded extensions of their respective PCATC. The longest extension among these was up to 8 months, involving a plant with a capacity of 62.7 MW.

Aside from these renewable plants, one geothermal plant with a 31 MW capacity had an extension of up to 11 months. Meanwhile, two natural gas power plants recorded multiple extensions of up to 5 months each. These plants had the largest recorded capacities among those conducting commissioning tests, with 440 MW each. The remaining plants under extended commissioning tests had extensions ranging from 1 to 8 months.

Figure 8 shows the profile of plants under commissioning tests for the past six (6) months wherein it can be observed that solar plants continued to dominate the share of commissioning test-related impositions, but the numbers gradually declined towards the end of the quarter. This suggests that more solar projects have successfully completed their commissioning phase. Wind plants, on the other hand, experienced an increasing share of commissioning test-related impositions, indicating a

wave of new wind projects undergoing grid integration.

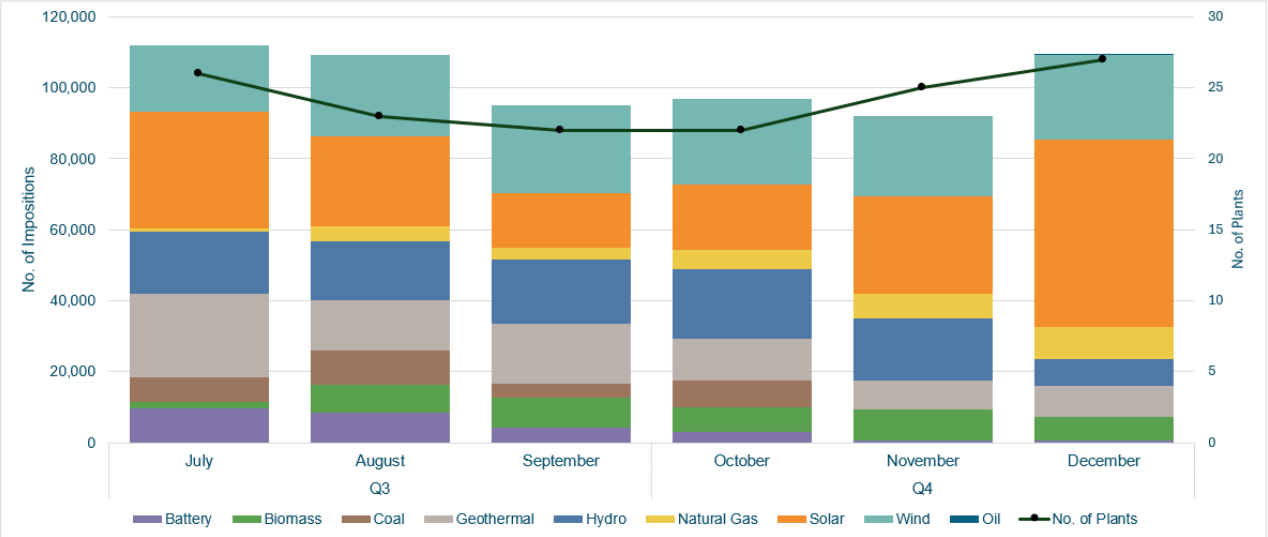

Figure 8. Monthly Comparison of Over-riding Constraints due to Commissioning Test and the Corresponding Number of Power Plants

Figure 9 shows the average scheduled capacity across all regions during the covered period under commissioning tests. The negative scheduled capacity recorded in Luzon and Mindanao are related to the conduct of testing of BESS' charging capabilities. Overall, the average capacities imposed with over-riding constraints was recorded ranging from 2.49 MW to 41.87 MW.

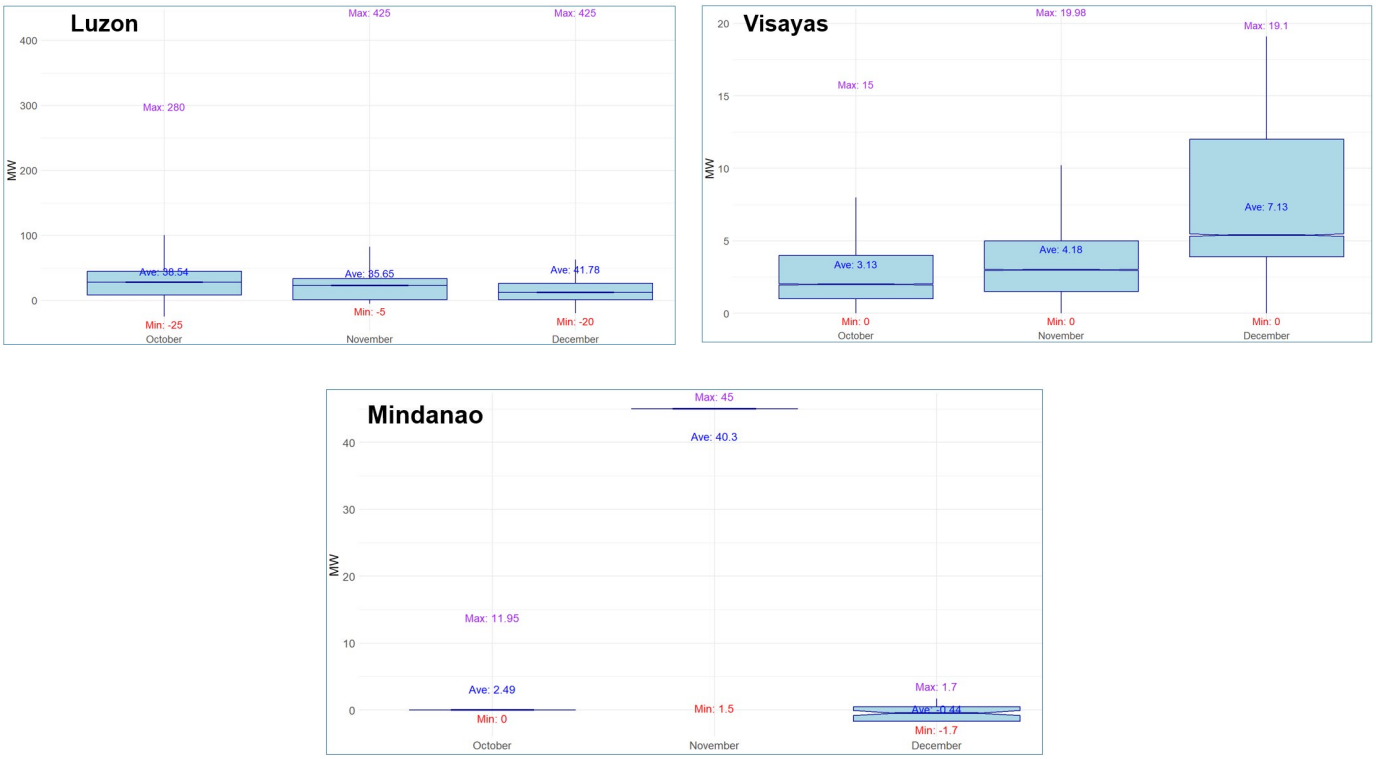

Figure 9. Monthly Scheduled Capacities of Over-riding Constraints due to Commissioning Test, Per Region

ANNEX A. List of Plants with Impositions due to Commissioning Test from Q3 to Q4 2024

Participant Name	Resource ID	Facility Name	Plant Type	July	August	September	October	November	December
SMGP BESS Power Inc.	01LIMAY_BAT	47.486 MW Bataan Battery Energy Storage System (BESS)Market	BAT	✓	✓				
SMGP BESS Power Inc.	01MAGAPIT_BAT	(+/-) 40 MW Magapit Battery Energy Storage System	BAT				✓		
SMGP BESS Power Inc.	01CNCEP_BAT	72.281 MW Concepcion Battery Energy Storage System (BESS)	BAT						
Mariveles Power Generation Corporation	01MPGC_U02	Mariveles Coal-fired Thermal Power Plant Unit 2	COAL						
Angat Hydropower Corporation	01ANGAT_A	Angat Hydroelectric Power Plant Unit A	HYD			✓	✓	✓	
BEHMC Lower Labayat Hydropower Corp.	03LWERLAB_G01	1.400 MW Lower Labayat Hydroelectric Power Plant	HYD						
Prime Meridian PowerGen Corporation	03AVION_U01	San Gabriel Avion Natural Gas-Fired Power Plant Unit 1	NATG			✓			
Solar Philippines Tarlac Corporation	01CONSOL_G01	Concepcion 1 Solar Power Project	SOLR	✓	✓	✓	✓	✓	✓
PH Renewables, Inc.	02PNGYSOL_G01	95.827 MWp Pinugay Solar Power Plant	SOLR			✓			
PV Sinag Power Inc.	01CAYBSOL_G01	94.717 MWp Cayanga-Bugallon Solar Power Plant	SOLR		✓				
Trustpower Corporation	01TRUSTSOL_G01	20.888 MWp Trust Solar Power Plant	SOLR						
Natures Renewable Energy Devt. (NAREDCO) Corpor	01CAGYSOL_G01	133.464 MWp Cagayan North Solar Power Plant	SOLR	✓					
Pavi Green Bataan Renewable Energy, Inc.	01PAVGSOL_G01	20.397 MWp Orion Solar Power Plant	SOLR	✓	✓				
Santa Cruz Solar Energy Inc.	01SNMARSOL_G01	384.781 MW San Marcelino Solar Power Project	SOLR						
Bayog Wind Power Corp.	01BALWIND_G01	80.000 MW Balaoi and Caunayan Wind Power Project Phase 1	WIND	✓	✓	✓	✓	✓	✓
Bac-Man Geothermal Inc.	03PALAYAN_G01	35.700 MW Palayan Binary Power Plant	GEO	✓		✓	✓	✓	✓
Cotabato Sugar Central Company, Inc.	14COTSUGR_G01	9.900 MW Cotabato Cogeneration Power Plant	BIO						
Mariveles Power Generation Corporation	01MPGC_U03	Mariveles Coal-fired Thermal Power Plant Unit 3	COAL	✓					
Biliran Geothermal Incorporated	04BILGPP_G01	2.000 MW (Phase 1) Biliran Geothermal Power Plant Project	GEO	✓					
BOHECO I Sevilla Mini Hydro Corp.	07SEVILL_G01	BOHECO I Sevilla Mini Hydro Power Plant	HYD						
Matuno River Development Corporation	01MATUNO_G01	Matuno River Hydroelectric Power Plant	HYD	✓	✓	✓			
Jobin-SQM Inc.	01SUPSOL_G01	72.128 MWp Subic New PV Power Plant Project	SOLR	✓	✓	✓	✓	✓	✓
Amihan Renewable Energy Corp.	01CAPRIS_G02	Caparispisan II Wind Power Project	WIND	✓	✓	✓	✓	✓	✓
SMGP BESS Power Inc.	01GAMU_BAT	45.758 MWh Gamu Battery Energy Storage System (BESS)	BAT	✓	✓	✓	✓	✓	✓
Central Azucarera de San Antonio	08CASA_G02	8.000 MW (Unit 2) Biomass Co-Generation Power Plant	BIO						
Hydrocore Corp.	01IBULAO_G01	4.500 MW Ibulao Hydroelectric Power Project	HYD	✓	✓				
PV Sinag Power Inc.	01LAOSOL_G01	72.020 MWp Laoag Solar Power Plant	SOLR	✓	✓	✓	✓	✓	
Calabanga Renewable Energy (CARE), Inc.	03CLABSOL_G01	74.168 MWp Calabanga Solar Power Project	SOLR	✓	✓				
PetroWind Energy Inc.	08PWIND_G02	13.200 Nabas Wind Power Plant Phase 2 (Nabas-2)	WIND	✓	✓	✓	✓	✓	✓
AP Renewables Inc.	03TGPP_G01	17MW Tiwi Geothermal Binary Power Plant	GEO	✓	✓	✓	✓		✓
SMGP BESS Power Inc.	03LUMBAN_BAT	57.125 MWh Lumban Battery Energy Storage System (BESS)	BAT	✓	✓	✓	✓		✓
Siguil Hydro Power Corporation	14SIGHYDRO_G01	14.500 MW Siguil Hydroelectric Power Project	HYD	✓	✓				
Excellent Energy Resources Inc.	03EERI_G01	Batangas Combined Cycle Power Plant Unit 1	NATG	✓	✓	✓	✓	✓	✓
PH Renewables, Inc.	02PNGYSOL_G01	95.827 MWp Pinugay Solar Power Plant	SOLR	✓	✓				
Trustpower Corporation	01TRUSTBIO_G01	Biogas Power Plant (Phase 1)	BIO	✓	✓	✓	✓	✓	✓
Mariveles Power Generation Corporation	01MPGC_U04	Mariveles Coal-fired Thermal Power Plant Unit 4	COAL	✓	✓	✓	✓		
Bac-Man Geothermal Inc.	03BACMAN_U01	Bacman Geothermal Power Plant Unit 1	GEO	✓					
Energy Development Corporation (additional facility)	06BBGPP_G01	Bago Binary Geothermal Power Plant	GEO	✓	✓	✓			
Liangan Power Corporation	10LIAN_G01	Liangan Hydroelectric Power Project	HYD	✓	✓	✓	✓		
PetroWind Energy Inc.	08PWIND_G01	36.000 MW Nabas Phase I Wind Power Plant (NWPP-I)	WIND	✓					
Palm Concepcion Power Corporation	08PALM_G01	135.000 MW Circulating Fluidized Bed (CFB) Coal-Fired Power Plant (CFPP)	COAL		✓				
Excellent Energy Resources Inc.	03EERI_G03	Batangas Combined Cycle Power Plant Unit 3	NATG			✓	✓	✓	
Iraya Ventures, Inc.	04UTH_G01	14.160MW Upper Taft Hydroelectric Power Plant	HYD			✓	✓	✓	✓
First Gas Power Corporation (Sta Rita)	03STA-RI_G02	Sta. Rita Natural Gas Power Plant 2	NATG			✓			
Angat Hydropower Corporation	01ANGAT_M	Angat Hydroelectric Power Plant Unit M	HYD				✓		
Bataan Solar Energy Inc.	01BTSOLEN_BAT	0.531 MW/1.400 MWh Energy Storage System (ESS)	BAT				✓	✓	
RASLAG Corp.	01RASLAG_G04	36.646 MWp RASLAG IV Solar Power Project	SOLR				✓	✓	✓
Shizen Inc.	01SHIZEN_G01	75.214 MWP Palauig Solar Power Project	SOLR				✓	✓	✓
Sinocalan Solar Power Corp.	01DOMSOL_G01	Sto. Domingo Solar Power Plant (SDSPP)	SOLR					✓	✓
Megasol Energy 1 Inc.	01MEGASOL_G01	56.578 MWp Gamu Solar Power Project	SOLR					✓	✓
Nuevasol Energy Corp.	01NUEVASOL_G01	42.900 MWp Bongabon Solar Power Plant	SOLR					✓	✓
COLASI MINI HYDRO ELECTRIC POWER PLANT CO	03COLASI_G01	4.00 MW Colasi Mini Hydroelectric Power Plant (MHEPP)	HYD					✓	
Excellent Energy Resources Inc.	03EERI_G02	Batangas Combined Cycle Power Plant Unit 2	NATG					✓	✓
Dagohoy Green Energy Corporation	07DAGSOL_G01	27.121 MWp Dagohoy Solar Power Project	SOLR					✓	✓
Power Sector Assets & Liabilities Management Corpo	10AGUS2_U02	180 MW Agus II Hydroelectric Power Plant Unit 2	HYD					✓	
Power Sector Assets & Liabilities Management Corpo	10AGUS2_U03	180 MW Agus II Hydroelectric Power Plant Unit 3	HYD					✓	
Crystal Sugar Company, Inc	11CRYSSUG_G01	14.9MW Biomass Cogeneration Plant	BIO					✓	
Fort Pilar Energy, Inc.	09SANGALI_BAT	22.928 Sangali Battery Energy Storage System (BESS)	BAT					✓	
Tarlac Power Corporation	01TPCBUNK_G01	18.6 MW Bunker C-Fired Diesel Power Plant	OIL					✓	
RE Resources, Inc.	01ARESOL_G01	46.658MWP Armenia Solar Power Project (SPP)	SOLR					✓	
Greentech Solar Energy Inc.	01BONGSOL_G01	23.776 MWP Bongabon Solar Power Project	SOLR					✓	
San Jose Green Energy Corporation	01SJSOL_G01	19.613 MWp San Jose Solar Power Plant (SPP)	SOLR					✓	
Solar Tanauan Corporation	03MARAGSOL_G01	64.206MWp/48.118MWac Maragondon Solar Power Plant	SOLR					✓	
Solar Tanauan Corporation	03TANSOL_G01	64.206MWp/48.118MWac Tanauan Solar Power Plant	SOLR					✓	
Aboitiz Solar Power, Inc.	06CALASOL_G01	137.400 MWAC Calatrava Solar Power Project (SPP)	SOLR					✓	