

**APPLICATION OF FORECAST
ACCURACY STANDARDS TO VRE
GENERATING UNITS OPTING TO
BE CLASSIFIED AS
SCHEDULED GENERATING UNITS**

(DATE)

VENUE (TBD)

THE PROPONENT

- ACEN Corporation is a publicly listed Philippine energy company and the Ayala Group's renewable energy platform, with approximately 7 GW of attributable renewable capacity in the Philippines and the Asia-Pacific region
- Market participant with FIT eligible and merchant renewable units, participating in the WESM and long-term contracting arrangements

OUTLINE



**ACTION
REQUESTED**



**RATIONALE OF THE
PROPOSAL**



**SUMMARY OF THE
PROPOSAL**



**OTHER RELEVANT
MATTERS**

ACTION REQUESTED

We respectfully request the PEMC Board to:

- Approve the application of Forecast Accuracy Standards (FAS), in lieu of Dispatch Conformance Standards (DCS), to VRE generating units that elect scheduled generating status, thereby enabling offer-based participation in the WESM; and
- Authorize the urgent rules change process to amend the relevant provisions of the WESM Rules, Dispatch Protocol Manual, and affected Market Manuals to implement the FAS-based framework.

RATIONALE OF THE PROPOSAL

- The RE Act introduced policy mechanisms to promote RE development, including FIT, priority grid connection, and priority dispatch.
- This framework served its original purpose, but market conditions have changed with the significant increase in solar and wind capacity.
- Negative price intervals have become more frequent, exposing must-dispatch VREs to prices they cannot respond to, as price-taking resources.

RATIONALE OF THE PROPOSAL

Historically coherent

FIT ERA

Guaranteed FIT



Must-Dispatch



Protection from economic curtailment **via FIT contract**



MARKET
EVOLUTION

Need for market optionality

UNSUBSIDIZED VRE ERA

No guaranteed FIT



Economic bidding



Ability to respond to negative prices **via offers**

PROPOSAL: Scheduled VRE compliance to use existing Forecast Accuracy Standards methodology

Gives VRE a **practical pathway to economic dispatch** without imposing **thermal-generator Dispatch Conformance Standards (“DCS”)** on inherently intermittent resources

No new methodologies – uses pre-existing FAS calculations already being applied to the same power plants

RATIONALE OF THE PROPOSAL

Existing Regulatory Gap

- Under the WESM Rules, scheduled classification is available to VREs, but not viable, as it triggers DCS obligations designed for dispatchable plants.
- FAS is not expressly applied to VREs electing scheduled status, creating a compliance mismatch.
- VREs are unable to respond to negative prices and reduce uneconomic dispatch, subjecting them to financial burden.

RATIONALE OF THE PROPOSAL

Unintended Market Effects

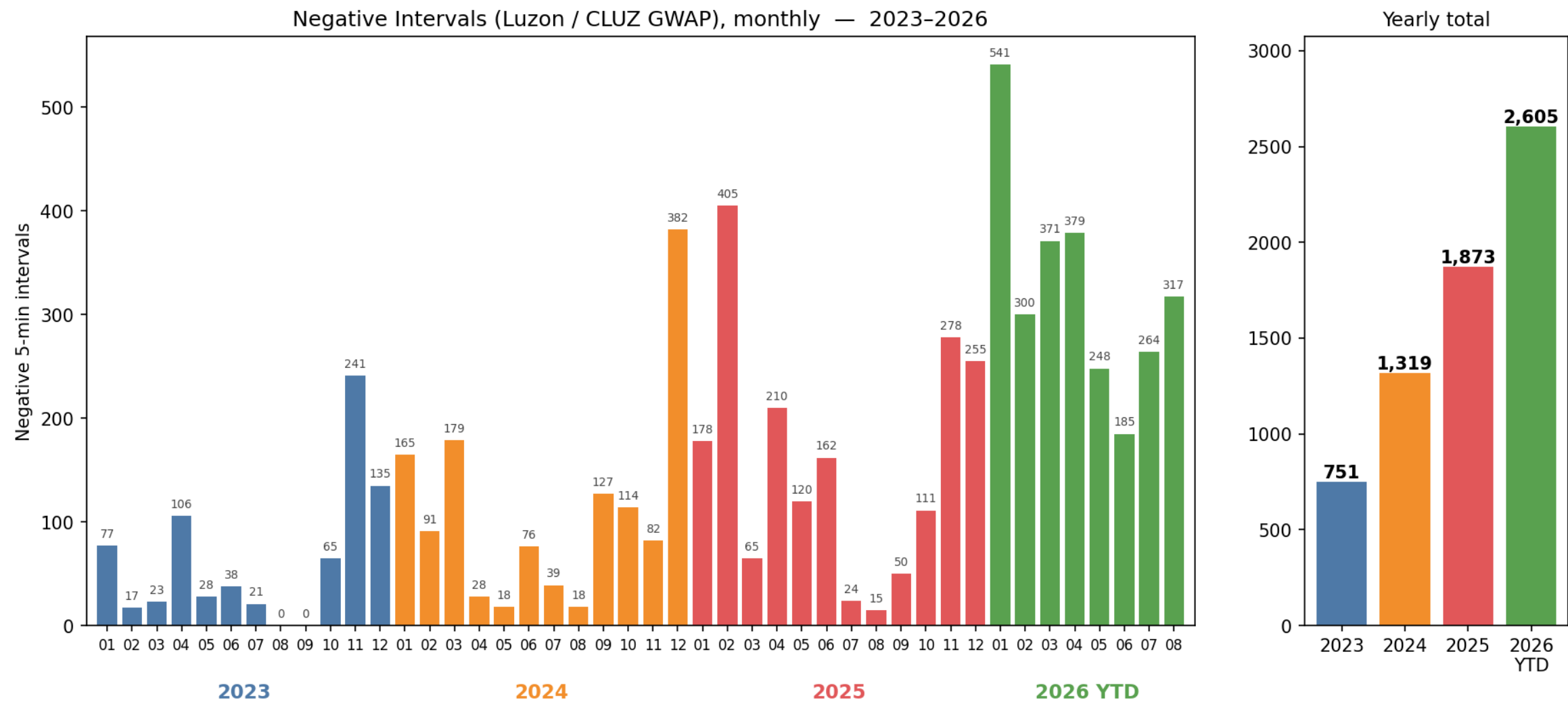
- Must-dispatch VREs must inject output even at negative prices, limiting price-based market response.
- This exposes merchant VREs to direct settlement losses when prices fall below zero.
- For FIT- and GEA-plants, the same negative price intervals widen FIT- and GEA-All recovery gaps.
- Consumers ultimately absorb the burden through higher FIT- and GEA-All recoveries.

RATIONALE OF THE PROPOSAL

Basis of Urgency

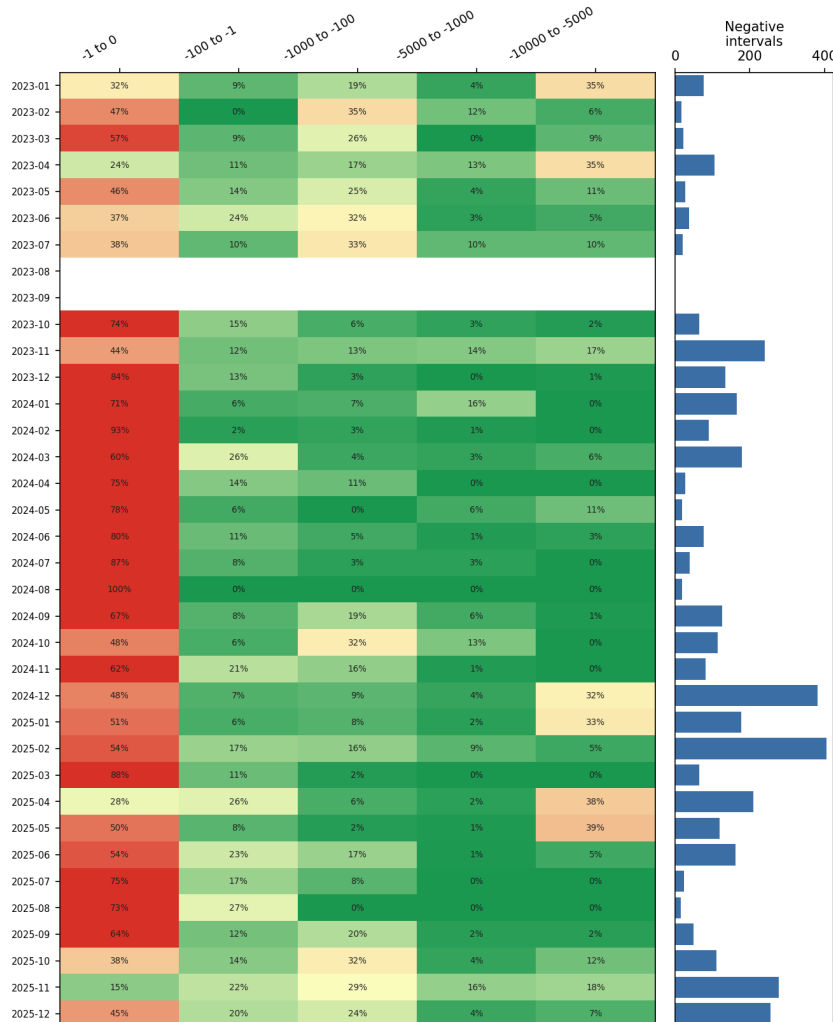
- To correct the DCS/FAS inconsistency that prevents VRE plants from using scheduled classification as a practical response to increasing negative price intervals.
- Immediately addresses the unintended consequence of financial burden on VREs from negative prices.
- Negative price intervals in Luzon have sharply increased, from **751 in 2023** to **1,873 in 2025**; with **2,605 already recorded as of August 2026**.

RATIONALE OF THE PROPOSAL

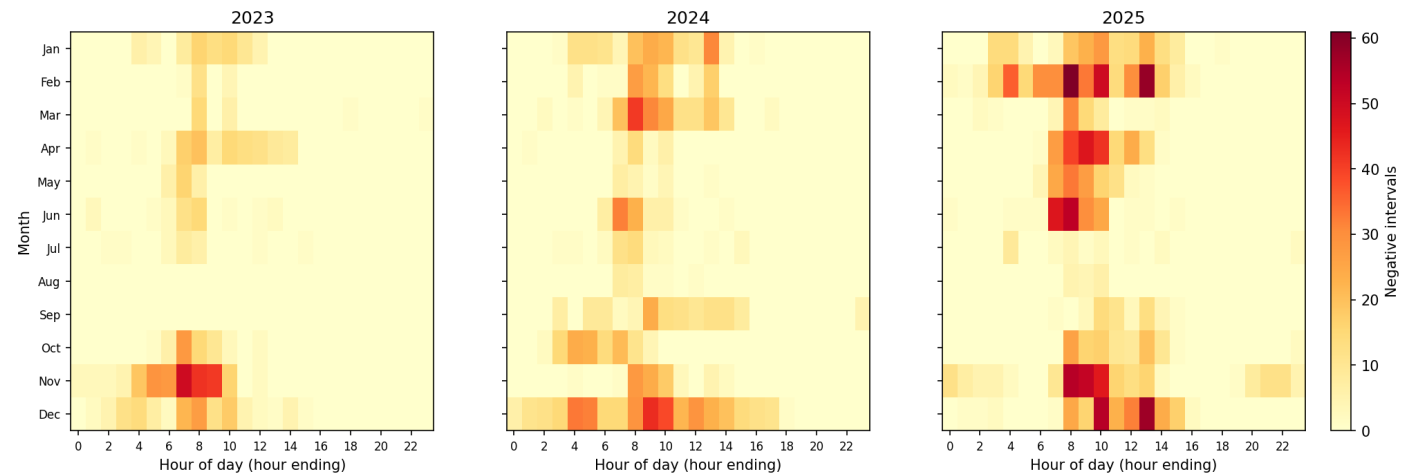


RATIONALE OF THE PROPOSAL

Negative Pricing Trends in Luzon



Negative intervals by month × hour of day — Luzon / CLUZ GWAP



- Negative prices are deepening, trending closer to the market floor in colder months of 2025.
- The combined rise in frequency and severity is amplifying adverse system impacts.

RATIONALE OF THE PROPOSAL

Basis of Urgency

GEA-4 (~10W) and succeeding GEA capacity will add more must-dispatch VRE capacity under the existing dispatch framework.

Fourth round of Green Energy Auction awards top 10,159 MW, 96% of target

November 6, 2025 | 8:36 pm

Ground-mounted solar projects accounted for over 4,179.09 MW, floating solar 2,284 MW, onshore wind 2,518.29 MW, IRESS 1,189.29 MW, and roof-mounted solar 24.82 MW.

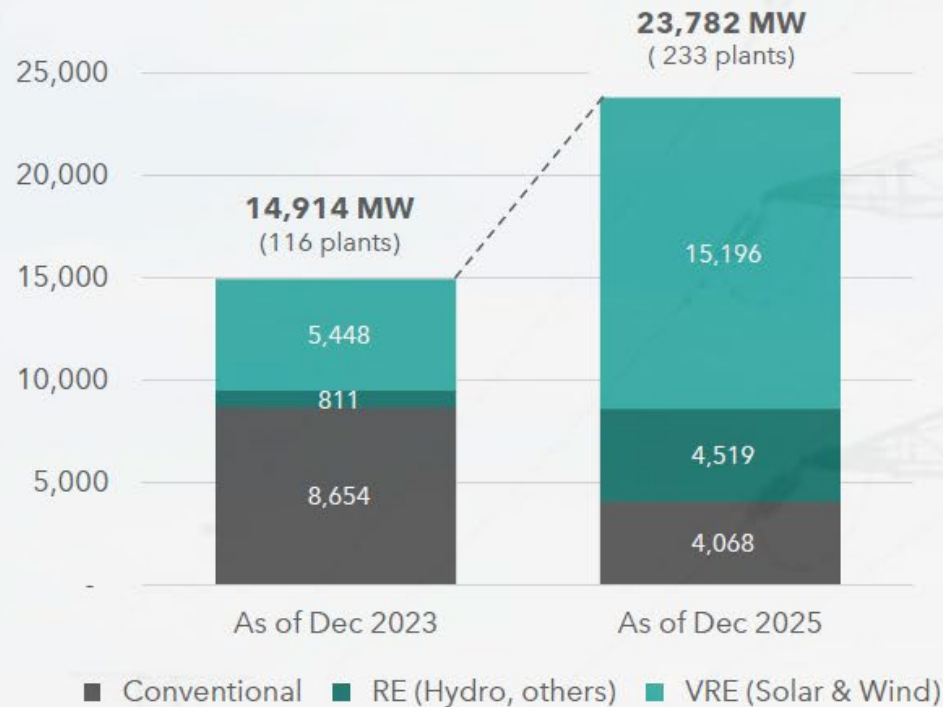
For policymakers to develop VRE curtailment mechanism. As a last resort, implement the controlled curtailment of solar and other Variable Renewable Energy (VRE) resources to maintain system stability, ensure supply-demand balance, and avoid overgeneration conditions

NGCP “Way Forward to Address the Duck Curve Problem Associated with High Solar Generation”, presentation during the 2026 GenCo Conference

RATIONALE OF THE PROPOSAL

Driven by VRE: 60% increase in committed capacity in 2 years

For LVM grid connection in 2026 to 2032



Anticipated additional committed plants through GEA - 5, 6, 7, 8 and 9

Over 28,000 MW (2027-2035)

Generation development is accelerating faster than transmission absorptive capacity - creating **increasing coordination risk**

Based on DOE data as of December 2023 and December 2025 and GEA 1-4 Capacities
Excluding: BESS, Terminated Renewable Energy Contracts and Small Capacity Generating Plants

RATIONALE OF THE PROPOSAL

Implications and Benefits

- **For investors and merchant VRE developers:**
Improves investment certainty by making offer-based participation workable under FAS, reducing unavoidable negative-price exposure while preserving forecast discipline.
- **For electricity consumers:** Allowing VRE to make price offers should reduce negative price occurrences, which in turn will lessen the burden of FIT-All and GEA-All recovery gaps, reducing subsidy-related cost exposure over time.

RATIONALE OF THE PROPOSAL

Implications and Benefits

- **For system reliability:** Mitigates extreme negative-price outcomes that can trigger uneconomic thermal ramping or shutdowns and affect reserve adequacy.
- **For market efficiency:** Enables VREs to respond to price signals under FAS, allowing negative prices to better reflect oversupply rather than must-dispatch distortions. VREs are better-equipped to ramp down than thermal technologies, which tend to have adverse outcomes when subjected to frequent ramping.

RATIONALE OF THE PROPOSAL

Implications and Benefits

- **For DUs and ECs:** May reduce short-term WESM procurement discounts but better aligns prices with actual system conditions. In the long term, better investment outcomes for RE should encourage additional supply and importantly reduce system reliance on external factors, *e.g.*, imported fuel.

OTHER RELEVANT MATTERS

- **Targeted and proportionate amendment** — the proposal makes an existing WESM option workable for VRE plants without creating a new generator class or preferential treatment.
- **Accountability is preserved under FAS** — VRE plants electing scheduled classification remain subject to measurable performance standards through MAPE/Perc95 and applicable compliance monitoring.

OTHER RELEVANT MATTERS

- **Implementation is clear and administratively manageable** — the required amendments can be aligned across the WESM Rules, Dispatch Protocol Manual, Registration Manual, Penalty Manual, FAS Manual, and Definition of Terms.
- **Smooth transition can be supported through existing registration processes** — VRE plants may be given a defined pathway to elect scheduled classification once the amendments are approved.

OTHER RELEVANT MATTERS

- **The proposal strengthens market discipline** — enabling offer-based participation allows VRE generators to respond to price signals while maintaining forecast accountability.
- **Overall consumer and market benefits outweigh short-term impacts** — the proposal reduces distorted negative price outcomes, limits unnecessary FIT-All/GEA-All exposure, and supports a more efficient, investible RE market.

SUMMARY OF THE PROPOSAL

The must-dispatch framework has helped deliver the RE Act's renewable energy objectives. As the WESM matures, the rules can now build on that progress by supporting more market-responsive VRE participation.

SUMMARY OF THE PROPOSAL

We urgently request the PEMC Board to authorize VREs that opt to be scheduled generating units to comply with FAS in lieu of DCS, and thereby:

- **Enable VRE generators to participate in the WESM on an offer-based basis**, allowing them to respond to negative prices, reduce uneconomic dispatch, and preserve forecast accountability under FAS instead of DCS.

SUMMARY OF THE PROPOSAL

- **Approve the application of Forecast Accuracy Standards (FAS),** in lieu of Dispatch Conformance Standards (DCS), to VRE generating units that elect scheduled classification under the WESM Rules.
- **Authorize the urgent rules change process and consequential amendments** to the WESM Rules, Dispatch Protocol Manual, WESM-PM, WESM-FASMD, WESM-RSDCP, and Definition of Terms.

ACTION REQUESTED

We respectfully request the PEMC Board to:

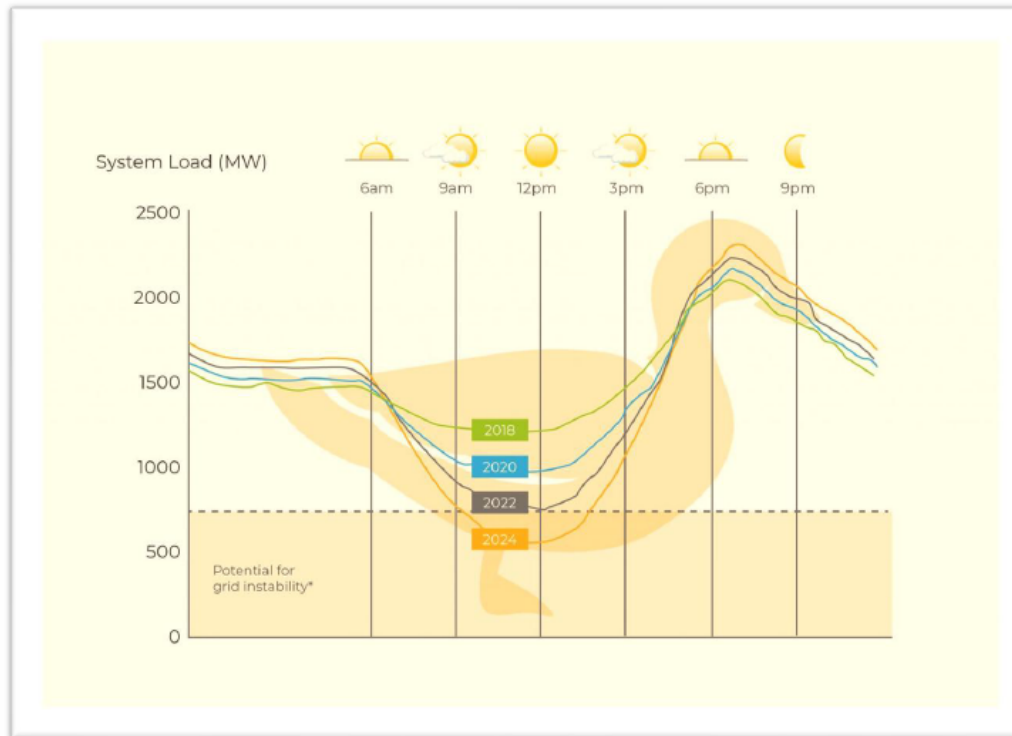
- Approve the application of Forecast Accuracy Standards (FAS), in lieu of Dispatch Conformance Standards (DCS), to VRE generating units that elect scheduled generating status, thereby enabling offer-based participation in the WESM.
- Authorize the urgent rules change process to amend the relevant provisions of the WESM Rules, Dispatch Protocol Manual, and affected Market Manuals to implement the FAS-based framework.

THANK YOU!

SYSTEM RELIABILITY

THE DUCK CURVE PHENOMENON ASSOCIATED WITH HIGH SOLAR GENERATION

The Duck Curve Problem



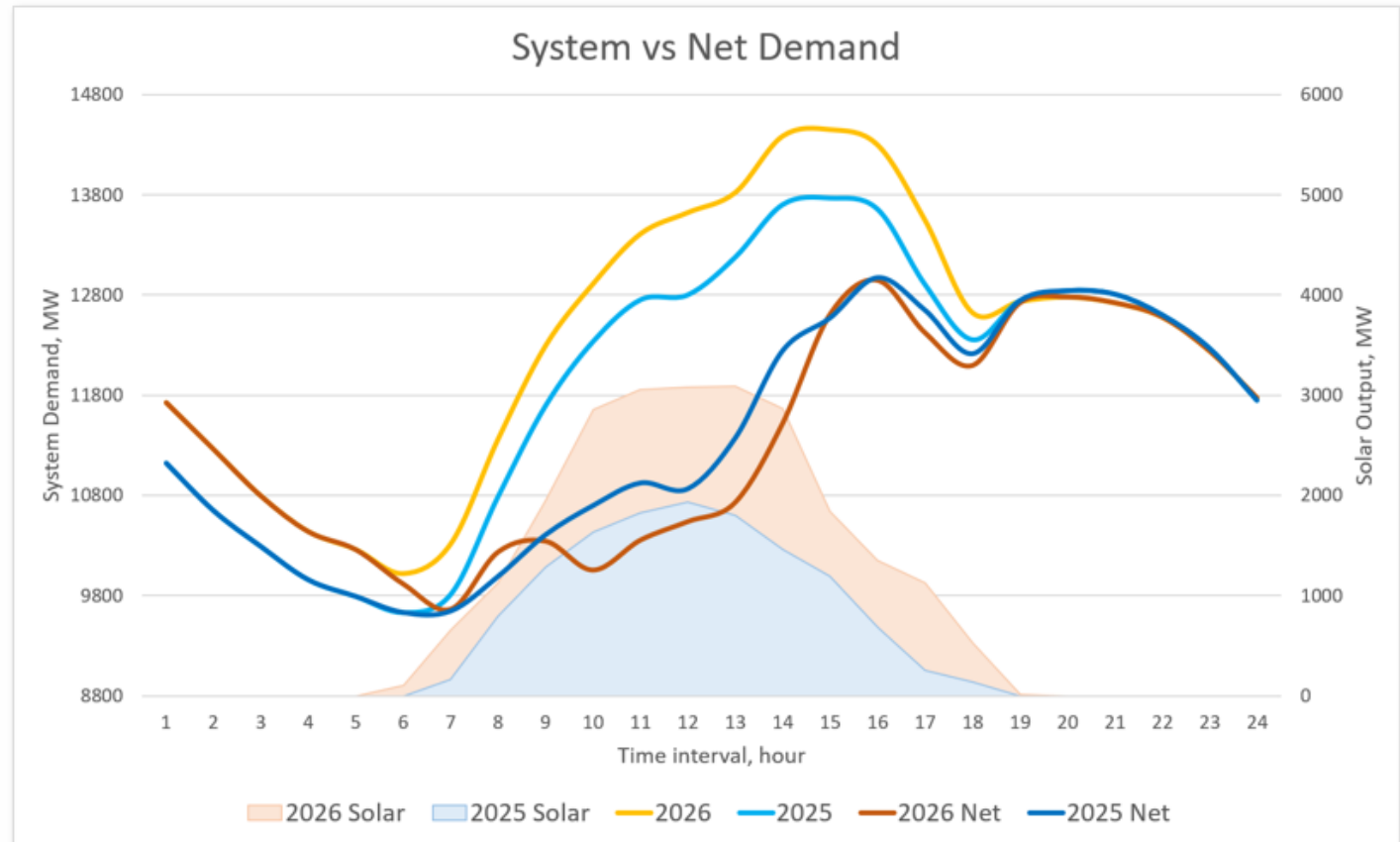
The duck curve shows how electricity demand compares with the amount of solar energy available over the course of a day. When the sun rises and solar generation increases, reliance on other power sources decreases, causing net demand to drop and form the “belly” of the curve. As the sun sets and solar output declines, demand for non-solar generation rises sharply, creating the “neck.”

As solar production falls in the late afternoon, conventional power plants must quickly increase their output to meet growing demand, putting considerable pressure on these generation facilities.

SYSTEM RELIABILITY

Grid Impact for System and Net Demand

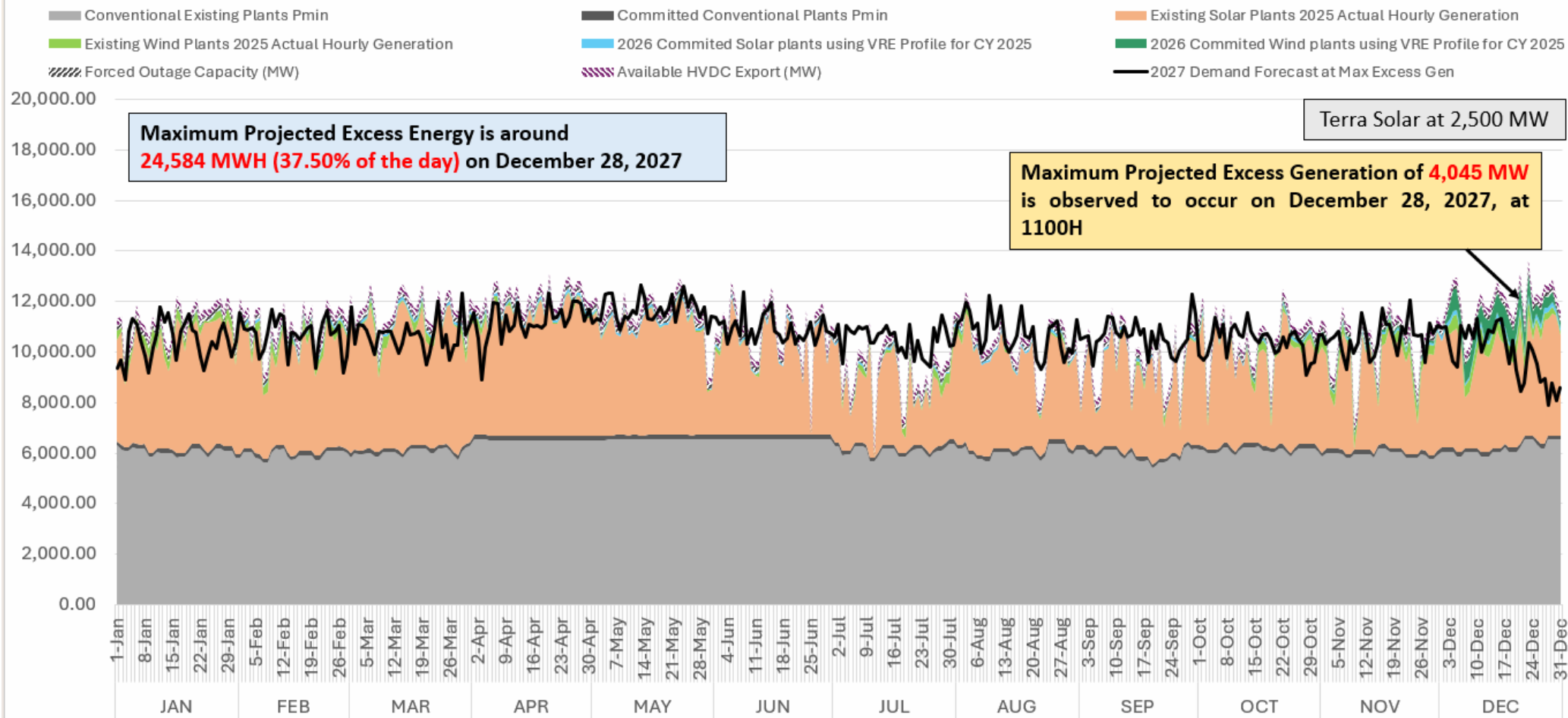
Year	Solar (MW)	Date
2021	519	Sunday, October 31, 2021
2022	639	Thursday, September 08, 2022
2023	965	Friday, December 29, 2023
2024	1581	Friday, December 06, 2024
2025	1970	Saturday, December 27, 2025
2026	3266	Tuesday, July 28, 2026



SYSTEM RELIABILITY

Excess Generation Profile using VRE Profile CY 2027 (with GOMP schedule)

LUZON



Note: Demand and capacity are coincident with the maximum excess generation recorded within a day. If no excess generation occurs, the 1100H time interval is considered to reflect the peak output of VRE plants. Excess generation is calculated without considering HVDC exports.

SYSTEM RELIABILITY

Excess Generation December 2027



EXCESS GENERATION: "DUCK" CURVE PROBLEM

Forecasted overgeneration during December 2027 is primarily driven by increasing solar energy generation, which creates the "duck curve" phenomenon. During periods of high daytime solar output and relatively low demand, excess generation may require Solar PV curtailment to prevent system overfrequency.

Excess Generation: (Typical Weekday, Saturday and Sunday)

