AEMC

DISPATCH LIMITS FOR INVERTER-BASED RESOURCES
STAKEHOLDER FEEDBACK TEMPLATE

The template below has been developed to enable stakeholders to provide their feedback on the questions posed in the consultation paper and any other issues that they would like to provide feedback on. The AEMC encourages stakeholders to use this template to assist it to consider the views expressed by stakeholders on each issue. Stakeholders should not feel obliged to answer each question, but rather address those issues of particular interest or concern. Further context for the questions can be found in the consultation paper.

SUBMITTER DETAILS

ORGANISATION:	Stanwell Corporation Limited (Stanwell) This response contains the views of Stanwell only and should not be construed as indicative or representative of the views of the Queensland Government.
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DATE	24 September 2026

PROJECT DETAILS

NAME OF RULE CHANGE:	**Dispatch Limits for Inverter-Based Resources**
PROJECT CODE:	**ERC0453**
PROPONEN:	**AEMO**
SUBMISSION DUE DATE:	**24 September 2026**

CHAPTER 1 – THE CONTEXT FOR THIS RULE CHANGE REQUEST

CHAPTER 2 – THE PROBLEM RAISED IN THE RULE CHANGE REQUEST

1. What are your views on the current arrangements for managing inverter-limits? Do the current arrangements impose costs or operational	Overall, Stanwell supports measures that improve the ability of the Australian Energy Market Operator (AEMO) to maintain power system security, and appreciate that the current approach to manage inverter limits is difficult to scale.

challenges?	Current arrangements for managing inverter limits highlight a broader need to properly value existing system security services. Merely managing the symptoms through inverter limits does not address the underlying problem posed by an increase of IBR. Continuously treating existing system strength produced from synchronous generation as incidental to energy production has led to insufficient incentives to invest in these services, and inadequate management of anticipated future system disturbances. Where system strength and stable voltage waveform is needed, it should be transparently identified and valued rather than managed only through constraints, manual calls, and disconnection.
2. To what extent would AEMO's inverter dispatch initiative address the issues identified in this chapter, in the absence of an explicit mechanism in the NER requiring compliance with inverter-limits?	The proposal would likely improve the current process by automating communication of inverter limits through Market Systems, and Supervisory Control and Data Acquisition (SCADA) / Inter-Control Centre Communications Protocol (ICCP), which should ultimately reduce reliance on manual phone calls. It would also give participants earlier visibility of limits through pre-dispatch and dispatch information. However, the initiative would only partly address the issues identified by AEMO. Further consideration of the proposal is needed as outlined in our responses below.

CHAPTER 3 – CHAPTER TITLE

3. Would the proposed solution address the issue raised by the proponent? Do you consider that the proposed changes to the rules would solve the problem raised or are there other factors that would have a greater impact? Would the proposed changes to the rules have unintended consequences?	In the absence of an explicit NER mechanism, compliance with inverter limits would remain voluntary. Conversely, if the initiative is supported by enforceable dispatch obligations, participants will require clear guidance on how those obligations are to be practically met. Formal inverter-limit instructions may address AEMO's enforceability concern, but do not resolve the underlying system strength conditions that create the need for those limits. Where a service is needed to maintain power system security, such as system strength, it should be identified and independently valued, and transparently procured and remunerated. Inverter-limit dispatch instructions may be appropriate as a targeted operational backstop, but should not become a substitute for efficient system strength planning or procurement of essential system services. Stanwell considers that the current framework may not provide sufficiently clear or transparent signals for investment in system-security capabilities. As noted

	above, this can result in the Market Operator managing the symptoms of system strength through operational constraints, inverter limits, or disconnection. A framework that relies only on enforceable directions to reduce online inverter numbers creates a compliance obligation, it does not provide an investment signal for participants capable of providing system strength, stable voltage waveform support or other security services. The interaction between inverter-limit instructions, dispatch and rebidding requires further clarification. It is unclear how inverter-count limits will differ from existing MW constraints, whether they will be reflected through NEMDE, Unconstrained Intermittent Generation Forecast (UIGF), constraint and SCADA processes, or when participants will need to rebid to reflect reduced MW capability. This is particularly important for Frequency Control Ancillary Services (FCAS), noting AEMO's High-Level Implementation Assessment (HLIA) indicates participants may need to rebid where reduced online inverter numbers affect FCAS availability. This arrangement is unlike other limitations affecting participant bids, and it is unclear whether the good faith requirement can be met when such complex and opaque interactions can occur within the NEMDE algorithm. The final framework should clearly explain how inverter limits affect MW availability and dispatch targets, when rebidding is required, and how participants can comply without unnecessary operational burden or compliance risk. See also response to *Question 7*. It is also not clear how an inverter count limit is translated into site-level action, whether existing assets have the control capability to rapidly disconnect and reconnect inverters (noting that inverter configuration and control points may vary by technology and site), and how responses would interact with bids, availability, FCAS, Primary Frequency Response (PFR), and (Generator Performance Standards (GPS) obligations. Even minor time taken in switching inverters on could affect a material proportion of a units' capabilities within a dispatch interval. There may be unintended consequences, including shifting operational and financial risk to participants, creating compliance exposure before obligations are clear, requiring control-system changes for existing assets, and affecting equipment cycling, warranties, FCAS, primary frequency response, and generator performance standards.

4. What do you consider would be the costs and benefits of the proposed solution? If there are costs, would these be one off or ongoing? Is there anything the Commission could do in designing the rule that would help to minimise the costs and increase benefits?	Participant costs are likely to be asset-specific and may be material for some existing plant. These may include one-off costs for control-system upgrades, SCADA/ICCP interfaces, vendor support, testing and procedure changes, and ongoing costs associated with control-room processes, portfolio rebalancing, maintenance, equipment cycling, restart management and warranty impacts. For example, wind assets may require processes to select and rotate between turbine tower inverters taken offline, while battery assets may require control logic to automate which modules remain online while preserving access to stored energy. Mandatory compliance, of itself, does not minimise participant costs. Costs would be best minimised through clear technical guidance, flexibility in how participants comply, confirmation that automated response is not mandatory unless technically justified, allowing sufficient transition time, and finalising AEMO and the Australian Energy Regulator (AER) procedures well before binding obligations commence. Any new obligations must be proportionate, clearly guided and supported by adequate transition time. Participants should not face ex-post penalty exposure where they were developed and connected in accordance with the rules and technical standards in place at the time of investment. This is particularly notable for plant that may not have been designed for frequent inverter-level blocking, disconnection or automated response, and may require material control, vendor or operational changes.
5. Do you consider any variation or alternative to the proposed solution would solve the issue raised by the proponent in a way that better contributes to the NEO?	Alignment with the NEO would ultimately support efficient investment in, and operation and use of electricity services in the long-term interests of consumers, including with respect to price, reliability, and security of supply. Inverter-limit dispatch instructions may be appropriate as a targeted operational backstop, but should not be relied on as the enduring solution to system strength scarcity. Recurring inverter limits should trigger assessment of whether additional system strength solutions are needed. This requires inverter-limits to be complemented by efficient system strength planning, ESS procurement, and where economically efficient to do so, ESS non-network solutions. Where a service is required to maintain power system security, such as system strength or stable voltage waveform support, it should be valued, procured and remunerated – see also *Other Comments* below. The final framework should also allow targeted carve-

	outs or differentiated treatment of plant where technically justified, including for grid-forming assets, ESS-capable plant, hybrid facilities, and existing assets that cannot practically or efficiently comply without material modification.
6. Do you consider that the proposed approach can be implemented efficiently and effectively? Are there any transitional arrangements, lead times, or sequencing issues that would be required to support implementation of the proposed approach? Please explain.	Efficient implementation is likely to depend on the level of operational and procedural detail provided before obligations commence. AEMO's HLIA acknowledges that existing plant capabilities vary and that older plant may require substantial control-system modifications. It also states that AEMO is not proposing to require automated participant response, which provides important flexibility. The final rule should include adequate transitional arrangements, clear commencement sequencing, industry testing, finalised AEMO procedures, updated AER guidance and sufficient time for participants to assess asset-specific feasibility and costs. The proposed approach also shifts operational and compliance risk to participants by requiring them to translate an AEMO inverter-limit instruction into timely site-level action. This includes assessing how the limit affects MW capability, bids and availability, communicating with operators or counterparties, and ensuring any response does not create uncertainty for other related obligations such as GPS, FCAS or primary frequency response. This risk transfer should be recognised in the implementation framework and managed through clear procedures, conformance guidance, industry testing, and sufficient transition time before penalties apply. The timing for implementation should also be considered to ensure it allows participants to model, adjust trading systems and strategies, and train staff to ensure they can comply with their new obligations and dispatch instructions.
7. Do you consider that the proposed compliance approach is the most appropriate approach to help to achieve the desired outcome and contribute to solving the issue? Would the relevant parties have appropriate incentives to comply?	Stanwell supports clear and auditable compliance obligations where they are necessary for power system security and are practically capable of being met. The consultation paper states that AEMO considers inverter-limit dispatch instructions would sit within the existing dispatch compliance framework, with the AER responsible for monitoring and enforcement, and that the AER's Rebidding and Technical Parameters Guideline would need to be updated. However, compliance obligations should not commence until participants have clear guidance on what is required. Again, inverter-limit instructions may interact with other obligations, including bids, availability, FCAS, PFR, GPS, ramp rates and fault ride-through. For

	example, AEMO's HLIA states that limiting online inverters may reduce FCAS capability and that participants may need to rebid accordingly. It also states that reactive power capability may scale down where part of the plant is out of service under NER S5.2.5.1(e1). Without clear guidance, participants may face uncertainty about how to comply with one obligation without breaching another. Civil penalties provide a strong compliance incentive, but do not provide an investment incentive to resolve the underlying system strength shortfall. The compliance framework should be complemented by transparent system strength and ESS procurement arrangements.

CHAPTER 4 – ASSESSMENT CRITERIA

8. Do you agree with the proposed assessment criteria? Are there additional criteria that the Commission should consider or criteria included here that are not relevant?	Stanwell broadly supports the AEMC's proposed assessment criteria of safety, security and reliability; good regulatory practice; and implementation considerations. Any assessment should place greater emphasis on proportionality, transparency, efficient investment and interaction with broader system strength reforms. In particular, the AEMC should assess whether the proposed rule supports efficient long-term outcomes or instead risks normalising recurring curtailment or disconnection of IBR without addressing the underlying need for system strength services. Additional considerations should include participant cost impacts, treatment of existing assets, technology-neutral treatment of grid-forming and grid-following inverters, and whether the rule supports efficient procurement of system strength and related ESS.

OTHER COMMENTS

9. Information on additional issues	**Clear problem identification and alternative options:** Further demonstration of the materiality of the issues raised by AMEO is needed before moving to a binding compliance model. This should include evidence on how often limits are expected to bind, which assets or regions are affected, and whether less interventionist options such as improved procedures, enhanced escalation processes, or additional operational resourcing for AEMO (e.g. increased PSO Controllers), could manage the issues raised. Longer-term system strength and ESS arrangements should also be progressed through the development of system

	strength and inertia markets. **Evidence and transparency:** Similarly, the consultation paper identifies increasing inverter-related constraint violations as a system security issue, but does not provide sufficient locational or participant-level information to assess which assets are most affected, how often limits may bind, or the likely operational impact. Further evidence is needed to demonstrate the materiality of the risk and the proportionality of AEMO's proposed response. The final framework should include reporting on the frequency, duration, location and cause of inverter-limit instructions, the affected technology types and whether longer-term system strength, ESS or network solutions are being progressed. **Interaction with future ESS markets:** Recurring inverter limits should inform system strength planning and ESS procurement, rather than become a standing operational workaround. Consistent with Stanwell's previous positions, where system strength or stable voltage waveform support is needed, it should be valued, procured and remunerated. ESS markets may help reduce reliance on inefficient or uncompensated inverter-limits where efficient services are available. Inverter limits could then be considered a targeted operational tool or backstop where technically necessary. **Existing assets:** Existing assets may not have been designed for inverter-level control or frequent blocking and disconnection. The final framework should provide appropriate transitional treatment and allow asset-specific assessment where compliance may require material control-system changes, vendor support or operational process changes. AEMO have previously requested rule changes that were said to be mandatory and universal, but accepted partial implementation where some plant was unsuited to modification. Consideration of the scope of this rule change request should include such consideration. **Carve-outs and differentiated treatment:** The final rule should allow targeted carve-outs or differentiated treatment where an inverter-limit instruction would undermine system security outcomes or impose disproportionate costs. This may be relevant for grid-forming batteries, ESS-capable plant, hybrid facilities and existing assets not designed for frequent inverter-level blocking or disconnection. AEMO's HLIA notes that grid-forming capability may have a positive impact compared with grid-following inverters and that hybrid plant raises practical complexity where limits apply at

	DUID level rather than to individual technologies (AEMO, HLIA, pp. 17–18). Stanwell does not support a blanket exemption, but considers AEMO and NSPs should be able to recognise plant-specific capability and provide appropriate transitional treatment where material modification would be required.