

29 September 2023

Anna Collyer  
Chair  
Australian Energy Market Commission

Lodged by email: [www.aemc.gov.au](http://www.aemc.gov.au)

Dear Ms Collyer,

**Re: ERC0363 Enhancing Investment Certainty in the R1 Process**

ACEN Australia is pleased to provide a response to the Australian Energy Market (AEMC) consultation paper “Enhancing Investment Certainty in the R1 Process, which kicks off formal consideration of the Clean Energy Council (CEC) rule change request submitted 17 May 2023 seeking improvements to the generator connection and registration process.

ACEN Australia is a fully owned subsidiary of the AC Energy Corporation (ACEN). ACEN, headquartered in Manila, is one of the largest renewable energy companies in South-East Asia. The company has 2,600 MW of attributable capacity in the Philippines, Vietnam, Indonesia, India, and Australia. It currently has several GW of projects at various stages of development across the National Electricity Market (NEM), including in New South Wales, Victoria, South Australia, and Tasmania. For more on ACEN, visit [www.acenergy.com.ph](http://www.acenergy.com.ph)<sup>1</sup>

We are strong supporters the Clean Energy Council (CEC)’s proposed rule change and have been actively involved in its development through the Connections Reform Initiative (CRI) over a number of years. The CRI was formed to address shortcomings in a connection process that is not fit for purpose in a power system that is rapidly evolving toward renewables. As noted recently by AEMO and the CEC, the number of new projects reaching financial close has fallen considerably in recent years, due in part to planning and grid connection delays. This reflects a fall in investor confidence and places at risk the achievement of Australia’s ambitious climate change targets.

Projects often get held up during registration, where AEMO performs its final due diligence assessment of the generators’ performance standards using computer based PSCAD modelling (ie the R1 assessment process). Under Clause 2.1.1(e) (3) of the National Electricity Rules (Rules) AEMO “must be satisfied” that generators can meet or exceed their performance standards. Generators must provide AEMO with their most updated project technical and design information (R1 data) for it to perform this assessment (in accordance with S5.2.4(b) of the Rules).

The problem is that there is little guidance in the rules on what happens if AEMO is not satisfied a generator can meet its GPS, which is likely to arise if there has been a change in network conditions (eg. another inverter-based generator becomes committed nearby). In these circumstances, AEMO has unbounded discretion to reopen GPS, demand technical changes to generation equipment, require

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<sup>1</sup> In 2017 ACEN acquired an 50% equity stake in UPC Renewables Australia Pty Ltd, headquartered in Tasmania and part of the global UPC Renewables Group that was established in the early 1990s. The UPC Renewables Group has developed, owned, and operated over 10,000 MW of large-scale wind and solar farms in 10 countries across Europe, North America, North Africa, China, Southeast Asia, and Australia, with an investment value of over \$5 billion USD. In 2021 ACEN started the process to fully acquired UPC Renewables Australia Pty Ltd to form ACEN Australia, which was completed in 2023.

implementation of system strength remedial measures, or request limitless modelling iterations. It can request these changes until such time it is satisfied the generator can meet its GPS.

There is no defined time frame or structured process for how AEMO should assess GPS compliance during the registration process. AEMO decides on when, how and for how long to undertake its R1 assessment. This creates an enormous degree of uncertainty for developers in the connection process, which in turn impacts the ability of projects to reach financial close and secure Power Purchase Arrangements (PPAs) within predictable timeframes. This adds to the costs and risks of participating in the National Electricity Market (NEM). Sustained uncertainty or concerns over the connection process could undermine investor confidence and deter investment in Australia's renewable energy sector, which is in global competition for renewable capital.

In our view, the connection delay issues experienced in the market to date are primarily due to registration rather than the connection process itself, and more specifically a lack of a clear and structured process for assessing updated (R1) models. In this regard, the uncertainties of the registration process provide a contrast with clause 5.3.4A of the Rules, which covers the negotiation of GPS leading up to the execution of a connection agreement. The 5.3.4A process is prescriptive, with well-defined stages and timelines for information exchange and when GPS are to be accepted or rejected by AEMO and the NSP. There are also important requirements for AEMO and NSPs to provide detailed reasons for why a proposed GPS is rejected and what must then be done for them to be approved.

A similar level of prescription and definition should apply to AEMO's GPS assessment under 2.2.1(e), but with a higher bar set to reopen GPS already agreed under 5.3.4A. The focus in registration should be to ensure that once a generator receives its offer to connect it should be able to proceed to registration expeditiously, unless there has been a material change in circumstances that would warrant reopening GPS.

The CEC's rule change proposal, in particular its classification of R1 into different pathways depending on the materiality of changes identified, represents a carefully considered and pragmatic solution to the above issues. It seeks to embed a number of key principles and features into the connection process leading up to registration, in particular:

- The proposed rule will introduce a clear, structured and time limited R1 assessment process based on the 5.3.4A approach, kicked off by a generator's self-assessment of which classification pathway it should fall into (ie Type 0 to Type 4). A greater reliance on self-assessment under the proposed rule, will help expedite the R1 review process.
- Like 5.3.4A, 20 business days would apply for AEMO advisory matters and 30 business days for a final decision on R1 to be made by the NSP. While these time frames would apply across all Types (Type 0 to Type 4), the expectation is that only material changes would use the maximum allocated time. We expect an important element of the AEMC's review process will be to establish whether the proposed time frames are reasonable.
- The R1 process will form an extension to the connection process, inserted after the execution of a connection agreement but before the commencement of the registration process. Registration will simply become a box ticking exercise. While this will lengthen the connection process, the benefits this will bring in terms of increasing predictability and planning for connection applicants far outweighs the longer assessment timeframe.
- There will be shift in the onus of proof in the R1 process from the connection applicant to AEMO/NSP recognising they are in the best position to assess the impacts of changes to plant or network conditions on generator performance and should therefore be accountable for it, taking a network wide perspective (as per Type 2 and 4 connection pathways).
- The proposed rule will ensure that if there are non-material changes to power plant design or system conditions between R0 and R1, these should be managed in a way that is proportionate to the risk to the system security posed by the changes (ie. Type 1 connection pathway). In other words, minor changes should not require multiple iterations of complex modelling of technical performance.

- The proposed rule will seek to make a clear distinction made between material and non-material changes occurring between the R0 and R1 processes and whether those changes are due to plant design, which are under the project's control, or are due to factors external to the project that are outside its control. Different assessment processes will apply in each case (ie. classification into Type 0 to Type 4 connection pathways). In particular, where material changes are caused by factors outside a generator's control this should not hold up registration but rather be addressed during the operations phase (Type 2 pathway).
- Materiality thresholds will be defined so that the above materiality distinctions can be clearly made (ie classification of changes into Types 0 to 4) and set out in a guideline to ensure clarity and consistency in its interpretation and application. The guideline should provide guidance on what constitute the types of changes to plant design and network conditions that are likely to cause a material adverse impact. It should also set out AEMO's general approach to the R1 review and the specific modelling to be undertaken to assess material impacts (as proposed under Type 2 and Type 4 connection pathways).
- The proposed rule also introduces greater flexibility into the connection process so that GPS compliance issues can be addressed in the post operations phase of the connection process where it is efficient and feasible to do so (Type 2 or Type 3 connection pathways).
- The proposed rule ensures that where generators are required to make changes to their plant as a consequence of changes in network conditions that are outside their control, then any material increase in costs incurred through making these changes will be compensated (Type 2 connection pathway).

To conclude, ACEN considers the proposed rule change will create a more predictable and faster connection process for new projects as well as a more balanced allocation of risk and costs between the connecting party, NSP and AEMO. This will contribute to the National Electricity Objective (NEO) by increasing industry confidence to invest in renewable generation capacity and thereby support achievement of state and national emissions reduction objectives.

If you would like to discuss any of the comments in this submission further, then please contact Con Van Kemenade at [con.vankemenade@upc-ac.com](mailto:con.vankemenade@upc-ac.com) or phone: 0439399943.

Sincerely,



Dr Michael Connarty  
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ACEN Australia