

Mr Christiaan Zuur
Director
Australian Energy Market Commission
Level 6
201 Elizabeth St
Sydney NSW 2000

Lodged online via www.aemc.gov.au

Dear Christiaan,

Re Rule Change Project ERC0294 – Connection to dedicated connection assets

Neoen welcomes the opportunity to respond to the AEMC's Consultation Paper regarding the Australian Energy Market Operator's (AEMO) Rule Change Request – Multiple Facilities Connecting to Dedicated Connection Assets (December 2019).

Neoen is the leading French, and one of the world's leading independent producers of renewable energy. Neoen is a responsible company with a long-term vision that translates into a strategy seeking strong, sustainable growth. We have 2 GW of projects globally in operation and under construction, including in the NEM: Hornsdale Wind Farm (309 MW in SA); Parkes, Griffith, Dubbo, and Coleambally Solar Farms (combined 255 MW in NSW); Bulgana Green Power Hub (hybrid wind/battery system) and Numurkah Solar Farm (combined 314 MW in VIC); and the Degrusa Hybrid Power System (10.6 MW in WA). Neoen is also the owner of Hornsdale Power Reserve (100 MW/129 MWh battery system) in SA, which has provided fast frequency response to the network on several occasions, and which is presently being expanded to 150 MW capacity.

AEMO's Rule Change Request

Neoen agrees with AEMO that the existing DCA framework is somewhat unworkable. However, where AEMO considers that the framework does in fact work where there is a single proponent in the connecting identified user group, Neoen profoundly disagrees.

Neoen is of the view that the same issues identified by AEMO as applying in the case where multiple proponents (or possibly also where multiple, separately registered Generators owned by the same Registered Participant) seek to connect to the same DCA, equally apply in the case where a single proponent seeks to connect a "hybrid" system, i.e. multiple generating systems of different technologies (e.g. wind, solar/PV and energy storage) comprising a single registered Generator (with a single FRMP) to a single DCA.

Taking one issue which AEMO identifies as an example, the existing DCA framework would require a single set of performance standards (GPS) to apply to the combined multiple-technology system at the single, declared connection point¹.

First, from a technical standpoint, as different technologies have different technical parameters (particularly wind vs. solar), it would be extremely difficult to create combined generating system models made up of the generating unit models (e.g. PSS[®]E, PSCAD[™]) from different manufacturers of very different technologies (wind turbines vs. DC/AC inverters). Additional questions arise around how a single power plant controller (PPC) could appropriately "split" the instructions it received from AEMO or the TNSP between the two different systems. If each technology within a single generating system could have its own GPS, it would eliminate these technical risks for the proponent and provide confidence in a more simplified engineering process.

Second, from a compliance standpoint, the same issues identified by AEMO in its Rule Change request would apply to the above case of a single FRMP covering a multiple-technology generating system.

With this in mind, Neoen recommends that the AEMC, in its determination, expand AEMO's proposed solution to the identified issues to explicitly cover the case of a single FRMP covering a hybrid generating system connected to a single DCA.

¹ Which NSPs and AEMO typically insist on being the same as the point of physical connection to the shared transmission network.

AEMC Assessment Framework

Neoen fully agrees with the AEMC's proposed assessment framework, as long as it is reframed to also consider the case of the single-FRMP, multiple-technology generating system discussed above.

Issues for consultation

Neoen provides the following responses to the questions raised by the AEMC in its Consultation Paper:

QUESTION 1: CREATING INDIVIDUAL CONNECTION POINTS

1.1 Should each Registered Participant connected to a DCA be required to have an individual connection point? What would be the consequences of creating a transmission network connection point at the point where each participant's facility connects to the DCA?

1.2 Should the DCA connection point to the shared transmission network also continue to be a transmission network connection point or would this 'DCA connection point' need to be defined differently? If so, how?

1.3 Would a metering installation continue to be required at the DCA connection point? How should TUOS charges be levied for load customers connected to a DCA?

Answers to Question 1:

- 1.1. Yes. Not only should each Registered Participant have to have its own connection point on the DCA, it should be an option available to a single Registered Participant wishing to connect generating systems of different technologies to a DCA to do so as well.
The consequences of this would be clearer delineation and assessment of modelling and GPS compliance for both the proponents and AEMO.
- 1.2. The 'DCA connection point' would be better defined as an 'asset junction point' to make it clear that it is only delineating a physical point (as well as potentially ownership change point) where a DCA connects to an IUSA.
- 1.3. Neoen has not yet formed a view on whether a metering point would still be required at the 'DCA connection point'.

QUESTION 2: NEGOTIATION AND ENFORCEMENT OF PERFORMANCE STANDARDS

2.1 Do the current arrangements give rise to issues in terms of negotiating, monitoring and enforcing performance standards? What would be the costs of leaving the negotiation of NER responsibilities up to the contractual arrangements with other proponents/the DCASP compared to AEMO's proposed solution?

2.2 If performance standards were to be negotiated at individual connection points to a DCA, should these be negotiated by the DCASP or the Primary TNSP? Would both NSPs need to be involved?

2.3 Which parties should have responsibilities for maintaining system strength?

2.4 Are there alternatives to AEMO's proposal, e.g. could the negotiation and enforcement of performance standards for parties connected to a DCA occur at a point other than a facility's connection point to the DCA?

Answers to Question 2:

- 2.1. The current arrangements give rise to all the issues raised by AEMO when it comes to negotiating, monitoring and enforcing GPSs.
- 2.2. GPSs at individual transmission connection points on the DCA should be negotiated by the Primary TNSP, in consultation with the DCA owner(s). Primary consideration should be given to absolving the DCA owner(s) of any liability regarding a “newcomer” connection on the DCA’s ability to meet its GPS given it should have designed its plant knowing all the design features and capabilities of the DCA and existing generating systems. Furthermore, no liability should apply to the DCA-owner for loss of generation due to the DCA being out of service for any reason.
- 2.3. TNSPs should retain responsibility for maintaining system strength. Where multiple generating systems are connecting simultaneously – either as a single-FRMP hybrid generating system or as a coordinated user group of multiple Registered Participants – the cost of any system strength remediation works should be borne by the FRMP(s). However, where a “newcomer” wishes to connect to the DCA subsequently, that person should bear the cost of any system strength remediation required due to its connection.
- 2.4. Negotiation and enforcement of GPSs should be at the individual facilities’ connection points on the DCA.

QUESTION 3: TRANSMISSION LOSSES

3.1 Should MLFs for individual facilities in an identified user group connected to a DCA be calculated consistent with the rest of the NEM?

3.2 Should the DCASP instead calculate average DCA loss factors for DCA connected proponents to reflect losses on the DCA? Are there any other alternatives to calculate transmission losses?

Answers to Question 3:

- 3.1. Yes. It is important to preserve individual DUID MLFs as a blended MLF can affect technologies differently. This is particularly true where energy volumes differ greatly over a year.
- 3.2. AEMO could consider the DCA as a part of the shared network for the purposes of calculating MLFs that reflect losses within the DCA.
It may be simpler to agree static losses and factors for the DCA elements beforehand though.

QUESTION 4: ACCESS FRAMEWORK

4.1 Should all DCAs be required to have an access policy?

4.2 If not, what would be an appropriate threshold for the differentiation between DCAs that should have an access policy, and those that need not?

4.3 Is there any merit to an approach that would limit DCA access to one proponent?

Answers to Question 4:

- 4.1. Neoen believes the existing requirement for only DCA’s longer than 30 km (‘large DCA’) needing to have an access policy is appropriate.
- 4.2. See answer to 4.1 above.
- 4.3. Potential merits may exist on a case-by-case basis in limiting DCA access to a single proponent. Such cases would be those where a single proponent wishes to connect multiple generating systems to a DCA, but only on the condition outlined above, i.e. that each generating system – whether as a single-FRMP hybrid plant or as multiple-FRMP generators developed over time – is entitled to its own connection point on the DCA for the purposes of GPS assessment and compliance.

QUESTION 5: TRANSITIONAL PROVISIONS AND OTHER ISSUES

5.1 Are AEMO's proposed transitional provisions appropriate? Would additional or alternative transitional provisions be required to address the issues identified in the rule change request?

5.2 Are there any other issues that the Commission should consider in relation to the proposed rule change?

Answers to Question 5:

- 5.1. Neoen believes the existing requirement for only DCA's longer than 30 km ('large DCA') needing to have an access policy is appropriate.

Conclusion

Neoen agrees with AEMO that the existing DCA framework is somewhat unworkable. However, we disagree with AEMO's view that the framework does work where there is a single proponent in the connecting identified user group.

Of primary concern to Neoen is the issues around negotiating and testing performance standards, as well as assessing compliance. Neoen is of the view that the same issues identified by AEMO as applying in the case where multiple proponents seek to connect to the same DCA, equally apply in the case where a single proponent seeks to connect a "hybrid" system, i.e. multiple generating systems of different technologies (e.g. wind, solar/PV and energy storage) comprising a single registered Generator (with a single FRMP) to a single DCA.

GPSs at individual transmission connection points on a DCA should be negotiated by the Primary TNSP, in consultation with the DCA owner(s). DCA owner(s) must not be held liable for a "newcomer" connection's ability to meet its GPS, nor should any liability apply to the DCA-owner(s) for loss of generation due to the DCA being out of service for any reason.

Regarding MLFs, it is important to preserve individual DUID MLFs, as a blended MLF can have different effects on different technologies. This is particularly true where energy volumes differ greatly over a year. AEMO could consider the DCA as a part of the shared network for the purposes of calculating MLFs that reflect losses within the DCA. And, it may be simpler to agree static losses and factors for the DCA elements beforehand.

On behalf of Neoen, I wish to thank you again for the opportunity to contribute this submission to the Rule Change consultation.

Should you have any questions or seek to follow up this submission at any time, please feel free to contact our Network Connections Manager Ronny Schnapp via email at ronny.schnapp@neoen.com.

We look forward to engaging with the AEMC and stakeholders further on this and future consultations.

Kind regards,



Ronny Schnapp,
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Neoen Australia