

2 December 2021

Ms Anna Collyer
Chair
Australian Energy Market Commission
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Reference code: EMO0062

Dear Ms Collyer,

Response to the DWGM distribution connected facilities rule change consultation paper

AusNet is pleased to have the opportunity to provide this submission to the AEMC's consultation paper on a rule change request by the Victorian Minister for Energy, Environment and Climate Change to include distribution connected facilities in the Victorian Declared Wholesale Gas Market (**DWGM**) to facilitate hydrogen and renewable gas.

The rule change request proposing National Gas Rules (**NGR**) amendments is part of a broader package of reforms being considered under the extending the national gas regulatory framework to hydrogen blends and renewable gases reform package. We support the broader objective of this rule change request and these other reforms, which is to bring renewable gas networks within the scope of the national gas legislative and regulatory framework.

We are a major energy network business that owns and operates key regulated electricity transmission and electricity and gas distribution assets located in Victoria. These assets include:

- More than 6,000 kilometres of electricity transmission network that services all electricity consumers across Victoria;
- An electricity distribution network delivering electricity to approximately 750,000 customer connection points in eastern Victoria; and
- A gas distribution network delivering gas to approximately 760,000 customer supply points in an area of more 60,000 square kilometres in central and western Victoria.

AusNet is a founding member of the Australian Hydrogen Centre, that is supporting blending trials and develop feasibility studies into hydrogen blending with Natural Gas (**NG**) and 100% hydrogen networks.

AusNet believes gas distribution networks have the ability store and transport renewable energy and are an important part of the transition to our renewable energy future. However, current rules are not supportive of the necessary arrangements of adding renewable gas into networks. Specifically, under the current rules, gas injection into the DWGM must occur at the Victorian declared transmission system (**DTS**) and the injection of gas (including blends containing hydrogen and biomethane) at distribution connected facilities is not permitted.

Therefore, we support the proposed rule changes to extend the scope of the NGR to include gas injection into the DWGM through distribution connected facilities, being:

- including distribution connected facilities in the scheduling of supply and demand from declared networks,
- including new injection points for distribution connected supply and blending facilities to offer gas into the market, and
- changing the definition of demand in the DWGM to incorporate all gas usage from the transmission or distribution system and reflect the combined volumes from transmission connected customers and distribution demand within the gas retail market.

Over time NG will likely evolve into NG equivalents (that includes a mixture of NG, hydrogen and biomethane) as the incremental injection of renewable energy gases occurs. During the transition to renewable energy sources, existing appliances will be replaced with appliances that can consume NG equivalents with an increasing proportion of renewable gas content. NG equivalents will use the same pipelines as NG, will be used to fuel the same types of appliances as NG, and will largely share the same customer base as NG. Therefore, we support the application of the same markets, transparency mechanisms and frameworks to NG equivalents as the only efficient and scalable way to facilitate the development of renewable gas networks.

Market operations and connections

AusNet supports the application of same regulatory and market framework to distribution connected supply that applies to other production facilities, and for blending facilities the same regulatory and market framework that applies to network services or network ancillary services. The market framework for distribution connected supplies includes market operations, title, custody, AEMO fee allocations, and connections. In respect of connections, we agree with the proponent's proposed changes to assign the Declared Distribution System (**DDS**) service provider with the responsibility to provide a connection offer, assess and approve the connection, and enforce compliance with the connection agreement. Additionally, we agree with the proponent that the DDS is best placed to be main facilitator with AEMO's role limited to market operation issues.

Blending and gas quality

Distribution connected supply and blending facilities are the gateways between this new and emerging market to accessing fully regulated distribution networks. DDS service providers will play an active role with distribution connected supply and blending facilities as the gas blend will vary through the network which will require detailed planning capabilities.

We agree with the proponent that there is a role for AEMO in setting the standards for which distribution connected blending facilities gas must comply with. However, DDS service providers, as the blending provider, should be able to contract with the distribution connected party to ensure compliance with AEMO's standards and monitor the blended gas quality throughout the network to ensure it does not exceed safety limits and network technical standards. The distribution connected party would typically manage the quality of CG and the blending provider would typically manage the quality of NG equivalents. This is important as there is currently no evidence that blended NG equivalents with hydrogen remains homogeneous throughout the pipeline. Hydrogen may be consumed or leak at a faster rate than NG. Assigning the responsibility of managing the quality of NG equivalent in DDS service providers own network to AEMO would mean that AEMO would need a detailed understand the network topology and network asset technical limits. This would result in inefficient duplication of distribution gas planning resources and capabilities.

Metering

AusNet agrees the NGR should be extended to cover metering assets (physical meters, loggers / correctors / telemetry) and associated accuracy requirements for distribution connected facilities. Where the distribution connected facility meters the blended gas the meter should be provided by the DDS service provider or gas distributor, because blending facilities contain very distinct equipment to mix the gas and actively measure the gas composition of the blended gas injected into the network, this is then used for billing and UAFG settlement purposes. Metering of CG by the distribution connected facility may not meet the requirements for accurate metering, because losses occurring during the blending of facility need to be measured.

Alternative options

We do not support the two alternative options set out in the consultation paper. The option of contractually managing the injection and blending of renewable gas into the DWGM does not lead to a scalable solution and would ultimately restrict future growth in renewable gas network. The second alternative of retailers bidding into the market negative locational demand would increase the complexity in the already complicated retail market and would not result in a scalable regulatory framework for renewable gas networks either.

However, there may be merit in applying some exemptions to lessen the burden of bidding requirements (such as daily bidding), for distribution-connected facilities that produce less than 1 GJ per hour. As the market matures, the potential for risk can be assessed against the incremental cost of applying all requirements to small distribution-connected facilities.

Appendix A of our submission includes a table addressing selected questions that inform the above positions.

If you have any queries on our submission, please do not hesitate to contact Justin Betlehem on 03 9695 6288.

Yours sincerely,

A handwritten signature in black ink that reads "C. Eddy". The signature is written in a cursive style with a horizontal line underneath the name.

Charlotte Eddy
General Manager Regulatory Strategy and Policy

Appendix A: Response to selected questions asked in the consultation paper

AusNet's feedback	
3. Should the existing definitions be expanded to include distribution connected facilities?	Yes, existing definitions for the facility types should be expanded to include distribution connected facilities.
4. Alternatively, should a new participant category be introduced to account for distribution connected facilities?	AusNet does not support either of the two proposed alternative solutions.
7. Should the demand forecast definition be amended to include all gas consumed from distribution and transmission systems within a declared system?	Yes, but we note that demand forecasts for withdrawals could be complex.
8. If not, is there an alternative solution that would maintain the existing NGR gas demand forecast definition?	The alternative may involve calculating forecast withdrawals based on inputs.
9. Should distribution connected facilities' constraints be treated consistently with transmission injection facilities and excluded from the pricing schedule? If not, why?	We agree that in most cases, distribution connected facilities should be treated consistently with transmission injection facilities. However, distribution connected facilities may be provided by gas distributors as a regulated or ancillary service, and where the materiality of gas injections is less than 1 GJ then there may need to be some exemptions to the scheduling requirements.
13. Should distribution connected facilities be allocated capacity certificates for tie-breaking rights? Why?	AusNet agrees, in principle, that the capacity certificates for tie-breaking rights should be extended to distribution connected facilities. However, until the scale of production from distribution connected facilities becomes material the implementation costs of doing so are not warranted.
14. What would be the implications of modelling the capacity of potentially a high number of distribution connected injection points?	We consider the transition to renewable gas networks could occur in different ways and it would be difficult to accurately model the capacity of a high number of distribution injection points.

AusNet's feedback	
15. Do the rules need to be changed to manage the title of injections within the distribution system?	We consider that the title of natural gas equivalent blends injected into distribution connected facilities should be recognised.
16. Do the rules need to contemplate the co-mingling of gas within a distribution system? If not, why?	Specific updates may be required to manage co-mingling rules for natural gas equivalent blends the situation of lower energy blended gas from one area of the DTS going to another DTS or non-DTS area where other retailers have title for the gas.
17. Should the participant compensation fund cost recovery mechanism be expanded to include distribution connected facilities? If not, why?	We agree that, subject to a cost benefit assessment, the participant compensation fund cost recovery mechanism should be extended to distribution connected facilities. Until the scale of production from distribution connected facilities becomes material the implementation costs of doing so are not warranted.
18. Should the definition of what gas can be allocated be expanded to include gas supplied by distribution connected facilities?	We agree the definition of what gas allocated be expanded to include gas supplied by distribution connects facilities should be extended.
22. Should the connections' framework be expanded to cover distribution injections? If not, why?	We consider the connections' framework should be expanded to cover distribution injections as this is an essential component of including distribution connected facilities.
23. If so, what considerations should be accounted for in the transitional wording?	Existing connections should be grandfathered.
24. Who should the party responsible for assessing and approving connections into the distribution system?	The DDS Service Provider or gas distributor is best suited to assess and approve distribution connected facilities. The networks have the necessary planning information to understand capacity and blending constraints. The existing access arrangement framework also has provision for setting and enforcing gas technical and safety specifications.
28. Are the declared distribution system service providers the most appropriate party to facilitate	We agree with the proponent that the DDS service provider or gas distributor has the necessary information

AusNet's feedback	
connections into the declared distribution system? Why?	and planning capabilities to undertake the connection assessment and is the most appropriate party to do so.
29. Should AEMO have an active role in assessing and approving connections for distribution connected facilities? Why?	AEMO may have a role assessing the market or transmission impacts for very large connections that could impact DTS connected facilities.
30. Should the rules be expanded to enforce compliance from distribution connected facilities regarding their connection agreements?	Yes, the rules should be expanded to enforce compliance from distribution connected facilities with their connection agreements.
32. Who should be responsible for the management of the gas specification within the distribution system?	We agree with the proponent that the DDS service provider or gas distributor is best placed to manage the gas with the distribution connected facilities through the connection agreements, with AEMO setting the standards for which distribution gas must comply with and approve monitoring plans.
33. What is the most appropriate instrument for the gas quality monitoring requirements: a. The rules? b. AEMO guidelines or procedures? c. Another instrument?	AEMO guidelines or procedures are the most appropriate instrument for the gas quality monitoring requirements, given our preference for AEMO's role in approving monitoring plans.
34. Should the declared distribution service providers and Energy Safe Victoria be the parties responsible for continued monitoring of the network and compliance respectively? If not, Why?	Yes
35. Should the rules consider alternative gasses, such as hydrogen, within the gas quality monitoring rules?	We believe that it would be unnecessary to consider alternative gases at this early stage in the evolution to renewable gas networks.
36. Should the rules be amended to cover metering accuracy	Yes, to ensure every party that needs the metering data receives the metering data.

AusNet's feedback	
requirements for distribution connected facilities?	
37. Should the rules be amended to allow distribution connected facilities to provide their own compliant metering?	Blending facilities contain very distinct equipment to mix the gas and actively measure the gas composition of the blended gas injected into the network, hence the gas needs to be metered where the gas enters the network by DDS service provider.
41. Is there merit in further exploring this proposed solution?	We do not support the two alternative options set out in the consultation paper. The option of contractually managing the injection and blending of renewable gas into the DWGM does not lead to a scalable solution and would ultimately restrict future growth in renewable gas network.
43. Is there merit in further exploring this proposed solution?	The second alternative of retailers bidding into the market negative locational demand would increase the complexity in the already complicated retail market, if applied at a scale that exceeds more than a few percent of renewable gas for the DDS service provider network. Beyond this the application of this alternative approach would not result in a scalable regulatory framework for renewable gas networks either.
45. Should this rule change consider including a materiality threshold in the rules?	Yes, the rules should contain reasonable exemptions for requirements for distribution-connected facilities as to not burden small proponents with operational and reporting requirements that are not justified by their benefits.
46. Should a reduced set of bidding requirements be applied to distribution connected facilities that do not meet the current bid size of 1 GJ?	Yes, there may be merit in applying some exemptions to lessen the burden of bidding requirements (such as daily bidding), for distribution-connected facilities that produce less than 1 GJ per hour. As the market matures, the potential for risk can be assessed against the incremental cost of applying all requirements to small distribution-connected facilities.