Australian Gas Infrastructure Group

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The Australian Energy Market Commission
Online submission: https://www.aemc.gov.au/contact-us/lodge-submission

To whom it may concern,

DWGM distribution connected facilities – rule change request

Australian Gas Infrastructure Group (AGIG) welcomes the opportunity to make a submission on the rule change request to include distribution connected facilities in the Victorian Declared Wholesale Gas Market (DWGM) (the rule change request).

Allowing production facilities like hydrogen and other renewable gas production facilities to connect to the declared distribution network and participate in the DWGM is an important step forward in developing the foundations for a renewable gas industry in Victoria.

The rule change will remove market barriers and enable planned renewable hydrogen projects like the Hydrogen Park Murray Valley (HyP Murray Valley) proposal to proceed. HyP Murray Valley would be the first renewable hydrogen project in Victoria and is a stepping stone to the decarbonisaton of Victoria's gas distribution network, which will reduce emissions for users of natural gas.

We broadly support the proposed changes to market operations, market settlements and system operation and planning, which we consider are the most efficient means of integrating distribution connected facilities while maintaining the fundamentals of the current market design. However, the application of the DWGM framework should be fit for purpose and recognise that some elements of the existing framework may not be fully appropriate for hydrogen and other renewable gas distribution connected facilities, particularly in the early stages of the industry's development.

For example, depending on where hydrogen and renewable gas production facilities are located and network demand conditions, producers may not be able to forecast how much they could inject in a day / period, as it's much more dependent on underlying network demand. This is different to suppliers connected to transmission pipelines which have linepack, acting as a contingency. We would support introducing a materiality threshold in the National Gas Rules for distribution connected facilities, beneath which smaller facilities would have reduced set requirements for example, bidding requirements.

Our detailed responses to the questions are found in Attachment A.

About AGIG

AGIG is the largest gas distribution business in Australia, serving more than two million customers through our networks in Victoria, Queensland, South Australia, and several regional networks in New South Wales and the Northern Territory. Our transmission pipelines and storage facility serve a range of industrial, mining and power generation customers.

At AGIG, we are committed to sustainable gas delivery today, and tomorrow. Our Low Carbon Strategy targets 10% renewable gas in networks by no later than 2030, delivering 100% renewable gas developments from 2025, with full decarbonisation of our networks by 2040 as a stretch target and by no later than 2050.

We are now delivering on our strategy by deploying low carbon gas projects. Our projects include:

- Hydrogen Park Murray Valley (HyP Murray Valley) proposal, as outlined above – A 10MW elctrolyser to produce renewable hydrogen for blending with natural gas (up to 10%) and supply the twin cities of Wodonga (Victoria) and Albury NSW, with the potential to supply industry and transport.
- Hydrogen Park South Australia (HyP SA) – A 1.25MW electrolyser to demonstrate the production of renewable hydrogen for blending with natural gas (up to 5%) and supply to more than 700 existing homes in metropolitan Adelaide. HyP SA is now operational.
- Hydrogen Park Gladstone – A 175kW electrolyser to demonstrate the production renewable hydrogen for blending with natural gas (up to 10%) and supply to the entire network of Gladstone, including industry. First production is expected in 2022.
- The Australian Hydrogen Centre (AHC) – A virtual centre delivering feasibility studies for 10% and 100% blending of renewable hydrogen into towns and cities in South Australia and Victoria.

Once again, I would like to thank you for the opportunity to feedback on the review. Should you have any queries about the information provided in this submission please contact Drew Pearman, Head of Policy and Government Relations (drew.pearman@agig.com.au or 0417 544 731).

Yours sincerely,

Kristin Raman
Acting Executive General Manager People and Strategy

AEMC

Attachement A: DWGM DISTRIBUTION CONNECTED FACILITIES

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

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CONTACT NAME:	Drew Pearman
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DATE	02 December 2021

PROJECT DETAILS

NAME OF RULE CHANGE:	DWGM distribution connected facilities
PROJECT CODE:	GRC0062
PROPONENT:	Victorian Minister for Energy, Environment and Climate Change
SUBMISSION DUE DATE:	2 December 2021

CHAPTER 4 – ASSESSMENT FRAMEWORK

1. Is the proposed assessment framework appropriate for considering the proponents rule change request?	We consider the proposed assessment framework to be appropriate.
2. Are there any other relevant considerations that should be included in the assessment framework?	No comment.

CHAPTER 6 – MARKET OPERATIONS

FACILITY REGISTRATION	
3. Should the existing definitions be expanded to include distribution connected facilities?	The existing definitions should be expanded to include distribution connected facilities as this option would automatically flow through the rules and allow such facilities to market in the market.
4. Alternatively, should a new participant category be introduced to account for distribution connected facilities?	We do not have a strong preference between expanding existing definitions and introducing a new participant category. The key outcome is to provide a means for distributed facilities to participate in the DWGM. At the same time, the structure of the rules should ensure that where distribution connected facilities have different characteristics to transmission connected facilities, these are recognised in the rules.
REQUIREMENT TO SUBMIT BIDS AND GAS SCHEDULING	
5. Should all bidding rules be updated to allow distribution connected facilities to bid into the market? If not, why?	There is merit in updating bidding rules to allow distribution connected facilities to bid into the market, the same way it occurs for the DTS. However we observe that, depending on where distribution connected facilities are located and the network conditions, the facilities may not be able to forecast how much they could bid in a day / period, as it's much more dependent on underlying network demand. This is different to large suppliers connected to transmission pipelines, which have linepack, and the suppliers essentially "load" the pipeline, which is somewhat decoupled from demand. Also, with hydrogen blending, this is very closely tied to network demand, and there may be gas quality reasons to have it "first off the rank" in bids, regardless of bid price.

6. Should all scheduling rules be updated to allow injections into the declared distribution system to be scheduled? If not, why?	There is merit in updating the scheduling rules to allow injections into the declared distribution system to be scheduled. However we observe that as mentioned in Q5, depending on where distribution connected facilities are located and the network conditions, the facilities may not be able to forecast how much they could inject in a day / period, allowed production will be much more dependent on underlying network demand.
DEMAND FORECAST	
7. Should the demand forecast definition be amended to include all gas consumed from distribution and transmission systems within a declared system?	There is merit in amending the demand forecast definition to include all gas consumed from distribution and transmission systems within a declared system, as this change would allow demand and supply to remain equal, maintaining the supply and demand balance in a clear and transparent manner.
8. If not, is there an alternative solution that would maintain the existing NGR gas demand forecast definition?	No comment.
DETERMINATION OF MARKET PRICE	
9. Should distribution connected facilities' constraints be treated consistently with transmission injection facilities and excluded from the pricing schedule? If not, why?	Distribution connected facilities' constraints should be treated consistently with other injection network constraints and should not be included in the pricing schedule.
OPERATING SCHEDULES	
10. Should the existing design be maintained with distribution networks managing the constraint issues outside of the DWGM?	We do not have a clear preference and would welcome further discussion on this issue.
11. Should the operating schedules be expanded to allow distribution constraints within the operating schedule? a. In this case, what compliance liability considerations need to be made for distribution connected facilities?	
12. Should a new constraint type be added for distribution connected facilities that is managed by the gas scheduling process?	
CAPACITY CERTIFICATES	
13. Should distribution connected facilities be allocated capacity certificates for tie-breaking rights? Why?	We would support distribution connected facilities to be allocated capacity certificates for tiebreaking rights under the new capacity certificates regime.
14. What would be the implications of modelling the capacity of potentially a high number of distribution connected injection points?	No comment.

CHAPTER 7 – MARKET OUTCOMES

TITLE, CUSTODY AND RISK	
15. Do the rules need to be changed to manage the title of injections within the distribution system?	It appears that the NGR DWGM rules to manage the title of injections only apply to the DTS and does not cover the DDS and could be expanded to include injections to the DDS. In terms of custody, control and risk of loss of gas injected into the DDS at an injection point, this may already be incorporated in existing UAFG processes. We would welcome further guidance on this issue.
16. Do the rules need to contemplate the co-mingling of gas within a distribution system? If not, why?	Like currently with the DTS, it would be reasonable to include a similar provision or expand the existing co-mingling provision (Rule 220(5) to confirm that gas consumed by an end user is not necessarily the gas which is injected into the DDS if not already included in the Rules.
PARTICIPANT COMPENSATION FUND	
17. Should the participant compensation fund cost recovery mechanism be expanded to include distribution connected facilities? If not, why?	At this stage, we do not consider it appropriate to expand the participant compensation fund cost recovery mechanism to include distribution connected facilities, in particular hydrogen and other renewable gas production facilities. Give it's a new industry, these added costs are likely to stifle development. We would support delaying the implementation until the industry further develops.
ALLOCATIONS AND DETERMINATION OF FEES PAYABLE	
18. Should the definition of what gas can be allocated be expanded to include gas supplied by distribution connected facilities?	We would support expanding the definition of what gas is allowed to be allocated to include distribution connected facilities so that the actual gas injected will need to be allocated to market participants.
19. Are there other alternative solutions that would be more effective?	No comment.
DEFAULT NOTICES AND MARKET SUSPENSION	
20. Should the rules be expanded to include distribution connected facilities for default notices? If not, why?	We would support expanding the rules to include distribution connected facilities for default notices, consistent with the DTS process.

21. Should the rules be expanded to include distribution connected facilities for market suspension? If not, why?	We would support expanding the rules to include distribution connected facilities for default suspension, consistent with the DTS process.

CHAPTER 8 – SYSTEM OPERATIONS

APPLICATION OF THE CONNECTIONS FRAMEWORK	
22. Should the connections' framework be expanded to cover distribution injections? If not, why?	We consider that the existing DTS connections' framework should not be expanded to cover distribution injections as connection of hydrogen and renewable gas production facilities is a new process that will require refinement as the industry develops. At this stage with a small number of projects at a small scale, we believe the connection process should be managed by networks in accordance with the soon to be introduced interconnection principles in the NGR. In addition we would prefer to have consistent connection processes to apply across the different jurisdictions, providing for more efficient outcomes for the connecting parties and the DDS service provider. The draft interconnection rules of the NGR appear to be sufficient to deal with connections by suppliers of NG equivalents. The draft interconnection rules provide sufficient flexibility for service providers to design a fit for purpose connections process while ensuring that NG equivalent suppliers maintain their right to connect a facility to a pipeline. However, we recognise the need to provide consistent and transparent processes for connecting parties across the different markets where they operate and aim to work with industry to develop these guidelines in the near future.
23. If so, what considerations should be accounted for in the transitional wording?	No comment.
24. Who should the party responsible for assessing and approving connections into the distribution system?	DDS service providers should be responsible for assessing and approving connections into the distribution system, with relevant information provided to AEMO as required.
25. Is the separation of connection agreements before 15 March 1999 with those made after still relevant within the NGR?	No comment.
OBLIGATIONS OF THE DECLARED SYSTEM SERVICE PROVIDERS	

26. How should the rules be amended to include obligations for DDS service providers? a. Where should these obligations sit in the rules?	As mentioned in our response to Q22 above, the draft interconnection rules of the NGR provides rights, responsibilities and obligations of the connecting party and DDS service providers which appears to be sufficient. If DWGM specific obligations were introduced, we would prefer to have obligations sit at a procedure level which is easier to amend than at Rules level.
27. If so, are there any additional considerations that are needed for the declared distribution systems?	No comment.
AEMO'S OBLIGATIONS IN ASSESSING AND APPROVING CONNECTIONS	
28. Are the declared distribution system service providers the most appropriate party to facilitate connections into the declared distribution system? Why?	We consider that the declared distribution system service providers are the most appropriate party to facilitate connections into the declared distribution system given they are the holders of the network capacity/flow models.
29. Should AEMO have an active role in assessing and approving connections for distribution connected facilities? Why?	AEMO should not have an active role is assessing and approving connections for distribution connected facilities but should be informed as the market operator to manage the registration and scheduling of the connected facilities.
CONNECTED PARTIES' OBLIGATIONS	
30. Should the rules be expanded to enforce compliance from distribution connected facilities regarding their connection agreements?	As mentioned in our response to Q22 above, the draft interconnection rules of the NGR provide rights, responsibilities and obligations of the connecting party and DDS service providers which appears to be sufficient.
31. Are there any alternative solutions that would be more effective?	No comment.
GAS QUALITY	
32. Who should be responsible for the management of the gas specification within the distribution system?	We consider AEMO or the gas distributor could be responsible for the management of the gas specification within the distribution system. We note that it may be appropriate for AEMO to: • expand the existing standards to include distribution connections to which the connected party must comply so there are centrally set standards, however, allow the gas distributor and the connected party to reach agreement as to how they comply; • in the interim, allow gas distributors to conduct the ongoing monitoring, with a view to assess whether this approach continues to be appropriate going forward as the market develops. We would welcome further discussion with AEMO and other gas distributors on this issue.

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 would be the most appropriate instrument for the gas quality monitoring requirements, as it would be easier to amend as the industry, and gases being delivered by the system change and mature over time.
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?	It seems reasonable for DDS service providers to conduct ongoing monitoring of gas quality (with further consideration of frequency of monitoring) and Energy Safe Victoria to ensure compliance and would welcome discussion on this issue.
35. Should the rules consider alternative gasses, such as hydrogen, within the gas quality monitoring rules?	This may not be required as a composition of 100% hydrogen is unlikely to have any quality issues, except once part of a blend. The rules could reference Australian Standards for gas quality. If hydrogen is a listed component in that standard which requires active monitoring/measurement, then the guidelines or procedures can apply to the requirements around quality monitoring.
METERING	
36. Should the rules be amended to cover metering accuracy requirements for distribution connected facilities?	We would support the rules being amended for metering accuracy and calibration requirements to ensure distribution supply is included in the rules.
37. Should the rules be amended to allow distribution connected facilities to provide their own compliant metering?	We would support the rules being amended to allow distribution connected facilities to install and provide their own compliant metering as the default, with an option for the DDS service provider to provide metering upon agreement between the parties.
38. Are there any other distribution connected facilities metering related issues that should be included in the rules?	No comment.
THREATS AND INTERVENTIONS	
39. Is it necessary to expand AEMO's powers to be consistent with DTS connected facilities given the broad powers currently in the rules?	We would support expanding existing intervention powers in the NGR to allow AEMO to intervene by directing distribution connected facilities as this is consistent with the powers it currently has for the DTS.
40. Should distribution connected facilities be able to claim compensation for losses incurred for injections required during an intervention?	Distribution connected facilities should be able to claim compensation for losses incurred for injections required during an intervention, consistent with market participants rights ability to claim compensation under rule 237 if it incurs a loss as a direct result of injecting the gas into the DTS.

CHAPTER 9 – OTHER ISSUES

ALTERNATIVE SOLUTION 1 – SUPPLY FROM DISTRIBUTON CONNECTED FACILITIES MANAGED CONTRACTUALLY	
41. Is there merit in further exploring this proposed solution?	No comment.
42. Are there any aspects of this solution that should be incorporated into the proposed solution?	No comment.
ALTERNATIVE SOLUTION 2 – SUPPLY FROM DISTRIBUTON CONNECTED FACILITIES MANAGED AS NEGATIVE DEMAND	
43. Is there merit in further exploring this proposed solution?	We think there may be merit in exploring this proposed solution. Forecasting demand at the back end of the distribution network could be challenging, because the resolution of the metering is not high enough.
44. Are there any aspects of this solution that should be incorporated into the proposed solution?	No comment.
MATERIALITY THRESHOLD	
45. Should this rule change consider including a materiality threshold in the rules?	Noting that including a materiality threshold in the rules could create market complexity or uncertainty as identified by the proponent, we consider it is worth exploring a materiality threshold as mentioned above, distribution connected facilities are unlikely to be as flexible as transmission connected facilities in managing risks.
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?	We support smaller production facilities having a reduced set of the bidding and scheduling requirements. However we foresee that even the smaller distributed connected facilities would likely exceed the 1 GJ bidding threshold and therefore this could be reviewed.
47. Do the rules provide a barrier to bidding quantities of gas smaller than 1 GJ?	No comment.
48. What are the impacts and costs associated with updating the bidding system to accommodate decimal GJ bids?	No comment.
SCHEDULING INTERVALS	
49. Should this rule change consider changing the current scheduling intervals or is this an issue that	We consider this issue should be addressed in a separate rule change process.

should be addressed in a separate rule change process?	
EXPECTED COSTS, BENEFITS, AND IMPACTS OF THE PROPOSAL	
50. What are the expected costs associated with the proposed changes for: a. existing market participants? b. new market participants that would fit into the distribution connected facility category? c. AEMO?	There are likely to be expected costs associated with the proposed changes for the identified parties such as operational costs, however given the likely small amount of new market participants (small facilities) at the early stages of market development, these costs are likely to be minimal. We also support mechanisms to minimise costs, particularly for new market participants.
51. How would these costs be recovered under the existing regulatory framework?	We would assume that costs would be recovered under existing processes.
52. What are the impacts of the proposed solution and the "do nothing" scenario?	We agree with the proponent's view that the proposed solution will ensure a streamlined, consistent and transparent process for the connection and integration of these facilities into the market and will minimise the costs of these facilities participating in the market. While the 'do nothing' scenario in the short term may more efficient to trade NG equivalents outside of the STTM and DWGM as time progresses, and the provision of blends increases in volume and decreases in cost, the operation of two parallel market processes may create material inefficiencies.
53. Is the proponent's assertion that the long term costs of inaction are greater than the costs associated with the proposed solution correct?	We agree with the pproponent's assertion that the long-term costs of inaction are greater than the costs associated with the proposed solution. Renewable gases represent a significant opportunity for Victoria to achieve its emission reduction targets, while making use of Victoria's extensive gas network and minimising costs. By allowing renewable gas production facilities connected the DDS to participate within the DWGM, renewable hydrogen can be blended into the gas distribution networks and decarbonise gas use in meeting Victoria's legislated net zero emissions targets. Blending of hydrogen in distribution networks is an important opportunity to support the development of the hydrogen industry in Victoria. Because of Victoria's reliance on natural gas for heating and industry, the state has arguably the greatest need and potential market for green hydrogen, and the greatest potential to benefit by making use of existing gas infrastructure in lowering the costs of the transition overall.
IMPACT ON CONTRACTS MARKET	
54. What considerations need to be given to the contracts market when integrating distribution connected facilities into the DWGM?	No comment.