# DWGM DISTRIBUTION CONNECTED FACILITIES RULE CHANGE

STAKEHOLDER WORKSHOP – NET BIDDING

29 JULY 2022 VIRTUAL SESSION



'In the spirit of reconciliation, the AEMC acknowledges the Traditional Custodians of country throughout Australia and their connections to land, sea and community.

We pay our respect to their Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples here today.'

## Agenda

| Item # | Description   |
|--------|---|
| 1.     | Blend processing facilities and net bidding   |
|        | What is a blend processing facility?<br>Issues with the draft rule<br>Proposed solution – net bidding<br>Q&A    |
| 2.     | Other changes to the final rule   |
|        | Scheduling and formulation of constraints<br>Metering<br>Maintenance planning                                   |
| 3.     | Clarifications  |
|        | Gas quality standards – approach for DDS injection points<br>Aggregation of facilities<br>Bidding in good faith |
|        |   |

4. Q&A

5. Next steps

# BLEND PROCESSING FACILITIES & NET BIDDING

## What is a blend processing facility?

• The draft rule introduced a new definition in Part 19 of the NGR:

"*blend processing facility* means a facility in which gas of different types is blended for injection into a pipeline."

- This type of facility withdrawals natural gas from the distribution network, and then adds another gas at a
  pre-defined ratio (for example 1:10) to create the blended gas, which is then reinjected into the
  distribution network.
- This process happens pretty much in "real-time".
- The amount of natural gas withdrawn from the system by the facility is contingent on 2 factors:
  - 1. The blending constraints.
  - 2. Where the facility sits in the bid stack and the extent to which the facility is scheduled (or not).

## Issues with the draft rule – blend processing facilities

- The draft rule requires blend processing facilities to submit injection bids and be scheduled based on merit order, in the same way as other existing market participants.
- The draft rule also requires a demand forecast to be submitted to AEMO for any gas that is withdrawn from the distribution network for blending purposes.
- If the facility is not scheduled to the same extent as included in the demand forecast, then the actual amount of gas withdrawn from the system will not match the forecast amount.
- This would cause the demand and supply balance to be distorted and more gas to be scheduled for injection than is needed.

- We designed a net bidding approach for these facilities in consultation with AEMO.
- Under this approach:
  - 1. Facilities only bid on the amount of additional gas injected from the facility (**the net injected quantity**).
  - 2. Gas withdrawn for blending purposes is not included in a demand forecast.
- Alternative options that were considered include:
  - Matched injection bids and demand forecasts.
  - Categorising the facilities as storage and bid for both withdrawal and injection.

## Key areas of change to implement net bidding



## Proposed solution – registration categories

#### **Draft rule**

• The draft rule did not make a distinction between the various types of distribution connected facility means a storage facility, production facility or blend processing facility connected to a declared distribution system."

- The proposed solution retains the approach from the draft rule. However, an additional classification rule has been introduced for net bidding facilities.
- The final rule will clarify that classification as a net bidding facility is required where the classification criteria are met and that for net bidding facilities, the net injected quantity will be used for bidding, scheduling and settlement.

## Proposed solution – demand forecast

#### Draft rule

• All distribution connected facilities (including blend processing facilities) are required to submit a demand forecast.

- Remove the requirement for net bidding facilities (blend processing facilities) to submit a demand forecast.
- Amendments have been included to ensure any losses associated with withdrawals will be accounted for as part of the net injection bid.

#### Draft rule

• Blend processing facilities would bid in for the gross quantity of energy to be injected. This is the actual withdrawal plus the additional gas blended within the facility.

- Net bidding facilities bid on the net quantity to be injected.
- This is the difference between the actual injection and the actual withdrawal and represents the additional energy blended within the facility, less any losses.
- Example: a hydrogen blend processing facility withdraws 100 GJ and blends in 10 GJ of hydrogen and has losses of 1 GJ in the facility. It would only bid in relation to the 9 GJ of additional energy injected after blending.

## Proposed solution – net bidding facility procedures

#### **Draft rule**

• The draft rule did not contemplate net bidding.

- The final rule will give AEMO flexibility to provide more detail about the application of Part 19 to net bidding facilities in new 'net bidding facility procedures'. These will:
  - specify the criteria for classification as a net bidding facility and the classification process
  - explain the application of the bidding, scheduling and settlement rules to net bidding facilities
  - explain how negative net injections will be settled, including adjustment for losses
  - consequences for classification status if negative net injections occur regularly.

#### **Draft rule**

• The withdrawals and injections from blend processing facilities are metered and settled separately.

#### **Issue identified**

- Both withdrawals by and injections from blend processing facilities still need to be accurately metered, to
  calculate the net injection and account for losses and to ensure that if a facility withdraws more than it
  injects (negative net injection) this can be measured and accounted for.
- However allowing for flexibility in metering configurations could be efficient.

- Alternative metering configurations for net bidding facilities may be approved by AEMO if AEMO is satisfied that the net quantities will be accurately measured.
- The net bidding procedures will include provisions for how any net negative injections are treated.

## Overview of key changes

#### Draft rule

|                       | Producer<br>(direct injection) | Blend processing<br>facility | Storage facility        |
|-----------------------|--------------------------------|------------------------------|-------------------------|
| Injection bid         | $\checkmark$                   | $\checkmark$                 | $\checkmark$            |
| Withdrawal bid        | x                              | X                            | X                       |
| Demand forecast       | x                              | $\checkmark$                 | $\checkmark$            |
| Capacity certificates | ✓ entry certificates           | ✓ entry certificates         | ✓<br>entry certificates |

| Producer<br>(direct injection) | Blend processing<br>facility | Storage facility            |
|--------------------------------|------------------------------|-----------------------------|
| ✓                              | $\checkmark$                 | ✓                           |
| X                              | x                            | $\checkmark$                |
| x                              | x                            | x                           |
| $\checkmark$                   | $\checkmark$                 | $\checkmark$                |
| entry certificates             | entry certificates           | entry and exit certificates |

## Illustrative example of the issue – no net bidding

| Draft rule approach – fully scheduled   |   | Draft rule approach - not scheduled                                   |   |   |   |
|---|---|---|---|---|---|
|   | Quantity (TJ)                           | Description   |   | Quantity (TJ)   | Description   |
| Demand forecast                         | 100                                     | Uncontrollable withdrawal   | Demand forecast                         | 100   | Uncontrollable withdrawal   |
| Amount of H2 added to blend             | 10                                      |   | Amount of H2 added to blend             | 10  |   |
| Injection bid                           | 110                                     | Includes the energy from the<br>hydrogen and natural gas<br>withdrawn | Injection bid                           | 110   | Includes the energy from the<br>hydrogen and natural gas<br>withdrawn |
|   |   |   |   |   |   |
| Scheduled amount                        | 110                                     | The facility is <u>fully</u> scheduled                                | Scheduled amount                        | 0   | The facility is not scheduled   |
|   |   |   |   |   |   |
| Actual withdrawals                      | 100                                     |   | Actual withdrawals                      | 0   |   |
| Gross injection amount                  | 110                                     |   | Gross injection amount                  | 0   |   |
| H2 added to distribution<br>withdrawals | 10                                      |   | H2 added to distribution<br>withdrawals | 0   |   |
|   |   |   |   |   |   |
| Deviation                               |   |   | Deviation                               |   |   |
| Withdrawals                             | 0                                       | The facility follows schedule   |   | 100   | As a result of not being scheduled                                    |
| Injections                              | ections 0 from its injections or demand | Withdrawals   | -100                                    | the facility deviates by -100TJ from their demand forecast. |   |
|   | -                                       | forecast  | Injections                              | 0   |   |
|   |   |   |   | -100  |   |

## Illustrative example of the solution – net bidding

| Proposed solution – fully scheduled     |               |  | Proposed solution – not scheduled       |               |  |
|---|---------------|--|---|---------------|--|
|   | Quantity (TJ) | Description  |   | Quantity (TJ) | Description  |
| Demand forecast                         | n/a           | Forecast no longer required  | Demand forecast                         | n/a           | Forecast no longer required  |
| Amount of H2 added to blend             | 10            |  | Amount of H2 added to blend             | 10            |  |
| Injection bid                           | 10            | Includes only the additional energy injected (e.g. added hydrogen) | Injection bid                           | 10            | Includes only the additional energy injected (e.g. added hydrogen) |
|   |               |  |   |               |  |
| Scheduled amount                        | 10            | The facility is fully scheduled                                    | Scheduled amount                        | 0             | The facility is <u>not</u> scheduled                               |
|   |               |  |   |               |  |
| Actual withdrawals                      | 100           |  | Actual withdrawals                      | 0             |  |
| Gross injection amount                  | 110           |  | Gross injection amount                  | 0             |  |
| H2 added to distribution<br>withdrawals | 10            |  | H2 added to distribution<br>withdrawals | 0             |  |
|   |               |  |   |               |  |
| Deviation                               |               |  | Deviation                               |               |  |
| Withdrawals                             | 0             |  | Withdrawals                             | 0             |  |
| Injections                              | 0             | Facility does not deviate from the<br>injection schedule           | Injections                              | 0             | Facility does not deviate from the injection schedule              |
|   | 0             |  |   | 0             |  |

### **Questions & answers**



## Any questions? Raise your hand

## OTHER CHANGES ADDITIONAL CHANGES FROM DRAFT TO FINAL

## Proposed changes – scheduling and formulation of constraints

#### **Draft rule**

 Constraints for distribution connected facilities would be formulated by the distributor and applied by AEMO.

#### **Issue identified**

• Stakeholders outlined several concerns with the draft rule: whether the methodology applies to single facilities or to the network as a whole, the methodologies need to be non-discriminatory and better governance may be needed.

- Existing law, contract and ring-fencing provisions already act as a safeguard against distributors favouring their own facility.
- Distributors must take into account all facilities connected to their network when determining a constraint methodology.
- The distributor will now be required to publish the constraint methodology.

## Proposed changes – maintenance planning

#### **Draft rule**

• The draft rule did not propose changes to the maintenance planning framework in rule 326 of the NGR.

#### **Issue identified**

• AEMO's submission noted that distribution connected facilities were not included in the maintenance coordination and planning process and suggested that this could be problematic in the future if the gas provided from these facilities makes up a large share of the DWGM.

#### **Proposed final rule approach**

• The final rule proposes a new rule 326A, which requires distribution connected facilities to provide AEMO with maintenance information. However, it does not subject them to all the maintenance and planning procedures, such as the coordination of planned maintenance.

### Proposed changes – metering

#### **Draft rule**

• The draft determination provided for the restructuring and strengthening of the metering rules.

| Issue identified  | Proposed final rule approach  |  |  |
|---|---|--|--|
| <b>1. Testing requirements</b><br>where there is evidence of tampering<br>at a settlement metering point  | Provide more flexibility for testing where there is evidence of tampering at a settlement metering point, by allowing testing to be completed within 2 business days, or any longer period approved by AEMO.  |  |  |
| <b>2. Notification requirements</b><br>the obligations the responsible person<br>and registered participants have under<br>some rules to notify others of metering<br>matters | Any person that has a responsibility to notify affected registered participants of metering-related matters will be able to request that AEMO send the information on its behalf and AEMO will be required to use its reasonable endeavours to comply with this request.  |  |  |
| <b>3. Service provider consent</b><br>the ability of a connecting party to<br>elect to be the responsible person<br>without service provider consent.                         | <ul> <li>No changes to the final rule, because the risk that the connecting party doesn't have the requisite technical capabilities is already dealt with in the rules. We will, however, clarify that:</li> <li>a connecting party can only elect to be the responsible person where there is not an existing responsible person</li> <li>a responsible person can cease to be the responsible person if the pipeline service provider or another registered participant is prepared to take on the role.</li> </ul> |  |  |

• The final determination will also recommend that some rules be classified as civil penalty provisions so that the enforcement and compliance framework is strengthened.

# CLARIFICATION OF SOME AREAS – NO CHANGES

## Gas quality standards – approach for DDS injection points

Subject to any applicable pipeline safety duty or pipeline service standard, a distributor may, at the request of a DCF operator, enter into a written agreement that provides for the injection of a gas that does not comply with the standard gas quality specification.



## Gas quality standards – approach for DDS injection points

- The draft rule does not provide for different gas specifications to apply across Victoria:
  - a) It only provides for a different gas specification at DDS injection points
  - b) The remainder of the pipeline would be subject to any gas specification determined by the ESV.
- The different gas specification at a DDS injection point would only be allowed if agreed to by the listed parties.
- The Victorian Department or ESV would remain responsible for determining the gas specification that applies to each DDS and what is supplied to customers across Victoria.



## Clarification – aggregation of facilities

#### **Draft rule**

• Facility aggregation was not included as part of the draft rule, differing from the approach in the STTMs through the Hydrogen review.

#### **Issue identified**

• Stakeholders outlined that facility aggregation may assist with the development of renewable gas facilities.

- The STTM is designed as a virtual hub, whereas the DWGM is a meshed gas network where the location of a supply source needs to be taken into consideration during the clearing process. This makes facility aggregation relatively easy in the STTM but would be inefficient in the DWGM.
- We propose that aggregation remains excluded at this time in the DWGM.

## Clarification – Bidding in good faith

#### **Existing rules still apply**

- Distribution connected facilities are a new technology type, however, the existing rules will still apply.
- In relation to the bidding in good faith rules, these facilities should not intentionally make bids that they do not intend to follow.

## • For example, rule 213(2)(b) of the NGR states

"each injection bid submitted by that Market Participant is made in good faith and represents that Market Participant's best estimate of the quantities of gas it expects to be able to inject at the relevant market injection point on the relevant gas day should AEMO schedule that gas"

### **Questions & answers**



## Any questions? Raise your hand

## Next steps

| Key milestones                             | Date             |
|--|------------------|
| Publish consultation paper                 | 21 October 2021  |
| Submissions due                            | 2 December 2021  |
| Stakeholder workshop                       | 14 December 2021 |
| Publish draft determination and draft rule | 31 March 2022    |
| Stakeholder workshop                       | 8 April 2022     |
| Submissions due                            | 19 May 2022      |
| Stakeholder workshop                       | 29 July 2022     |
| Publish final determination and final rule | 8 September 2022 |



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