

DWGM DISTRIBUTION CONNECTED FACILITIES RULE CHANGE

STAKEHOLDER WORKSHOP

8 APRIL 2022
VIRTUAL SESSION

AEMC

Acknowledgment of the country

'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 today.'

Agenda

1. Recap of rule change request
2. Overview of the draft rule
3. Deep dive
 - Part 1: demand forecast | gas scheduling | connections framework | Q&A
 - Part 2: gas quality | metering | Q&A
4. Other changes
5. Implementation
6. Next steps
7. Final Q&A

RECAP OF RULE CHANGE REQUEST



DWGM distribution connected facilities rule change – recap

- **Proponent:** Victorian Minister for Energy, Environment and Climate Change.
- **Problem:** under the current arrangements, only facilities connected to the declared transmission system (DTS) are allowed to participate in the DWGM.
- **Proposal:** allow facilities connected to the distribution system to participate in the Victorian declared wholesale gas market.
- **What are these facilities?** production and storage facilities connected directly to the distribution network, which may include natural gas, low-level hydrogen or biomethane blends and renewable gases.
- **How to achieve that?** by amending the necessary rules in the National Gas Rules.

Issues for consultation

Market operation

registration categories / bidding / demand forecasts / scheduling / capacity certificates

Market outcomes

title, custody and risk / allocations / default notices / market suspension

System operations

connection requirements / gas quality / metering / threats and interventions

OVERVIEW OF THE DRAFT RULE

Overview of the draft rule

- The draft rule amends the National Gas Rules to enable distribution connected facilities to participate in the Victorian declared wholesale gas market.
- These amendments aim to treat distribution connected facilities on an equivalent basis to the existing transmission connected facilities.

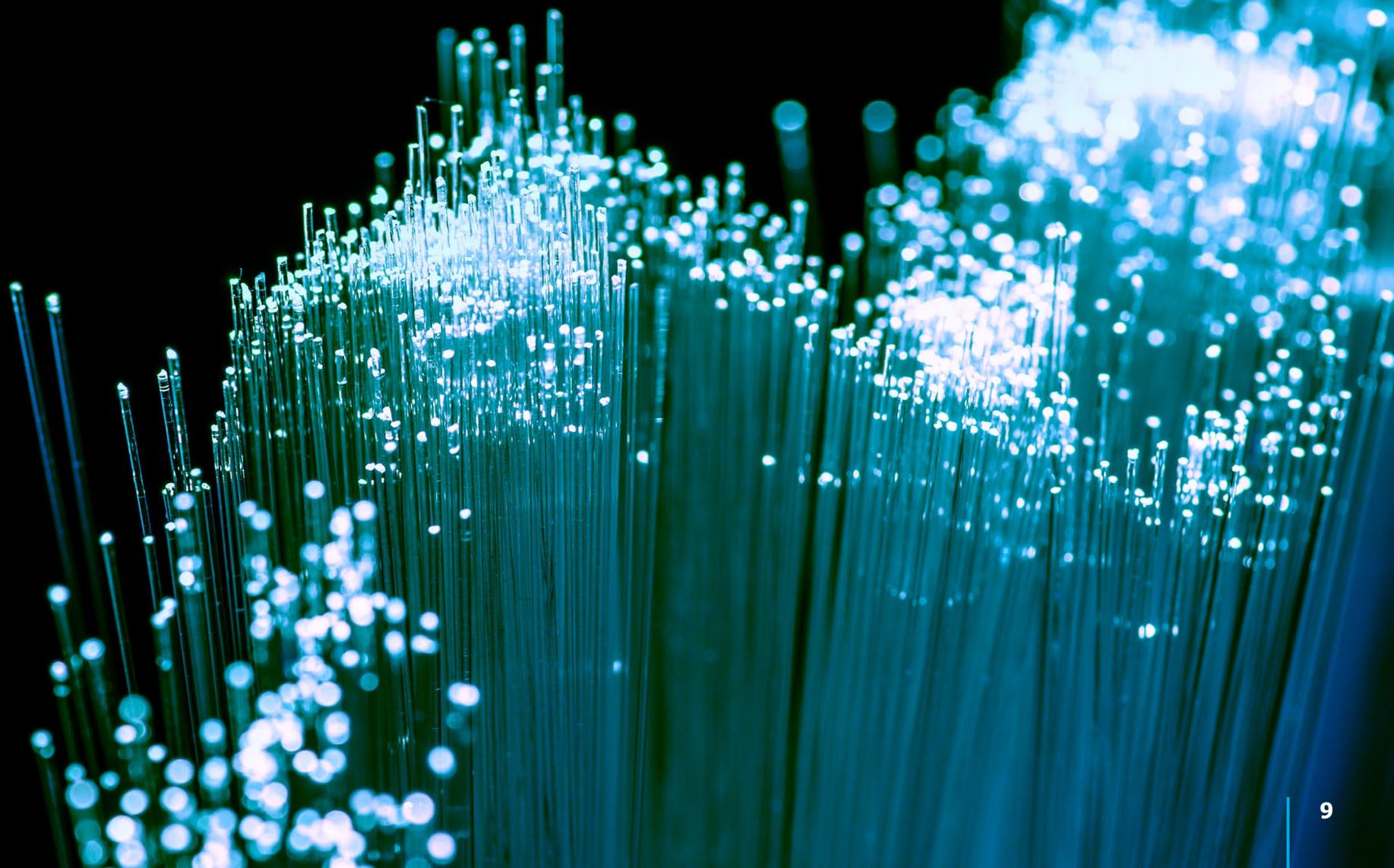
Facility registration

- Two new registration categories have been created in Part 15A of the NGR:
 - Registered participant – distribution connected facility operator.
 - Market Participant – distribution connected facility operator.

Requirement to submit bids and gas scheduling

- Distribution connected facilities are now part of the existing set of DWGM bidding and scheduling rules.

DEEP DIVE



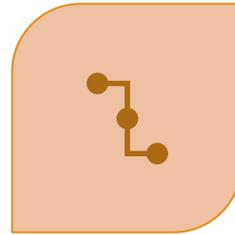
Key topics for discussion today



DEMAND
FORECAST



SCHEDULING



CONNECTIONS



GAS QUALITY

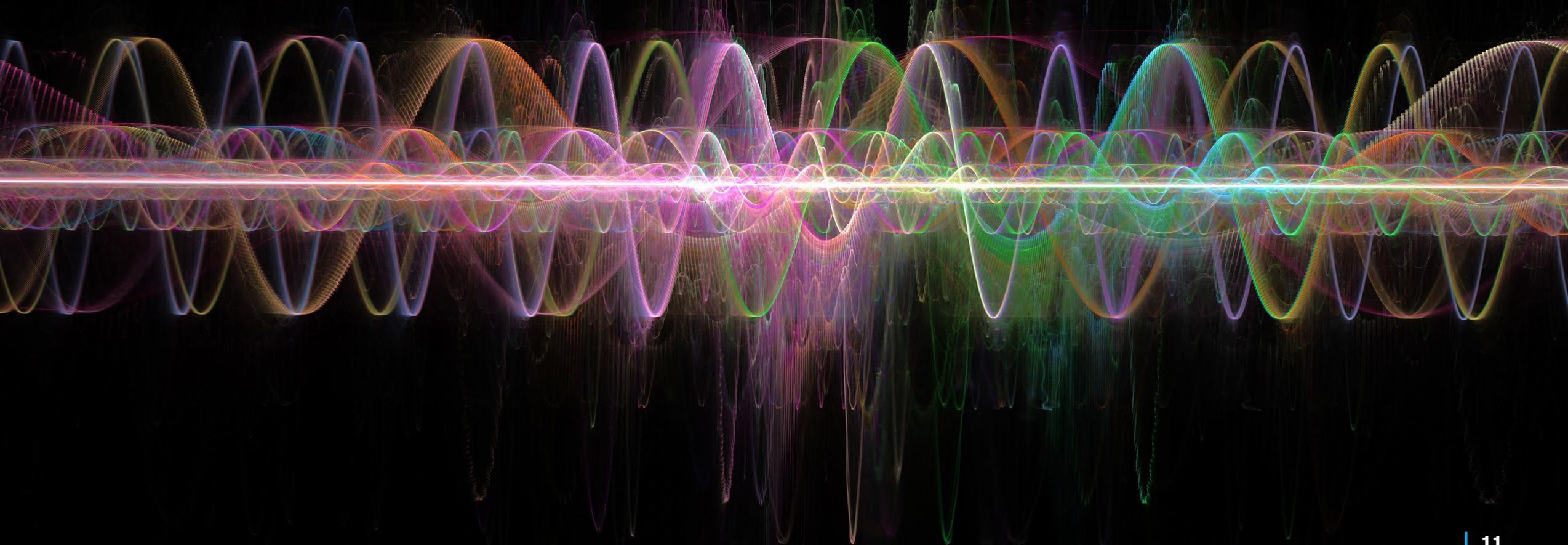


METERING



DEMAND FORECAST

OVERVIEW OF DRAFT RULES



Demand forecast and data arrangements

Demand forecast

- The AEMC has amended the demand forecast rules to capture distribution injections and maintain the supply-demand balance.
- The demand forecast now includes gas withdrawn from the DDS but excludes amounts that are already covered from DTS withdrawals or specified system withdrawal points.
- AEMO may also request a demand forecast, if it requires it, from one or more specified DDS withdrawal points.



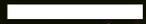
Data sharing provisions

- The draft rule introduces a new high-level framework for data sharing provisions between the distributors and AEMO.
- The specific arrangements (what sort of information and how it should be delivered) should be agreed upon between the two parties.
- This framework will enable the required information sharing across the gas scheduling and gas quality management arrangements created as part of this rule change.



GAS SCHEDULING

OVERVIEW OF DRAFT RULES



Gas scheduling

Pricing schedule

- Market price is determined by AEMO through its production of pricing schedules that specify injections and withdrawals of gas to be made each day.
- This must be done in a way that minimises the cost of satisfying the expected demand for gas on that gas day.

Operating schedule

- Set out each market participant's hourly gas injections and withdrawals at each injection and withdrawal point.
- Takes into account transmission pipeline constraints, linepack distribution, system limits on pressure and gas flows.

How the introduction of distribution connected facilities may affect the scheduling process?

- Demand on local distribution system will impact the amount of gas a distribution connected facility can inject, which is particularly relevant for facilities injecting natural gas equivalents.
- Relationship between demand and ability for the facility to inject will be dependent on:
 - each individual facility's configuration
 - the configuration of the distribution network it is connected to.

Scheduling process and constraint management

- Under full market participation, distribution connected facilities will need to have any constraints managed through the existing scheduling process.
- The AEMC has taken an approach where the distributor is responsible for assessing facility constraints and developing the methodology for managing them. AEMO will apply this methodology through the market schedules.

Distribution operations coordination procedures

AEMO must create new *distribution operations coordination procedures* that provide for:

- submission, assessment, acceptance and review of constraint methodologies
- arrangements for AEMO to provide information to distributors
- arrangements for distributors to provide information to AEMO.

Scheduling process and constraint management

New arrangements for distributors

- Distributor is responsible for determining if there is a need to apply a constraint to a connected facility.
- If a need is identified the distributor must work with the impacted facility to develop a course of action, which needs to be outlined in a methodology prepared by the distributor, which will be provided to AEMO.
- Distributors will also have the ability to curtail the injection of gas from connected facilities.
- Methodology will be subject to existing principles in the NGR for the scheduling process.

New arrangements for AEMO

- AEMO will assess if the methodology is technically feasible to be applied through the schedules and does not impose an unreasonable cost on AEMO to implement within the scheduling process.
- Apply the accepted methodology through the existing market schedules, with the discretion to set out which schedule the constraint is applied to. That is, either only the operating schedule or both the operating and pricing schedules.
- Where an ad-hoc constraint occurs, the distributor needs to communicate this to AEMO so that it can be reflected in the market schedules.

CONNECTIONS

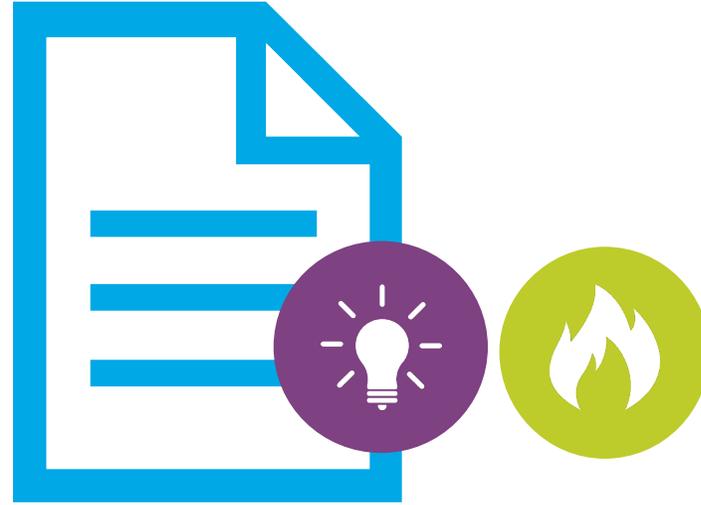
OVERVIEW OF DRAFT RULES



Connections framework

- The AEMC explored different approaches to address DDS connections in the rules:
 1. Expand DTS connections framework
 2. Utilise the Pipeline interconnection principles
- The AEMC went ahead with [option 2](#), with a transitional rule that incorporates a version of the *Pipeline interconnection principles* based on the published draft rules for the pipelines package and takes into account matters considered as part of the Hydrogen Review.
- This option provides a consistent framework for all pipelines and allows for flexibility for distributors while the industry develops.
- The draft rule also removes the requirement that the DTS framework only applies to connections after 15 March 1999.

Questions & answers: break #1



Any questions?
Raise your hand 🖐️
and we will unmute you.

GAS QUALITY

OVERVIEW OF DRAFT RULES



Gas quality – overview of changes

The AEMC undertook a comprehensive review of the gas quality rules.

The draft rule includes changes related to:

- Gas quality specifications, including gas quality standards and off-specification gas
- Responsibility for gas quality in declared distribution systems
- Approvals and compliance framework for gas quality monitoring systems and plans
- Interaction between gas quality and the market scheduling process.

Gas quality standards – recap of current arrangements



**Standard gas
quality
specification**

(definition in NGR)



**Australian
Standards
4564-2011**



**Gas Safety
Act 1997
(Victoria)**



**Gas Safety
Regulations 2018
(Victoria)**

Gas Safety Case

Gas quality standards and monitoring guidelines

AEMO

Gas quality specifications

Under Victorian legislation, the responsibility for ensuring gas transported through a declared system is on-specification primarily lies with AEMO in the DTS and with distributors in each DDS.

What will remain the same?

- The AEMC did not make changes to the definition of *standard gas quality specifications*.
- No changes were made to the current DTS arrangements.

What's new?

- AEMO's guidelines will become procedures recognised under the NGR.
- Distributors can modify the standard gas quality specifications by agreement with the connected party, and must:
 - include AEMO, where any part of the gas may be re-injected into the DTS
 - include other distributors, where any part of the gas may be injected into other declared distribution systems.
- Distributors will be able to accept off-specification gas into their networks.

Responsibility for gas quality in declared distribution systems

The responsibility for gas quality monitoring in the DTS and each DDS is outlined by the Gas Safety Act 1997 (Victoria):

- **DTS:** AEMO must ensure gas quality is on-specification in the DTS. The NGR specifies that AEMO has the responsibility to approve gas quality monitoring systems and plans.
- **DDS:** Distributors must ensure gas quality is on-specification in their networks through their gas safety cases.

Distributors' responsibility



- **Incentive to monitor gas quality**

Distributors are already responsible for gas quality in their networks as specified in their gas safety cases under the *Gas Safety Act (Victoria) 1997*.

- **Operational efficiency**

As system operators of their own networks, distributors are best placed to take action if a gas quality risk materialises.

Data sharing



- **Why data sharing is needed**

The draft rule requires AEMO to provide distributors with gas quality data at transfer points between the DTS and a DDS to ensure distributors have full information related to gas quality in their networks.

- **How it will work**

AEMO will provide distributors with data using its digital twin software that is reasonably required to ensure they can meet their gas quality monitoring responsibilities.

Gas quality monitoring systems and plans

Gas quality monitoring systems

- Any registered participant can nominate to be the *responsible gas quality monitoring provider* and provide a gas quality monitoring system at *market injection points*, custody transfer points between distribution networks, or other points on the DTS or a DDS as required by AEMO or a distributor.

Responsible gas quality monitoring provider

Refers to the person responsible for establishing and maintaining gas quality monitoring arrangements for market injection points.

Market injection points

Refers to a system injection point in the DTS or a DDS injection point, or both.

Gas quality monitoring plans

- The gas quality monitoring provider must submit a gas quality monitoring plan to:
 - **Distributors** for DDS injection points where the connected party is the provider of the system. Plan requirements will be outlined in connection agreements.
 - **AEMO** for DTS injection points, other points on the DTS, and DDS transfer points. Plans must address all matters in AEMO's new *gas quality monitoring procedures*, such as offline gas quality measurements.

Gas quality monitoring and the market scheduling process

A distributor's gas quality monitoring responsibility interact with AEMO's operation of the DWGM market schedule as distributors may need to:

- Apply constraints to ensure blending limits are not breached
- Direct curtailments of facilities that pose risks to public safety or the safety, security or reliability of the system.

Applying constraints

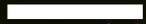
- AEMO is responsible for applying constraints through its operating schedule as market operator of the DWGM.
- Yet distributors are best placed to determine the constraints on distribution connected facilities.
- The draft rule includes information-sharing provisions where distributors provide the constraint methodology to AEMO for application through the market schedules.
- Distribution connected facilities must also notify AEMO of any ad-hoc facility constraints so these can be reflected through the market schedules, similar to DTS connected facilities currently.

Directing curtailments

- Distributors have the ability to curtail off-specification gas under the terms and conditions in their access arrangements.
- The AER must have regard to the NGO in determining non-tariff terms and conditions, which includes terms and conditions related to the safe and reliable operation of pipelines (such as directing curtailments).
- The responsibility to direct curtailments naturally aligns with the party responsible for gas quality monitoring as this party must identify off-specification incidents requiring curtailment in real-time.

METERING

OVERVIEW OF DRAFT RULES



Metering – overview of changes

The AEMC undertook a comprehensive review of the metering rules.

The draft rule includes changes related to:

- Responsibility for metering installations
- Frequency of AEMO calibration requirements review
- Metering calibration requirements for meters used for settlements
- Energy content calculations
- Compliance and enforcement framework.

Responsibility for metering installations, calibration requirements and energy content calculations

Responsibility for metering installations

- A connected party can elect to provide its own meter at a new receipt or delivery point on the DTS or a DDS.

Frequency of AEMO calibration requirements review

- Changed requirement from an annual review to a review every five years and no more than once a year.

Metering calibration requirements for meters used for settlements

- The current rules are not consistent in addressing distribution receipt point meters.
- The draft rule extends the metering calibration and accuracy requirements to *settlement metering points*.

Settlement metering point

A system point on the DTS or a point where gas is transferred between declared distribution networks.

Energy content calculations

- Outdated energy content calculation standards are removed from the rules (AGA 7, AGA 8 and ISO 06976).
- Instead, the rules refer to AEMO's *energy calculation procedures*.

Strengthening the compliance and enforcement framework

A range of obligations has been placed on providers of metering installations to provide better clarity for stakeholders.

What will remain the same?

- The responsible person must ensure its meter complies with the calibration and accuracy requirements.

What's new?

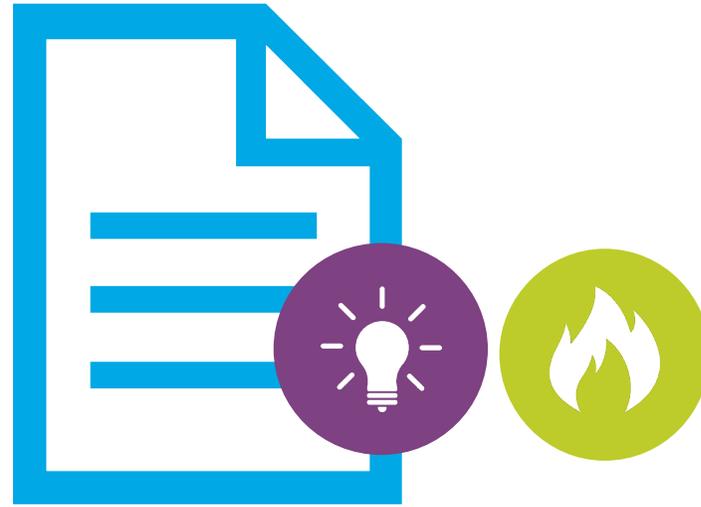
- If a defect or malfunction is identified, the meter must be repaired as soon as practicable or within 2 business days.
- Within 2 business days after receiving a non-compliance notice from AEMO, the responsible person must provide a report to AEMO, estimate the quantity of gas transferred through the meter, and restore accuracy by the time that AEMO determines.
- The responsible person must notify all affected participants and AEMO at least 7 days prior (or 7 days after) any permanent or temporary modifications, adjustments, repairs or replacements to meters are undertaken.

Metering installation and coordination procedures

AEMO will develop new *metering installation and coordination procedures* which outline the obligations for providers of metering installations at system points on the DTS and DDS transfer points, including:

- temporary changes to metering installations | consequences for metering data failures | monitoring metering installations | audit requirements | investigating responses to notifications from AEMO regarding accurate meters

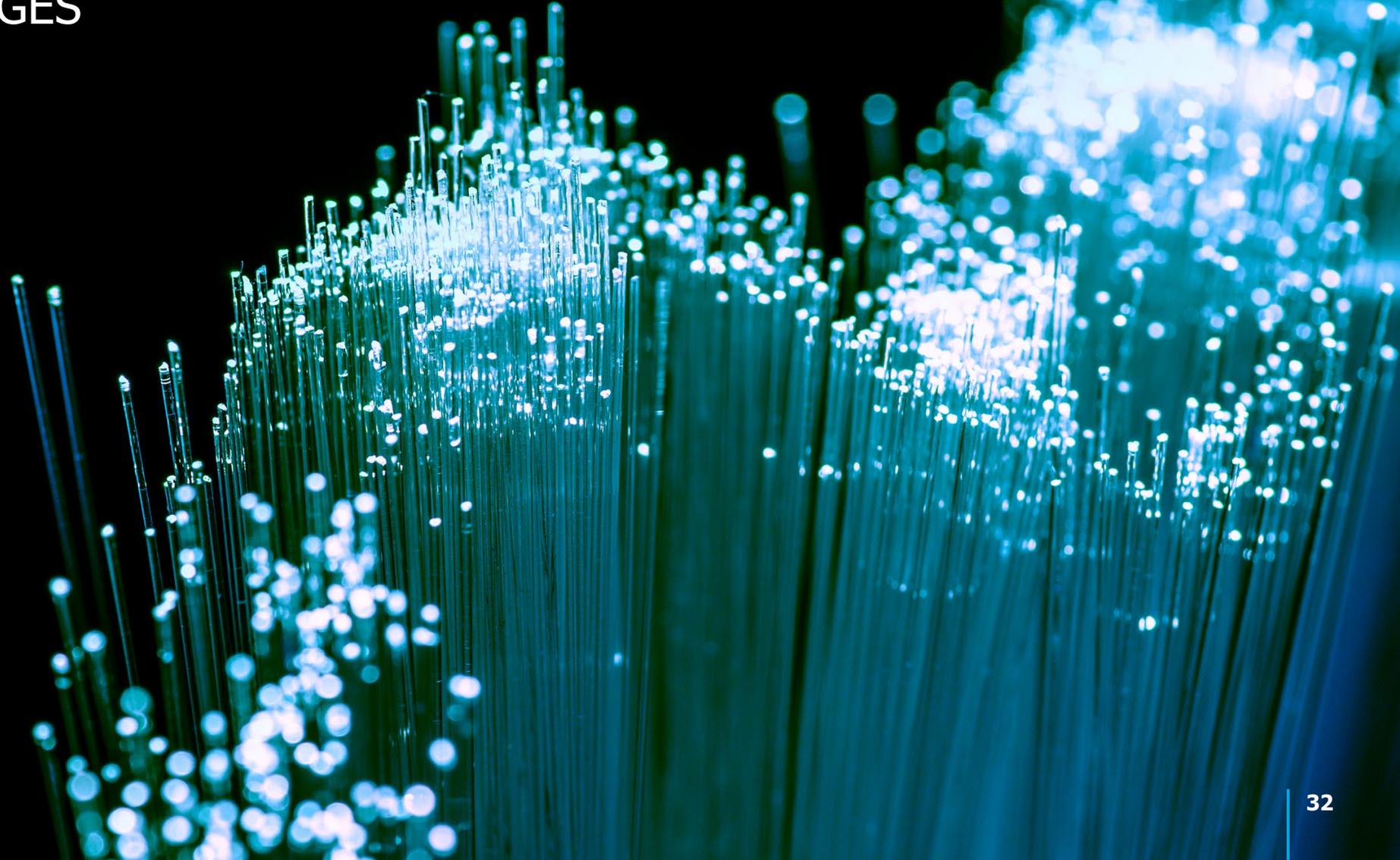
Questions & answers: break #2



Any questions?
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OTHER AREAS

OVERVIEW OF CHANGES



Other changes

Allocations and determination of fees payable to AEMO

Expanding rules 228, 229 and 230 to include distribution connected facilities. This creates consistency across transmission and distribution.

Participant compensation fund

The participant compensation fund rules were expanded to include quantities of gas withdrawn from the DDS and the DTS.

Default notices and market suspension

Default notices and market suspension rules were expanded to include injections, withdrawals and tendering for gas in the DDS. (rules 259 and 260)

Threats and interventions

The relevant rules related to threats and interventions were amended to include gas that is injected into a declared distribution system (rules 344 and 350).

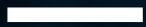
Capacity certificates

The capacity certificates rules were amended to require distribution injection points to be allocated to capacity certificate zones. Any registered market participant, including distribution connected facilities, will be able to purchase capacity certificates through the auctions.

Title, custody & risk

A new rule for DDS title transfer arrangements will replicate arrangements in the DTS. The title of gas withdrawn from the DDS passes from the injecting market participant to the withdrawing market participant.

IMPLEMENTATION



Key implementation dates – draft rule



1 April 2023

AEMO to prepare, consult and publish changes to *existing* procedures.



1 July 2023

AEMO to prepare, consult and publish *new* procedures.

- gas quality monitoring
- metering installation coordination
- distribution operations coordination

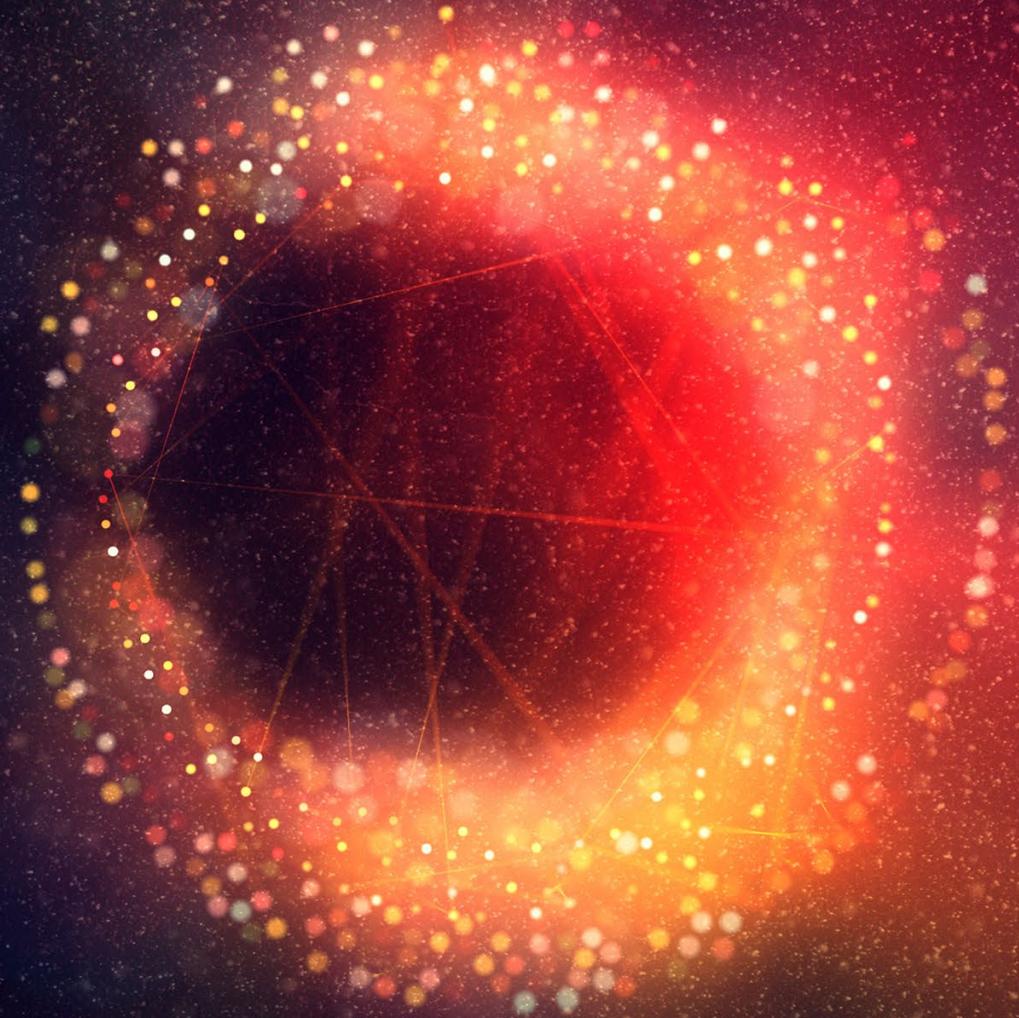


1 October 2023

Commencement of Amending Rule.

CLOSING REMARKS

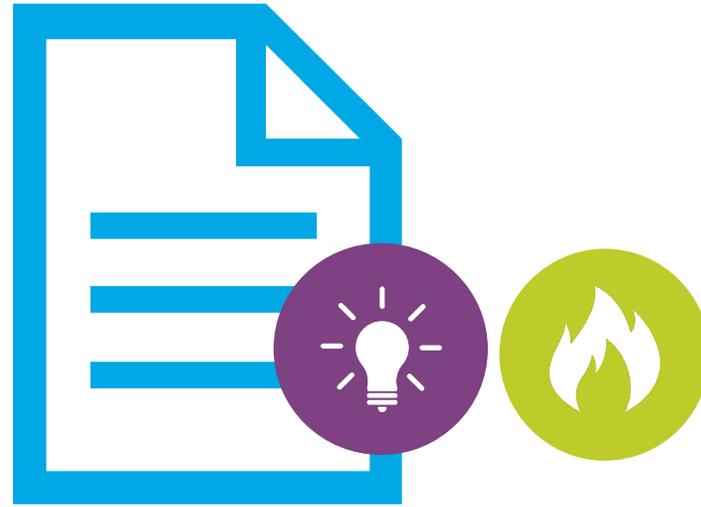
AND NEXT STEPS



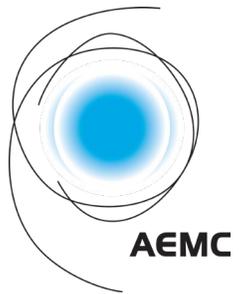
Next steps

Key milestones	Date
Publish consultation paper	21 October 2021
Submissions due	2 December 2021
Stakeholder forum	14 December 2021
Publish draft determination and draft rule	31 March 2022
Stakeholder workshop	8 April 2022
Submissions due	19 May 2022
Publish final determination and final rule (expected)	28 July 2022

Questions & answers: final break



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