

HYDROGEN REVIEW STAKEHOLDER WORKSHOP

CONSUMER PROTECTIONS AND REGULATED RETAIL MARKETS

13 DECEMBER 2021

AEMC

Acknowledgement of Country

*In the spirit of reconciliation
we acknowledge 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.*

Before we start, an important notice: Compliance with Competition Law

- The attendees must not discuss, or reach or give effect to any agreement or understanding which relates to:
 - Pricing
 - Targeting markets or customers
 - Tendering processes
 - Boycotting other parties
 - Sharing competitively sensitive information
 - Breaching confidentiality obligations

Each entity must make an independent and unilateral decision about their commercial positions.

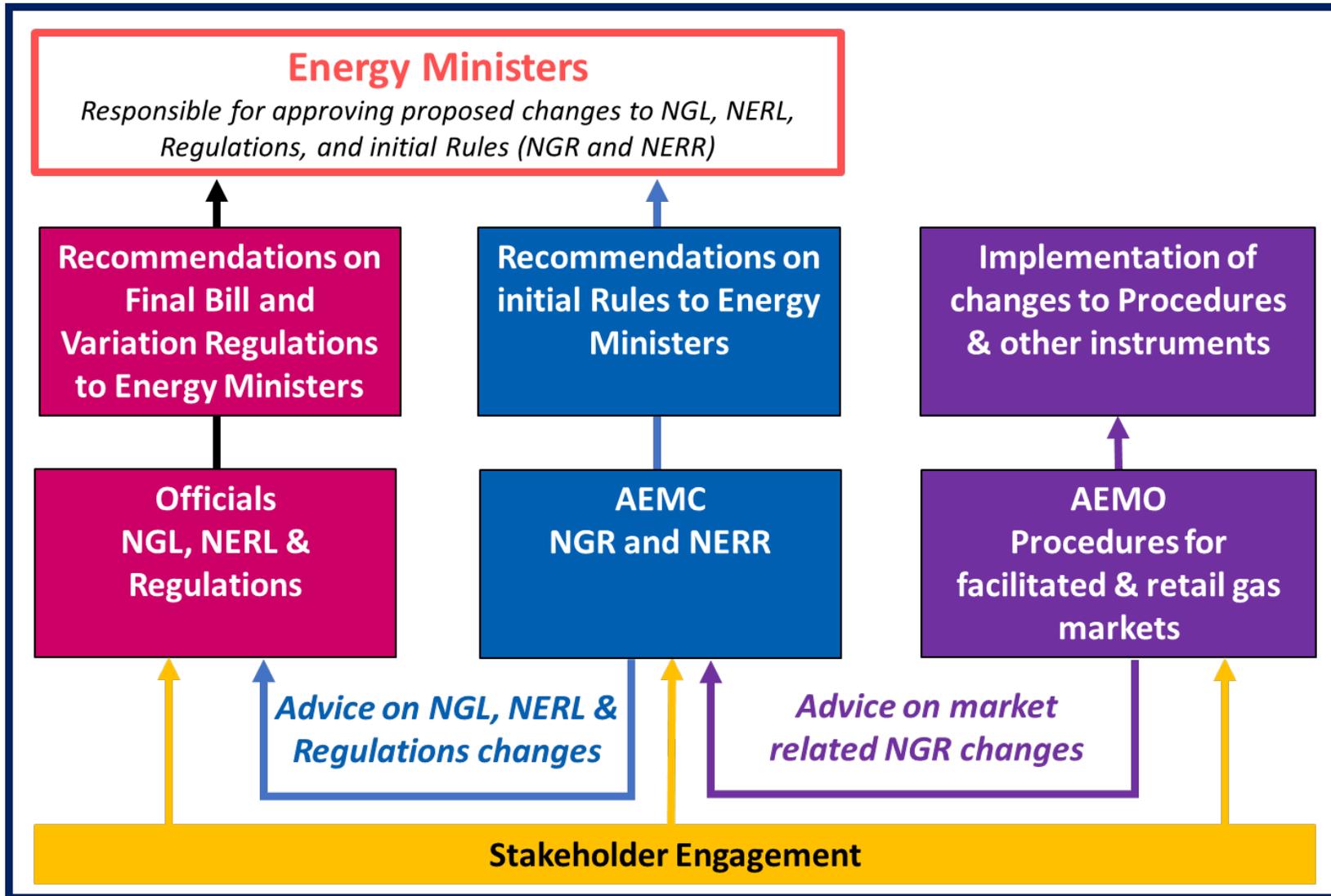
Forum arrangements

- The workshop is not being recorded
- Please save your questions for the breakout rooms
- Presentations from today will be posted on our website after the workshops
- Please engage respectfully

CONTEXT AND BACKGROUND



National gas and retail regulatory frameworks



Jurisdictional legislation

All jurisdictions

Responsible for amending their own legislative instruments to ensure that:

- they can accommodate hydrogen and renewable gas blends
- they can accommodate the changes to be made to the national framework.

Vic, NT, Tas & WA

Responsible for amending jurisdictional consumer protection legislation.

Hydrogen and renewable gases review – issues covered by review

Economic regulation of pipelines

operation of economic regulation, ring-fencing arrangements and the rights of natural gas equivalents and constituent gases suppliers to connect to pipelines

Market transparency mechanisms

application of the reporting obligations for the Bulletin Board, Gas Statement of Opportunities and Victorian Gas Planning Report

Facilitated gas markets

STTM and DWGM - potential changes to registration categories, managing settlement and allocation and trading natural gas equivalents and constituent gases through the facilitated markets

Regulated retail markets

potential changes to registration categories, impacts on settlement, metering and billing

Consumer protections

managing issues the sale and supply of a natural gas equivalents that may arise between retailers, distributors and customers such as pricing, notification requirements and billing data

Regulatory sandbox framework

how this new framework can be used for trial projects using natural gas equivalents

Today's issues

Economic regulation of pipelines

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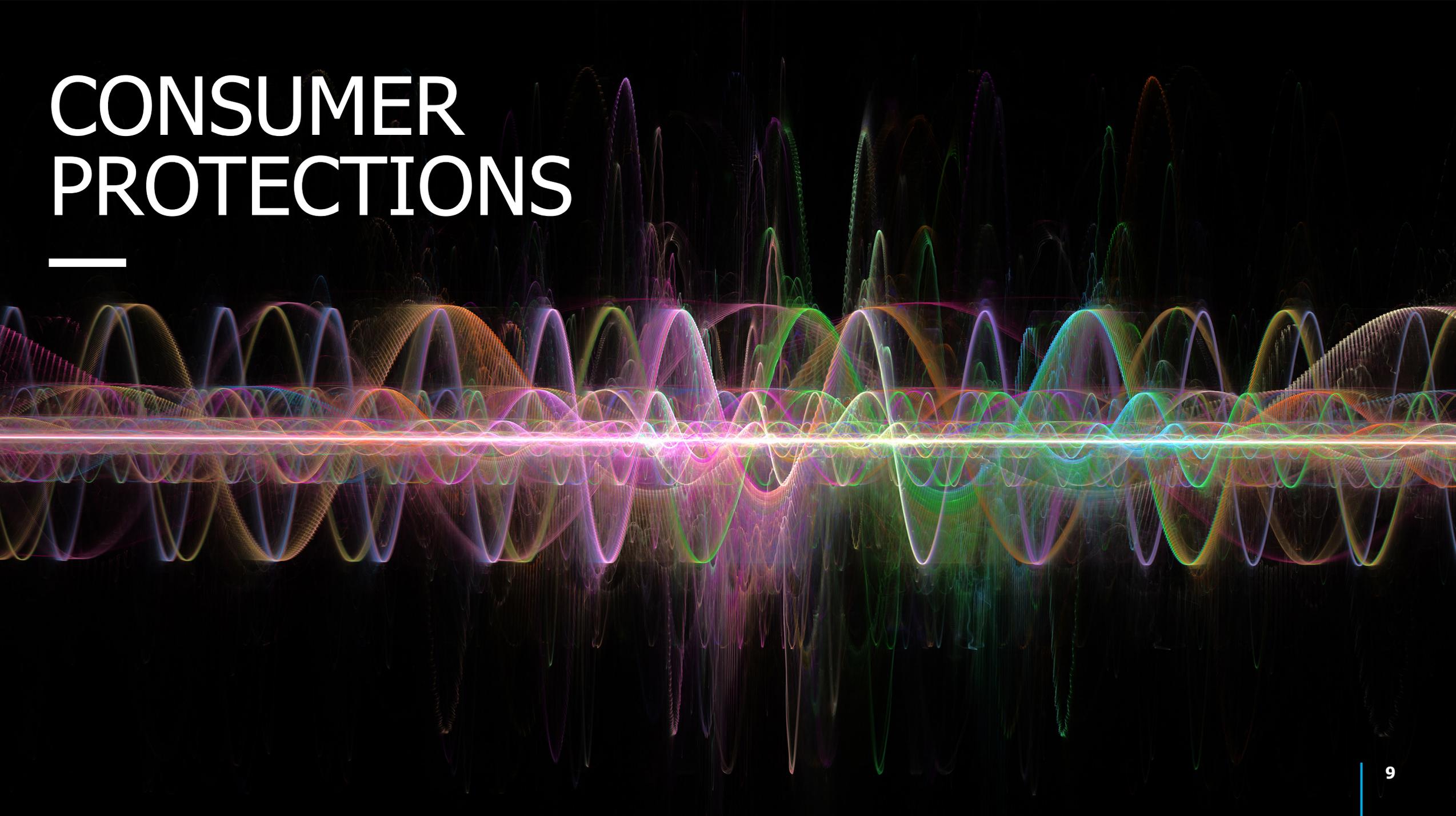
Consumer protections

managing issues the sale and supply of a natural gas equivalents that may arise between retailers, distributors and customers such as pricing, notification requirements and billing data

Regulatory sandbox framework

how this new framework can be used for trial projects using natural gas equivalents

CONSUMER PROTECTIONS



Agenda

1. Welcome, acknowledgement of country, housekeeping
2. Context and background
3. Consumer protections:
 - Physical properties
 - Price changes
 - Gas quality risk
4. Breakout groups – consumer protections (facilitators)
5. Break (10 mins)
6. Regulated retail markets:
 - Registration categories
 - Settlement and balancing
 - Metering
 - Responsibility for blend
 - Costs of gas and competition
7. Breakout groups – regulated retail markets
8. Wrap up and next steps

Consumer Protections – ISSUES FOR CONSULTATION

Physical properties

Whether additional protections are required because of the different physical properties of natural gas equivalents compared to natural gas

Price changes

Whether consumers should be notified of price changes as a result of the transition to a natural gas equivalent

Gas quality risk

Whether the existing allocation of risk for gas quality is appropriate and existing mechanisms for consumers to access compensation for loss as a result of gas quality are appropriate

Consumer Protections

| AREA | POLICY ISSUE | STAKEHOLDER FEEDBACK |
|-----------------------------------|---|--|
| <p>Physical properties</p> | <p>The energy density of natural gas equivalents may be higher or lower than natural gas. Different volumes of the natural gas equivalent may need to be supplied to a customer’s premises to deliver the same heating value as natural gas.</p> <p>Should any specific consumer protections be included in the framework to inform customers that are transitioned to supply of a natural gas equivalent that the volume of gas consumed may change other than as a result of a change in their consumption patterns? If so, should this be a transitional requirement only?</p> | <p>Most stakeholders agreed that customers should be notified of a transition to supply of a natural gas equivalent and the impacts of that transition. There was no support for requiring the transition to be notified on bills.</p> <p>Views differed as to the who is best placed to give this notice (jurisdictions, retailers or distributors).</p> <p>There was general support for changes to contract terms where a natural gas equivalent may be supplied to a customer.</p> <p>There were mixed views on whether transitional billing arrangements were required; a requirement for an actual meter read for all transitioning customers was considered onerous and logistically challenging.</p> |
| <p>Price changes</p> | <p>The cost of a natural gas equivalent may be higher than the cost of natural gas if the costs of constituent gases exceeds the costs of natural gas. Retailers may seek to increase the prices they charge customers as a result of a transition to a natural gas equivalent.</p> <p>Should customers be informed of price changes that result from the transition to a natural gas equivalent? If so, should this be a transitional requirement?</p> | <p>Stakeholders views differed on whether customers should be notified of price increases due to the transition to natural gas equivalent. Some stakeholders considered the existing requirements for notifying changes to tariffs and charges were sufficient. Others considered the potential price impacts should be covered in the initial notice to customers regarding the transition.</p> |

Consumer Protections

| AREA | POLICY ISSUE | STAKEHOLDER FEEDBACK |
|-------------------------|---|--|
| Gas quality risk | <p>The quality of the gas stream may be more variable because it is made of a blend of gases, or more directly under the control of distributors or retailers in a particular distribution system compared to current arrangements.</p> <p>Is the existing allocation of risk for gas quality appropriate for the natural gas equivalent and are the existing protections for consumers in relation to gas quality adequate?</p> <p>Is the existing immunity for defective supply of energy in the NERL appropriate? Are the limitations on distributor’s liability for negligence appropriate?</p> <p>Should consumers be able to access compensation for “off spec” blends under the national framework (small compensation claims regime) or would changes to jurisdictional GSL schemes be more appropriate/workable?</p> | <p>Some stakeholders did not consider that extending the national gas regulatory framework to natural gas equivalents would increase the risk of "off spec" gas.</p> <p>Only a few stakeholders addressed the issue of risk allocation for gas quality. Opinions differed as to which party should bear the risk. While some network stakeholders considered that the existing risk allocation arrangements were appropriate some retailers expressed concern with the current allocation of risk to shippers under reference service agreements and considered that the causer of the risk should bear responsibility (e.g. the owner/operator of a blending facility).</p> <p>PIAC and ECA (in its meeting with the policy team) considered customers should be able to access compensation for losses suffered as a result of gas quality issues.</p> |

Physical properties of natural gas equivalents: notice to customers

Policy issue: Whether customers should be notified of a transition to a natural gas equivalent because of the different physical properties of natural gas equivalents compared to natural gas

Analysis: The team consider that provision of a notice to customers on the transition to an NGE will enhance transparency and promote trust and confidence amongst customers in the market. Our preliminary position is that it is appropriate that the rules require customers to be notified of a transition to a natural gas equivalent and the potential impacts to the customer of that transition but that the notice not be required to be provided on a customer's bill. We also consider the terms and conditions of customer contracts should reflect that a customer may receive a natural gas equivalent where that supply has been approved in the relevant network or part of a network

OPTION ONE: NO CHANGES TO THE RULES

The rules would not require a notice to a customer in relation to the transition to a natural gas equivalent. The relevant jurisdiction, retailer or distributor could opt to provide a notice.

OPTION TWO: CHANGES TO THE RULES

Require that a retailer or distributor provide a notice to the customer on the transition to a natural gas equivalent. Add a requirement for the terms and conditions of contracts to specify whether the customer may be supplied with a natural gas equivalent.

The preliminary policy position we prefer is option two because it enhances transparency and should promote customer's trust and confidence in the market compared to option one

Physical properties of natural gas equivalents: changes to billing

Policy issue: Whether changes are required to provision of bills and billing information as a result of the transition to a natural gas equivalent

Analysis: Accurate billing and billing information is critical to ensuring customer trust and confidence in the market. The team's preliminary position is that where there is a transition to a natural gas equivalent, the date of transition to the natural gas equivalent should be indicated in any historical billing information provided to the customer. In relation to billing on transition to the natural gas equivalent the team considers the requirement for a bill based on an actual read may be onerous and logistically challenging. Our preliminary position is that a bill should be issued as at the date of transition but that it could be based on an estimated meter read

OPTION ONE: NO CHANGES TO THE RULES

No change to historical billing information requirements or requirement to issue a bill on transition

OPTION TWO: CHANGES TO THE RULES, NO ACTUAL METER READ REQUIREMENT

Require historical billing information to include reference to NGE transition. Require retailers to issue a bill for period up to the date of transition to NGE (may be estimated)

OPTION THREE: CHANGES TO THE RULES, ACTUAL METER READ REQUIREMENT

Require historical billing information to include reference to NGE transition. Require retailers to issue a bill based on an actual meter read for before transition to an NGE

The preliminary policy position we prefer is option two as it better balances the benefits of accurate billing and billing information with associated costs compared to option three

Price changes

Policy issue: Whether customers should be notified of price changes as a result of the transition to a natural gas equivalent

Analysis: The team consider that any variation in price due to the change in supply of a gas product should be disclosed to customers so they can make informed decisions such as switching to an alternate fuel source or switching retailers. It also aids the customer in understanding their usage and what is driving costs, and enables cost comparisons between different gas products

OPTION ONE: NO CHANGES TO THE RULES

No change to the current regulatory requirements for notification of price changes.

OPTION TWO: CHANGES TO THE RULES

Require retailers to notify customers of potential price impacts of transition to a natural gas equivalent. Actual changes to tariffs and charges notified as required under current rules

The preliminary policy position we prefer is option two to ensure that consumer confidence is maintained and they receive clear and reliable information. We consider potential price impacts could be notified as part of a comprehensive “transition notice”

Gas quality risk

Policy issue: Whether the existing immunities for defective supply of energy under the NERL and the limitations on distributor's liability for negligence are appropriate given that the quality of the gas stream may be more variable following a transition to a natural gas equivalent

Preliminary position: Currently, unless retailers and distributors have acted in bad faith or through negligence, they have no civil monetary liability for loss or damage suffered by a customer a result of the defective supply of energy. Our preliminary position is that no case has been made to change the scope of the immunity under the NERL but that limits on distributors' liability for negligence should be reviewed to ensure they do not prevent customers receiving adequate compensation for loss due to defective gas quality

The preliminary policy position is that we recommend liability limits in jurisdictional regulations should be reviewed to ensure they do not prevent customers receiving adequate compensation for loss or damage due to defective gas quality

Gas quality risk

Policy issue: The use of a natural gas equivalent may mean the quality of gas is more variable, as it is comprised of a blend of gases. Customers rely on gas delivered within safety and quality specifications. If protections are not adequate, community confidence in the gas network and associated appliances could be undermined. Should consumers be able to access compensation for “off spec” blends and, if so, what mechanism should be used to enable access to compensation?

Analysis: Customers should have access to clear and simple processes for resolving disputes and seeking compensation if they suffer loss as a result of “off spec” gas. The small compensation claims regime under the NERL enables small customers to make small claims from their distributors without establishing fault, negligence or bad faith. However, for it to apply jurisdictions would need to adopt the regime and define claimable incidents. Jurisdictional guaranteed service level (**GSL**) schemes enables eligible customers to receive payments from distributors if certain defined events occur. It is likely to be less administratively burdensome for jurisdictions to adapt the GSL schemes compared to adopting the small compensation claim regime.

OPTION ONE: RECOMMEND ADOPTION OF SMALL CLAIM COMPENSATION REGIME

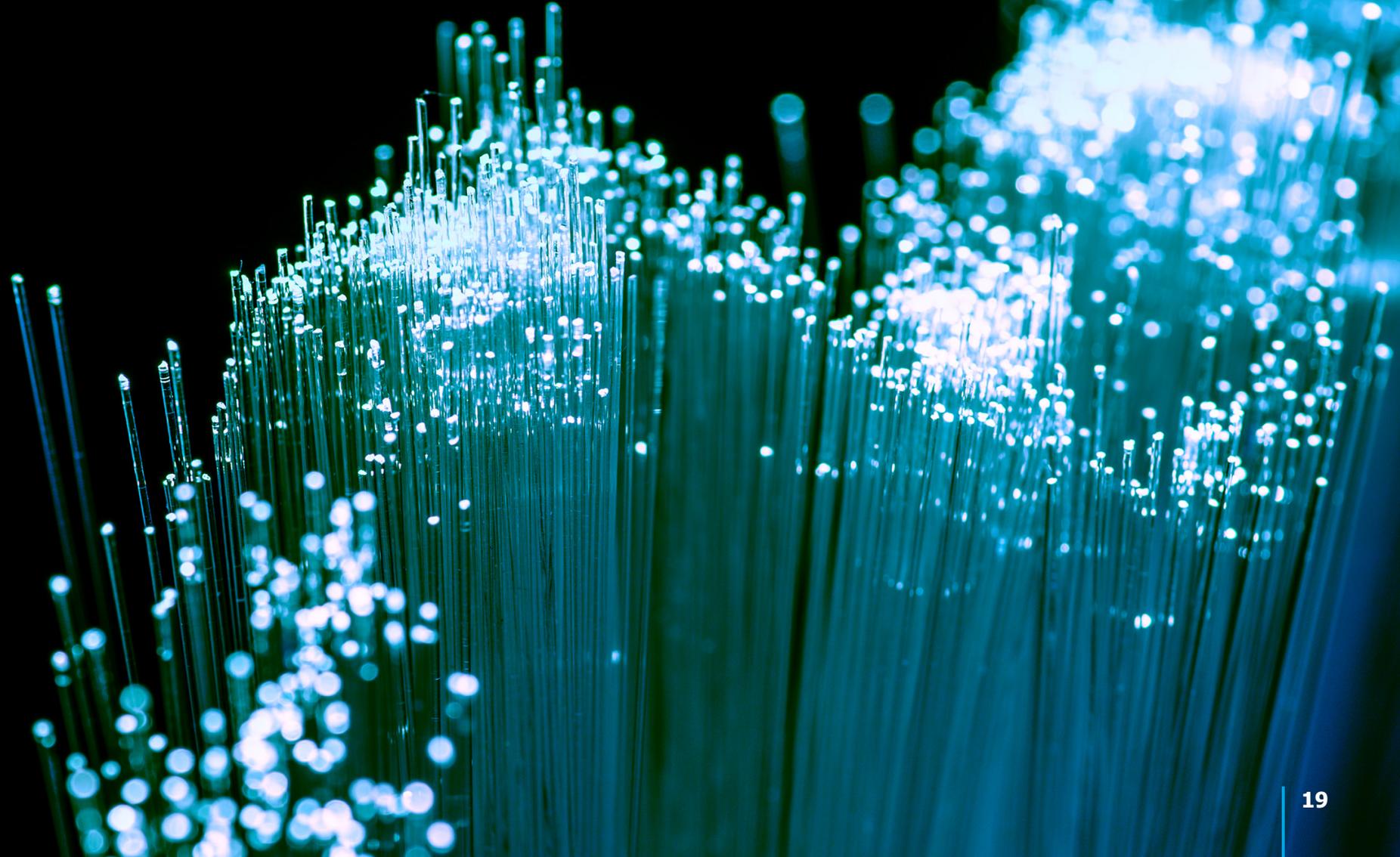
Jurisdictional adoption of the small compensation claims regime and specifying the supply of ‘off spec’ natural gas equivalents to be a claimable incident

OPTION TWO: RECOMMEND REVIEW OF GSL SCHEMES

GSL schemes are reviewed to ensure customers can access compensation for damage caused by ‘off spec’ blends

The preliminary policy position is that existing GSL schemes should be reviewed to ensure customers can access compensation for damage caused by ‘off spec’ NGEs

REGULATED RETAIL MARKETS



Regulated Retail Markets– ISSUES FOR CONSULTATION

Registration categories

Registration categories may need to be amended to capture new types of participant

Settlement and balancing

To accommodate injection of NGE and constituent gases at distribution level

Metering

Amendments to metering, rules, equipment and the measurement of heating values to ensure consumers are charged correctly for natural gas equivalents

Responsibility for blend

Clarification of who is responsible for the natural gas equivalent. Distributors or retailers.

Cost of gas and Competition

Treatment of the cost of constituent gases in billing arrangements with consumers. Impacts on retail competition and consumer choice

Regulated retail markets

| AREA | POLICY ISSUE | STAKEHOLDER FEEDBACK |
|---------------------------------|---|--|
| Registration categories | <p>May need to be amended to capture new types of retail market participants. Constituent gas producers or new facility operators who supply the constituent gases to create the NGE. Would depend on whether constituent gas producers or NGE are settled and accounted for in the market. Are changes to the retail market registration provisions required to accommodate natural gas equivalents?</p> | <p>The issues identified by the AEMC may need to be dealt with as part of the review (AGIG). The activities of additional facilities and services involved in creating NGEs (such as blending) do not require registration recognition. (Jemena)</p> |
| Settlement and balancing | <p>The settlement and balancing arrangements need to be reviewed to ensure natural gas equivalents and constituent gas injections are taken into account and to allocate those injections to participants and users so injections are balanced against withdrawals. Are there any other changes required to the retail market provisions in the NGR to accommodate natural gas equivalents?</p> | |
| Metering | <p>Metering arrangements will need to be amended so customers are charged correctly. This is likely to require changes to metering requirements in jurisdictional instruments and local heating values to be determined for specific parts of the system, and more often. Are there any other changes required to the retail market provisions in the NGR to accommodate natural gas equivalents?</p> | <p>Any changes should consider whether existing metering is suitable for recording NGE consumption. If not, then changes to metering regulations should be postponed until appropriate regulatory determination processes can be completed to confirm customers acceptance of the investment required to replace existing metering. (EnergyAustralia)</p> |

Regulated retail markets

| AREA | POLICY ISSUE | STAKEHOLDER FEEDBACK |
|--|--|---|
| <p>Responsibility for the blend</p> | <p>The introduction of natural gas equivalents into distribution systems also raises whether distributors or retailers are responsible for creating the natural gas equivalent and if this is to be accounted for in the regulatory framework, or in gas transportation contracts. Are there any other changes required to the retail market provisions in the NGR to accommodate natural gas equivalents?</p> | <p>Responsibility for blend should be with parties driving the inclusion, whether producers, networks or shippers/retailers (EnergyAustralia) Support AEMO having the power at the NGL level to manage blending limits and defining and allocating responsibilities could take place at the procedure level. (AGIG)</p> <p>It is not clear how retailers could be the responsible party for creating an NG equivalent given that they do not have visibility of injections into and withdrawals from the system. In any case, the rules should specify who is the responsible party (rather than left to contracts), to provide regulatory certainty. (Origin)</p> |

Regulated retail markets

| AREA | POLICY ISSUE | STAKEHOLDER FEEDBACK |
|---|---|--|
| <p>Cost of gas and Competition</p> | <p>There may be additional issues the AEMC needs to consider in relation to the recovery of the cost of the renewable component of the natural gas equivalent from retail customers, for a NGE blend and in relation to retail competition and consumer choice. These issues may be impacted by jurisdictional policies in relation to mandated renewable gas targets.</p> <p>Are any changes to the NGR or NERR needed, either now or in the future, to address any concerns about competition, consumer choice or cost pass through of renewables in the retail market?</p> | <p>Stakeholders provided helpful feedback on trials and trial conditions (this will be discussed in the workshop on Wednesday). Stakeholders also provided feedback on the contents of notices to be provided on transition to a natural gas equivalent which we have discussed as part of the consumer protection workstream.</p> <p>In relation to jurisdictional policies in relation to mandated renewable gas targets, stakeholders submitted that:</p> <ul style="list-style-type: none"> • There will need to be changes in the retail market for cost pass through, if there are jurisdictional mandated renewable gas targets (AGIG) • The renewable component should be separately identified and billed (APGA) • There should be transparent information regarding the overall emissions 'discount' or reduction enabled through any NGE. This figure should be a clear comparison to natural gas emissions and the level of emissions involved in an equivalent use of NGEs (PIAC) • This issue can be solved effectively through a new market for the renewable component of the blend, similar to how this is managed in electricity (Jemena) <p>In relation to cost issues, views differed as to whether a transition to natural gas equivalents could have cost increases to customers who did not chose to purchase the natural gas equivalent:</p> <ul style="list-style-type: none"> • there will be no price variations directly due to a transition to natural gas equivalents as retailers will continue to be able to source natural gas or natural gas equivalents for their customers (Jemena). • Retailers should not be able to charge consumers a premium for NGEs based on it being a 'cleaner, greener or more renewable product' where this is not universally accurate. PIAC considers it more appropriate for NGEs to be compared to zero emissions energy solutions, such as decarbonised electricity (PIAC). <p>In relation to competition issues, stakeholders commented that:</p> <ul style="list-style-type: none"> • There needs to be a consistent framework across regions to support competition (AGL). • All retailers serviced by the distributor will be offering the same blended product, there is still retail contestability and customers will still be able to switch retailers (AER). |

Registration categories

Policy issue: Are changes to the registrable participant categories for retail markets required? If only NGE are injected, and these injections are measured at the network receipt points by the network operator, does this mean no changes are required? If the responsibility for the NGE blend is with the retailer or distributor, then this may simply be an additional function of the retailer or distributor.

Analysis: Given some facilities may inject constituent gases and some may withdraw natural gas and inject natural gas equivalents, there may be a need for additional registration categories. The definition of new categories is likely to depend on whether new categories are established in the STTM and DWGM for blending facilities.

| OPTION ONE: NO CHANGE NEEDED | OPTION TWO: EXPAND EXISTING USER CATEGORY | OPTION THREE: INTRODUCE NEW CATEGORY FOR "TWO WAY" |
|---------------------------------------|---|---|
| No changes to registration categories | Extend the existing User category to "two way" participants who withdraw natural gas and inject natural gas equivalents into the market | Introduce a new category for "two way" participants |

The preliminary policy position we prefer is option two or three, depending on the approach to registration categories in the STTM and DWGM

Settlement and balancing

Policy issue: The settlement and balancing arrangements need to be reviewed to ensure natural gas equivalents and constituent gas injections are taken into account and to allocate those injections to participants and users so injections are balanced against withdrawals.

Analysis: AEMO considers that existing processes as defined in the Retail Market Procedures for balancing, allocations and settlement and reconciliation will remain fit for purpose for natural gas equivalents and no bespoke requirements have been identified. Subject to a definitional changes identified by AEMO (the definition of gas in the DWGM rules to pick up natural gas equivalents), injections from facilities producing natural gas equivalents will be captured by existing processes.

Further consideration is required as to whether arrangements are still fit for purpose for direct injection of constituent gases.

The preliminary policy position is that no changes are required (other than a change to the definition of “gas” in part 19 so it includes natural gas and natural gas equivalents). Further consideration is required in relation to the suitability of existing arrangements to constituent gas injections.

Metering

Policy issue: Metering arrangements, including processes for metering installations, meter reads and data flows of metering information to facilitate the retail markets, will need to be amended to ensure that consumers are charged correctly. A key issue relating to the supply of natural gas equivalents is that the heating value of natural gas equivalents may be different to natural gas and may vary depending on the location in the network and, in the case of blends, blend levels from time to time. It is critical that customers are accurately billed for the energy content of the gas they consume.

Analysis: Outside Victoria, technical metering requirements such as heating value calculations, are outlined in jurisdictional regulations. For any natural gas equivalent facility, distributors would need to undertake metering in accordance with jurisdictional arrangements and then provide this information to AEMO.

Other than in relation to basic meters in Victoria (where the rules require the application of a State-wide heating value), jurisdictional arrangements appear to enable the determination of localised heating values across networks. However, there is no consistent approach to determining when new heating value zones should be determined. There may be benefits in the NGR in setting out consistent principles to be applied to the determination of heating values that are used for settlement in Regulated Retail Markets.

The preliminary policy position is that consideration should be given to including in the NGR principles for determination of heating values for use in Regulated Retail Markets

Responsibility for the blend

Policy issue: The introduction of natural gas equivalents into distribution systems also raises whether distributors or retailers are responsible for creating the natural gas equivalent and if this is to be accounted for in the regulatory framework, or in gas transportation contracts.

Analysis:

Outside Victoria, this is to be managed by jurisdictions.

In the DWGM, AEMO can determine gas quality standards at system injection points that differ from the standard quality spec, although generally with agreement of registered participants. Gas quality monitoring is currently managed by each connected facility through a documented plan that is approved by AEMO. There will need to be changes for DDS facilities, where AEMO role could be expanded to cover DDS, or blend is bilateral responsibility with DDS service provider, or DDS has power to create injection standards.

The preliminary policy position is no changes are considered necessary to the rules. Are there any additional issues that should be considered?

Cost of gas and competition concerns

Policy issue: There may be additional issues the AEMC needs to consider in relation to the recovery of the cost of the renewable component of the natural gas equivalent from retail customers, for a natural gas equivalent. There may be issues the AEMC needs to consider in relation to retail competition and consumer choice. These issues may be impacted by jurisdictional policies in relation to renewable gas targets.

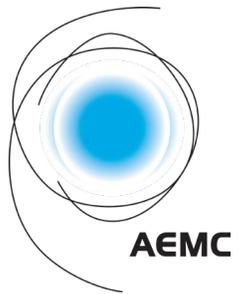
Analysis: If mandated renewable targets are introduced in regions in the east coast gas market, and with it, certification schemes for the renewable component of gas blends, then competition in the provision of renewable gases is likely preserved. All retailers are required to source certificates from the range of projects operating in different distribution networks.

Similarly, the cost of renewable gas certificates will be determined by all projects offering certificates in order that retailers can meet these targets.

There is an open question however as to how this cost is determined, and recovered, where there are not renewable gas targets, and where the flow of a renewable gas is restricted to a single part of the network and a particular set of consumers. And how competition in any single network with renewable gases is sufficient to ensure the price of renewable gases reflects the cost of producing them. (Competition between blending products, as opposed to competition between a number of retailers who might buy the same blend from a project).

At present, in the absence of a renewable gas target, there is no mechanism in the retail market specifying how the cost of producing renewable gases should be recovered from consumers. This issue may not be material with low level blends. But would become more significant over time with greater renewable gas blending.

No preliminary policy position at present. Welcome stakeholder discussion of this issue.



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