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Jemena Limited
ABN 95 052 167 405

321 Ferntree Gully Road
Mount Waverley VIC 3149
Locked Bag 7000
Mount Waverley VIC 3149
T +61 3 8544 9000
F +61 3 8544 9888
www.jemena.com.au

Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Via online submission

Dear Mr Pierce,

ERC0179: Consultation on National Electricity Amendment (Embedded Networks) Rule 2015

We welcome the opportunity to respond to the Australian Energy Market Commission's (**AEMC**) consultation paper on the proposed National Electricity Rule (**NER**) change relating to embedded networks.

Jemena is an $8.5 billion company that owns and manages some of Australia's most significant gas and electricity assets. These assets include the Jemena gas distribution network (**JGN**) which supplies over 1.2 million homes and small businesses customers around NSW and the Jemena electricity network (**JEN**) which delivers power to over 330,000 homes and businesses in north-west Melbourne.

Jemena has a strong interest in this review given:

- Innovation is occurring across the energy market – including the gas sector – as it responds to new technologies and customer preferences but the implications for customers are unclear
- Customers value innovation, the ability to manage their bills, participate in the retail market and access to customer protection
- The regulatory framework that applies to the distribution, metering and sale of energy to customers in embedded networks must be principles-based and give effect to these principles in a holistic and 'fit for purpose' way
- The AEMC's review represents an opportunity to consider a holistic energy market framework for the distribution, metering and sale of energy to customers in embedded networks.

This submission addresses these points, and we would welcome the AEMC's continued engagement with stakeholders to ensure the regulatory settings continue to promote the long-term interests of our customers.

Innovation is occurring across the energy market as it responds to new technologies and customer preferences but the implications for customers are unclear

The Australian Energy Market Operator's (**AEMO**) proposed change to the NER highlights the continued evolution we are seeing in our energy market as technology, commercial and policy developments are creating new ways for customers and businesses to source and sell energy.

As a gas and electricity network service provider, we have historically been responsible for providing:

- a safe and reliable supply of energy through our networks to customers including by maintaining the networks, connecting new customers to our networks and responding to supply interruptions
- providing metering services and customer inquiry services to individual households and businesses to allow customers to manage their individual bills, to choose their retail energy supplier and the right to access a range of customer protections.

However, increasingly, many of the core responsibilities for supplying residential and business customers rest with an energy intermediary such as an embedded network operator (and 'exempt seller'), rather than with us. This is most likely in medium density and high-rise residential and commercial developments.

These trends are leading to new energy market players and changes in the roles of existing energy market players, like Jemena.

Increasing diversity in energy services can potentially promote the long term interests of customers. Increasing diversity in energy solutions could benefit customers through providing them with access to potentially more innovative, efficient and customer-focused energy services. However, it could adversely affect the customer experience for some customers in medium density developments by effectively creating a barrier to:

- customers managing their usage, choosing their retailer in the retail market and ultimately their energy bills
- retail competition in this market.

This is because it is not clear whether:

- energy intermediaries and in many cases property developers are incentivised to provide customers with access to individual metering and metering that facilitates customers' choice of retailer in the competitive market (for example, hot water used in developments with centralised hot water units[1]),

[1] Many medium or high rise developments in NSW have centralised hot water units. Currently these JGN customers have individual hot water meters that records the water (and therefore gas used as part of the centralised hot water units), and allows customers to access to individual metering, choice of retailer and customer protection measures. It is not clear whether energy intermediaries and developers will be incentivised nor required under the NGR to provide individual hot water meters that will facilitate individual billing and choice of retailer.

- many residents – including those from culturally and linguistically diverse communities – have sufficient knowledge of their rights relating to the supply of energy, nor how the potential changes in our energy market may impact their experience

- the policy and regulatory frameworks – including the NER and NGR, the exempt selling framework and potentially jurisdictional planning and/or obligations for bodies corporate that applies to the distribution, metering and sale of energy to customers in embedded networks – will be refined to address the changes occurring in the market.[2]

Customers value innovation, the ability to manage their bills, participate in the retail market and access to customer protection

Our recent and extensive engagement with our customers as part of gas[3] and electricity[4] price reviews highlighted that our customers are increasingly engaged in decisions on energy and are looking to new (and increasingly affordable) technologies that allow them to produce their own energy and manage their consumption. That is, they support innovation occurring in the energy sector in a way that provides customer-focused energy services.

However, our gas customers highlighted the principles of importance to them – continued customer access to individual metering and billing, choice of retailer and customer protection measures – and the need for the regulatory framework to ensure all customers, including those supplied hot water[5] and potentially heating and electricity by energy intermediaries continue to have access to these services.

To date, there has been a lack of clarity and communication around the management and operation of embedded networks – including the rights of customers and responsibilities of embedded network operators – and obligations on exempt sellers, which can unnecessarily create barriers for customers exercising their rights in their competitive retail market. The Consumer Utilities Advocacy Centre's (**CUAC's**) extensive research provides informative insights into the experience of Victorian electricity customers in embedded networks.[6]

For this reason, we support many elements of AEMO's proposed changes to the NER that would:

- make it easier for customers within an embedded network access to retail market competition
- create a new category of service provider (the embedded network manager (**ENM**) in the NER) to manage the experience of embedded network customers in the national electricity market (**NEM**).

To best facilitate this we would also encourage the AEMC to consider application of AEMO metering requirements to all meters in an embedded network such that when

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[2] For example, the next stage in the Energy Market Reform Working Group (EMRWG) review of *New Products and Services in the Electricity Market* is not clear.

[3] As part of JGN's 2015-20 gas access arrangement proposal.

[4] As part of JEN's 2016-20 electricity distribution price review proposal.

[5] Gas used to produce hot water typically accounts for 80% of individual customers' gas usage in medium or high rise developments.

[6] Consumer Utilities Advocacy Centre (CUAC), Growing Gaps: Consumer Protections and Energy Re-sellers – A CUAC Research Report, December 2012.

an ‘off-market’ residential and business customers exercise choice of retailer and elects to transfer to another retailer, the meter would be fit for purpose and a meter change may not be required. Such requirements would avoid potential meter changeover before a customer can become an ‘on-market customer. Any requirement to install an NEM-compliant meter for all an embedded network should be prospective.

Attachment A to this submission provides a detailed response to the AEMC’s consultation paper.

The regulatory framework that applies to the distribution, metering and sale of energy to customers in embedded networks must be principles-based and give effect to these principles in a holistic and ‘fit for purpose’ way

However, AEMO’s proposed changes to the NER are narrow and do not explore some of the broader issues of the regulatory framework that should apply to the distribution, metering and sale of electricity to customers in embedded networks under the NER.

Further, to date, our policy and regulatory institutions including the Energy Market Reform Working Group (**EMRWG**)[7] and the Australian Energy Regulator (**AER**) [8]– have focused on the innovation occurring in the electricity sector and the implications for the policy and regulatory framework that applies to the distribution and sale of electricity.

We strongly urge the AEMC to consider the innovation occurring across the overall energy market, the principles that should apply to the regulation of the distribution, metering and sale of energy under both the National Electricity Law and National Gas Law, and the appropriate regulatory framework to give effect to these principles. This is essential if we are to have a sustainable and holistic regulatory framework that applies across our energy market and one that encourages efficient investment in energy solutions that benefit customers through providing them with access to potentially more innovative, efficient and customer-focused energy services.

Therefore, regulation that gives effect to these principles needs to:

- be holistic by covering the electricity and gas sectors in our energy market.
- focus on providing a consistent basis for equivalent service features, rather than the delivery model[9]
- be ‘fit for purpose’, balancing innovation and customer protection across the energy market, which may require rethinking the AER’s current binary framework of Option 1 (“Registration”) or Option 2 (“Exemption”) for persons involved in on-selling of energy in embedded networks.

In an environment of rising wholesale gas prices, it is crucial for customers to be encouraged in their take-up of new technologies – such as hot water, heating or electricity provided by cogeneration facilitates in new greenfield developments – as well as appropriately supported and empowered by a regulatory framework that

[7] Energy Market Reform Working Group (EMRWG) Consultation Paper – New Products and Services in the Electricity Market.

[8] AER, Issues Paper – Regulating innovative business models under the National Energy Retail Law, November 2014.

[9] For example, whether gas supplied by us is used by a customer to produce hot water or heating or an energy intermediary supplies our gas to customers in embedded network in the form of hot water, heating or electricity.

promotes customer access to individual metering and billing, choice of retailer and customer protection measures.

Network businesses, retailers, regulators and policy makers need to create positive market conditions if we are to encourage efficient .investment in energy solutions that create a positive customer experience in our energy market.

Attachment B provides further information on the changes occurring in the gas market in NSW.

Attachment C highlights what Jemena is doing to support these changes and make the NSW gas retail market work more effectively for our customers.

The AEMC's review represents an opportunity to consider a holistic energy market framework for the distribution, metering and sale of energy to customers in embedded networks

We recognise that AEMO's proposed changes to the NER are fairly narrow and do not explore some of the broader issues of the regulatory framework that should apply to the distribution and sale of electricity to customers in embedded networks under the NER (let alone the NGR).

However, we of the view that the AEMC's review of AEMO's proposed changes to the NER represents an opportunity to consider how the policy and regulatory framework can appropriately balance customer participation and protection in embedded networks with facilitation of innovation in new services ***across our energy market***. In some ways, it represents an opportunity for the AEMC to consider the extent to which its *Power of Choice* reform initiatives are relevant across our energy market (i.e. to look beyond electricity services) given the relevance of many of the underlying principles[10].

An overly narrow AEMC review that focuses on the arrangements that apply to metering in embedded electricity networks risks creating a piecemeal electricity market solution that could distort investment across the energy market and potentially lead to a two-tiered customer experience across our energy market.[11]

For these reasons we would welcome:

- the AEMC's consideration of how the policy and regulatory framework can appropriately balance customer participation and protection in embedded networks with facilitation of innovation in new services ***across our energy market***
- a continued dialogue with the AEMC on these important issues to ensure the regulatory settings continue to promote the long-term interests of our customers.

If you wish to discuss the submission please contact Alexus van der Weyden, Manager Regulatory Economics and Policy on (02) 9455 1575 or at alexus.vanderweyden@jemena.com.au.

[10] For example, initiatives that provide opportunities for customers to make informed choices about the way they use energy based on the benefits that end use energy services provide, such that customers are in the best position to decide what works for them.

[11] For example, it could lead to a situation where for embedded electricity networks we have robust market arrangements with clear and accountable responsibilities around metering to support access to retail market competition, with the potential for embedded gas (or hot water) networks that do not provide customers and embedded network operators with the same rights and obligations.

Yours sincerely

Eli Grace-Webb
General Manager Regulation (Acting)

Attachment A: Detailed response to AEMC Consultation Paper

AEMC questions on embedded networks	JEN response
Question 1 Requirements to facilitate competition a) Are there any additional changes to the NER or the AER's network guideline that are necessary to allow embedded network customers access to retail market offers? b) Are there any additional changes to the NER or the network guideline that are necessary to clarify the roles and responsibilities for management of embedded network customers? c) Are any of the proposed changes to the NER or the network guideline proposed by AEMO not appropriate?	a) AEMO has identified two changes to the AER's network energy selling exemption guideline[12]. AEMO recommends ENOs unbundle retail bills of embedded network customers into network and energy charges to so that customers to compare energy charges from a registered retailer offers and the ENO. To enable this, there needs to be a corresponding requirement on the 'parent' retailer to unbundle the retail bill to the ENO. Additionally, AEMO has identified that the same routine testing and inspection of off-market meters should apply to off-market child meters[13]. We believe all meters within an embedded network should be of the same standard as on-market meters and be installed by an AEMO accredited meter provider. That way, when an off-market customer exercises choice of retailer and elects to transfer to another retailer (i.e. becomes on-market), a meter change may not be required. We propose this requirement be prospective. b) AEMO has identified functions required to facilitate access to competition. We support these. In addition to these functions, we believe all off-market meters within an embedded network should be discoverable in the NEM. Accordingly, we propose NEM-compliant off-meters meters be allocated NMIs. c) JEN supports the changes AEMO has identified to the conditions of AER's network exemption guideline.
Question 2 Who should perform these functions?	

[12] AER *Electricity Network Service provider Registration Exemption Guideline*, 27 August 2013
[13] Consultation paper, embedded networks rule change, 21 May 2015, p16

AEMC questions on embedded networks	JEN response
a) Should a new accredited service provider role (the ENM) be created to perform all or some of these functions as proposed by AEMO? b) What, if any, functions should be performed by an existing party? And if so, which existing party? What would the advantages be of an existing party performing some of the functions? d) Alternatively, if a new ENM role is not created, who should perform the functions identified by AEMO? What would the advantages be of other parties performing the functions?	a) JEN supports the proposed creation of a new accredited ENM role to undertake the functions required to facilitate access retail market offers as there are clear benefits[14]. b) Currently LNSPs in Victoria set up and maintain the MSATS standing data for an on market embedded network customers. However, we believe there is merit in assigning all the functions[15] to an ENM as proposed by AEMO. c) Under the metering completion rule change, the retailer has the responsibility to appoint the Metering Coordinator (**MC**). In the absence of a new ENM role, we believe the MC of the parent meter is best placed to coordinate the relevant functions required to enable embedded network customers to access retail market offers.
Question 3 When is an ENM required? a) Should all registrable and individual embedded networks be required to appoint an ENM? What are the advantages of such a requirement? b) Should deemed embedded networks be required to appoint an ENM? c) Is another threshold appropriate? d) Should the threshold for appointing an ENM be a matter for the AER under the network guideline? Should the NER provide factors for the AER to consider when setting the threshold?	a) All registrable embedded networks should be required to appoint an ENM so that customers within an embedded network can access retail market offers. b) The exempt energy selling classes in the AER's guideline includes '*Persons selling metered energy to* ***fewer than ten*** *small commercial/retail customers within the limits of a site that they own, occupy or operate*[16]*'.* JEN considers all customers be afforded the same ease of access as those customers residing in larger embedded networks. We see no reason why they should face a higher barrier to access retail market offers.

[14] AEMO benefits identified on page 17 of the consultation paper.
[15] Functions identified in section 5.1.1 of the embedded network rule change consultation paper, 21 May 2015.
[16] Energy selling, section 3.11, AER *Electricity Network Service Provider Registration Exemption Guideline*, 27 August 2013.

AEMC questions on embedded networks	JEN response
	c) In support of our position above, there should be no threshold for appointing an ENM. d) The NER should provide for all residential electricity end users living in strata titled residential complexes equal opportunity to access retail market offers. Such a rule, if made, should equally apply to business customers.
Question 4 Accreditation and governance of an ENM a) Are the proposed requirements appropriate? b) Are any other requirements needed for the accreditation and governance of ENMs? c) Are any of the requirements proposed by AEMO not necessary for the accreditation and governance of ENMs? d) Should the requirement to have ENM services provided by an accredited ENM be classified as a civil penalty provision?	a) JEN considers the proposed requirements are appropriate for accreditation of ENMs to fulfil the functions[17] required to facilitate access to retail competition. b) No. c) No. d) This question is in relation to "accreditation and governance of ENM". However the question is referring to the requirement to have ENM services provided by an accredited ENM. The requirement to 'have ENM services' results from the obligation on ENOs to appoint ENMs. It is the ENO who would be responsible for supply, energisation and de-energisation, and communicate registration of life-support customers to distributor and/or retailer within an embedded network. The AEMO had proposed one of the functions of the ENM is "where electricity supply must be maintained for life support requirements, notifying the financially responsible market participant (**FRMP**) of the parent connection point of the requirement[18]"

[17] Functions identified in section 5.1.1 of the embedded network rule change consultation paper, 21 May 2015
[18] Ibid.

AEMC questions on embedded networks	JEN response
	It is not clear which party the civil penalty provision is aimed at, as both parties have shared responsibility for the management of supply and life support customers.
Question 5 Who can be an ENM a) Should any party be prevented from becoming an ENM? b) Should the AER be able to determine the ring-fencing arrangements for ENM services?	a) Any party that meets AEMO's accreditation requirements should be allowed to become an ENM. b) JEN believes the current financial ring-fencing requirement – i.e. the AER-approved cost allocation methodology – is sufficient to ensure the regulated services do not subsidise unregulated services, which would unfairly disadvantage potential competitors.
Question 6 Grandfathering a) Taking into account potential implementation timing, how long should ENOs with current registrable or individual network exemptions be provided to appoint an ENM? b) Should the transition period be set in the AER's network guideline or within the NER?	a) JEN considers that allowing ENOs two years to appoint an ENM may be too long. We propose considerations be given to require ENOs to appoint an ENM earlier, having regard to the transitional arrangements. There will be a cost to the ENO from the appointment of the ENM. JEN suggests that the rule (or the AER's exempt guideline[19]) that requires the appointment of an ENM ensures on-market customers in an embedded network are not unduly burdened by the cost to appoint an ENO relative to off-market customers. If this rule change results in higher costs for on-market customers than those who are off-market, then it will stifle retail competition within an embedded network. b) No comment.

[19] AER *Electricity Network Service Provider Registration Exemption Guideline*, 27 August 2013.

AEMC questions on embedded networks	JEN response
Question 7 Transitional provisions a) Are the proposed transitional provisions appropriate? b) Are any other transitional arrangements necessary to facilitate the implementation of the proposed rule?	Yes.
Question 8 Implementation timing a) Are there potential synergies available from implementing the proposed rule in co-ordination with the Expanding Competition in Metering and Related Services rule change, the Meter Replacement Processes rule change and/or the advice on the Shared Market Protocol? If so, to what extent?	a) If there are rule changes, they should be should be incorporated into changes being considered under the metering competition rule change.
Question 9 Competition in the ENM market a) Will AEMO's proposed six month deeming of ENMs assist ENOs in finding an ENM or aid in the development of ENMs? b) Are any other regulatory arrangements necessary to facilitate competition in the provision of ENM services? **c)** Are retailers, NSPs, ENOs or other parties likely to seek to provide ENM services?	a) It is proposed ENOs are allowed two years to appoint an ENM. Parties have up to two years to seek accreditation. So it is not clear to us why the six months deeming is necessary. If the period to appoint an ENM is shortened, then there may be merit in proposing a deeming period. b) No comments. c) No comments.
Question 10 Consequential or corresponding changes to the NERR a) How should the potential corresponding issues in the NERR be addressed? **b)** b) Are there are other necessary, consequential or corresponding changes to the NERR that may be relevant to the making of the proposed rule?	b) If there are rule changes, they should be should be incorporated into changes being considered under the metering competition rule change. c) No comments

Attachment B: Innovation occurring in the NSW gas market - The customer experience and energy supply from energy intermediaries

Jemena Gas Networks (NSW) Ltd

ATTACHMENT B: Innovation occuring in the NSW gas market - Energy supply from energy intermediaries

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Contact Person

Robert McMillan
GM Regulation
Ph: 03 8544 9000

Jemena Gas Networks (NSW) Ltd

ABN 87 003 004 322
Level 9-15, 99 Walker Street
North Sydney NSW 2060

Postal Address

PO Box 1220
North Sydney NSW 2060
Ph: (02) 9867 7000
Fax: (02) 9867 7010

OVERVIEW

Our residential and commercial gas customers have a safe, reliable and cost effective supply of energy and the power to manage their individual bills to choose their retail energy supplier and the right to access a range of customer protections.

However, recent technological, market and policy developments mean some residential and business customers may be supplied gas, hot water, and potentially electricity services through 'energy intermediaries' (intermediary), rather than taking gas direct from our network.[1] We estimate that by 2020 around half of our new gas customers in medium-density and high-rise residential and commercial developments could be supplied gas, hot water, and potentially electricity, through an energy intermediary. This represents around 35,000 new customers by 2020.

Under these arrangements many of the core responsibilities for these residential and business customers – including the distribution and metering functions we currently provide – would rest with the intermediary, rather than with us.[2] For this reason, supply from new energy intermediaries has the potential to change the 'customer experience'.

Increasing diversity in energy solutions could benefit customers through providing them with access to potentially more innovative, efficient and customer-focused energy services. However, it could adversely affect the customer experience for some customers in medium density developments such that customers may have limited or no ability to manage their individual bills, to choose their retail energy supplier and to access to a range of customer protections that would otherwise be available to them at present.

This is because it may no longer be our role to deliver the existing services to those customers and it is not clear whether:

- energy intermediaries and property developers are incentivised to provide customers with access to individual metering and metering that facilitates customers' choice of retailer in the competitive market (for example, hot water used in developments with centralised hot water units),
- many residents – including those from culturally and linguistically diverse communities in NSW – have sufficient knowledge of their rights relating to the supply of energy, nor how the potential changes in our energy market may impact their experience
- the policy and regulatory frameworks that apply to the distribution, metering and sale of energy to customers in embedded networks – including the National Electricity Rules and National Gas Rules, the exempt selling framework and potentially jurisdictional planning and/or bodies corporate obligations– will be refined to address the changes occurring in the market.[3]

This paper provides information about the changes occurring in the energy market – including how Jemena has sought to facilitate innovation in the NSW gas market – and explains the implications for us and some of our customers in medium density developments.

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1 Energy intermediaries could be embedded network operators (providing distribution and metering functions) and authorised energy retailers or entities that have been granted an exemption by the Australian Energy Regulator (AER) under the National Energy Retail Law for the sale of energy (known as 'exempt sellers').

2 We currently supply most gas services to medium density developments as a 'reference service', meaning our supply and the terms and conditions for accessing the network are governed by the Access Arrangement. Jemena Gas Network's 2015-20 Access Arrangement includes 6 new tariff classes for residential and small business customers that receive energy services from an intermediary, rather than taking gas direct from our network.

3 For example, the next stage in the Energy Market Reform Working Group (EMRWG) review of *New Products and Services in the Electricity Market* is not clear.

1. WHAT ARE THE CURRENT ROLES AND RESPONSIBILITIES?

Our gas network serves customers in coastal areas, such as Sydney, Newcastle, Wollongong and the Central Coast, and over 20 country centres including those within the Central Tablelands, Central West, Southern Tablelands and Riverina regions of NSW.

As a gas network service provider, we are responsible for providing a safe and reliable supply of gas through our network to end-use customers - including by maintaining the network, connecting new customers to our network and responding to supply interruptions – and for providing metering services and customer inquiry services to individual households and businesses.

We have actively sought to promote the gas and centralised hot water customer experience in medium density developments. Customers in these developments currently:

- Receive reliable and cost effective gas from our network for use in centralised hot water services[4]
- Are able manage their individual gas and hot water bills and choose their retail supplier that best meets their needs
- Are able to access complaint resolution and customer protection measures.

We have done this by:

- Working with developers to ensure that gas and centralised hot water systems are designed and installed in an efficient and cost effective way, lowering the cost of gas and hot water for customers in medium density developments[5]
- Testing, maintaining and reading individual gas and hot water meters in medium density developments to ensure customers only pay for the gas (and the gas used to supply hot water) that they use
- Ensuring we have the appropriate metering and IT systems to facilitate customers' exercising their choice of retail supplier[6]
- Maintaining responsive call centres, appropriate data systems and interfaces with market systems to work with retailers when handling customer inquiries and complaints.

These arrangements are summarised in Figure 1 whereby almost all of our 1.2 million existing residential and small business customers have with individual gas and potentially hot water metering that facilitates individual billing and choice of retailer.

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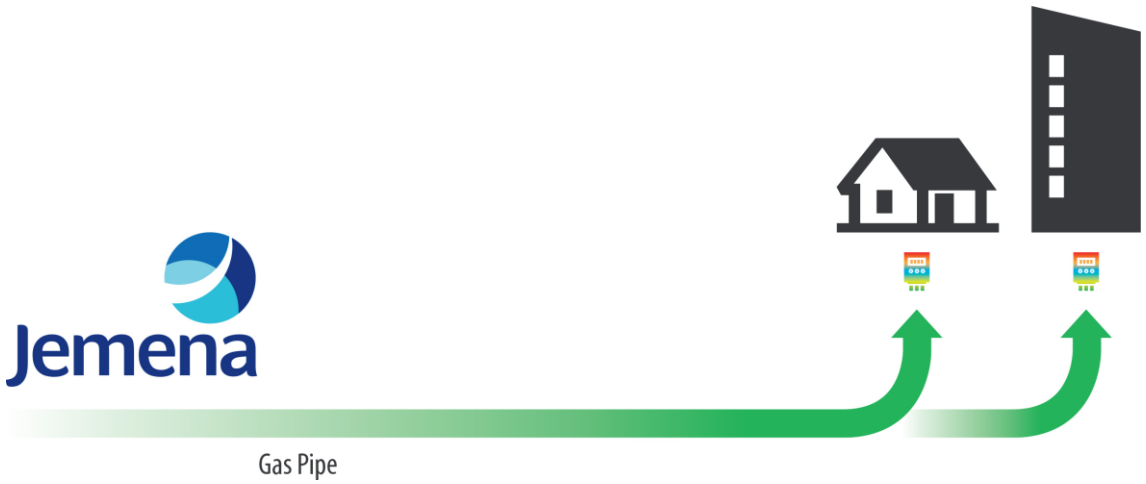
4 Gas hot water can be supplied to multiple dwellings through either individual hot water storage or gas instantaneous hot water systems in each apartment, or else through a gas centralised hot water system. A centralised hot water system typically takes up less space, and has lower installation and operating costs.

5 An efficiently designed gas centralised hot water system minimises heat losses, gas usage, and ultimately gas bills.

6 The vast majority of energy customers in NSW have access to the competitive retail market with almost two-thirds of gas customers being supplied under market contracts.

Figure 1–1: Jemena supplies almost all of our 1.2 million existing residential and small business customers with individual metering that facilitates individual billing and choice of retailer



Notes: Tariff classes VI-Coastal and VI-Country

In our view, this traditional approach has contributed to a positive customer experience and gas 'brand'. This is likely to have underpinned growth in the number of gas customers in medium density developments, putting downward pressure on prices.[7]

[7] Increasing demand for gas services benefits existing customers through lower average prices, by allowing us to recover our fixed costs from a larger customer base. Lower average gas prices further incentivises customers to connect to gas.

2. WHAT ARE THE CHANGES OCCURING IN OUR ENERGY MARKET?

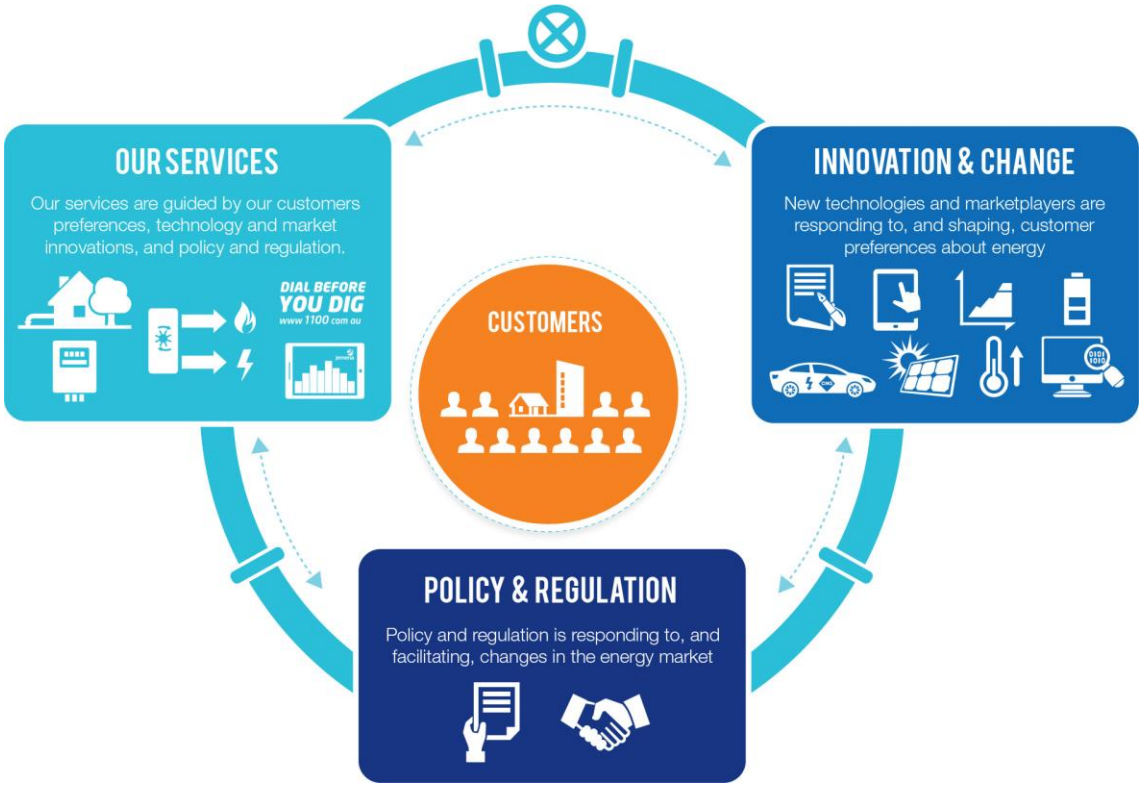
Our energy market is continuing to evolve. Advances in technology are creating new ways for customers and businesses to source and sell energy.

Customers are no longer passive consumers of a 'low involvement' product in our energy market. Rather, they are increasingly engaged in decisions on energy, looking to new (and increasingly affordable) technologies that allow them to produce their own energy and manage their consumption.

These technological and customer driven trends are driving innovation across the energy market – including the gas sector. Gas is a fuel of choice in NSW and competes with both established electricity services as well as new and innovative energy services. Innovation in the electricity sector, therefore, necessarily stimulates innovation in the gas sector, including the way gas is used and sold to customers.

These changes have encouraged existing and new market players to provide new services to customers (and other market players like intermediaries) in NSW and in other states.

Figure 2–1: Jemena and other market players are responding to and facilitating changes in our energy market



Source: Jemena

2.1 WHAT COULD THE NEW ARRANGEMENTS LOOK LIKE?

Technological, market and policy developments are increasingly challenging the conventional business model of energy supply. New providers such as intermediaries are supplying gas, hot water, and potentially electricity to customers over smaller localised networks ('embedded networks'), and may even source the energy from small scale gas fired generators ('embedded generators') located close to the end-user.[8] These embedded networks and/or generators are primarily at sites with large energy consumption, including large heating and/or cooling loads, such as commercial centres (shopping centres, hotels, industrial facilities) or residential centres (multi-dwelling residential buildings). They are most likely in medium density developments.

This has led to increasing interest for us to supply gas transportation and metering services to intermediaries in medium density developments (rather than to end customers).

Jemena Gas Network's 2015-20 Access Arrangement includes 6 **new** tariff classes for residential and small business customers that receive energy services from an intermediary, rather than taking gas direct from our network. These customers and are known as 'boundary metered' end-customers (given they may not be individually metered by us), or 'residential distributed generation technology' end-customers. (Refer Table 2–1 for a summary, or JGN's Tariff Structures Statement for detail.[9])

Examples of intermediaries, who will fall into one of the six new tariff classes include:

- a strata body corporate (or building owner) buying gas for a centralised gas hot water boiler in a residential building, or buying gas to supply to the residents of the building will be a Volume boundary metered (VB) customer
- an energy supplier that specialises in owning and operating gas boilers for residential centralised gas hot supply to end customers in residential buildings will be a VB metered customer
- an operator of a large-scale gas-fired cogeneration energy system supplying electricity and thermal energy to principally residential buildings or precincts that use more than 50 TJ of gas per annum will be Residential distributed generation technology (VRT) customer. Operators of smaller-scale systems consuming less than 50 TJ per annum will be a VB metered customer.[10]

We estimate that by 2020 around half of our new gas customers in medium-density and high-rise residential and commercial developments could be supplied gas, hot water and potentially electricity through an energy intermediary (i.e. will be supplied under the VB and VRT tariff classes). This represents around 35,000 new customers by 2020.

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8 The embedded network could be within a residential or commercial building, or across a wider precinct. The embedded generator could be a co-generation and/or tri-generation facility that generates electricity and thermal energy (hot water, heating etc.) through small scale gas fired generators located close to the end-user.

9 http://jemena.com.au/documents/gas/tariff-structures-statement.aspx

10 An example of an intermediary who will not fall into one of the six new tariff classes is a gas-fired cogeneration owner and operator supplying electricity and thermal energy to principally commercial buildings or precincts. These customers will be assigned to a VI tariff class if less than 10 TJ and into DC or other demand tariff class if greater than 10 TJ.

Table 2–1: JGN's approved volume reference tariff classes

Tariff category	Number of tariff classes	Tariff classes	Types of end-customers[11]	Why do we have these tariff classes?
Volume individual metered	2	VI-Coastal VI-Country (previously V-Coastal and V-Country)	Most of our 1.2 million existing customers and some of our new customers, including residential and small - medium businesses, with individual metering consuming up to 10 TJ per annum	Maintains existing tariff classes for most of JGN's existing and some new customers.
Volume boundary metered (new)	2	VB-Coastal VB-Country	Residential end customers in higher density residential developments and small business customers in commercial developments supplied energy by an energy intermediary that sits between the boundary meters and the end customers.	Increasing demand for boundary metered supply to higher density developments where energy intermediaries then on-sell energy to residential or business end customers. We want to encourage innovative, efficient and customer focused energy services.
Residential distributed generation technology (new)	4	VRT-03, VRT-04, VRT-06, VRT-10	Residential end customers supplied energy by an intermediary using a large-scale generation unit in a residential precinct (consuming more than 50 TJ per annum)	Recent technological, market and policy developments mean residential customers in large precincts may be supplied electricity, heating or cooling from a gas-fired plant (cogeneration or tri-generation). We want to encourage innovative, efficient and customer focused energy services, and promote gas usage to lower average prices for all customers.

2.2 WHAT ARE THE ROLES AND RESPONSIBILITIES UNDER THIS NEW ARRANGEMENT?

Under these new arrangements we would be responsible for supplying gas to a point outside the residential or commercial premises (as opposed to each individual customer), and for recording the total consumption of the energy consumers in the premises at this point (as opposed to the individual consumption of tenants). In short, our obligations (including those under the National Energy Customer Framework) would be with the intermediary, rather than the end-energy consumer – the intermediary would become our customer (i.e. our obligations stop at the 'rainbow meter' in Figure 2-2 and 2-3).[12]

11 End-customers are those that consume the energy, rather than an intermediary who on-sells energy to end-customers.

12 These meter would be 'on-market' (i.e. allows retail market choice)

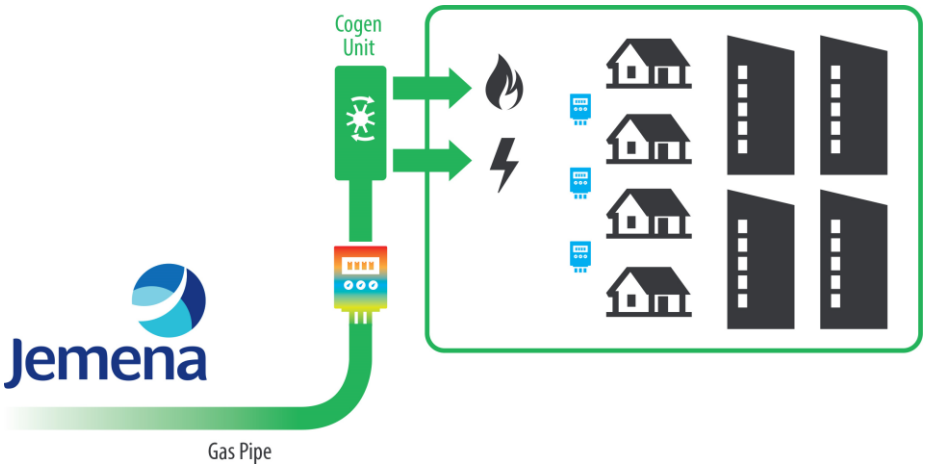
If an energy consumer in a medium density development is supplied gas, hot water and/or electricity from an intermediary, issues relating to reliability of gas supply, cost effectiveness of any centralised hot water, billing of individual energy usage, as well as access to the competitive retail gas market and customer protection would be matters that individual energy consumers would need to engage on with the intermediary within the appropriate policy and regulatory framework.

However the policy and regulatory framework (including 'exempt seller' obligations that apply to the party on-selling energy) only covers some of these issues relating to gas supply, although this will depend on the specifics of the arrangement.[13] For example, the regulatory framework excludes gas used to provide hot water in developments with centralised hot water units.[14]

Figure 2–2: Residential customers in higher density residential developments and small business customers in commercial developments may be supplied gas or hot water by an energy intermediary that sits between the boundary meters and the end customers

Note: Tariff classes VB-Coastal, VB-Country

Figure 2–3: Residential customers may be supplied energy by an intermediary using a large-scale generation unit in a residential precinct (consuming > 50 TJ per annum)



Note: Tariff classes VRT-03, VRT-04, VRT-06, VRT-10

13 Australian Energy Regulator (AER), Retail Exempt Selling Guideline – April 2015.

14 Many medium or high rise developments have centralised hot water units. Currently these customers have individual hot water meters that records the water (and therefore gas used as part of the centralised hot water units), and allows customers to access to individual metering, choice of retailer and customer protection measures. It is not clear whether energy intermediaries and developers will be incentivised or required under the NGR to provide individual hot water meters that will facilitate individual billing and choice of retailer.

3. WHAT ARE THE IMPLICATIONS FOR CUSTOMERS?

Increasing diversity in energy services can potentially promote the long term interests of customers.

Supply of energy from new and innovative business models has the potential to change the customer experience. Increasing diversity in energy solutions could benefit customers through providing them with access to potentially more innovative, efficient and customer-focused energy services.

Ultimately it's up to the market, including customers and intermediaries, to decide which service and customer experience they value within an appropriate policy and regulatory framework. In theory, intermediaries could choose to offer customers a service that continues to provide individual metering and billing and easy access to the competitive retail market. Alternatively if customers do not value these services, developers and/or intermediaries may choose a less costly alternative. These cost savings may be passed on to customers.

However, there is uncertainty in terms of what these arrangements may mean for customers, both in the coming years and the longer term. In particular, under an intermediary arrangement customers may have limited or no ability to manage their individual bills, to choose their retail energy supplier, and to access to a range of customer protections that would otherwise be available to them at present.

This is because it may no longer be our role to deliver the existing services to those customers and it is not clear whether:

- energy intermediaries and property developers are incentivised to provide customers with access to individual metering and metering that facilitates customers' choice of retailer in the competitive market (for example, hot water used in developments with centralised hot water units), or provide any cost savings that result from a less costly alternative on to customers
- many residents – including those from culturally and linguistically diverse communities in NSW – have sufficient knowledge of their rights relating to the supply of energy, nor how the potential changes in our energy market may impact their experience
- the policy and regulatory frameworks that apply to the distribution, metering and sale of energy to customers in embedded networks – including the National Electricity Rules and National Gas Rules, the exempt selling framework and potentially jurisdictional planning and/or bodies corporate obligations– will be refined to address the changes occurring in the market.[15].

Table 3–1 provides an overview of what we see as the likely changes to the customer experience from intermediaries supplying gas and hot water services in medium density developments. This is based on our understanding and experience with these arrangements in NSW and other jurisdictions.

[15] For example, the next stage in the Energy Market Reform Working Group (EMRWG) review of *New Products and Services in the Electricity Market* is not clear.

Table 3–1: Implications for customers

Customer experience	Current arrangements	Energy supply from energy intermediaries
Reliability of supply	**Yes.** We: • Have significant expertise in the supply of gas and centralised hot water services to customers • Have a strong commercial incentive to promote the customer experience	**Potentially.** The interest and experience of intermediaries in supplying these services in relation to their embedded network, and resolving issues arising in supply, is likely to be varied
Efficiency and cost effectiveness of supply	**Yes.** We: • Have a commercial and regulatory incentive to pursue efficiency and cost improvements • Have a strong commercial incentive to ensure gas is a competitive energy source • Have a demonstrated commitment to working with developers to ensure efficient and cost effective centralised hot water systems are designed and installed.	**Potentially.** Increasing diversity in energy services could drive technical and commercial innovation. However the benefits for individual customers will depend on: • The specifics of the arrangements, including the nature of the medium density development • The incentives of the developers and intermediaries and the extent to which they are aligned with customers (and continue to be aligned with customers, over time).
Individual metering and billing	**Yes.** We: • Test, maintain and read individual customer meters in medium density development to ensure accurate metering; • Provide this information to the customers' retailer to facilitate accurate billing and ensure customers pay for the energy they consume ('user pays' principle)	**Highly variable.** Given: • Costs associated with individual metering (particularly for hot water) may be a disincentive to developers and intermediaries (for example, a simple scheme to apportion costs equally between consumers, regardless of use, may be attractive due to ease of administration) • Diversity in interest, experience and business models of intermediaries • Little to no regulatory framework (particularly for centralised hot water)

Access to retail market competition and competitive gas pricing	**Yes** We: • Work with developers to provide individual gas and hot water meters • Provide the appropriate data systems and interfaces with market systems to support retail customer choice	**Unlikely** Given: • Costs associated with appropriate data systems and interfaces with market systems to support retail customer choice is likely to be a disincentive for developers and intermediaries • Investments (cogeneration and/or centralised hot water systems) may be based on customer retention • Little to no regulatory framework Retail gas prices are currently regulated in NSW by IPART (around 20% of customers remain on the regulated gas price)
Innovative customer focused products	**Potentially** We have a commitment to offering a responsive and customer focused service.	**Potentially** Increasing diversity in energy services could provide for more innovative and customer-focused products. This will depend on the incentives for developers and intermediaries.
Effective complaint resolution and customer protection	**Yes** Customers have access to : • approved retailer hardship policies, • a fair and comprehensive disconnection/re-connection process, • customer inquiry and complaints resolution service, including access to ombudsman schemes (EWON), • a retailer of last resort (ROLR) scheme in the unlikely event that a supplier is unable to continue to supply customers. Our obligations under NECF are with the end customer.	**Potentially** Intermediaries and/or exempt sellers may provide some complaint resolution and customer protections, however: • limited obligations on exempt sellers of gas, with no obligations for hot water, • interest, experience and resources of intermediary and/or exempt sellers to provide these services may vary (large retailer vs. body corporate), particularly around hardship and connection/disconnection services • unlikely to be any Retailer or Provider of Last Resort (although this will depend on the specifics of the arrangements), • customer knowledge of who is responsible for what element of their supply is likely to be limited, including the avenues available to them to address certain issues (e.g. issues related to supply interruptions, leakages, billing, hardship etc.) Our obligations under NECF are with the intermediary (not with the end-customer)

Attachment C – What Jemena is doing to make the NSW gas retail market work more effectively for our customers

Issue	What we heard	What we are doing
Access to choice of retailers in the competitive retail market	• Customers value the choice of individual billing and metering and their choice of retail supplier • These market changes may require greater regulatory protection for customers supplied by energy intermediaries and or more information disclosure about the implications of being supplied by an intermediary.	• Working with developers and other stakeholders to encourage installation of metering to facilitate customer choice of retail supplier • Advocating for policy and regulatory changes to ensure all customers – including those who rent their property, or live in a caravan park or boarding house – have the choice of individual billing and metering and their choice of retail supplier
Network pricing that is simple and easy to understand	• Customers value us simplifying our network tariffs and charge components to allow customers to better understand energy pricing and compare retail price offers	• Simplifying our price and tariff structures, including our disconnection charges, to make it easier for customers to understand and retailers to pass through network price signals
Network pricing that is transparent and predictable, with annual changes in network prices made earlier	• Customers value transparency in the way we make pricing decisions today and in the future • Customers value us bringing forward the timing of our annual changes to network pricing to give retailers more time to prepare market offers, and allow customers more time to shop around and compare retail offers	• Improved the transparency of our pricing decisions by publishing a Tariff Structure Statement on our website[20] which details how we decided on our current prices, and how our price structures and levels may change in the future • Requested the AER make the necessary changes necessary so we can propose network prices by 15 March each year (one month earlier than at present).
Assistance to make it easier to find a better retail market offer, and to switch retailers	• Vulnerable customers in our community need assistance to manage their energy bills and customers and customer representatives have indicated that we should play a role	• Providing clear and accessible information on how they can find a better retail market offer • Reducing the charges for special meter reads to reduce barriers to customer switching for all customers

20 http://jemena.com.au/documents/gas/tariff-structures-statement.aspx