

# **Review into the scope of economic regulation applied to covered pipelines**

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## Overview

Energy Networks Australia is the national industry body representing businesses operating Australia's electricity transmission and distribution and gas distribution networks. Member businesses of Energy Networks Australia provide energy to virtually every household and business in Australia.

Energy Networks Australia welcomes the Australian Energy Market Commission's (AEMC's) *Review of the Scope of Economic Regulation Applied to Covered Pipelines*.

Energy Networks Australia considers that the economic regulatory provisions of the National Gas Rules (NGR) have worked effectively in producing customer outcomes of efficient, safe, reliable provision and growth in network services.

Parts 8-12 of NGR contains unique, positive features and flexibilities that have broadly supported good customer outcomes – including lower cost, light-handed options recognising diverse market circumstances, and a capacity to allow for the evolution and introduction of incentives without rule changes.

Looking forward, there are a number of modest improvements that could be made to ensure the regime supports good customer outcomes in the transition to a very different future for gas networks.

## Background

In April 2016, the Australian Competition and Consumer Commission (ACCC) released its *Inquiry into the East Coast Gas Market*. The Inquiry report recommended that the COAG Energy Council should ask the AEMC to review Parts 8-12 of the National Gas Rules and to make any amendments that may be required to address the concern that pipelines subject to full regulation may still be able to exercise market power to the detriment of consumers and economic efficiency.

The inquiry also recommended that in carrying out this review, the AEMC should also consider whether any changes could be made to the dispute resolution mechanism in the National Gas Law (NGL) and NGR to make it more accessible to shippers, so that it provides a more effective constraint on the behaviour of pipeline operators.

In response to reports from the ACCC and the AEMC, the COAG Energy Council published a *Gas Market Reform Package* in August 2016. One of the published reform measures was for the AEMC to review Parts 8 to 12 of the NGR.

On 5 May 2017, the COAG Energy Council issued the AEMC with terms of reference for a review into the scope of economic regulation applied to gas pipelines. The terms of reference request the AEMC to:

*“make recommendations on any amendments it considers necessary to Parts 8-12 of the NGR to address concerns that pipelines subject to full regulation are able to exercise market power to the detriment of economic efficiency and the long term interests of consumers.*

*The AEMC should also consider whether the access dispute resolution mechanism set out in the NGL and NGR should be amended to provide a more effective constraint on the exercise of market power by pipeline service providers, including making dispute resolution more accessible to shippers.*

*The AEMC should examine the issues identified by the ACCC in its inquiry in relation to Parts 8-12 of the NGR, as well as any other related issues identified by the AEMC, including through stakeholder consultation”.*

The COAG Energy Council instructed the AEMC to focus their review on transmission pipelines. However, the Council stated that the review would also need to consider the implications of any recommendations on distribution pipelines. Energy Networks Australia’s gas business members are gas distributors. Whilst the review is focussing particularly on transmission pipelines, Energy Networks Australia would caution against a presumption that any changes recommended by the AEMC should automatically apply to both transmission and distribution businesses.

## Context on the future role of gas networks

Australia's gas networks play an important complementary role to the nation's electricity network. In particular, they provide vital energy storage capabilities, efficiently reducing the pressure on constrained electricity networks in specific places.

In March 2017, the Australian gas industry released *Gas Vision 2050*. The report shows that gaseous fuels have a pivotal role to play in Australia's low carbon future to 2050 and beyond. The report envisages Australia using its gas resources to produce products and services to enhance national prosperity, while achieving carbon neutrality.

New fuels, such as biogas and hydrogen, have the potential to become mainstream and complementary energy solutions that will use existing energy infrastructure. Biogas, for instance, can make use of landfill or agricultural and forestry waste to produce a net-zero emissions fuel. Hydrogen can be produced from natural gas or through electrolysis using off-peak renewables. Carbon capture and storage is a proven technology for removing greenhouse gas emissions and can be applied to power generation, industrial processes that use natural gas, hydrogen production from methane, or even biogas production (resulting, in that case, in *negative* emissions). Such approaches provide scope for emission-free energy, whereby hydrogen can then be stored in the gas network, providing reserve energy in the same way battery technology does, in a carbon-neutral, secure and cost effective manner, while also providing the potential for inter-seasonal energy storage.

Hydrogen technologies are primed to play an important part in the decarbonisation of Australian gas, as the industry leads innovation efforts to capture the potential of carbon-free fuels and demonstrates clear opportunities for Australia. In the future, commercial opportunities may arise where variable renewable energy is captured in Australia and exported internationally as Australian renewable hydrogen.

A number of industry-led research and development projects are already underway and some Governments in Australia – such as South Australia and ACT – have recently shown increased interest in hydrogen as both a domestic and an export fuel. Indeed, the SA Government announced \$9 million of funding towards its' hydrogen roadmap in June 2017. Further policy focus should be placed on continuing to support research, development and demonstration of a diverse range of low emission technologies, especially those that allow decarbonisation from gas networks.

There will be different views about the potential future role of gas. There are diverse views – and commercial interests – around the future energy mix and the competitive position of specific fuels and technologies in a decarbonising

system, For these reasons, it is important that the regulatory framework does not foreclose on efficient outcomes, innovation, or the flexible adaptation and repurposing of existing infrastructure investments.

It is important to ensure that as the gas industry evolves so too does the regulatory framework. In the future, it will be vital that the regulatory regime does not unintentionally introduce barriers to the gas industry's decarbonisation journey. The industry considers it likely that the regulatory framework may need to evolve over time to incentivise further gas network innovation.

## Overall performance of the gas access regime

Energy Networks Australia considers that the overall performance of the regulated gas network sector operating under Parts 8-12 of the National Gas Rules has been strong when considered in terms of the long-term interests of consumers.

### *Stable or falling gas distribution network charges*

The existing National Gas Rules have recently delivered stable or falling network revenues and prices in a manner that reflects ongoing increases in efficiency and changes in input costs. For example, the AER has estimated that in the current round of AER decisions, allowed network revenues are forecast to fall by an average of 12 per cent, compared with the previous round of decisions.<sup>1</sup> This is reflected in an average annual reduction of over two per cent per annum for the current round of AER gas network determinations.<sup>2</sup>

Falling input costs and continued efficiency enhancements are delivering material relief for gas customers experiencing higher gas wholesale gas prices. For example, the largest overall fall in energy distribution charges is expected for the Jemena gas networks, which serve New South Wales, with forecast reductions in network costs expected to deliver savings to residential customer's bills of almost 25 per cent.<sup>3</sup>

Stable or falling gas distribution network charges have benefitted customers during a challenging period in which the wholesale price of gas has been rising. These changes have flowed from improved capital and operating efficiencies in the gas distribution businesses.

### *Capacity of regime to support network investment*

Gas distribution networks regulated by the AER are expected to make long-

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<sup>1</sup> AER *State of the Energy Market*, May 2017, p.107

<sup>2</sup> See Figure 3.7, AER (May 2017), p.109

<sup>3</sup> AER (May 2017), p.109

term capital investments of around \$2.8 billion over the next five years, and jointly spend over \$460 million annually on operating and maintaining the networks to deliver services to customers.

The current National Gas Rules have provided a sufficiently stable, predictable and robust regulatory framework to attract a total of over \$1 billion per annum of private sector capital to underpin ongoing delivery of a critical energy service.

Customers benefit from the efficient maintenance and expansion of the gas distribution network. It is appropriate that customers who benefit from these services meet the costs of delivering the service. The current regulatory arrangements obviate the need for any taxpayer support for the provision of gas network services. They also support efficient pricing and customer choice in energy services.

### *Supporting growing customer connections*

Energy Networks Australia considers that the past and current gas access regime have supported substantial growth in both gas customer and connection numbers. Over the past fifteen years, the number of residential households supplied by natural gas distribution pipeline has increased from approximately 3.4 million to around 4.5 million households.<sup>4</sup> During this period, gas distribution network length increased from 75,500 to 88,636 kilometres.

This substantial growth in customer numbers and connections, over the past fifteen years, benefits existing customers by spreading the largely fixed costs of network service provision over a broader customer base. Thus, costs to existing customers are lower than would otherwise be the case. Additionally, expansion of gas availability to new households and commercial users provides further competitive pressure on other incumbent fuel sources, such as electricity, wood and LPG, as well as the direct customer benefits of the flexibility of new gas service offerings.

### *Evidence on customer experience with gas services*

The recent Energy Consumers Australia *Energy Consumer Sentiment Survey* released in June 2017 outlined a series of survey findings concerning gas consumers experience under the existing overall gas regulatory regime. It is important to note that the survey delivered single responses on consumers' overall experience with an energy source, and not on their experience or assessment of the different potential contributions made by wholesale, retail and network components of the services. Nonetheless, the survey provides the only standardised national assessment of ordinary household and small

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<sup>4</sup> Productivity Commission Review of the gas access regime – final report, 2004, p.12

business consumers views on the performance of gas services.

Satisfaction with overall value for money is up in all markets, except for South Australia.<sup>5</sup> Around 69% of small business customers are satisfied with their value for money, up 10 per cent over the last year.<sup>6</sup>

When customers compared gas to other utilities such as electricity, internet service providers, water, insurance and banking, gas reported the best value for money rating. Gas customers uniformly report high levels of satisfaction with reliability of their service, at between 80-88 per cent. Due to the specific technical characteristics of gas network operations, planned and unplanned service interruptions in gas are extremely rare and typically occurs due to third party damage to gas infrastructure, rather than network asset failure. It has been estimated that a typical residential gas customer, under current levels of reliability, could be expected to experience an outage approximately every 40 years.

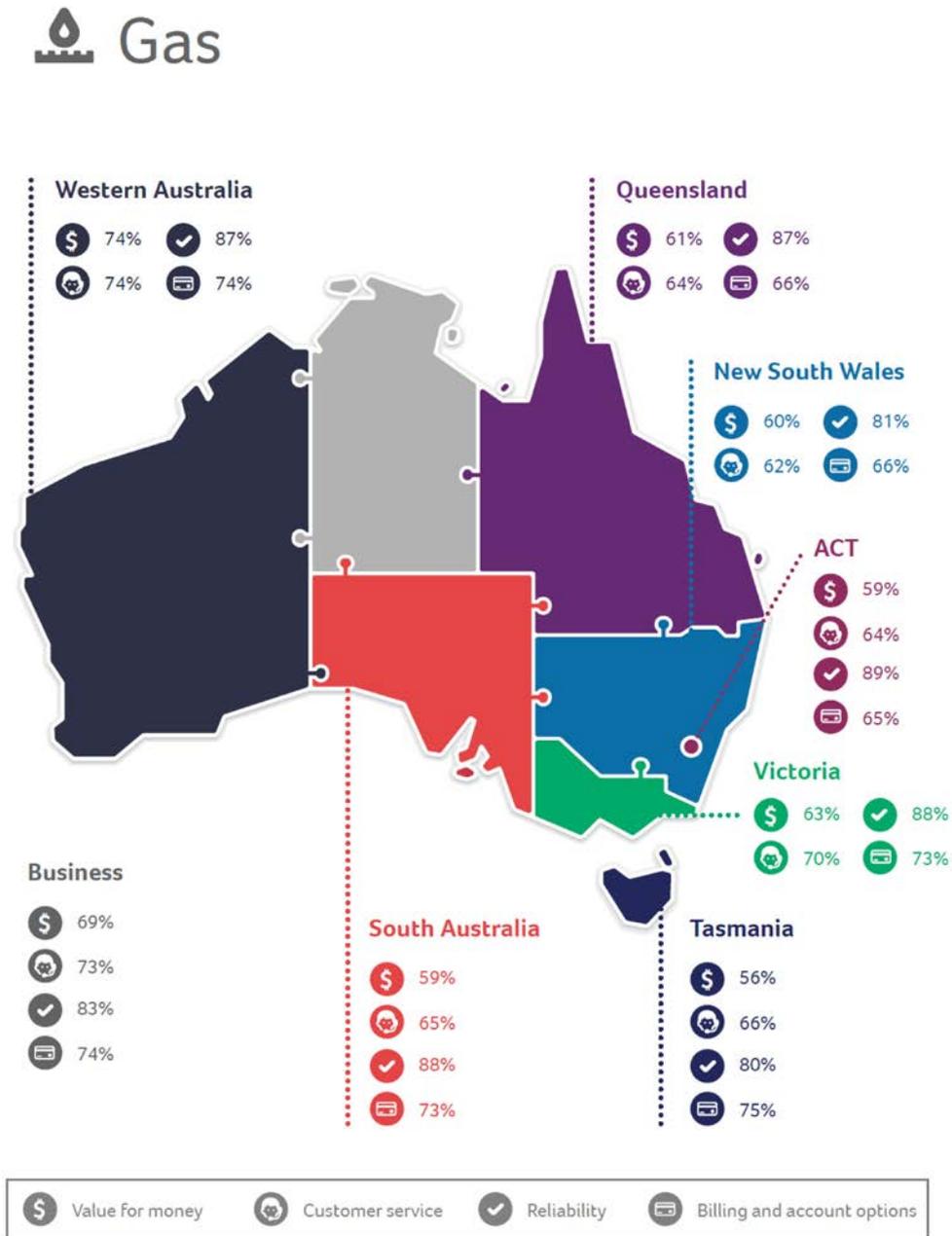
A summary of overall consumer sentiment findings of ECA's research in relation to gas is provided in [Figure 1](#) overleaf.

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<sup>5</sup> Essential Research- *Energy Consumers Australia Energy Consumer Sentiment Survey* June 2017, p.16

<sup>6</sup> Essential Research (June 2017), p.35

Figure 1 - National consumer sentiment survey - gas - 2017



Source: Energy Consumers Australia Consumer Sentiment Survey June 2017

## Features of the National Gas Rules

### *Role and value of the 'fit for purpose' approach to regulatory discretion*

A key design feature of the National Gas Rules is its specific definition of the

scope of regulatory discretion around core decision-elements. Rule 40 sets out three alternative levels of ‘full’, ‘limited’ or ‘no’ discretion decisions applying to aspects of the regulators assessments of building block elements.

This approach was adopted in response to analysis by the Ministerial Council on Energy Expert Panel on Energy Access Pricing. The Ministerial Council on Energy agreed that a ‘fit-for-purpose’ approach should be taken to defining the level of discretion available to a regulator in rejecting an element of a proposed Access Arrangement, and substituting its own preferred alternative. In some areas, such as rate of return, the regulator was empowered with ‘full’ discretion. In other decision elements, such as depreciation or approval of capital expenditure, the AER’s discretion was limited, such that it would need to establish that the service providers proposed approach was not consistent with the Rules, prior to substituting its own preferred values or approaches.

Conceptually, this rule provides a similar function to the more specific and prescriptive guidance in the National Electricity Rules, but in a clearer and more transparent manner. The Rules framework being clear about the applicable level of discretion provides a range of benefits, including: transparency, avoidance of disputation, and a capacity to apply specific weight to proposed elements of Access Arrangements in which the network service provider may be better placed to suggest a workable approach than the economic regulator.

#### ***Benefits of light-handed regulatory model and coverage options***

Energy Networks Australia supports the maintenance of a light-handed regulatory model and a monopoly power based threshold applying to the introduction of relatively heavy-handed regulatory price or revenue controls on a network or pipeline.

The gas access regime has featured a light-handed regulatory option since acceptance by Australian governments of the recommendations of the Productivity Commissions’ *Review of the Gas Access Regime* more than a decade ago. The Productivity Commission’s review emphasised the importance of the availability of lighter-handed regulatory models to address circumstances where the costs outweighed the benefits of ‘full’ economic regulation.

Customers benefit from the operation of light-handed regulation through avoidance of the substantial per customer cost impacts of full regulation. Light regulation also provides more flexibility and incentives for gas service providers, existing users and potential users to reach negotiated service arrangements, which are responsive to customer’s service needs and market developments. Light regulation has applied to two gas distribution networks, serving north and south Brisbane. It remains an appropriate and proportionate regulatory option for networks facing strong competitive constraints, and

where service providers face no incentive to deny access or engage in monopoly pricing.

A range of smaller gas distribution networks serving small regional townships have been able to successfully apply for the revocation of coverage, delivering saving to customers and network owners.

In any revised arrangements, flowing from the integration of wider gas market and pipeline reforms there should be a focus on:

1. Ensuring existing uncovered small regional networks do not experience an increase in regulatory compliance costs where there is no likely offsetting customer benefit; and
2. Providing a workable 'regulatory spectrum' which provides for targeted regulatory oversight which is responsive to the market circumstances applying, and proportionate to the costs and potential harms targeted by the oversight requirement.

### *Flexibility of the gas regime*

A further benefit of the existing gas regime is the flexibility it allows for in experimentation. The current National Electricity Rules, with the exception of the unutilised provision for small-scale incentive schemes, requires formal rule changes prior to the introduction or trialling of any new proposed incentive schemes.

This can result in substantial delays between the introduction of an enabling rule change, and final development of an operating scheme, with the Demand Management Incentive Scheme being an example of this. As the recent Victorian gas access arrangement review process demonstrates, the National Gas Rules provide the flexibility for well-founded incentive scheme proposals, supported by a wide range of stakeholders, to be introduced without a formal rule change process being required. This means that the framework has a greater flexibility to trial and support innovative regulatory approaches.

A core reason this is possible is the non-prescriptive nature of the Rules, and the significant flexibility and responsibility placed with service providers in framing a proposed access arrangement that responds to the specific circumstances of gas network customers. This feature of the National Gas Rules reinforces the strong pre-existing incentives arising from the status of gas as a fuel of choice, which provides gas network businesses with strong incentives to engage closely with their customers. The positive outcomes that this can deliver were demonstrated by the recent Victorian gas access arrangement regulatory proposals, which featured strong evidence of close customer engagement from networks with a focus on ongoing delivery of efficiencies and value.

## Ensuring the NGR remains ‘fit for purpose’ for the future

There are a number of potential enhancement that could be made to the National Gas Rules to ensure they remain fit for purpose into the future.

1. ***Ensuring workable decision timeframes*** – currently the standard network determination decision-timeframe does not provide an adequate period for gas network businesses to respond a draft determination by the regulator, potentially reducing the scope for a revised access arrangement proposal to respond fully to issues or queries raised by a draft determination. There is no public policy rationale for failing to provide for workable timelines of the kind that, for example, operate under the National Electricity Rules.
2. ***Adopting a ‘fuel source’ neutrality approach to enhance future flexibility*** – The existing National Gas Rules are predicated on a Gas Law definition which directly references methane. As outlined, some gas distribution networks are increasingly looking to explore the potential to deploy non-methane based fuels through existing natural gas distribution systems. This has the potential to make a significant contribution to reducing the carbon intensity of existing energy sources. To the extent that redundant definitions of individual fuel sources form part of the gas framework, policy-makers and the AEMC should be seeking to remove these definitions and adopt a fuel source neutral approach, to ensure that these definitions do not serve as an unintended barrier for such experimentation and innovation.