



GPO Box 520
Melbourne VIC 3001

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Mr Andrew Broad MP
Chair of the House of Representatives Standing Committee on the Environment and Energy
Inquiry into Modernising Australia's Electricity Grid
PO Box 6021
Parliament House
CANBERRA ACT 2600

By email: Environment.Reps@aph.gov.au

Dear Mr Broad

Submission to House of Representatives Standing Committee on the Environment and Energy Inquiry into Modernising Australia's Electricity Grid

The Australian Energy Regulator (AER) welcomes the opportunity to provide this submission to the House of Representatives Standing Committee on the Environment and Energy Inquiry into Modernising Australia's Electricity Grid.

The AER is Australia's national energy market regulator and an independent decision making body. Our functions, which mostly relate to energy markets in eastern and southern Australia, include:

- regulating electricity and gas network businesses, including through setting maximum allowed revenues for providing monopoly network services
- monitoring wholesale electricity and gas markets to ensure energy businesses comply with the legislation and rules, and taking enforcement action where necessary
- monitoring and preparing performance reports of the energy sector in wholesale and retail markets and regulated networks
- regulating retail energy businesses compliance with the retail law and rules in New South Wales, South Australia, the ACT, Queensland and Tasmania (electricity only), and
- operating the Energy Made Easy comparator website and providing other information for energy consumers about how to participate in retail markets, and publishing information on energy markets, including the annual State of the Energy Market report, to assist participants and the wider community.

These functions are set out in detailed legislative arrangements. While we have wide ranging responsibilities under these legislative arrangements, of most relevance to this Inquiry is our role in network regulation. The terms of reference require the Committee to inquire into and report on the adequacy of the current electricity transmission and distribution networks to support Australia's future needs.

The Committee would be fully aware that this Inquiry comes at a critical juncture in the evolution of Australia's energy markets. Electricity markets are going through a period of unprecedented change, driven to a large extent by technological advancements. This has put existing market frameworks under significant pressure.

In this short submission, we wish to highlight the work the AER is undertaking to ensure that the regulatory framework is meeting the opportunities and challenges of the technological changes that we are seeing. In so doing, we will also give our perspectives on issues that were raised at the Roundtable Hearing, particularly around increased interconnection.

However our work is only part of the work going on to ensure that we have transmission and distribution networks that are able to support Australia's future needs. Notably an independent review of the national electricity market, led by Dr Alan Finkel AO, is considering what changes are required to maintain the security, reliability, affordability and sustainability of the national electricity market.¹ The AEMC is also progressing a range of rule changes and reviews to ensure that market frameworks are flexible enough to respond to the technology advancements taking place. It is important that this Inquiry is cognisant of these other processes.

Taking advantage of new technologies

We are witnessing significant developments in technology, communications and data availability that have the potential to transform electricity markets. This Inquiry is asking the question of how electricity networks will need to modernise to adapt to the changes taking place.

Policy makers have long understood that competitive markets are best placed to deliver new products and services to consumers and ensure that customers can capture the value of their choices. Contestable markets are more likely to be innovative, to allocate risk to those best able to manage it and to meet consumer expectations. The scope for market-based innovation will be limited if government policies require particular technologies to be adopted or specify in advance how desired objectives and outcomes are to be achieved.

To support the development of competition, it is important that the policy and regulatory framework be technology neutral and ensure a level playing field. The framework under which new products and services are developed therefore needs to be an 'enabling' rather one rather than a 'promoting' one.

¹The AER's submission on the preliminary report for this review is available at <http://www.environment.gov.au/submissions/nem-review/aer.pdf>

Policy and regulation should not prefer or drive particular technology solutions. It is better to allow the market to 'decide' than for the policy maker to favour a particular technology or solution. When innovations are provided through the market, the consumer chooses which technology they want and bears the risk of their choices. In contrast, where governments financially support a particular technology, the choice to consumers is limited and the taxpayers bear the cost.

What we are seeing at the moment is a competitive jostling by providers of new products and services to position their products as 'the solution' in this space. In some instances, this involves attempts to have a particular technology chosen and subsidised, rather than competing for customers in the market.

However, in a dynamic market, such as the Australia electricity market, consumers are likely to be best served by a range of new technologies and services. There is unlikely to be a single 'silver bullet' technology that best serves the market and meets everyone's needs. Consumers are likely to be best served by a framework where businesses compete for consumers, where the relative merits of various products are known, where consumers are allowed to choose the technology that suits their needs. Consumers are also best served where there is an appropriate consumer protection framework in place. Ensuring these protections are in place encourages greater participation by consumers in the market.

However, it is also important that consumers carry the benefits and costs of their choices. Appropriate price signals are a key component in the efficient delivery of new products and services. More cost reflective tariffs help consumers make informed decisions on how and when they should use electricity as new technologies evolve. Tariff reforms support customers to get the full value of the investments that they are making in new technologies. Charging prices that accurately reflect the cost of providing network services provides an incentive for consumers to shift demand to better manage their electricity bills.

Tariff reform also provides an incentive for businesses to develop products and services which reduce the overall size of the demand peak. Much of the cost of building networks is to deal with a few days of peak electricity demand. Reducing peak demand will mean there is less need for new investment to maintain a safe and reliable electricity network. This will help defer network investments and reduce upward pressure on network charges over the longer term.

AER work program

The AER has a significant work program to support the development of this competitive energy services market. Our work on ring-fencing, implementing tariff reform, demand management and the regulatory investment test all are examples of work designed to ensure that we have a modern electricity transmission and distribution network that supports the development of new products and services.²

² More information on this work is available at <http://www.aer.gov.au/networks-pipelines>

Ring-fencing

On 30 November 2016, we published our ring-fencing guidelines for electricity distributors.³ Under the guidelines, networks are prevented from favouring their own affiliates over other businesses offering competitive energy services, such as rooftop solar, smart appliances, metering and storage. Such separation helps to promote a more level playing field for competitive energy service providers. The guidelines also prevent networks from shifting costs from their affiliates into the regulated part of their business, making sure that network customers are not paying more than they need to.

Network tariff reform

We have an important role in implementing network tariff reform. We have the role of approving tariff structure statements which set out how businesses are moving towards more cost reflective tariffs.

Each distributor must propose a tariff structure statement, which the AER assesses to determine if it complies with the National Electricity Rules. A tariff structure statement must be consistent with the distribution pricing principles, which require the use of cost reflective tariffs but take account of the impact of new tariffs on customers.

Demand management incentives scheme and innovation allowance

The Demand Management Incentives Scheme (DMIS) is fostering more research and development to better explore intelligent ways of achieving a modern electricity distribution network across Australia.

The existing scheme has supported some \$40 million of demand management initiatives, mostly storage projects.

We are developing a new demand management incentives scheme and innovation allowance mechanism to encourage an efficient level of demand management. The new scheme will provide electricity distribution businesses with an incentive to undertake efficient expenditure on non-network options relating to demand management. The innovation allowance will provide distribution businesses with funding for research and development in demand management projects that have the potential to reduce long term network costs.

Increased interconnection and the regulatory investment test

An issue that was discussed at the Roundtable Hearing was the role that additional interconnection could play in meeting a range of goals, such as reducing wholesale prices in some states. However, these impacts on wholesale prices are not straightforward. While increased interconnection between a state with 'high' wholesale prices and a state with 'low'

³ A fact sheet explaining these ring fencing guidelines is available at <https://www.aer.gov.au/system/files/AER%20Ring-fencing%20Guideline%20-%20Fact%20Sheet%20-%2030%20November%202016.pdf>

wholesale prices may lower wholesale prices in the 'high' priced state, it may increase wholesale prices in the 'low' priced state.

Nonetheless, interconnection can deliver significant, enduring benefits. Interconnection can help secure more efficient generation dispatch and can help address security and reliability issues. However, increased levels of interconnection come at increased cost to consumers through higher network charges which will need to be weighed against any potential benefits.

In the National Electricity Market, there is an assessment framework, the regulatory investment test for transmission (RIT-T), that weighs up the costs and benefits of proposed new transmission investments, including proposed interconnectors.

The RIT-T is designed to identify the investment option which maximises net market benefits. This means that capital intensive projects, like interconnectors, generally only proceed where long-term economic benefits can be demonstrated. It is important that these projects deliver long-term benefits, as the costs of these projects are recovered from consumers over the life of the asset (which can be upwards of 30 years).

The AER is responsible for developing the RIT-T and also develops guidelines around how the test should be applied.

The COAG Energy Council recently conducted a review of the RIT-T. The review report concluded that the RIT-T remains an appropriate and effective tool for ensuring new transmission infrastructure, whether intra-or inter-regional, is efficient and that consumers are protected from paying more than necessary for their electricity. We agree that the RIT-T remains an appropriate tool for assessing proposed transmission investment.

We have acknowledged that the operation of the RIT-T needs to evolve in response to the market changes taking place. The AER has lodged a rule change proposal with the AEMC to expand the scope of the test to cover replacement expenditure, as well as augmentation proposals. This reflects that in an environment of fast paced technological change, when assets need replacement new 'smart' options may be available that will satisfy the RIT-T and deliver the services and reliability consumers want more efficiently than network options. This rule change proposal is currently being assessed by the AEMC.⁴

The COAG Energy Council review also concluded that the AER's RIT-T guidelines should be reviewed – the current guidelines were developed in 2010 – to ensure they keep pace with the changes taking place in energy markets. The COAG Energy Council recommended that the AER update the RIT-T guidelines to provide greater clarity around the incorporation of option values, the appropriate reflection of renewable energy and climate goals, and to better accommodate high impact, low probability events. We will commence this review later this year. This review will help clarify the operation of the RIT-T and ensure that it remains fit for purpose going forward.

⁴Further information on the rule change is available at <http://www.aemc.gov.au/Rule-Changes/Replacement-Expenditure-Planning-Arrangements>

We look forward to assisting the Committee further as this Inquiry progresses.

Yours sincerely

Michelle Groves
Chief Executive Officer