Terms of Reference

Australian Energy Market Commission reporting on the effectiveness of the economic regulatory framework for electricity networks in responding to the increased uptake of decentralised energy supply

Energy Market Transformation Project Team

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COAG
Energy Council

TERMS OF REFERENCE

AUSTRALIAN ENERGY MARKET COMMISSION (AEMC) REPORTING ON THE EFFECTIVENESS OF THE ECONOMIC REGULATORY FRAMEWORK FOR ELECTRICITY NETWORKS IN RESPONDING TO THE INCREASED UPTAKE OF DECENTRALISED ENERGY SUPPLY

1. BACKGROUND

In July 2015 the Energy Council (Energy Council) received a Policy Advice report (the Advice) from officials on the results of a stress test of the electricity network economic framework under the National Electricity Law (NEL) and National Electricity Rules (NER). The stress test assessed the adequacy of the framework[1], specifically as it relates to network service providers, to continue to deliver the National Electricity Objective (NEO) under four scenarios representing possible future market conditions.

The scenarios were adapted from the CSIRO's Future Grid Forum scenarios and are summarised as follows.

- Scenario 1 – 'Network business models evolve' – the traditional electricity supply chain model is enhanced through incorporation of new technologies but substantively preserved in the way it is operated and used through evolution. Network businesses dominate the provision of alternative services.
- Scenario 2 – 'New consumer choices drive an evolution' – the traditional electricity supply chain model is being challenged due to strong growth in new innovative alternative services, including off-grid and smart technology services, met primarily by third party service providers.
- Scenario 3 – 'Centralised to localised' – the electricity supply chain model is fundamentally changed with centralised generation becoming displaced by a more decentralised generation model, including reliable storage. Strong growth in new innovative alternative services has resulted in significant penetration of distributed generation and storage, resulting in around 30% of consumers going 'off grid'.
- Scenario 4 – 'Government policy drives outcomes' – both centralised and localised renewable generation rapidly increase as a proportion of the generation mix driven by government targets. The majority of consumers remain reliant on the grid.

The Advice to Ministers on the outcomes of the stress testing identified a range of risks that may, to varying degrees, affect the ability of the framework to achieve the NEO if the scenarios eventuate. The Advice noted that Scenario 2 and Scenario 3, if they eventuate, could have the most disruptive impacts such that elements of the existing economic regulatory framework have potential to be significantly challenged under scenario 2, and in the case of scenario 3 'may need to be fundamentally re-thought'. Specifically advice to Ministers stated:

> *'Importantly, it was determined that attempts to incrementally change the regulatory framework once the key market features of scenario 3 present will be too late to allow market participants and associated regulatory frameworks to adequately adapt.*

[1] It is important to note, for the purposes of the stress testing it was assumed that a framework for competition in metering had been implemented, with the distribution networks involvement in metering occurring as part of their non-regulated business.

Hence, it is critical that the Energy Council acts proactively rather than in a reactive manner in addressing the implications of the key identified risks."

The Policy Advice also noted that the most critical risk in terms of the consequences was the potential for an increased uptake of decentralised electricity supply options to lead to asset under-utilisation or stranding, which could in turn, under the current network pricing model, lead to material increases in the price of electricity services and accelerate the issue.

In December 2015, Energy Council endorsed a co-ordinated strategic work program to consider the policy and regulatory response to emerging technologies. Recognising the stress test outcomes, as part of the strategic work program Energy Council agreed to task the AEMC to monitor and report annually on the status of market developments which may impact on the ability of the electricity network economic framework to continue to deliver the NEO in the event of an increase in decentralised supply options.

2. PURPOSE

The objective of the AEMC's reporting is to build on the policy advice provided to Energy Council, which identified the potential future scenarios where risks were identified with the ability of the economic regulatory framework to continue to achieve the NEO, by monitoring developments in the markets which may lead to these future scenarios.

The AEMC should monitor the status of market developments in decentralised supply options, and may also consider relevant developments in the areas of new products and services, the capital markets supporting network investment and developments in government climate and energy policy at the Commonwealth and State level. Drawing on this the AEMC should provide advice on whether the economic regulatory framework for electricity networks is sufficiently flexible and robust to continue to achieve the NEO. The AEMC is required to report annually to Energy Council on this matter.

These terms of reference are intended to guide the AEMC's monitoring and reporting so that it provides public advice to the Energy Council on these issues to inform future policy decisions by the Energy Council regarding potential changes to the economic regulatory framework and to help inform the public debate on these matters.

The Energy Council requests this report pursuant to section 41 of the NEL.

3. SCOPE

Consumer choices will continue to shape the future development of Australia's energy markets and it is not possible to predict exactly how the market will evolve over coming years and decades. However, it is important that the Energy Council remains vigilant to emerging trends and potential risks in relation to the flexibility and robustness of the regulatory framework to respond to potential future scenarios for the market. The Energy Council has identified a need for monitoring of risks to efficient regulation of electricity networks associated with a potential increase in decentralised supply options as identified in its 2015 stress testing process. As acknowledged in that process, the Energy Council requires advance warning of the existence of any potential risks so that any necessary changes to the current economic regulation framework can be made on a proactive and timely basis.

Where the AEMC identifies risks associated with a potential increase in decentralised supply options emerging, the AEMC's report must address whether the economic regulatory framework is currently providing sufficient flexibility and tools to respond to the identified

risks.

In undertaking its work and forming any recommendations, the AEMC should have regard to the objectives, analysis and outcomes of Energy Council's 2015 stress test.

The AEMC's report should include:

- information and commentary on the implementation of recent relevant reforms, for example recent AEMC rule changes on distribution network pricing arrangements and the demand management incentive scheme, and the development and implementation of the Australian Energy Regulator's (AER) distribution ring-fencing guidelines
- information and commentary on how current regulatory arrangements are being utilised in practice by the AER, Distribution Network Service Providers (DNSPs), and Transmission Network Service Providers (TNSPs); the extent to which voluntary arrangements are being used; and whether the arrangements are having their intended effects
- the status of market developments in decentralised supply options
- if the AEMC considers it appropriate based on its monitoring of market conditions, recommendations for future work that should be undertaken by the Energy Council, the AEMC or other parties in relation to potential amendments to the economic regulatory framework to enhance its ability to manage these issues.

4. INDICATORS

The AEMC should develop indicators to help inform its monitoring and assessment. This should include development of lead indicators and be coupled with a framework for assessment of indicator performance trends according to the materiality of risk to the effective operation of the economic framework.

The indicators are to be developed by the AEMC based on consultation with jurisdictions, electricity market institutions and stakeholders. This consultation process should seek to identify and maximise the use of publicly available data to support the measurement of indicators, with a view to ensuring no duplication of data collection and minimising costs for both the AEMC and other stakeholders.

Subject to the consultation previously mentioned, the Energy Council would expect to see the following issues reported on, noting this list is neither exclusive nor exhaustive:

- The risk of electricity network under-utilisation and stranding of assets.
- The extent of evolution in DNSP's and TNSP's business models and a greater use of non-network solutions.
- How effectively DNSPs and TNSPs are using existing provisions in the NER that are intended to mitigate key identified risks.
- How much use is being made of relevant existing AER powers under the NER to mitigate key risks.
- The continued workability of the revenue and pricing model with respect to customer affordability. For example, indicators might include:
    - numbers of customers that have installed decentralised energy sources, eg solar PV and/or batteries, or co/tri-generation
    - numbers of customers that have disconnected from the network.

- Trends in technologies, service, and business model innovation that may indicate whether particular scenarios explored in the stress test are developing or that the role of networks is changing.

The AEMC must work with the AER and the Australian Energy Market Operator (AEMO) in the development and interpretation of indicators.

5. PROCESS, CONSULTATION AND TIMING

The AEMC should consult with key stakeholders, including jurisdictions, the AER, AEMO and Energy Consumers Australia (ECA) in the preparation of its report.

The AEMC must publish its report by 1 July each year, starting in July 2017. Embargoed copies of the report must be provided to the Energy Council at least ten days before publication.

For 2016, the AEMC should publish and consult on an Approach Paper or similar document that sets out the AEMC's proposed approach to monitoring and reporting, including the proposed indicators and information sources. The Approach Paper should also include the AEMC's preliminary view of the status of key risk factors/indicators likely to affect the ability of the economic regulatory framework to continue to deliver the NEO.

The Approach Paper must be published by 1 December 2016. Embargoed copies of the Approach Paper must be provided to the Energy Council at least ten days before publication. The AEMC must consult with jurisdictions during the preparation of its Approach Paper, including on methodology, proposed indicators and timelines.

These terms of reference will remain in place for the AEMC's monitoring and reporting on an ongoing annual basis until such time as directed otherwise by the Energy Council.

Should the AEMC consider that significant changes are occurring in the market between the annual reporting dates of 1 July, it should make a request to Energy Council to issue an interim report.