

Mr John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

Dear Mr. Pierce

Transmission Frameworks – Detailed Design and Testing of an Optional Firm Access Framework

I am writing to you with regard to the Australian Energy Market Commission's (AEMC) final report on Optional Firm Access, Design and Testing sent to the Council of Australian Governments Energy Council on 25 June 2015.

The Energy Council thanks the AEMC for its comprehensive examination of the issues identified in the terms of reference issued on 25 February 2014 and has noted the Commission's recommendations.

The Energy Council supports the recommendation to implement a biennial reporting regime to report on a series of drivers that could impact on future transmission and generation investment.

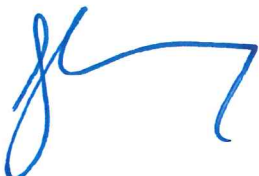
In line with this recommendation and in accordance with its powers under section 41 of the National Electricity Law (NEL), as the successor of the Ministerial Council on Energy, the Energy Council directs the AEMC to implement a biennial reporting regime in accordance with the terms of reference attached.

This work should assist governments and industry participants to consider when future conditions might arise where net benefits would be derived from adopting a model such as optional firm access. In particular, in an environment of significant capital investment and high levels of uncertainty in the patterns of investment.

The Energy Council looks forward to receiving these reports.

If you have any questions about the Energy Council's response to recommendations from the final report on Optional Firm Access, Design and Testing, please contact Ms Nicole Metherell, Manager of the COAG Energy Council Secretariat on (02) 6243 7788.

Yours sincerely

A handwritten signature in blue ink, appearing to be 'JF', with a stylized horizontal line extending to the right.

The Hon Josh Frydenberg MP

Chair

COAG Energy Council

29 February 16

Terms of reference for reporting on drivers of change that impact transmission frameworks

1. Background

A foundation principle of the National Electricity Market (NEM) is that decisions to invest in generation capacity are made by businesses operating in a competitive environment, rather than by vertically integrated monopolies. The result is that most risks associated with generation investment rest with those businesses.

Transmission investment decisions remain the province of regional, centralised transmission network businesses.¹ Transmission businesses are subject to regulation of their revenues for the provision of transmission services. They are also subject to various other obligations relating to reliability and their investment decision making processes.

The ways these two investment decision making processes interact have been the subject of numerous reports and reviews throughout the life of the NEM. Since 1997 there have been twelve major reports and reviews which examined congestion and generator access to the transmission network.

In the Transmission Frameworks Review, the Australian Energy Market Commission (AEMC or Commission) identified a number of concerns with the efficiency of the co-ordination between transmission and generation in the National Electricity Market (NEM). As part of that review, the AEMC developed the optional firm access (OFA) model, which was designed to be an all-encompassing solution to the concerns.

Under OFA, a generator could choose to pay for a specified level of access to the transmission network, and in return would be compensated should congestion occur. Transmission network service providers would be required to provide the specified level of access to the generator, primarily through investment in the network. In this way, generators would direct, and pay for, some investment in the transmission network, and would bear some of the risk associated with that investment.

However, at the time of the Transmission Frameworks Review, the Commission recognised that while the model had potential to deliver long term benefits to the NEM, there were likely to be costs and risks associated with its introduction. As a result, further work on the OFA model was undertaken as part of the OFA, Design and Testing review (the Review).

2. The AEMC's Optional Firm Access, Design and Testing Review

In the Review, in determining whether to recommend the implementation of OFA, the AEMC was required to analyse whether the implementation of OFA was likely to contribute to the achievement of the National Electricity Objective.

¹ The exception is Victoria where decisions to augment the transmission network are made by the Australian Energy Market Operator (AEMO).

In the environment existing at that time, the Commission concluded that absent some major shift in market conditions and policy settings that would impact the level of investment in the NEM, the implementation of OFA would not contribute to the achievement of the National Electricity Objective.

Analysing the likely contribution to the National Electricity Objective of substantial reform, such as the introduction of OFA, is inherently complex. As such, no one piece of quantitative or qualitative analysis was relied upon exclusively by the AEMC in the Review. Instead, the AEMC undertook a range of qualitative and quantitative analysis on:

- The allocation of risks associated with transmission investment: Under OFA, some of the risk of transmission investment would be shifted from consumers to generators.
- Co-optimisation of generation and network investment: Under OFA, there would be better signals between generators and transmission businesses relating to the impacts of investment. Generators, rather than transmission network planners, would drive part of the decision-making about future transmission development. This would help improve the co-ordination between transmission and generation investment in the NEM so that total system costs would likely be minimised for consumers.
- Inter-regional hedging: OFA could improve the firmness of inter-regional hedging. This would facilitate more generators and retailers contracting with each other across regions in the NEM.
- Implementation costs: The estimated transaction costs (for the first five years) were approximately \$90 million.

The Review also considered the operational benefits of OFA such as financial certainty for generators, incentives for transmission companies to operate efficiently, and efficient dispatch of generation. The Review concluded that, on their own, operational benefits are unlikely to be material enough to warrant implementing OFA, at that time.

In contrast, the Review concluded that the primary benefit of OFA is that it could help the market adapt more efficiently than the current arrangements in an environment of major investment in generation and transmission capital stock, where that investment is characterised by high levels of uncertainty with respect to relative costs and technologies, and hence location.

At the time of the Review, the environment was one of prospective low levels of investment in generation and transmission, and low levels of congestion.

Nevertheless, the Review considered that OFA was, and would be likely to remain, the best alternative to the current arrangements for transmission investment decision making. The AEMC concluded that from a functional perspective, the OFA model could be implemented in the NEM.

As a consequence, the AEMC recommended that OFA not be implemented at that time, but that, given the possibility of changes to the investment environment and the scale of the potential benefits, there should be regular reporting of drivers for transmission and generation investment in the NEM, with a view to being able to advise on whether OFA should be implemented and remained fit for purpose at such time. If drivers emerge of a major transformation of the generation and transmission capital stock, where the type and location

of investment is highly uncertain, the existing mechanisms for co-ordinating generation and transmission investment may prove inadequate. In these conditions, the balance of expected benefits and costs of OFA could shift in favour of implementation.

So that the frameworks can respond and adapt to change in a timely manner, regular reporting on drivers of change would enable the NEM to be prepared for the future, but would not require the introduction of significant changes unless and until they are needed.

3. Purpose of this terms of reference

These Terms of Reference (ToR) seek advice from the AEMC on relevant drivers and provides guidance on the reporting that the AEMC is requested to undertake on transmission frameworks. The Ministerial Council on Energy (MCE) makes this request under section 6(b) of the Australian Energy Market Commission Establishment Act 2004. The MCE is a legally enduring body comprising the Federal, State and Territory Ministers responsible for Energy, and after its amalgamation with the Ministerial Council on Mineral and Petroleum Resources, is now called the COAG Energy Council. The Ministers responsible for energy are entitled to make this request under the Act.

4. Reporting and process

The AEMC will undertake a two-stage approach to the biennial reporting of conditions that influence transmission and generation investment.

At the first stage, analysis is undertaken on the set of drivers. This will determine whether there is a substantial change in a factor(s) such that it suggests that there is an environment of major transmission and generation investment, where this investment is uncertain in its technology and location.

If there is, this is a trigger to move to the second stage of the process. The goal for the second stage would be for a more in-depth assessment of whether the factors have changed materially to suggest investment of an uncertain nature is likely. The second stage would also have an assessment as to whether OFA is still “fit for purpose”, and if so, whether implementation of OFA would meet the NEO. This second stage would include stakeholder consultation.

At each stage, the AEMC would report to the COAG Energy Council on its findings. The stages are discussed in further detail below.

5. Stage 1: Scoping analysis

The AEMC will undertake a high-level analysis of whether drivers in the NEM have changed substantially compared to the time of the Review, such that a more detailed examination of the conditions is warranted.

The AEMC should consider the following drivers, which would influence the amount of transmission and generation investment, as well as its location and technology:

- government policies and regulations and international agreements, for example, environmental, carbon pricing or other carbon emission reduction policies, other influences that result in major load retirements;

- technological developments for example, advances in wide scale energy storage technology, the prevalence of electric vehicles, changes to the relative capital and operational cost of generation and network technologies, gas prices and gas usage as an alternative to electricity;
- the establishment and penetration of new business models, for example, LNG export, dedicated electric car and battery storage businesses;
- the level of distributed generation, such as rooftop solar photovoltaic;
- the level of variances in forecasts, for example, if there is a substantial variance in actual demand compared to what was projected; and
- NEM Rule and regulation changes for example, the implementation and substantial take-up of a demand response mechanism.

These drivers all influence the level and types of future generation and transmission investment.

To the extent possible, the AEMC should draw upon:

- analysis already undertaken as part of the Review, provided that it is still relevant;
- any previously undertaken stage 1 or stage 2 analyses, where they are still relevant;
- other relevant work undertaken by the AEMC, including the Last Resort Planning Power; and
- relevant analysis undertaken by AEMO, AER or other parties.

The AEMC should not undertake analysis which was either:

- not material to the Commission's decision in the Review, unless the circumstances have changed substantially; or
- unlikely to change substantially its conclusions.

In undertaking the analysis, the AEMC must have regard to the likely lead time to implement a reform of the nature of OFA, compared to the likely timing of NEM conditions that would favour the implementation of such a model.

The AEMC should consult with stakeholders as it considers appropriate in the circumstances. Having undertaken the stage 1 analysis, the AEMC should report to the COAG Energy Council on:

- whether there is sufficient change in the drivers versus those at the time of the Review (or versus the time of the most recent stage 2 reporting) to warrant a more detailed examination of whether OFA should be implemented;
- the broad nature of any actual changes in those drivers relevant to the decision as to whether OFA should be implemented;
- whether those actual or forecast drivers forestall or advance the likely need for OFA; and
- its opinion of the continued requirement or otherwise of the reporting process outlined in this ToR, given the likely future benefits from implementing OFA.

If the AEMC recommends to the COAG Energy Council that it should proceed to stage 2, it will do so within two months of reporting to the Council, unless the COAG Energy Council advises the AEMC not to proceed.

6. Stage 2: Detailed analysis

Under stage 2, the AEMC will undertake a more detailed analysis, in order to determine whether the environment for transmission and generation investment has changed such that a model that introduces more commercial drivers into transmission and generation investment may be warranted. In determining this, the AEMC should assess:

- whether the drivers have changed materially to suggest investment of an uncertain nature is likely;
- if so, whether optional firm access (the full model, as well as its individual elements) is still fit for purpose;
- if so, whether implementation of optional firm access would meet the NEO; and
- if not, optional firm access, whether any other improvements to the current regime could be undertaken.

This stage 2 analysis should include quantitative analysis the AEMC considers appropriate. At the commencement of stage 2, the AEMC will publish an approach paper:

- outlining its findings from stage 1;
- outlining its proposed assessment methodology;
- outlining its proposed analysis to be undertaken in stage 2; and
- inviting written submissions from stakeholders (including AEMO, the AER, jurisdictional and Commonwealth governments and industry participants) on whether the conditions of the NEM have changed.

The AEMC should also undertake meetings or workshops with stakeholders as it considers appropriate. The AEMC must take account of written submissions of stakeholders, and any other consultations with stakeholders, in making its recommendation. In undertaking its analysis, the AEMC will consider in detail those conditions for future major and uncertain generation and transmission investment, which, from the analysis undertaken as part of the Review, appear to be most material in influencing the benefits of OFA (as referred to in section 5).

As with stage 1 analysis, the AEMC must:

- have regard to the likely lead time to implement a reform of the nature of OFA, compared to the likely timing of NEM conditions that would favour the implementation of such a model; and
- to the extent possible, draw upon previously undertaken work by the AEMC, AEMO or other parties.

Stage 2 should also consider the extent to which the OFA model specified in the Review, and documented in OFA Technical Report is still fit for purpose, given any changes to the NEM that may have occurred since the Review concluded.

At the conclusion of stage 2 of the reporting process, the AEMC should provide a report to the COAG Energy Council on:

- its assessment; and
- if required, next steps as to how OFA or any other reform should be implemented.

7. Timing

The AEMC must publish the stage 1 report at least every two years.

Any stage 2 report must be provided to the COAG Energy Council within 12 months from the date of that stage 1 report.

Any reports produced should be provided to COAG Energy Council two weeks prior to publication.

These ToR will remain in place for the AEMC's reporting on a biennial basis for six years. After six years, the AEMC should review the effectiveness of the reporting, and make a recommendation to the COAG Energy Council as to whether or not the reporting should continue.