



Coordination of generation and transmission investment

Approach paper published

The COAG Energy Council requested the Commission undertake a biennial reporting regime on a set of drivers that could impact on future transmission and generation investment. As part of this reporting, the Commission has published an approach paper providing detail on the proposed approach to the second stage of the *Reporting on drivers of change that impact transmission frameworks*.

Approach to stage 2

This approach paper is the first publication in stage 2 of this Review. It presents the Australian Energy Market Commission's (AEMC or Commission) analysis on the main issues that have been identified with respect to coordination of generation and transmission investment in the NEM. The paper also provides an overview of some of the options available to ameliorate these issues.

The options identified in this paper are not an exhaustive list of potential changes that could be made to the current regulatory framework in order to improve the coordination of generation and transmission investment, as such options related to transmission charging (including whether batteries and generators should pay some form of TUOS), planning and access arrangements.

These options include the relevant Finkel Panel recommendations relating to the coordination of generation and transmission investment, specifically:

- Development of a rigorous framework to evaluate priority projects that governments could support if the market is unable to deliver the investment required to enable the development of renewable energy zones, including guidance for governments on the combination of circumstances that would warrant a government intervention to facilitate specific transmission investments.

Next steps and timing

The Commission welcomes stakeholder submissions on the analysis and options presented in the approach paper.

The deadline for submissions is **19 September 2017**.

Stakeholder submissions will be a key input into the options paper, to be published in November 2017. The options paper will narrow down the various options under consideration and provide more detail on each chosen option. It is expected that quantitative analysis will be conducted as part of this Review. Further detail on what quantitative analysis would be appropriate and indicative timing of such analysis will be provided in the options paper.

Background

In February 2016, the COAG Energy Council requested that the AEMC implement a biennial regime to report on a series of drivers that could impact future transmission and generation investment, in accordance with a terms of reference and under section 41 of the National Electricity Law.

The approach paper presents analysis on the main issues that have been identified with respect to coordination of generation and transmission investment in the NEM and some of the options available to ameliorate these issues.

The terms of reference set out that the AEMC will undertake a two-stage approach to the reporting of conditions that influence transmission and generation investment:

- Stage 1 - In the first stage, analysis is to be undertaken on a set of drivers that influence the co-ordination of transmission and generation investment. The aim of the first stage is to determine whether there is a substantial change in a driver(s) such that it suggests that there is an environment of major transmission and generation investment and that this investment is uncertain in its technology and location. If it is determined that such conditions are present, the reporting will progress to the second stage.
- Stage 2 - The second stage is to be a more in-depth assessment of how the driver(s) have changed, to suggest that investment of an uncertain nature is likely to take place. The second stage will also include assessment of whether the implementation of a model that would introduce more commercial drivers into transmission and generation investment, or other options for changes to the current regulatory framework, would meet the National Electricity Objective.

Stage 1 of this review concluded in July 2017 and the Commission recommended that the review progress to stage 2. Three decision criteria were met in making this recommendation. The decision criteria are:

- the drivers of transmission and generation investment have significantly changed since July 2015
- there is expected to be large amounts of transmission and generation investment
- the expected future investment is uncertain in its location and technology.

The drivers of transmission and generation investment have changed significantly since the AEMC was issued with its terms of reference. There is increased uncertainty regarding government emissions reduction policy, this is having ramifications for investor confidence. There is an observed trend of thermal generation exiting the market and being replaced by renewable generation. The take-up of distributed energy resources is expected to continue, with new business models entering the market seeking to maximise the benefits from these resources.

It is expected that there will be significant transmission and generation investment in the future. Increased low emission generation will be needed to reduce the emissions intensity of the generation sector. Renewable generation may potentially locate in areas that are a distance from existing transmission infrastructure. It is therefore likely that the shape of the transmission network will need to change in response to reliably supply consumers.

The location and technology of new investment is uncertain. This is because of uncertainty regarding future emissions reduction policy, the changing generation mix, changing relative technology costs and the potential for new investments to maintain system security.

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22 August 2017