

Reporting on drivers of change that impact transmission frameworks 2017

Final stage 1 report 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 a final stage 1 report presenting its analysis of the drivers of change that could impact on transmission frameworks. The report recommends that the review progress to stage 2 where a number of options to improve the coordination of transmission and generation investment will be considered, including those articulated in the Finkel Panel's final report.

The final stage 1 report

This final stage 1 report is the second of two publications. It presents the Australian Energy Market Commission's (AEMC or Commission) analysis on the drivers of transmission and generation investment in stage 1 of this reporting regime. The Commission has also published a factsheet that explains arrangements for transmission and generation investment currently in the NEM.

These drivers include government policies, technological developments and new business models and the variance in demand forecasts. The report also discusses other trends that impact on transmission and generation investment, including a number of rule changes and reviews that have recently concluded or are currently underway.

The report recommends 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.

Stakeholder views

The Commission has reviewed submissions to the *Independent Review into Future Security of the National Electricity Market*, which highlighted that a number of stakeholders in the energy market have concerns with, and suggested changes to, the current transmission frameworks meeting the evolving needs of the changing generation mix in a least cost way to consumers. The Commission has considered this as evidence that further consideration should be given to the current transmission frameworks, and whether the coordination of transmission and generation could be improved, ultimately providing the best outcomes for consumers in the long-term.

The Commission recommends that the review progress to stage 2 where a number of options to improve the coordination of transmission and generation investment will be considered.

The Independent Review into the Future Security of the National Electricity Market (the Finkel Panel Review) has made a number of recommendations regarding transmission network planning with the aim of improving the coordination of transmission and generation investment. Stage 2 of this review process would allow a thorough examination of the coordination issues related to transmission and generation and also what improvements could be made to current regulatory arrangements to ameliorate these issues.

Approach to Stage 2

Stage 2 of the review will assess a wide range of options that could be implemented to improve the coordination of transmission and generation investment by promoting the National Electricity Objective (NEO). These options will consider a *number* of potential models i.e. not just optional firm access. The Commission will work with the other market bodies, as well as industry as to what potential options the Commission should consider, and what changes may be involved with any potential options.

In conducting stage 2 of the reporting, the Commission will publish an approach paper in August 2017. This approach paper will provide further detail on the range of issues and options that could be considered as part of this review, as well as the timing for stage 2. It will also ask for stakeholder submissions on the proposed approach to the review. This will allow the Commission to incorporate a range of views and options to improve the coordination of transmission and generation investment in the second stage of the review.

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.

In July 2016, the Commission prepared a Statement of Approach, which set out our proposed methodology and approach to consultation that will be adopted in conducting the biennial reporting, as outlined in the terms of reference.

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 would also have an assessment of whether the implementation of a
 model that would introduce more commercial drivers into transmission and generation
 investment would meet the National Electricity Objective.

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18 July 2017

¹ For more information on the optional firm access model see the AEMC's Optional firm access design and testing review, available at http://www.aemc.gov.au/Markets-Reviews-Advice/Optional-Firm-Access,-Design-and-Testing