



COGATI implementation review - publication of directions paper

Context for this review and directions paper

In 2016, the Council of Australian Governments (COAG) Energy Council asked the Commission to undertake biennial reporting on *when* the transmission planning and investment decision-making frameworks needs to change, and *what* they need to change to. This reporting focusses on evaluating the transmission frameworks in light of current and future conditions to see if there is a case for change to better coordinate investment between the transmission and generation sectors.

The Commission is of the view that change is needed at the present time, so that our regulatory frameworks evolve to match the transition in the national electricity market (NEM). Transmission access reform is vital in order for the NEM to effectively evolve and transition to a lower emissions power sector, whatever this future may look like.

On 27 June 2019, the Commission published a directions paper as part of the second COGATI review. The directions paper presents our proposed approach to reforming the current access framework for transmission networks across the NEM.

The need for transmission access reform

The NEM is currently undergoing a significant transformation, with an unprecedented level of generators seeking to connect to the system. Proposed generation roughly equal to the current size of the NEM (50 GW) is foreshadowed for connection to the grid over the next 10 years. This has meant that limitations inherent in the existing transmission and generation frameworks have become significant and more challenging to manage.

The Commission has heard from:

- **Generators and investors** that the current transmission access framework is no longer 'fit for purpose'. In light of the electricity market transition, prospective generators require greater certainty that their assets will remain profitable even if subsequent parties connect to the network and congestion arises. This is being reflected in the debate around the significant changes in annual marginal loss factors that are currently being experienced.
- **Consumers** that are concerned about projected costs and increased electricity bills. This is heightened by the fact that consumers bear the majority of transmission investment risk in the current framework, so are shouldered with unnecessary costs if transmission lines become 'roads to nowhere'.
- **Network businesses** that have voiced their concerns about changes to their rate of return, as well as uncertainty being created by the suggestion of asset write-downs. Network businesses are also being overwhelmed by the scale of connection enquiries, and both networks and generators face challenges with the coordination required for the current 'do no harm' framework for system strength.

While these issues may, at first glance, appear unrelated, they are symptomatic of the current market design. When constraints arise on the transmission network within a region, the underlying cost of an additional unit of electricity differs from location to location. Numerous issues relating to the operational and investment incentives of generators, and how generators and transmission networks coordinate, arise because the regional reference price does not reflect operational realities.

In the past, the problems of the existing access regime have tended to be modest, and so the cost of change has outweighed the benefits. This is no longer the environment that the NEM finds itself in. Therefore, different design choices and trade-offs better suited to the current environment must be made.

Our proposal for access reform

The Commission's proposed reforms to the access regime involve a holistic long-term solution to many of the issues raised by market participants, consumer groups and market bodies. It involves changing three inter-related aspects of the current transmission access framework:

1. **Wholesale electricity prices:** Under the current framework, generators receive the regional reference price for each megawatt hour of electricity they are able to dispatch to market, regardless of where they locate in a region. We are proposing to change these arrangements so that generators receive a dynamic regional price that more accurately represents the marginal cost of supplying electricity at their location in the network.
2. **Financial risk management:** Under current arrangements, a generator's ability to receive the regional reference price and earn revenue is a direction function of its physical dispatch. We are proposing to enable generators to better manage the risks of congestion by enabling them to purchase transmission hedges. These products will allow generators to rely on a particular revenue flow, regardless of other generator's locational decisions. This should improve investment certainty for prospective generators and may reduce the cost of capital for generation investment in the longer term.
3. **Transmission planning and operation:** Under the current regime, the fact that transmission network and generation investment decisions occur under different processes has the potential to result in infrastructure that does not minimise the total system costs faced by consumers. We are proposing to change this so that transmission planning is informed by generator's purchase of transmission hedges. This change will mean that transmission costs will be no longer solely recovered from consumers. A portion of these costs would instead be collected from generators through the purchase of transmission hedging products. This is possible because transmission hedges will be backed by physical transmission capacity, and set at a price that reflects the underlying cost of the provision of the transmission infrastructure required to back them.

Our approach to access reform

The Commission understands that a large-scale and holistic reform of this nature introduces some amount of transitional uncertainty into the electricity market. However, given the scale of generation that is forecast to connect to system in the coming years, and the transmission investment that is forecast to be required, it is also important to make sure that generation and transmission investment is as coordinated and efficient as possible. This coordination is for the long-term benefit of both industry and consumers, as it should manifest in the form of increased revenue certainty for generators as well as lower system costs for consumers.

The Commission intends to proceed with transmission access reform in a consultative yet expeditious manner. The COGATI review will undertake detailed design and testing of an access model that pairs transmission hedging with dynamic regional pricing, including developing proposed changes to the rules that are required. This will allow stakeholders clarity over our proposed access model, and a clear reform trajectory that will provide sufficient time for the model to be implemented and for participants to adapt.

Renewable energy zones

Renewable energy zones are also a continued focus for the Commission. We consider that renewable energy zones can enhance coordination *between* generators in order to achieve efficiencies of scale and scope with regard to procuring and using connection assets.

The Commission considers that renewable energy zones can be used as a transitional measure before a full access model is implemented. We explore two ways in which they can be facilitated: through increasing coordination between generators, or by allowing the risks of constructing renewable energy zones to be shared between multiple parties.

Implementation

Transmission access reform is needed sooner rather than later for the NEM to effectively evolve. Consequently, the Commission proposes to implement dynamic regional pricing and transmission hedging concurrently in July 2022.

We are conscious that transitional processes will be necessary to make sure that the introduction of access reform does not create sudden changes in the market, and to provide for a learning period. Access reform will have winners and losers, and so transitional arrangements will be important to manage this effectively.

Next steps

The Commission invites stakeholder feedback in response to the questions raised in the directions paper. Submissions are due by **2 August 2019**. In addition, a public forum will be held in Melbourne on 8 July to discuss the directions paper. Stakeholders should register for the forum or its web-cast via the Commission's website.

The Commission has also convened a technical working group to provide input into the review. Notes from previous meetings have been published on the project page for this review.

The access model proposed by the Commission will continue to be developed as part of our COGATI draft report that will be published in September 2019.

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27 June 2019