

Article Information

Authors: Kathryn Walker, Martin Lovell, Grace Black

Service: Projects & Construction

Sector: Electricity & Gas Regulation, Energy & Resources, Renewables

Changing generation mix prompts overhaul of wholesale electricity pricing and risk management tools for constrained generators

Increasing levels of renewable and asynchronous generation joining the NEM has prompted the Australian Energy Market Commission (AEMC) to bring forward proposed changes to the transmission regulatory frameworks.

On 14 October AEMC released a discussion paper outlining the proposed Coordination of Generation and Transmission Investment (**COGATI**) reform model which aims to ensure that new generation and storage are connecting to the power system in the right place and at the right time to meet future needs. The key focus of the review is to develop specifications of the proposed access model to implement “dynamic regional pricing and financial transmission rights”.

1. Wholesale electricity pricing



Generators and storage receive a local price that better **reflects the marginal cost** of supplying electricity at their location in the network

2. Financial risk management



Generators and storage are better able to **manage the risks of congestion** by purchasing a financial transmission right

[\[1\]](#)

Wholesale Electricity Pricing

The reforms propose to change the wholesale electricity price that is applied to generators, storage and other scheduled market participants to a **dynamic regional pricing** model which is said to more accurately reflect the marginal cost of supplying electricity at regional locations in the network.

The proposed reforms aim to incentivise the efficient investment in, and operation of, generation and storage facilities, better manage risks for market participants, including the management of year-to-year cash flow for transmission network service providers and to increase efficiency in the dispatch of electricity and the operation of transmission networks.

Financial Risk Management

The review aims to manage the congestion and transmission loss financial risk management options for generators, storage, retailers and other market participants by enabling them to purchase **financial transmission rights (FTRs)** to allow better management of transmission constraints and loss risks. These FTRs would be offered by way of auction to the highest bidder for 3 to 4 years in advance. Once these FTRs are available we assume that they will become a credit requirement for most project financing arrangements. However, given that they can only be bought for 3 to 4 year terms this may open up projects to significant additional cost and refinancing risk depending on the market for FTRs in the future.

Issue**Proposed Design Choice**

What type of FTRs will be offered?

The type of financial transmission rights that would be offered would be option instruments, which only ever result in a positive payment. This means that the financial transmission right would never result in a payment liability for the right holder.

What prices do the FTRs cover?

Market participants would be able to buy financial transmission rights that pay out on the price difference between a local price and any regional price; and a regional price and any other regional price.

When do the FTRs pay out?

Market participants would be able to acquire rights which pay out:

- at all times of the day ('continuous rights'); or
- at specific pre-defined times of the day ('time of use' rights).

Where does the revenue to back the FTRs come from?

The source of revenue to back financial transmission rights is the difference between what generators are being paid and load is paying under dynamic regional pricing.

Excess settlement residues in a given time period would accumulate in a fund administered by AEMO. This would be drawn down from when there is insufficient settlement residue in a different time period.

When the fund is exhausted, FTR payouts would be scaled to the extent necessary.

How are losses hedged?

Financial transmission rights should hedge the risk of price differences arising from losses. Specific details of these instruments is yet to be determined.

Grandfathering

The paper proposes that the:

- "new arrangements should start somewhere close to a steady-state situation, where most of the network is covered by financial transmission rights arrangements. Transitional FTRs should approximate the implicit access that generators currently enjoy, based on how they use the network"; and
- transitional FTRs should be sculpted back over time, "recognising the risk that generators' implicit access is currently at risk of being degraded over time (for example by the location of new generators nearby)."

One grandfathering levels are know, it is proposed that FTPs be allocated to the party that "values it most" by way of a proposed one off auction to allow generators to buy and sell transitional FTPs to each other. The scope and duration of grandfathering protections will be a key risk for existing generation projects.

Where to from here?

Submissions on the paper can be made until 8 November 2019 with the final AEMC report being released in December 2019.

The discussion paper raises many questions for new and existing projects, but does not of itself address the fundamental issue of ageing and insufficient transmission infrastructure. It has attracted significant criticism, including question marks as to whether the additional regulatory complexity will deliver savings or actually increase the ultimate cost to consumers.

We will provide a further update in December 2019 but in the meantime, if you would like assistance with a submission or understanding how these changes may impact your project or its financing, please contact one of our team.

[1] Picture courtesy of AEMC Discussion Paper