



## Grid access reform (COGATI) review – technical working group #6

### 5 June 2020

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The sixth working group meeting was held by Webinar on 5 June 2020.

The working group was formed by the Australian Energy Market Commission (AEMC) to provide advice and input into the progression of the grid access reform (COGATI) review (EPR0073).

All enquiries on this project should be addressed to Russell Pendlebury on (02) 8296 0620 or Tom Walker on 0410 764 175.

The attendees of the meeting are listed below.

Member	Organisation
Andrew Kingsmill	TransGrid
Angus Holcombe	Meridian Energy
Anh Mai	AusNet Services
Arista Kontos	Australian Energy Regulator (AER)
Bill Jackson	ElectraNet
Con Van Kemenade	ENEL Green Power
Dan Mascarenhas	AGL
Daniel Woodfield	Rio Tinto
Darryl Biggar	Australian Energy Regulator (AER)
David Havyatt	Energy Consumers Australia (ECA)
David Scott	Australian Energy Market Operator (AEMO)
Dean Gannaway	Aurizon
Donovan Marsh	Energy Security Board
Gloria Chan	Clean Energy Finance Corporation (CEFC)
Gordon Leslie	Monash University
Greg Hesse	Powerlink
Henry Gorniak	CS Energy
Jevon Carding	Lighthouse Infrastructure
Jill Caine	Energy Networks Australia (ENA)
Jon Sibley	Australian Renewable Energy Agency (ARENA)
Jonathan Mitchell	Flow Power
Kirsten Hall	Australian Energy Market Operator (AEMO)
Lawrence Irlam	Energy Australia
Lillian Patterson	Clean Energy Council (CEC)
Miyuru Ediriweera	Public Interest Advocacy Centre (PIAC)
Nabil Chemali	Flow Power
Panos Priftakis	Snowy Hydro
Peter Nesbitt	Hydro Tasmania
Rimu Nelson	CleanCo
Robert Pane	Intergen
Ron Logan	ERM Power

Sam Ingram	Cleanco
Sally McMahon	Spark Infrastructure
Sarah-Jane Derby	Origin Energy
Steven Nethery	Goldwind Global
Tahlia Nolan	Infigen Energy
Tennant Reed	AI Group
Tim Astley	TasNetworks
Tom Geiser	Neoen
Verity Watson	Energy Networks Australia (ENA)
Wayne Gagel	Westpac
Will Taylor	NERA Economic Consulting – Conducting a cost-benefit analysis of reforms for the AEMC

The AEMC's project team attended and is listed below.

<b>Name</b>	<b>Position</b>
Victoria Mollard	Acting Executive General Manager – Security & Reliability
Orrie Johan	Adviser – Transmission and Distribution Networks
Russell Pendlebury	Senior Adviser – Retail and Wholesale Markets
James Tyrrell	Senior Adviser – Transmission and Distribution Networks
Ella Pybus	Consultant – Cambridge Economic Policy Associates
Tom Walker	Senior Economist
Jessica Scranton	Lawyer
Tom Meares	Graduate Advisor
Peter Thomas	Digital Communications Manager

At the start of the meeting, the 'competition health warning' was read out, and copies of the protocol (attached) were sent out to each member of the working group in advance of the meeting.

After an introduction and recap to the project, the meeting focussed on four areas:

- 1) Simultaneous feasibility and revenue adequacy for the auction of financial transmission rights (FTRs)
- 2) Whether or not congestion rent is still the appropriate constraint for FTR issuance
- 3) The appropriateness of the simultaneous feasibility test and fixed volume FTRs
- 4) Management of FTR funds.

### **Introduction and project recap**

- The AEMC introduced participants and outlined the purpose of the meeting: to assist with the design of the reform model. The AEMC also welcomed new members who are from the ESB's 2025 working group.
- The team provided an overview of the project, noting that the reform is intended to put in place appropriate locational signals for investment in new generation and storage, with the proposal being the cheapest, fastest and fairest way to a low emissions future.
- The central reforms of COGATI, the introduction of LMP and FTRs, was covered as well as the key benefits of the reform:
  - more efficient price signals for generators and storage, ultimately meaning lower prices for consumers through lower dispatch costs and lower generation, storage and transmission infrastructure costs
  - a better ability for market participants to manage transmission congestion and loss related risk, again ultimately resulting in lower prices for consumers
  - the proceeds of the sale of FTRs primarily going to consumers, directly offsetting bills.

- The AEMC noted that COGATI is one of the programs included in the ESB's post-2025 market design project, and draft rules will be provided to COAG by December 2020. The AEMC is taking the lead on this workstream for the ESB.
- The AEMC noted that there are multiple inputs to the draft rules that are due to the COAG Energy Council in December 2020, with the numerous TWGs planned forming a key part of this input. Other elements of the work conducted this year will include modelling undertaken by NERA Economic Consulting on the benefits and costs of introducing such a model into the NEM, input from stakeholders through stakeholder engagement such as bilateral meetings, analysis of international arrangements and learnings from other jurisdictions where similar regimes exist.
- Stakeholder questions and comments on these areas (and responses) included:
  - Attendees questioned what would happen if the NERA modelling did not support the proposal. It was noted that the NERA modelling is an input into the analysis and conclusions that were to be drawn on COGATI, so whatever the findings are they will be taken to account. Importantly, the modelling will be used to inform how the results are sensitive to different scenarios and assumptions.
  - The project team went on to note that stakeholder engagement and feedback is also an input into the work and that where participants express reservations or hold differing view points, the project team is looking for evidence and understanding of why stakeholders hold particular views. Finally, and as noted above, COGATI is a key component of the ESB's 2025 work.
  - The project team also noted that in response to a common concern that has been articulated about impacts on the contract market it will be meeting with traders to better understand concerns, and it thanked those stakeholders that had facilitated this already.
  - Stakeholders raised the topic of grandfathering. The project team noted in relation to grandfathering it is currently undertaking further thinking on this element of the reform, recognising that this aspect is important to stakeholders. It is likely that this topic will be discussed in more detail with the TWG in the near future.
  - It was queried whether or not FTRs will *be required* to be purchased – the project team confirmed that that was incorrect and that purchasing FTRs is optional under the current design.
  - Attendees queried how the investor survey results have been used. The project team noted that the survey was undertaken at a particular point in time when there was an earlier FTR design and so the survey results are not reflective of the current proposal as set out in the March technical paper. We are open to detailed and specific feedback from stakeholders on whether and why the cost of capital would increase under the specification of the reform set out in the March technical paper.
  - The question was asked whether we had considered if generators will increase their bids to offset the cost of FTRs, thereby offsetting the benefits of the reform. The project team noted that this effect would likely be constrained by competitive processes. It was noted that market power issues will be considered further in upcoming TWG sessions.

### **Simultaneous feasibility and revenue adequacy**

- The purpose of the 5 June TWG is to discuss two key aspects of FTR design: funding and procurement. The subsequent TWG will focus on FTR products for losses.
- The project team provided a quick recap on previous stakeholder feedback on FTRs, which included that:
  - FTRs need to be as firm as possible,
  - the available quantity of FTRs should be maximised, and
  - also some thinking around alternatives to FTR instruments.
- The outcome of this feedback was that the specification of FTRs as set out in the March technical paper are backed by both congestion rent as well as auction revenue to increase firmness and reduce the chance that payments will be scaled back.

- The project team noted that in overseas markets where FTRs/LMPs are used, it is a “simultaneous feasibility test” that ultimately determines the quantity of FTRs to be sold. The project team noted that stakeholders appeared to be concerned about the ability of this mechanism to guaranteeing revenue adequacy i.e. that there will be enough money to pay out to holders of the FTRs. This led to the current design choice of using the revenue from the auctions selling the FTRs to also back payouts under the FTRs. This had the effect of increasing the chance that there will be revenue adequacy i.e. sufficient money to pay out the holders of the FTRs.
- The paper then set out that the decision to include the revenue from the FTR auction to payout holders of FTRs makes them significantly more firm.
- The AEMC put forward two key questions for this section of the discussion:
  - Do stakeholders agree that the decision to use the auction revenues to back the FTRs will provide a high degree of firmness? If not, why not?
  - Do stakeholders agree that revenue adequacy - defined as congestion rent  $\geq$  FTR payouts - is not relevant for determining how many FTRs to sell, given the use of the FTR auction revenue? If not, why not?
- Stakeholder questions and comments on these areas (and responses from the project team) included:
  - The question was asked as to how the FTR auction would take into account the different network capacities and conditions that may exist at particular points in time. The project team noted that the auction would be able to take into account different summer or winter network conditions e.g. if ratings were different in hot conditions. It was noted that the supply and demand conditions are not relevant for considering whether or not there will be sufficient revenue adequacy. What is key is that actual network capacity is consistent with that used in the auction. Gordon Leslie at this point noted that in the New York market they have monthly rebalancing auctions. Some room is left for FTRs to be sold in the month before dispatch, so if there is an issue or change in network conditions, this can be adjusted in the monthly auction.
  - A number of stakeholders were supportive of firming the FTRs with auction revenue, acknowledging that this creates an extra risk for consumers.
  - Some stakeholders went further than this to suggest that FTRs should be fully firm, and be backed by funds recovered from consumers. It was acknowledged that with the changes to the design to including the auction revenue to back the FTRs, there is a high likelihood of FTRs being firm, however, to play their desired role, the market needs to perceive a high degree of firmness.
  - One participant also disagreed with the idea of consumers being the natural owners of congestion rent, and that rather they believed generators to be the natural owners of the congestion rent.
  - Some participants rejected the idea of using revenue from the FTR auction for this purpose, claiming that using the revenue to back FTRs erodes the benefits to consumers of these changes.
  - Some participants noted that whilst the changes to include the FTR auction revenue to back FTRs were positive, there may still be situations in which auction revenue would not be sufficient to back FTRs, such as in periods of prolonged outages.
  - The question was raised of whether using auction revenues to firm FTRs simply transfers the risk of FTR revenue shortfalls to consumers. The project team noted that the more valuable FTRs are the more value should be recovered from the auction.
  - Participants also stated that by using the auction revenue to firm FTRs, consumers are firming risk that participants are better off managing.
  - The question was asked as to whether the FTR auction would be limited to physical participants and whether this had been considered in terms of the impact on FTR funding. The project team noted that limiting to physical participants would reduce competition and revenue generated (and so firmness) as a result.

## Whether or not congestion rent is still the appropriate constraint for FTR issuance

- The project team noted that when thinking about how many FTRs to sell, minimising any risks to consumers that may arise is the appropriate objective i.e. minimising the variability in the amount of money by which TUOS is offset (either positive or negative variation). These consumer risks are minimised when the expected congestion rent (i.e. the value of congestion, estimated by the difference in prices between two locations on the network) is equal to the expected payouts to holders of FTRs.
- There are two alternative options, but at this point in time we do not consider this minimise risks to consumers – we were interested in attendee views on this point:
  - Maximising the number of FTRs made available to the market, therefore increasing the opportunity for market participants to hedge price risk. If more FTRs were sold than the expected congestion rent may arise, this would leave consumers having to fund FTR payouts to FTR holders.
  - Maximising the direct return to consumers by simply returning any congestion rent that accrues in the market to consumers and not selling any FTRs i.e. introducing locational marginal pricing only, with no FTRs to be able to manage them. This would leave market participants exposed to basis risk (i.e. different prices) with no means to manage them. In addition, consumers would be exposed to the variability in the amount by which TUOS is offset.
- Therefore, we suggested that it makes sense for the expected congestion rent to be the appropriate constraint on how many FTRs can be sold because it minimises upside and downside risk to consumers.
- The key question of whether congestion rent is still the appropriate constraint for FTR issuance was posed: Do stakeholders agree with the objective of allowing participants to buy as many FTRs as the congestion rent will support is the right approach? If not, why not?
- Stakeholder questions and comments on these areas (and responses from the project team) included:
  - Some participants questioned the appropriateness of long-term FTRs, such as 10-year FTRs, and the difficulty in pricing these contracts potentially favouring participants over consumers.
  - The question was raised of whether incentives should be placed on TNSPs to minimise long-term outages. The project team responded that COGATI provides greater clarity on the value of outages and therefore facilitates improvements to the existing STPIS incentive scheme.
  - Some participants also suggested consumers contributing to make FTRs fully firm would be preferable. This is because this would make the FTRs more attractive, and so auction revenue would go up, meaning that over time, while consumers paid for topping up the funds, consumers would in the long-run benefit.

## Appropriateness of the simultaneous feasibility test and fixed volume FTRs

- The project team outlined considerations surrounding the simultaneous feasibility test (SFT), which is used in the auction to determine how many and who holds FTRs. The two key limitations of the SFT are that it:
  - targets an inequality that ensures the maximum set of fixed volume FTRs sold through the auction (i.e. based on the assumption the above, this would mean that the congestion rent is greater than *or equal to* FTR payouts)
  - only applies to fixed volume FTRs (i.e. FTRs for a fixed amount of capacity, regardless of the factors which influence generation output).
- The project team outlined some considerations that are inputting into our future work:
  - The preference set out above (which we were testing with stakeholders in this meeting) is that congestion rent should be *equal* to FTR payouts on average.
  - Stakeholders have previously told the AEMC they value the release of the maximum possible number of FTRs, and if possible, alternatives to fixed volume FTR instruments which better match the variable output of generators e.g. renewables.

- The project team outlined work looking at whether or not it is possible to determine, empirically, the extent to which the congestion rent exceeds the FTR payouts in practice, helping us to understand how this may operate in practice.
- The AEMC outlined key questions on this section:
  - Is the simultaneous feasibility test, as applied to fixed volume FTRs, the right test? If not, why not?
  - Is there an alternative means for determining the type and quantity of FTRs that should be released? If not, why not?
- Stakeholder questions and comments on these areas (and responses from the project team) included:
  - Participants noted that fixed volume FTRs may not be the most appropriate solution due to different generation shapes and profiles wanting access to the market at different times, and that it would be hard for FTR sellers to have different shaped contracts at the same time.
  - Suggestions to this problem were focussed on having FTRs that paid out at times when the generator would be available. The project team responded that time-of-use FTRs are already a feature of the existing design, and that there are difficulties in designing FTRs which are based on generator availability – potentially this is something that could be added in over time as the regime evolves.
  - Participants also inquired if it is possible to model the performance of FTRs in the face of unexpected outages, such as the Murray constraint. The project team in response noted that if an event was foreseeable, it can be factored into the number of FTRs being scaled back, mirroring the capacity of the network. The team is also preparing a simplified model of how the regime would operate.

## Management of FTR funds

- The project team outlined the current design for tracking the funds available for payouts to holders of FTR, which involved having separate accounts for revenue from the congestion rent (i.e. differences in prices between locations) and from the sale of FTRs in the auction. Each account would be drawn down at different points in time based on a number of variables. This would also include some accounts accumulating indefinitely and some being returned to consumers at different times.
- The project team is currently considering whether this complexity is necessary and whether the approach could be simplified given the use of the auction revenue to back all the FTR payouts. Potential options for consideration and further discussion are:
  - A single fund for all the revenue from the congestion rent and from the FTR auction which gets drawn down to payout FTR holders and is returned to consumers at regular intervals, or when it reaches a certain monetary value, or
  - A single fund (congestion rent and auction revenue) per FTR product length (e.g. 5 years), with any excess being repaid to consumers at the end of the product length period.
- The project team outlined key questions for this section:
  - What options do you think would be appropriate for managing the funds to back FTRs?
- Stakeholder questions and comments on this area (and responses from the project team) included:
  - There was discussion surrounding the scaling back of FTRs during an unexpected outage. Issues raised include whether if the fund had just paid out to consumers, i.e. reached the necessary threshold to pay out, what would happen if an unexpected outage required a large payout? The project team outlined that the approach would be to scale back FTRs in this event. Participants noted that the current penalties applied to TNSPs for network outages would not be large enough to help cover FTR payouts in the event of extended outages. This links back to the earlier discussion about the view from some participants that consumer funds should be used to make the FTRs fully firm. It was noted that the design of the scheme would ideally

- minimise this situation occurring i.e. there are design features that could be used to minimise this situation.
- Participants urged flexibility early on in the development and implementation of the payout process to account for any unforeseen events, thereby allowing the system to adapt.
  - Participants questioned how FCAS and inertia markets fit into these payouts. The project team stated that these other elements do not impact the FTR payouts and auction design.
  - Questions were raised around “positive gatekeeper” generators. i.e generators that relieve constraints. The project team noted the introduction of LMP would incentivise constraint relieving generators to operate in constrained areas.
  - Comments were made in favour of ensuring that shorter term and secondary trading of FTRs is encouraged and possible, particularly in the context of Ahead Market development work by the ESB.

### **Next steps**

The AEMC outlined the upcoming technical working group meetings in June and July, which are anticipated to be on the following topics:

- losses planned for Friday 12<sup>th</sup> June
- modelling methodology to be applied by NERA, planned for Thursday 18<sup>th</sup> June
- further workshops in July, with dates and topics TBC but potentially including the grandfathering of FTRs and market power mitigation measures
- further workshops post July on other topics, TBC.