



CMM TECHNICAL WORKING GROUP

MEETING NOTE

Thursday 18 August 2022 (2-4pm AEST)

Chair: Neil Gibbs

Attendees: Anthea Harris (ESB), Marilynne Crestias (CEIG), Anthony Rossiter (Powerlink), Cameron Potter (Fortescue Future Industries), Eli Pack (AEMO), Dave Smith (Creative Energy Solutions), Matt Dickie (RWE), David Scott (AEMO), Amin Masoumzadeh (AGL), Jonathan Myrtle (Hydro Tasmania), Robert Pane (Infigen), Con van Kemenade (UPC-AC), Alex Sundakov (Castalia), Jordan Nelson (Castalia), Dan Cass (CEIG), Laura Walsh (Ausnet Services), Connie Liang (Epuron), Bill Jackson (ElectraNet), Martin Hemphill (Renewable Energy Systems), Shevy Moss Feiglin (AGL), David Heard (Finncorn), Tom Gibson (Online Power), Ben Davis (ESB), Amanda Sinden (ESB), Jess Hunt (ESB), David Swift (ESB), Arista Kontos (ESB).

Apologies: N/A

Time	Topic	Key points/action items
2:00	Welcome, objectives & agenda	<ul style="list-style-type: none">• The ESB provided an update regarding the outcomes of the Energy Ministers meeting. In light of the Minister’s request to expedite the project as much as possible, it is proposed that the ESB’s deliverable is a set of Rules delivered in accordance with s90F of the National Electricity Law. This approach will streamline the process and reduce duplication.• The ESB reminded the group of the access objectives<ul style="list-style-type: none">○ Better long term locational signals for investment○ Manage access risk○ Operational efficiency○ Incentivise congestion relief.
2:10	Approach for modelling congestion	<ul style="list-style-type: none">• The ESB has contracted NERA Economic Consulting (NERA) to perform an iterative market modelling exercise to quantify the outcomes resulting from different congestion management design options, focused on the operational timeframes.• The ESB sought feedback on the proposed:<ul style="list-style-type: none">○ structure of the modelling scenarios and outputs○ questions that will be informed / quantified by modelling○ summary of inputs and assumptions used in the congestion management nodal model (refer to companion memo from NERA).• The group discussed the assumptions with respect to bidding behaviour. NERA will model both SRMC bidding and disorderly bidding.• The group discussed the assumptions that would apply with respect to the future generation mix and how the modelling would reflect



		<p>changes in the generation mix over time. The ESB expects NERA’s modelling to explore a series of snapshots into the future e.g. 2025,2030, 2035 etc. The future generation mix would evolve in accordance with the 2022 ISP inputs and assumptions.</p> <ul style="list-style-type: none">• It was noted that in practice, actual generator bidding behaviours are likely to be more complex and take into account strategic considerations. For instance, generators may choose to opt out of the CRM. The ESB acknowledged that the modelling would need to make simplifications. To reflect the prospect that generators choose to opt-out, NERA’s modelling will assess outcomes with varying levels of opt-in/opt-out.• It was noted that there would be merit in expanding the modelling to incorporate the transmission queue. The ESB noted that it is still in the process of considering how to reflect the queue model in the NERA modelling.• The group discussed whether the investment timeframe models would act to reduce the overall level of congestion, with the result that there is less need to manage congestion in operational timeframes. The ESB noted that the model already presumes an efficient level of congestion (because as it is based on the ISP inputs and assumptions). The objective of the investment timeframes model is to reduce congestion to efficient levels, not remove congestion altogether. The current market design creates incentives for investments that result in more congestion than forecast in the ISP.• It was noted that the most valuable findings of the modelling would be in the detail, not just aggregated answers. The ESB acknowledged the need for the information to be presented at a level that is useful for stakeholders (although some degree of aggregation is likely to be needed to maintain confidentiality).• There was a question as to how the model accounts for sub-regional nodal placements, given that the ISP is regional. The ISP contains assumptions on sub-regional demand. Load is allocated to nodes based on ‘load participation factors’ which are derived from data provided by AEMO. The ISP regional model allocates all generation to a representative node – either the RRN or a node for each ‘sub-region’. NERA assigns generators to nodes on the basis of their physical location and proximity to a substation / set of buses.• It was noted that it would be helpful if the modelling could provide insights into the scale of the potential locational signals for storage. When making a decision to locate in a congested area, batteries need to trade off the potential rewards associated with providing congestion relief (or being able to charge for less than RRP) against other considerations, such as the likelihood of a worse marginal loss factor. The ESB advised that the modelling would provide an indication of the scale of potential revenue streams associated with
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		<p>providing congestion relief, however, the investors would ultimately need to weigh up a range of commercial considerations.</p>
<p>2:40</p>	<p>Investment timeframe considerations</p>	<ul style="list-style-type: none"> • The ESB gave a presentation on the technical issues that it is working through in relation to the transmission queue model. • One emerging challenge is how to give effect to a “last in-first off” framework in the context of multiple binding constraints. The ESB has identified a potential solution. However, as it involves a separate dispatch run for each queue position, this approach is likely to limit the number of queue positions on offer. It was agreed an approach that groups generators into bands based on their queue number might make sense. • The group discussed whether there would be scope for tradeable rights under the transmission queue model. It was noted that any queue position requires certain specific information about the physical location and features of the plant. CEIG/Castalia did not believe that the queue position would be sufficiently abstract to be tradeable or a purely financial right, but ownership of the development project itself could be traded. • The ESB sought feedback from the TWG about whether the investment timeframe model should use auctions when transmission capacity is over-subscribed. The TWG did not express a view on this matter but noted the ongoing work of the Connection Reform Initiative (CRI) is trying to accelerate connections. The congestion management reform should be carefully designed to avoid inhibiting the efficiency gains of the CRI. • The group discussed whether generators would like to have the opportunity to fund incremental transmission investment in return for an improved queue position. It was noted that this approach would not be a substitute for the regulated transmission investment framework. Rather, it would be relevant in cases where a small incremental investment could unlock additional hosting capacity. The group was open to this idea, so long as the benefits to be generator in terms of receiving a low queue position were commensurate with the additional cost. • The group discussed whether there would be scope for the generator funded assets to become regulated. It was noted that if an unregulated asset was required to meet an identified network need, then there would be scope for the TNSP to undertake a RIT-T and procure the asset at its written down value. • The group considered how bilateral contracts for congestion relief might be given effect between a merchant battery and a generator, given that the generator is not assured that they will be dispatched by the dispatch engine. It was noted that there are a number of ways to physically and commercially structure a deal, such as contracts for differences and/or PPA-style physical arrangements. It was noted that



		<p>investors are starting to look at merchant battery options given the complexities associated with the connections process for hybrid plant.</p> <ul style="list-style-type: none">• It was noted that a battery's ability to provide congestion relief is restricted to when they are not fully charged. It was suggested that a generator who received an improved queue position on ground that they have helped to fund a battery could have their queue position subject to a caveat that it only applies if the battery is charging.
4:00	Meeting close	