CMM TECHNICAL WORKING GROUP – INVESTMENT SUBGROUP

MEETING NOTES

Thursday 15 September 2022 (2-4pm AEST)

Chair: Neil Gibbs (Online Power)

Attendees: Arista Kontos (ESB), Amanda Sinden (ESB), Anthea Harris (ESB), Ben Davis (ESB), Brian Spak (ECA), Bill Jackson (ElectraNet), Cameron Potter (FFI), Connie Liang (Epuron), Con Van Kemenade (UPC), David Heard (Finncorn), David Swift (ESB), Dev Tayal (Tesla), Jonathan Myrtle (Hydro Tasmania), Jess Hunt (ESB), Marilyne Crestias (Clean Energy Investment Group), Martin Hemphill (Renewable Energy Systems), Robert Pane (Intergen), Tom Gibson (Online Power), Tom Livingstone (ESB), Tom Walker (AEMC).

Time	Topic	Key points/action items
2:00	Welcome, objectives & agenda	• Anthea Harris opened the session and provided an overview of the session agenda.

2:05	Congestion Zones – discussion of working paper	• The ESB provided initial thinking on an approach to calculating indicative hosting capacity based on PowerLink's Generator connection guide.
		• Inputs on key questions posed by the ESB were captured in a working MURAL page.
		• The TWG also noted the following insights and questions:
		  ○ There is not only generation technology diversity (solar, wind) but also the diversity within these technologies that needs to be considered.
		  ○ It was noted that once batteries are involved it can create more or less congestion depending on the operating schedule defined. The extent to which batteries are included so that additional hosting capacity is part of this assessment needs to be understood.
		  ○ There is a challenge to strike the correct balance between providing information that is relevant to investors while still leaving room for investors to exercise commercial judgement. TNSPs are well placed to provide information about the technical limits of transmission assets, but further analysis is required to determine whether a given investment will be

		profitable. For instance, from an investment perspective, it isn't credible to assess a transmission constraint on the basis that everything is generating/leveraging the network at once. ○ Most hosting capacity analysis is done without storage – storage materially impacts hosting capacity – it needs to be modelled as impacts hosting capacity for the network. ○ Internationally, there are improved capabilities to measure hosting capacity for transmission and distribution networks. The methodology is revised per feedback received from participants. ○ It was noted that technology specific information for forecast curtailment would be helpful. ○ The group agreed that providing basic information, static values with simple assumptions with qualifications of assumptions can be used as a starting point. ○ The work networks have done on hosting capacity calculations (e.g. Powerlink) are static (not market based) power system approaches. Other factors must be considered to have a market model to understand who might dispatch. The value in static calculations is based on load flows vs. market context workings.
2:45	Connection Fees – discussion of working paper	• The ESB provided an overview of the three options for Connection Fees provided in the detailed paper. • Inputs on key questions posed by the ESB were captured in a working MURAL page. • The TWG in attendance also noted the following insights and questions: ○ Impression for connection fees – it's not about who pays for transmission but to identify ISP-level transmission opportunities. ○ What is the incentive you're trying to achieve? If forecasting congestion is greater then LRMC of transmission, and if the investor is willing to pay LRMC – is it most optimal? ○ A theoretical approach to calculating costs – this should be less sophisticated – increasingly large fees as more congestion appears? ○ One group member expressed the view that efficient investment will occur assuming certain information is available. In order for transition to occur rapidly, there should be provision for over-building so we're not continually "chasing our tail". ○ There is a problem with a simple approach – it may completely prevent innovation and efficient design of connection

		arrangement. E.g. no signal to connect to turn into multiple transmission lines. ○ Several group members did not support Option 2. They considered that it is unlikely to solve the problem what we are trying to address. Participants building a new project should already be taking into account how much congestion will affect their business case. ○ Connection fees will escalate as it gets more congested. At points of network upgrade - will connection fees drop back or reset? The ESB agreed that this was the intent.
3:15	Managing access risk	• The ESB introduced the trade-offs with managing access risk and opened up a discussion with the TWG to understand what is the right balance? • The TWG in attendance discussed the following insights and questions: ○ Regardless of which investment timeframe model is used, it may be useful to consider the question of "winner takes all". Would there be benefits in somewhat blunting the contribution factors? What would be the investor certainty impacts and the grid impacts? ○ If we can fix WTA in operational timeframes, do we really need an investment timeframe model at all? Some group members considered that an investment timeframe model is still important because we want to minimise congestion in the first place, before we have to resolve in operational timeframe. ○ Open question on where do the fees go? One option is that fees are used to offset charges paid by customers, however, other models were possible. ○ TNSPs would be neutral to fees – it would go back to consumers via TUOS and seek to maximise benefit. Anything that reduces cost to consumers is a good thing as a general premise from the TNSP. It would be useful to model the benefits that will be gained from each (investment/ operational) reform. ○ It was noted that if we solve for winner takes all in operational timeframes – by incentivising efficient dispatch outcome, the business case for new generator will need to change. This would help to disincentivise congestion from occurring.
4:00	Meeting close	