



# TAR TECHNICAL WORKING GROUP MEETING NOTES

*Thursday 4 May 2023 (10am-12pm AEST)*

**Chair:** Neil Gibbs (Online Power)

**Attendees:** Amanda Sinden (ESB), Ben Skinner (AEC), Bill Jackson (ElectraNet), Brian Spak (ECA), Byron Carter (PowerLink QLD), Claire Rozyn (farrierswier), Con Van Kemenade (ACEN), Dave Smith (Creative Energy), Dan Mascarenhas (Energy Australia), Eli Pack (AEMO), Garth Crawford (ENA), Jack San (AusNet), Jonathan Upson (Tilt Renewables), Jonathan Myrtle (Hydro Tasmania), Manas Choudhury (Edify Energy), Martin Hemphill (RES), Mim Balcombe (ESB), Robert Pane (Intergen), Paul Austin (AEMO), Peter Brook (AEC), Sarah-Jane Derby (Origin Energy), Storm Scarlett (AER), Teaghan Wilson (ESB), Tom Gibson (Online Power), Tom Livingstone (AEMO), Tom Meares (AEMC), Tom Walker (CEPA), Verity Watson (ENA), Victoria Mollard (AEMC).

Time	Topic	Key points/action items
10:00	Welcome, objectives & agenda	<ul style="list-style-type: none"><li>• Neil Gibbs opened the session and welcomed the TWG.</li><li>• The key agenda items were highlighted: Overview of TAR consultation paper and the NEMDE prototype design for CRM.</li></ul>
10:05	Overview of the Transmission Access Reform Consultation Paper	<ul style="list-style-type: none"><li>• The ESB project team provided an overview of the consultation paper, its scope and purpose.</li><li>• The consultation dates were highlighted including the public seminar scheduled for 8 May 2023 and written submissions closure date on 26 May 2023.</li></ul> <p><b>Overview of Hybrid Model:</b></p> <ul style="list-style-type: none"><li>• The ESB project team provided an overview of the hybrid model for TAR and the objectives of the model.</li><li>• Priority access provides investment signals for investment efficiency. The design is intended to facilitate better management of congestion risk.</li><li>• CRM intends to provide more efficient operational dispatch that relieves congestion.</li></ul>



		<p><b>Priority Access:</b></p> <ul style="list-style-type: none"><li>• The ESB provided an overview of priority access as represented by the consultation paper.</li><li>• TWG noted as REZ generators are paying for new transmission, they should have reserved low queue numbers much earlier than the point where (non REZ) generators are given queue numbers.<ul style="list-style-type: none"><li>○ ESB noted this view and referred to the 'Reservation' noted in the presentation.</li></ul></li><li>• TWG raised questions about the value of auctions.<ul style="list-style-type: none"><li>○ ESB noted taking into account inputs from CEIG's model. The CEIG concept was that if incoming demand for connections was less than the available hosting capacity, it could be accommodated on a first come first serve basis. But if it exceeded the available hosting capacity, an auction mechanism may be appropriate. The impact on the connections process and speed to connect is a consideration.</li><li>○ The reform gives flexibility for jurisdictions to apply their own tendering/contracting processes e.g. auctions specific to REZs. The residual question is what mechanism should apply outside of jurisdictional specific schemes.</li></ul></li><li>• TWG asked where would the money from the auctions go?<ul style="list-style-type: none"><li>○ ESB noted the question; details to be determined.</li></ul></li><li>• TWG asked what queue number would apply for regulated interconnectors and market network service providers (MNSPs)?<ul style="list-style-type: none"><li>○ ESB welcomed feedback on this area but noted that MNSPs bid into the dispatch engine (and could be applied a priority level the same as incumbents) whereas regulated interconnectors do not bid into NEMDE.</li></ul></li><li>• TWG member raised a possible alternative to create a tiered approach but assess it on a NEM-wide basis i.e.<ul style="list-style-type: none"><li>○ Conduct congestion analysis in a PLEXOS model at the time of connection.</li><li>○ Assess the % of energy that is curtailed in the full NEM</li><li>○ The incoming plant would be allocated to the appropriate tier depending on its % impact.</li></ul></li></ul>
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<p><b>11:20</b></p>	<p>NEMDE Prototype Design for CRM</p>	<ul style="list-style-type: none"> <li>● The ESB project team provided a walk-through of the prototype design.</li> <li>● TWG questioned whether the CRM had to be a sequential run to the energy market, or could a co-optimised approach be applied to run the energy market and CRM in parallel?             <ul style="list-style-type: none"> <li>○ ESB noted that the requirement to run sequentially is partly due to the ‘opt-out’ arrangements. The energy market is run first to lock in the dispatch targets for participants not participating in the CRM.</li> </ul> </li> <li>● TWG asked whether the CRM can achieve an efficient outcome with priority access or are there gaps.             <ul style="list-style-type: none"> <li>○ ESB noted that the CRM provides a mechanism to achieve a more efficient dispatch (improving on both existing inefficiencies and/or future inefficiencies introduced by priority access). It is not always intuitive because the combination of priority access and the CRM leads to a different outcome compared to status quo. The worked examples provide initial insights, noting there are significant complexities of a full NEM dispatch given the binding constraints at that time, the degree of opt-in as well as bidding behaviour.</li> </ul> </li> <li>● TWG asked about the impact on emissions from CRM trading.             <ul style="list-style-type: none"> <li>○ ESB noted that one of the case studies resulted in less black coal dispatch but more brown coal leading to more emissions.</li> </ul> </li> </ul>



		<ul style="list-style-type: none"><li>○ This case study relates to one 5-minute dispatch interval. There was broader analysis from detailed NERA modelling. The net impact over time demonstrated the CRM unlocked additional renewables, even with additional coal from Victoria. This led to the quantified benefit of 23 million tonnes of reduced emissions over 20 years.</li><li>● TWG asked how the NEMDE solve time could be impacted, the latency on metering units between dispatch intervals and the targets being sent.<ul style="list-style-type: none"><li>○ ESB noted this is definitely front of mind. The delta for the CRM solve time using the prototype is roughly 3 seconds. The NEMDE solve time is only part of the process (needs to consider end to end process). It needs to be optimised further and the energy market run would also need to include priority access.</li></ul></li></ul>
<b>12:00</b>	Meeting Close	<ul style="list-style-type: none"><li>● The ESB covered the next steps for consultation paper and rule development.</li><li>● Written submissions are due on 26<sup>th</sup> May – this is not the end of the process for consultation with TWG with additional sessions to proceed with.</li><li>● Neil brought the meeting to a close.</li></ul>