

CMM TECHNICAL WORKING GROUP – OPERATIONAL SUBGROUP

MEETING NOTE

Thursday 25 August 2022 (2-4pm AEST)

Chair: Neil Gibbs

Attendees: Brian Spak (ECA), David Heard (ECA), Emma Fagan (Tesla), Gordon Leslie (Monash University), Jonathan Myrtle (Hydro Tasmania), Sarah Jane Derby (Origin), Tom Gibson (OnLine Power), Dave Smith (Creative Energy Consulting), Anthea Harris (ESB), Amanda Sinden (ESB), Jess Hunt (ESB), Tom Livingstone (ESB), David Swift (ESB)

Apologies: Anthony Rossiter (Powerlink), Ben Davis (ESB), Manas Choudhury (Edify Energy), Arista Kontos (ESB), Cameron Potter (Fortescue Future Industries), Dan Mascarenhas (Alinta).

Time	Topic	Key points/action items	
2:00	Welcome, objectives & agenda	 The focus of the operational subgroup agenda included: issues with out of merit generators for CRM and CMM impact of the CRM and CMM on contract arrangements, specifically power purchase agreements (PPAs). 	
2:05	Recap of dispatch and settlement architecture	 This agenda item focussed on recapping key concepts for the dispatch and settlement architectures of the CMM and CRM: Key differences relate to access dispatch and sequencing. CMM incentivises generators to bid cost reflectively in physical dispatch. Access allocation occurs at the 'back end' via the rebate allocation methods e.g. during settlements. CRM access is determined via participant bids in the 'energy market' before physical dispatch. Outcomes will differ depending on the bidding behaviour of market participants and access allocation method. 	
2:15	Impact on out-of merit (OOM) generators	 Across the different models: Status quo: access and physical dispatch is identical. A generator doesn't want an access allocation if the RRP is lower than its costs because it'll incur the costs of physical dispatch. Access is allocated to in-merit generators. 	

- CMM: access is determined via the rebate allocation method. If the method ignores generator costs, it will grant access to inmerit and OOM generators. In-merit generators will be diluted.
- CRM: access is determined via the 'energy market' and generator bids. Generators are incentivised to claim as much access as possible and its value can be traded in the CRM. In-merit generators will be diluted.
- The TWG noted that we need to consider how the CRM access dispatch will treat minimum generation requirements and ramp rates.
- The TWG queried potential disorderly bidding strategies in the CRM including:
 - Assume a generator bids unavailable in access dispatch and bids -\$1000 in the CRM physical dispatch. TWG noted this is unlikely to occur because the generator is at risk of being physically dispatched below cost.
 - Increased risk of disorderly bidding in the access market for OOM generators.
- Some TWG members questioned why we would pursue the CRM (with increased disorderly bidding in access dispatch) rather than the CMM with rebates allocated based on inferred economic dispatch which resolves the OOM issue.
- Some TWG members identified the potential risk of increased RRP as a result of bidding strategies. The CRM may achieve a costefficient dispatch but it could have adverse price implications for customers if the RRP changed.
- The ESB noted that the scope of NERA's modelling will identify RRP impacts under the different models and various bidding strategies. It will not provide complex modelling of gaming theory but will apply more straightforward bidding strategies e.g. at market price floor, at cost, at market price cap etc.
- Options to address the OOM issue were presented:
 - 0 Do nothing, accept the impacts of wealth transfers e.g.
 if the problem is deemed to be immaterial.
 - 1 Exclude OOM generators from access based on physical bids. This could incentivise physical disorderly bidding, going back to status quo issues. OOM generators could still bid between RRP and LMP to get access and not physical dispatch and maximise their profits. Access for inmerit generators would be diluted.

- 2 Bidding guidelines, monitored by AER to make sure generators don't bid lower than "normal" for access.
- 3 Exclude OOM from access based on estimation of generator costs. AEMO would infer costs based on past bidding behaviour.
- 4a Exclude OOM from access based on generator contracted and grandfathered costs. Costs would be nominated by the generator at the time of connection. It will be difficult for energy constrained generators (see option 4b).
- 4b For storage e.g. batteries and hydro, apply energy constraints in CMM and CRM.
 - For CMM, this might be a simple availability profile: for example, a two-hour battery might be considered available from 7-9am and 5-7pm, which is the likely hours of its discharge operation. This availability profile would then be used in the CMM algorithm.
 - For CRM, energy constraints could be incorporated directly into access dispatch e.g. once a two-hour battery had been dispatched at full output for two consecutive hours in access dispatch, its "access energy" would be considered depleted, and excluded from further access dispatch until it had replenished this storage by purchasing "access energy" through being dispatched as a scheduled load in access dispatch.
- TWG members noted:
 - Option 2 bidding guidelines AEMO's inferred costs from Option 3 could be applied to Option 2 AER monitoring.
 - Option 3 estimated generator costs TWG members noted that new generators would not have trading history. New generators may be assigned a cost based on their technology type until they have built up a history. There is complexity for an inferred price of batteries or energy constrained generators.
 - Option 4 grandfathered or nominated costs this could be a sensible outcome likely to provide legitimate information.
 - When choosing between models and sub-options, it would be helpful to indicate how much access generators are likely to get in order to achieve efficient investment.

3:15	Impact on PPAs	 The ESB presented a simplified worked example scenario based on a contract for difference PPA. Refer to slides. The PPA could be negotiated to profit share the efficiency gain of the CRM between the buyer and seller. TWG noted that the customers would prefer simplicity of contracting. There are increased complexities to the terms e.g. hedging against access dispatch (MW) rather than physical dispatch (MW) and introducing profit share arrangements. A retailer may be better placed to manage this contracting complexity on behalf of the end customer.
3:55	Next steps	Note: meeting schedule has been revised. The next operational subgroup will focus on interconnectors (22 Sept). Subsequent sessions (29 Sept and 6 Oct) will focus on storage and scheduled load.
4:00	Meeting close	