



Minutes

Meeting Title:	Reserve Capacity Mechanism Review Working Group (RCMRWG)
Date:	21 July 2022
Time:	12:45 pm – 2:30 pm
Location:	Microsoft TEAMS

Attendees	Company	Comment
Dora Guzeleva	Chair	
Rhiannon Bedola	Synergy	
Oscar Carlberg	Alinta Energy	Subject matter expert
Manus Higgins	AEMO	until 2:00pm
Jacinda Papps	Alinta Energy	
Brad Huppatz	Synergy	Subject matter expert
Peter Huxtable	Water Corporation	
Sam Lei	Alinta Energy	Subject matter expert
Dimitri Lorenzo	Bluewaters Power	Proxy for Paul Aires From 1:20pm
Mark McKinnon	Western Power	
Patrick Peake	Perth Energy	
Matt Shahnazari	Economic Regulation Authority	From 1:15pm
Peter Shardlow	Analytics Data Science (for Collgar Wind Farm)	Subject matter expert
Noel Schubert	Small-Use Consumer representative	
Rebecca White	Collgar Wind Farm	
Tim Robinson	RBP	
Stephen Eliot	Energy Policy WA (EPWA)	
Laura Koziol	EPWA	
Shelley Worthington	EPWA	

Apologies	From	Comment
Dev Tayal	Tesla Energy	
Andrew Walker	South32 (Worsley Alumina)	

Apologies	From	Comment
Dale Waterson	Merredin Energy	
Andrew Stevens	Consultant	

Item	Subject	Action
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1 Welcome

The Chair opened the meeting at 12:45pm.

2 Meeting Apologies/Attendance

The Chair noted the attendance as listed above.

3 Alinta's Presentation on an alternative for Certified Reserve Capacity (CRC) Allocation for Intermittent Generators

Mr Carlberg presented Alinta's concerns with the current RLM and the Effective Load Carrying Capability (ELCC) Delta method. The following points were discussed:

- In regards to the example on slide 9, that assesses the impact of an additional 1,000 MW windfarm at the location of the Yandin Wind Farm on the CRC allocation to existing wind farms under the delta method, the following was discussed:
 - Mr Robinson noted that 1,000 WM is a big increase of wind energy nameplate capacity in the SWIS and that such a big new entrant changing the CRC of incumbent wind farms by around 15% was not necessarily a sign that the method produces volatile outcomes.
 - In response to a question from Mrs Bedola, Ms Koziol noted that the Rule Change Panel had modelled a similar scenario for the assessment of RC_2019_03 and that in this scenario the entrance of the new wind farm had increased the total CRC of the fleet but also reduced the CRC of some of the existing Facilities.
- Mr Carlberg summarised Alinta's proposed method for assigning CRC to intermittent generators as follows:
 - assign CRC based on the average output during the expected times of system stress on the basis of historic peak demand days adjusted for variance as per the current Relevant Level Method, but removing the current k and u factors;
 - determine the times of expected future system stress as the day time with the highest likelihood of unserved energy, based on RBP's system stress modelling - this would be the Trading Intervals from 4:00 pm to 9:00 pm; and
 - use the 20 days with the highest system demand for each year of a five-year reference period as the historic peak demand days.

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	<ul style="list-style-type: none"> <li data-bbox="336 271 1278 483">• The Chair noted that the 20 days with the highest system demand of every year in the reference period are unlikely to be an adequate representation of system stress. Mr Carlberg clarified that the 95th percentile was chosen to ensure a big enough sample size but that the choice was arbitrary and that Alinta Energy is open to other suggestions. <ul style="list-style-type: none"> <li data-bbox="392 506 1257 573">○ Mr Schubert noted that 20 days are many more days than the annual peak/extreme weather days. <li data-bbox="392 584 1262 842">○ The Chair questioned the appropriateness of selecting the same number of days from each year for the peak demand days, noting that the presented analysis showed that, in some years, system demand does not reach a level resulting in system stress. The Chair suggested that choosing the days with the highest system demand in the whole reference period may be more appropriate. <li data-bbox="392 853 1249 1032">○ Mr Carlberg noted that Alinta Energy considered that the conditions of past system stress event might not represent future system stress events. Mr Carlberg repeated that Alinta Energy is open to other ways for selecting the peak demand days. <li data-bbox="336 1043 1273 1267">• In response to a question from the Chair, Mr Carlberg considered that it would make sense to align the expected future system stress with the Electric Storage Resources Obligation Intervals (ESROI). Mr Carlberg considered that the times for expected future system stress could be adjusted but may need to include a transitional mechanism for any changes. <li data-bbox="336 1279 1283 1998">• Mr Eliot noted that, as part of the discussion on RC_2019_03, AEMO had raised concerns about having too many wind farms in a single location such as the North Country, and that one of the reasons the Rule Change Panel proposed the delta method was that the method provides a clear locational signal. Mr Eliot asked how Alinta's proposal addresses this concern. <ul style="list-style-type: none"> <li data-bbox="392 1514 1283 1760">○ Mr Carlberg indicated that Alinta's proposed method does not account for the correlation of generation from wind farms in the same region. Mr Carlberg noted that Alinta's proposed method focusses on picking intervals expected to be system stress intervals in the future. Mr Carlberg considered that accounting for the correlation of generation of wind farms, in particular over a small amount of intervals, may lead to arbitrary results. <li data-bbox="392 1771 1222 1839">○ Mr Eliot considered that locating all wind farms in the same region could expose the system to potential black outs. <li data-bbox="392 1850 1254 1998">○ Mr Carlberg considered that it is not a problem to locate all wind farms in the same region as long as the weather conditions in that region allow them to be available during the future system stress events. 	

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	<ul style="list-style-type: none"> ○ Mr Schubert considered that the weather conditions that result in system peak often exhibits low wind in the North Country. Therefore, locating all the wind farms in the North Country is an issue for system peak. ○ Mr Lei considered that such peak days would be accounted for in the proposed method. 	
	<ul style="list-style-type: none"> ● In response to a question from Mrs Bedola, the Chair clarified that a method based on historic output needs to include adjustments to account for reduced output due to network constraints. ● Mr Eliot noted that setting the CRC for intermittent generators based on their average output during system peak intervals implies that it is acceptable that the capacity will not be available during half of the peak intervals. ● Mr Carlberg clarified that the proposal was to use the average output adjusted for variance and that this was based on the current RLM. Mr Carlberg considered the method of weighing the performance in the peak intervals should be based on the desired certainty for the capacity to be available at peak, but that any further discounts below the average output is arbitrary. ● Mr Peake suggested that it should be assessed how the proposed method affects system reliability. 	

4 Collgar’s Presentation on alternative for CRC Allocation for Intermittent Generators

Ms White presented Collgar’s concerns about the delta method, and introduced Collgar’s suggested alternative and associated modelling scenarios and outcomes. The following points were discussed:

- Ms White summarised Collgar’s proposed method for assigning CRC to intermittent generators as follows:
 - use seven years of historic demand adjusted for distributed PV;
 - determine the Effective Load Carrying Capability (**ELCC**) for the fleet of intermittent generators as the average of the ELCCs of seven individual years; and
 - Allocate the fleet ELCC to individual facilities based on relative average performance during defined peak Trading Intervals in each year (the 4 Trading intervals with the highest system demand from the 12 days with the highest demand) of the reference period.
- In response to a question from the Chair, Mr Shardlow clarified that the results of the future scenarios on slide 7 are based on the announced retirements of Synergy’s coal fired power plants and assumptions on new intermittent generators entering the market. Ms White clarified that the underlying fleet of intermittent generators differs in the different years, based on Collgar’s assumptions about

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	<p>new facilities entering the market, but is the same for any year across the different methods assessed.</p> <ul style="list-style-type: none"> Ms White noted that changing the method for allocating the fleet ELCC to individual facilities, as proposed by Collgar, will reduce the valuing of the correlation between different facilities. Ms White considered that this is a trade-off for reducing the volatility of the CRC allocations. <p>Ms White suggested that an alternative approach is to assign fleet ELCC values for groups of facilities in different regions.</p> <ul style="list-style-type: none"> In response to a question from Ms Koziol, Ms White clarified that, for the scenario where facilities are grouped by region, Collgar Wind Farm is the only Facility in the east region. 	
5	<p>Next Steps</p> <p>Mr Robinson noted that further analysis will be undertaken to assess different options to assign CRC to intermittent generators.</p> <p>The Chair reiterated that any method must focus on performance during system stress events and must provide confidence that intermittent generators will perform during times of system stress at the level of the CRC assigned.</p> <p>Mr Robinson noted that the effect of the proposed methods on system reliability will be assessed.</p>	
5	<p>General Discussion</p> <p>Mrs Bedola noted that neither the Network Access Quantity regime nor the allocation methods proposed provide adequate locational signals to deter a new facility from locating close to an existing one and reducing the value of the existing facility.</p> <p>The Chair noted that the method must not remove a signal for intermittent generators to firm up their capacity. Several members agreed.</p>	

The meeting closed at 11:30am.