



Minutes

Meeting Title:	Reserve Capacity Mechanism Review Working Group (RCMRWG)
Date:	13 October 2022
Time:	9:00am – 11:30am
Location:	Microsoft TEAMS

Attendees	Company	Comment
Dora Guzeleva	Chair	
Rhiannon Bedola	Synergy	
Manus Higgins	AEMO	Until 11:00am
Toby Price	AEMO	Subject matter expert
Jacinda Papps	Alinta Energy	
Geoff Down	Water Corporation	Proxy for Peter Huxtable
Paul Arias	Bluewaters Power	
Mark McKinnon	Western Power	
Patrick Peake	Perth Energy	
Matt Shahnazari	Economic Regulation Authority	
Noel Schubert	Small-Use Consumer representative	
Andrew Stevens	Consultant	Until 11:10am
Rebecca White	Collgar Wind Farm	
Tessa Liddelow	Shell Energy	
Dev Tayal	Tesla Energy	Until 10:00am
Andrew Walker	South32 (Worsley Alumina)	Until 10:00am
Kiran Ranbir	ATCO Australia	
Daniel Kurz	SSCP Power	Until 11:00am
Richard Bowmaker	Robinson Bowmaker Paul (RBP)	
Ajith Sreenivasan	RBP	
Tim Robinson	RBP	
Stephen Eliot	Energy Policy WA (EPWA)	
Laura Koziol	EPWA	
Shelley Worthington	EPWA	
Isadora Salviano	EPWA	

Apologies	From	Comment
Dale Waterson	Merredin Energy	

Item	Subject	Action
1	<p>Welcome</p> <p>The Chair opened the meeting at 9:00am and provided an update on the current work for the RCM Review and the RCMRWG work schedule. The Chair noted that, based on the submissions on the stage 1 consultation paper and initial analysis, EPWA determined that additional analysis is needed on the method to assign Certified Reserve Capacity (CRC) to intermittent generators. Therefore, this matter will not be discussed at this RCMRWG meeting as originally planned. The following meetings are planned for the remainder of the year:</p> <p style="padding-left: 40px;">13/11/2022 – Penalty for high emission technologies: discussion of options for assessment</p> <p style="padding-left: 40px;">24/11/2022 – Penalties for high emission technologies: assessment and modelling</p> <p style="padding-left: 40px;">15/12/2022 – Certification of Intermittent Generators analysis.</p>	
2	<p>Meeting Apologies/Attendance</p> <p>The Chair noted the attendance as listed above</p>	
3	<p>Minutes of RCMRWG meeting 2022_07_14 and RCMRWG meeting 2022_07_21</p> <p>The RCMRWG noted the minutes from the working group meetings held on 14 July 2022 and 21 July 2022.</p>	
4	<p>Action Items</p> <p>The paper was taken as read.</p> <p>The slides for agenda items 5 to 10 are available on the webpage for the RCM Review (https://www.wa.gov.au/government/document-collections/reserve-capacity-mechanism-review-working-group). Note that updated slides have been published after the meeting</p>	
5	<p>Purpose of this session</p> <p>Mr Robinson noted that the purpose of this meeting is to seek input on the direction and the proposed options for the implementation of penalties for high emission technologies and support of firming technologies.</p>	
6	<p>Policy statement principles</p> <p>Mr Robinson recapped the draft statement of policy principles and summarised the constraints and flexibilities for proposing a design for a penalty for high emission technologies. The following was discussed:</p> <ul style="list-style-type: none"> Ms White sought clarification on the purpose of the policy and if the intent is to incentivise investment in new technologies or if it is a 	

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	<p>reaction to the absence of a broader economy wide emission scheme.</p> <ul style="list-style-type: none"> ○ The Chair noted that this is the Minister’s draft statement and that she cannot speak for the Minister but the statement of policy principle is clear that the purpose is to penalise high emission technologies and to incentivise firming technologies. ○ Mr Shahnazari considered that it is important to first set a clear objective or target for the policy. Mrs Papps agreed with Mr Shahnazari. ○ Mr Stevens considered that the penalty should not be discussed as part of the RCM Review because it is not a reserve capacity issue but an energy and emissions issue. Mr Stevens considered that providing available capacity does not contribute to emissions. ○ The Chair acknowledged Mr Stevens’ view and agreed that the penalty should be based on actual emissions and not available capacity. The Chair noted that: <ul style="list-style-type: none"> – The draft statement has been discussed with the MAC and the MAC provided views that penalties may not be best addressed in the RCM. – EPWA had been asked to assess options for a penalty on high emission technologies as part of the RCM Review but the penalty could be implemented within or outside the RCM. – Including the assessment of options for the penalty in the RCM Review allows to assess the penalty and its impact as part of the modelling for the review. ○ Mr Peake and Mr Stevens considered that the RCMRWG is well placed to assess the issue and provide feedback including whether emissions are better addressed in the energy market than in the RCM. <ul style="list-style-type: none"> ● In response to a question from Mrs Papps, the Chair noted that the draft statement is about getting to net-zero emissions and indicated that, for the purpose of the draft statement, firming technologies are low emission technologies, such as storage technologies and in particular long-duration storage, that use clean resources. <ul style="list-style-type: none"> ○ Mr Kurz considered that a mechanism that utilises penalties to support firming technologies can force high emission technologies to exit the market. Such a mechanism would not incentivise investment in firming technology because of the uncertainty of the support. ● Mrs Papps considered that another constraint should be added to the draft statement, requiring competitive neutrality of the penalty regime. Ms White, Mrs Bedola and Mr Arias supported Mrs Papps suggestion. 	

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	<ul style="list-style-type: none"> ○ The Chair acknowledged the desire for competitive neutrality but noted that any solution for implementing the policy must honour the existing constraints set out in the Minister's draft statement. ● Mrs Bedola considered that the net zero cost impact on consumers will be difficult to meet. Penalties will change dispatch, investment and retirement and that will impact costs. Mr Peake and Mr Arias agreed with Mrs Bedola. ● In response to a question from Mrs Bedola, the Chair noted that the Minister has not provided direction on the timing for the implementation of the penalty regime. Therefore, she considered that the timing would be part of EPWA's recommendations. 	

7 Policy implementation options

Mr Robinson presented identified number of options for designing a penalty on high emission technologies. The following was discussed:

General

- Mrs Papps considered that the penalty should be designed in a way so participants can manage their exposure to it.
 - The Chair agreed that, while it was not a stated objective, the penalty design should allow participants to change behaviour.

Option 1- Penalty based on estimated emissions produced in each Trading Interval:

- Ms White asked how the ERA would monitor compliance that bilateral contracts are not amended to pass through the penalty.
 - The Chair considered that, if the WEM Rules don't allow the penalty to be passed through when offering into the energy and Essential System Services markets, it is unlikely that the counterparty would agree to pass through the penalty in a bilateral contract.
 - Mr Shahnazari considered that if the penalty is not allowed to be passed through to consumers, then there is no increase in complexity for the ERA's compliance monitoring.
 - Ms White commented that in the near future demand is expected to exceed available energy, which would impact bilateral contracts and customers may not have the bargaining power to negotiate new contracts.
- Mrs Papps asked how the penalty would affect the Benchmark Reserve Capacity Price (BRCP) considering the current reference technology is an open cycle gas turbine (OCGT).
 - The Chair noted that the penalty must not affect the BRCP, otherwise everyone who pays the penalty can recover it through the higher BRCP. Therefore, further consideration is needed about the treatment of the technology of the marginal capacity provider.

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	<ul style="list-style-type: none"> • Mr Peake noted that the government had already announced the retirement of Synergy’s coal fired power plants by 2030 and expressed his concern that if the penalties are not to be passed through to costumers then it could lead to an early retirement of Synergy’s and Bluewaters’ coal fired facilities. This capacity will be difficult to replace in the short term. <ul style="list-style-type: none"> ○ The Chair acknowledged Mr Peake’s concern and noted that: <ul style="list-style-type: none"> – it will be important to model the impact of the penalty on the generation fleet; – the modelling results need to be reflected in the recommendations for the timing of the implementation; – allowing to pass the cost through to the consumer would be against the constraints of the draft statement because such an option would not result in a penalty. ○ Mr Peake considered that, if the penalty is introduced after the retirement of the coal fired facilities, the only high emission facilities will be gas fired facilities which are needed to firm up the intermittent generators. ○ The Chair reiterated that special consideration must be given to facilities that are marginal capacity providers. ○ Mr Arias considered that allowing participants to pass through the penalty to consumers would still fund the entry of firming technologies. Mr Kurz agreed with Mr Arias. ○ Mr Shahnazari considered that passing penalties onto the energy market drives innovation and investment in low emission technologies and noted that there is a substantial body of knowledge on market based and administered mechanisms. Mr Shahnazari considered that for the policy constraint requiring that the implementation of the penalty has a net-zero-impact on consumers it should be clarified over what time frame the impact should be net-zero and whether the cost of emissions are included in the consideration. • Mr Robinson noted that modelling will assess: <ul style="list-style-type: none"> ○ the impact on prices, thus the cost to consumers; and ○ the impact on commercial viability of individual facilities, entry and exit decisions, and the effect on reliability. 	
	<p><u>Option 2 – RCM penalty based on settlement period emissions:</u></p> <ul style="list-style-type: none"> • There was some discussion about the first formula on slide 13. <ul style="list-style-type: none"> ○ Mr Robinson clarified that the intent was to limit a facility’s penalty to the emissions associated with its Capacity Credits. ○ Mr Shanazari and Mr Schubert considered that the penalty should be based on actual emissions and not be related to a facility’s Capacity Credits. 	

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- The Chair agreed that a facility's absolute penalty should be based on actual emissions and not be related to the number of Capacity Credits. However, in order to charge the penalty through the RCM, the absolute penalty, the Capacity Credits and the received capacity price need to be considered. Therefore, the formula will be changed as follows:
~~max(facility generation, facility capacity credits) * facility emissions rate~~
facility generation * facility emissions rate
 The Chair noted that slide 13 will be amended accordingly and recirculated.
- Mrs Bedola asked how facilities that don't have Capacity Credits would be treated.
 - The Chair indicated that this issue will be further considered.

Option 3- RCM penalty based on historic emission:

- Mrs Bedola noted, that basing the penalty on historic emissions could incentivise a retiring plant to increase emissions in their last year as they won't get penalised for it. Mr Price and Mr Peake supported Mrs Bedola's comment.
 - The Chair agreed that this will need to be considered as part of the assessment.
- Mr Peake considered that a penalty should not be based on historical generation because operations are likely to change dramatically over the years. Mr Kurz supported Mr Peake's statement.

Option 4 - RCM penalty based on theoretical maximum emissions:

- Mr Robinson noted that basing penalties on theoretical maximum emissions would disconnect them from actual emissions. Therefore, this option will likely not be further considered.

8 Common elements

The following was discussed:

- Mr Stevens noted that all options presented are dealing with scope one emissions which are the focus of numerous mechanisms. Mr Stevens considered that any mechanism implemented in the WEM would likely be replaced soon by a federal mechanism.
 - Mr Robinson noted that scope one emissions are based on fuel consumption and not metered generation in MWh as in the options proposed.
 - Mr Robinson agreed that any WEM penalty for high emission technologies scheme should be revisited if a federal mechanism is implemented.

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	<ul style="list-style-type: none"> ○ Mr Schubert considered that the fuel consumption could be determined by applying a factor to the generation measured in MWh to link the penalty to scope one emissions. ○ Mr Peake considered that a penalty regime based on MWh should be cheaper to operate because that information is readily available. 	
	<ul style="list-style-type: none"> ● Ms White considered that: <ul style="list-style-type: none"> ○ Participants cannot materially decrease the quantity of energy a facility generates given its obligations to offer into the market (at SRMC or similar). Therefore, the only behaviour change available is retirement, which risks a potential capacity shortfall and firming issues. ○ The penalty should not be linked to Capacity Credits as this would add unnecessary complexity and delay or mute the signal for behaviour change. ○ The most suitable approach is to base the penalty on the actual energy generated and only apply the penalty to generators and not to storage facilities to avoid double penalising emissions. <p>Mrs Bedola, Mr Peake and Mr Shahnazari supported Ms White's considerations.</p> 	
	<ul style="list-style-type: none"> ● Mr Schubert suggested an alternative approach for the implementation of the penalty using the Renewable Energy Certificates (REC) regime. He suggested that generators should be required to acquire RECs in proportion to their emissions and relinquish them to a state body such as AEMO or EPWA for the funding of firming technology. <ul style="list-style-type: none"> ○ The Chair asked Mr Schubert to provide the detail of his suggestion in writing. Mr Schubert agreed to email EPWA his suggestion. ○ The Chair noted that the RECs are administered by the Commonwealth Regulator and expressed concerns that the proposed approach could be seen as WA trying to dictate the evolution of the RECs beyond 2030. ○ Mr Stevens considered that a penalty regime using the RECs: <ul style="list-style-type: none"> – would attract legal challenges; and – would introduce investor uncertainty because of the variability of the RECs. ○ Mr Peake considered that RECs have high overhead costs. ○ Mr Schubert clarified that his suggested method could also be based on a WA local scheme instead of the RECs. ○ Mrs Bedola pointed out that this approach could cause an issue weighing WA certificates against national certificates. 	

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	<ul style="list-style-type: none"> ○ Mr Price agreed with Mrs Bedola's concerns and added that the method would require definition of eligible certificates. ● Mr Peake asked if it is possible to legally apply penalties to an estimated quantity of emissions. <ul style="list-style-type: none"> ○ Ms White presumed that the estimate would need to meet the National Measurements Act requirements of 'for trade' measurement. ○ The Chair noted that the certificate scheme in the Eastern States is based on estimates but indicated that legal impediments will need to be assessed. ● Mr Shahnazari noted that for determining the emission penalty rate, the ERA's recent modelling could be a good framework. ● In response to a comment from Mr Peake, the Chair clarified that the penalty would put a value on emissions and that different ways of setting the penalty rate will be assessed through modelling. ● Mr Arias noted his disagreement with the statement that facilities in the SWIS don't currently face financial costs of emissions. ● Mr Kurz agreed with Mr Arias and noted that high emitting facilities face higher costs for finance and insurance. ● Ms White asked if the Minister has provided any guidance about the treatment of generators that are not connected to the SWIS. The Chair noted that no guidance had been provided. 	

9 Options for Distributing Support Payments

Mr Robinson presented a number of options for distributing the penalties to firming technologies.

- Mr Schubert considered that the penalties should not be distributed to firming technologies via Capacity Credits but based on the energy delivered in a predetermined period of time.
- Mrs Bedola asked whether the intent is to only support new technologies to assist their commercial viability. The Chair considered that this is the intent.
 - Mr Peake considered that the proposed hydrogen subsidy needs to be considered when designing the support for new firming technology. The Chair agreed.
 - Mr Schubert considered that the support should be used to make new firming technologies economic and not pay for their full cost. The Chair agreed.
- Ms White raised a concern that, if the support is provided on a pro rata basis for Capacity Credits of firming technologies, as suggested under proposed option 1, participants with a portfolio of high emission technologies and firming technologies will pay the penalty and receive the support. Ms White questioned whether in this case the benefits justify the administration costs of the regime.

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	<ul style="list-style-type: none"> ○ The Chair indicated, that the cost and benefits of each option will be assessed. ● Mr Shahnazari expressed his support for a competitive mechanisms, or an administrative mechanism emulating a competitive outcomes, for distributing the penalties that does not pick winners and losers. ● Ms White asked how the firming technologies that produce emissions will be treated. <ul style="list-style-type: none"> ○ The Chair considered that the policy intent is to support firming technologies that enable an overall increase in renewable generation and help achieve the goal of net-zero emissions. ● Mr Price sought clarification on how renewable energy will be funded. <ul style="list-style-type: none"> ○ The Chair noted that this question is important but is out of scope for the assessment of penalties for high emission technologies. ○ Mr Robinson noted that the effect on prices and the possible entry and exit of facilities will be assessed as part of the economic modelling. . ● Mr Schubert considered that enabling a high emitter to manage their exposure by receiving funds to build their own firming technology is a good thing. ● Mr Shahnazari suggested to distribute the penalties to technologies based on the estimated reduction of high emission generation that can be achieved by their addition, similar to a cap and trade mechanism. Mr Shahnazari provided a reference to a paper he considered relevant.¹ ● Mr Schubert considered that renewable conventional generation (e.g. biomass fired generation) should also be eligible for the support. 	

10 Next Steps

- The Chair requested feedback to be submitted to EPWA by 28 October 2022 to allow enough time for EPWA to assess and model the viable options before the next working group meeting on 24 November 2022.
 - Mrs Papps requested an extension of the timeline to 2 November 2022.
 - The Chair agreed to extend the timeline but encouraged all members to provide their input by 28 October 2022, if possible.
 - In response to a question from Mrs Bedola, the Chair noted that the policy for the penalties will be discussed with the MAC at the 13 December 2022 meeting.
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¹ note page 18 Paragraph 3 [Incorporating Wind Generation in Cap and Trade Programs \(nrel.gov\)](https://www.nrel.gov/energy-efficiency/energy-modeling/articles/Incorporating-Wind-Generation-in-Cap-and-Trade-Programs.html)

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	<ul style="list-style-type: none"> • Mr Peake considered that the timing for the implementation of the penalty should be set soon to provide certainty for new investment, for example in the needed high efficiency gas turbines. <ul style="list-style-type: none"> ○ The Chair noted that special consideration must be given to reliability and how required firming technologies that produce emissions will be treated. • In response to a question from Mrs Bedola, the Chair noted that the term 'high emission technologies' will need to be clearly defined for the purpose of the penalty. 	
11	General Business No general business was discussed.	

The meeting closed at 11:30am.