



Wholesale Electricity Market (WEM) Investment Certainty Review Working Group – Minutes

Date:	23 July 2026
Time:	9:00 AM – 12:00 PM
Location:	Microsoft Teams online

Attendees	Representing	Comment
Dora Guzeleva	Chair, Energy Policy WA (EPWA)	
Tim Robinson	Robinson Bowmaker and Paul (RBP)	Presenter for Items 4 – 10
Mena Gilchrist	Australian Energy Market Operator (AEMO)	
Oscar Carlberg	Alinta Energy	
Duc Tran	APA Group	Proxy for Lizzie O'Brien
Graham Pearson	Australian Energy Council	
Jordan Prainito	AuzVolt	
Daniel Kurz	Bluewaters Power 1 Pty Ltd	
Neil Finney	BLT Energy	Proxy for Francis Ip
Tom Frood	Bright Energy Investments	
Jake Flynn	Collgar Renewables	
Liz Aitken	Empire Carbon and Energy	
Richard Cheng	Economic Regulation Authority	
Noel Schubert	Expert Consumer Panel	
Luke Skinner	Expert Consumer Panel	
Warren King	Frontier Energy Limited	
Timothy Edwards	Metro Power	
Max Collins	Neoen	
Wayne Trumble	Newmont	
Patrick Peake	Perth Energy	
Paul Arias	Shell Energy	
Shane Cremin	Summit Southern Cross Power Pty Ltd	
Rhiannon Bedola	Synergy	
Ben Tan	Tesla Corp	



Peter Huxtable	Water Corporation	
Mark McKinnon	Western Power	
Shelley Worthington	EPWA	
Luke Commins	EPWA	
Aaron Drizen	EPWA	
Observers / Guests	From	Comment
Christopher Wilson	AEMO	
Steven Mills	Chamber of Minerals and Energy WA (CME)	Proxy for Aaron Walker
Eija Samson	RBP	
Naren Bharatwaj	RBP	
Apologies	From	
Rachael Smith	Australian Gas Infrastructure Group	
Lizzie O'Brien	APA Group	
Francis Ip	BLT Energy	
Aaron Walker	CME	
Fraser Maywood	Sustainable Energy Now	

1. WELCOME

The Chair opened the meeting with an Acknowledgement of Country and noted the Competition and Consumer Law Obligations of the Working Group members (members).

2. MEETING APOLOGIES AND ATTENDANCE

The Chair noted the attendance as listed above.

3. ITEMS RAISED AT PREVIOUS MEETING

Mr Robinson presented Slides 6 – 9.

The Chair noted that this topic has generated a great deal of discussion and reminded members to ensure that everyone is copied into any external communications. She asked whether the refined problem statement was now acceptable.

- Mr Mills asked whether the problem statement was the same across different renewable technology types, or if specific interventions would be required on a technology basis. He asked if this could be quantified using least-cost modelling with transparent assumptions about forecast demand and supply capacity, considering that, without distinct consideration of renewable technologies, there was a risk of incentivising more solar due to its lower capital and operating expenditure, which may not address the problem.



The Chair replied that consideration has been given to whether and how wind and solar can be treated differently to ensure that energy from solar is available when it is required and that modelling, to be undertaken, will provide clarity.

Mr Robinson agreed that any mechanism for a minimum price must account for technology differences, and whether energy is needed generally or in specific periods.

- Mr Carlberg noted that the refinement of the problem statement is an improvement, but that evidence was required to demonstrate the nature, timing and scale of the energy gap. He acknowledged that this may become evident through the modelling and that it was important in ensuring that the Renewable Energy Mechanism (REM) is not larger or more disruptive than necessary. Without this clarity, there was a risk of stagnating Power Purchase Agreements (PPAs) underway or sending a signal that would pause consideration of them.
- Mr Collins agreed with Mr Carlberg.
- Mr Trumble agreed with Mr Carlberg. He stated that the evidence to date appears anecdotal, suggesting that price discovery has taken place during recent PPA negotiations with Synergy and the Water Corporation (Government Trading Enterprises (GTEs)). He asked if the modelling will be shared to understand the counterfactual.

The Chair responded that modelling is within the scope of this Review. She noted that modelling is an iterative process, but that every model run indicates that the only way prices go down is through increasing renewable generation, given its very low marginal costs. However, as wind and solar generation drives down prices, the missing money becomes clear. She noted that:

- The Commonwealth Capacity Investment Scheme (CIS) is unlikely to provide the needed investment certainty required in Western Australia (WA).
- The National Electricity Market (NEM) is developing an Electricity Services Entry Mechanism (ESEM) and the WEM needs its own REM to stay competitive.
- Discussions with renewable developers have indicated that even with CIS contracts renewable generation projects are not achieving Final Investment Decisions (FID), i.e. without PPAs they cannot reach FID.

The Chair stated that if members are confident that the WEM can attract sufficient renewable generation without an REM, this is the time to state this. The Chair asked all members to advise their position on this.

- Mrs Bedola agreed there is a revenue-certainty gap as consumers are not signing longer-term contracts.
- Mr Edwards agreed that there is a gap preventing renewables from entering the market. He noted that both revenue certainty and firm grid connection are important and transmission build can also impact.
- Mr Schubert cited the recent signing of GTE PPAs and recent record high energy prices. Moving forward however, as more renewables enter this will change. He considered that:
 - a REM should not encourage renewable levels that necessitate excess curtailment;
 - the Reserve Capacity Mechanism (RCM) should already incentivise firming of solar;



- separating the way different technologies are treated is warranted; and
- further investigation of the issues was needed to make more informed decisions.

The Chair noted that AEMO, EPWA and the ERA continually review the effectiveness of the market and monitor trends and that the high prices from the end of April to June 2026 have raised concerns. She noted the following:

- analysis indicates the key reason for the high prices was because coal plant and Warradarge 1 were on an outage, and wind resource was low;
 - as a result of this, batteries were charging from expensive gas;
 - this demonstrates the downward pressure renewables place on prices - when they are not available, prices tend to increase; and
 - AEMO will present this at the [WA Electricity Consultative Forum scheduled 24 July 2026](#).
- Mr Frood agreed with the Chair's comments, stating that the high prices demonstrated the relationship between the volume of renewables on the system and price. He noted that the only projects that have recently progressed are those who have entered into PPAs with the GTEs and that this in itself does not demonstrate a sound appetite for investment.
 - Mr Prainito noted that this was a valuable and important discussion, but suggested there may not be a need for a separate REM. Extending the fixed 10-year Reserve Capacity Price (RCP) to new storage facilities (and potentially hybrids) who demonstrate charging from new renewable generation could be more efficient, and incentivise co-located hybrid projects.
 - Mr King agreed that Reserve Capacity payments do support hybrid renewable projects, however they do not provide sufficient revenue certainty for project financing. Banks do not consider Reserve Capacity payments contracted revenue and typically require evidence of long-term contracted revenue, i.e. a PPA. Frontier Energy had first hand experience of this, requiring both a fixed 5-year RCP and a CIS agreement.
 - Mr Mills noted that the extent of the problem could largely be framed by the Government's risk appetite. He asked if any direction has been provided on what the Government deemed sufficient to fill the gap for energy generation as coal exits, as this will help guide formation of the policy response, especially given the timeline for policy design and implementation.

Responding to Mr Mills, the Chair noted that the policy challenge is balancing reliability of supply with the cost of providing it. She explained that the modelling demonstrates that high volumes of wind and solar entering the market depress prices but exposes the 'missing money' problem.

The Chair reiterated that this work was prompted following discussions with 14 potential proponents, who consistently indicated that the CIS is not delivering the investment certainty required in WA, and that renewable generation projects require PPAs or revenue certainty through the market to reach FID.

- Mr Carlberg suggested that there are two gaps - a gap between what developers need and what customers are willing to pay, which might be an indication of the market



responding appropriately given the GTEs PPAs, and the gap between what renewable generation capacity *is* coming and what *is still* required by 2030. This second gap is what a solution should be designed for.

The Chair noted that the capacity requirements are outlined in the WEM Electricity Statement of Opportunities (ESOO). She questioned whether proponents who signed the PPAs would have committed to the market without them and questioned what is filling the gap beyond these PPAs.

- Mr Peake stated that significant additional renewable generation is required to replace retiring coal-fired generation. He noted that:
 - The investment necessary to achieve this is in the realm of \$2 - \$4 billion and WA is in direct competition with the Eastern States and overseas for these funds.
 - Investors require a reasonable return on investment (ROI) which is not present.
 - A REM is required to provide investors with a reasonable ROI, to attract investment and avoid the need to extend coal-fired generation, which will be unacceptable.
- Mr Frood and Mr Peake considered that there are existing mechanisms in place to signal when investment is no longer required and prevent overbuild.
- Mrs Bedola noted that since the market started, Synergy has been required to execute PPAs. Additionally, large-scale generation certificates were in place, however this scheme is ending.
- Mr Kurz added that a REM must be bankable, which is not always the case. He asked if PPAs are necessary and whether the State, through its GTEs, underwriting all the PPAs would not be the most efficient approach.
- Mr Flynn supported continuing the work on the REM and noted that, while industry has indicated that it is keen to electrify, this has not been translated into PPAs.
- Mr Cremin noted that customer willingness to pay is insufficient to provide ROI. Historically, investment has been driven by bilateral agreements through that willingness to pay. He questioned whether introducing a REM would result in a commensurate demand response. He noted:
 - the introduction of a REM will fundamentally change the structure of the market;
 - it will reduce prices in the real-time market but, because renewable technology costs have risen substantially, this will increase the delivered cost of energy to users; and
 - the end result might not be reduced prices for consumers in absolute terms - it may be that transitioning from what we have to where we need to get to is more expensive.
- Mr Carlberg agreed with Mr Cremin and noted that if a REM is implemented, it needs a clear target for how much energy is needed and by when.

The Chair responded that she was unaware of any market that has solved the issue of renewables without a carbon tax, a carbon price, contracts for differences (CfD), or some other incentive. Changing the market structure will not suddenly result in more renewables.

The Chair noted that overbuild can happen even if transmission infrastructure continues to be built and choice of location will continue to be an issue for renewables seeking to connect.



- Ms Aitken agreed with Mr Cremin, stating that the design of the cost recovery is critical, noting that recovering costs through undifferentiated Market Fees could result in some customers paying twice for contracted renewable energy. She noted that the Renewable Electricity Guarantee of Origin (REGO) scheme could provide an existing certificate tracking framework, if a renewable energy obligation is pursued.
- Mr Tan stated that there will be extra costs and this needs to be acknowledged. Old facilities cannot be replaced at zero cost, and the impact of the costs must be ameliorated in the best way possible. Without an explicit subsidy for new generation, the cost must be attributed to someone. This needs to be accepted and we need to move forward.
- Mr Skinner noted that the issue is not unique to WA, every market is grappling with the issue of how to underwrite enough renewable generation. There is no realistic scenario in which the issue is resolved without a REM or changes to existing mechanisms.
- Mrs Bedola agreed that there is a gap in projects getting financed and understanding this is important to ensure projects are not overcompensated or the wrong ones will be built.

Referring to comments on PPAs, the Chair stated that consideration must be given to the consequences for commercial entities and competition in the WEM if GTEs were directed to sign PPAs for 4,000 MW of renewable projects.

- Mr King stated that making it easier to get new projects up will lower the price of energy by reducing barriers to entry. In his experience, it was not the dollar value that has been the challenge but the missing revenue certainty. Banks are very specific about having revenue guaranteed for at least 10 years. The right REM that provides certainty without increasing the cost would benefit consumers and make projects more viable.

The Chair summarised that any REM should only bring in the most efficient projects and only encourage overbuild to the extent projects do not cannibalise each other. Work will continue with specific attention given to different technologies, modelling to demonstrate that the REM better achieves the State Electricity Objective for consumers (than doing nothing) and consideration of WA's target for net zero by 2050.

- Mr Carlberg agreed with the Chair's summary, subject to having a target.
- Mr Skinner reminded members that Australia's commitments at an international level were not only net zero by 2050, but to do so within an overall fair share carbon budget, which requires reducing emissions sooner.

The Chair and Mr Robinson noted the importance of having a trajectory that accounted for committed facilities and the projected capacity target.

Mr Robinson presented Slides 10 – 12.

The Chair advised that there an error in Slide 11 and clarified that new storage facilities can already apply for a 10 year fixed price by demonstrating contracts with renewable projects under the Electricity System and Market (ESM) Rules. The issue is how existing facilities can be incentivised to do so.

Mr Robinson advised that the intent was not to make retrospective changes and noted that further discussion would be required to consider how this could work.



- Mr Schubert noted that Capacity Credits could be the incentive but noted the need to encourage firmed energy over capacity.
- Mr Trumble asked whether an incentive based on Capacity Credits would increase the "delivered cost" of energy.

The Chair noted Mr Trumble's good observation, which will be discussed later.

Mr Robinson noted that the renewable portfolio obligation will be included in the Consultation Paper as an option for the longer term but will not be considered further as a short-term solution.

- Mrs Bedola agreed that using REGO should be a longer term plan.

The Chair noted that REGOs were established under Commonwealth legislation, and any REM that incorporates them must be complementary and designed for WA.

Mr Robinson presented Slides 13 – 14.

- Ms Aitken noted that, while a competitive auction process may not be feasible by 2027, a price ceiling and volume cap for eligible volume could be implemented as simpler interim measure. Retaining these elements would provide consumer protections by sharing upside benefits and limiting market exposure until an enduring scheme is developed.
- Referring to encouraging energy output in the afternoon (Slide 13), Mrs Bedola agreed with the concept but considered that, with enough storage, it won't matter where the energy comes from as long it is available when required. She added that renewable volatility during system stress events can be avoided by charging the batteries during the day and discharging them during peak periods.

The Chair noted that this required further discussion and noted that there was a need to ensure that storage is charged by renewables when there is plentiful solar, rather than charging on gas.

- Mr Peake agreed with Mrs Bedola and noted that there was a need for more energy on the system, regardless of peak periods. He added that, as evidenced by the CIS auctions, this can drive prices below what proponents can finance and physically deliver.

The Chair agreed with Mr Peake. Referring to the previous discussion, the Chair noted that a REM should only support renewable projects that are demonstrably the most efficient.

- Mr Peake noted the need to be mindful that projects were not deemed to be "winners."

The Chair clarified that there was no intent to choose specific projects but, rather, that a minimum price guarantee is set at a level which assumes the hypothetical beneficiaries are the most efficient projects in the most efficient locations.

Mr Robinson added that price caps in the WEM are not \$25,000/MWh, unlike the NEM.

- Mr King and Mr Schubert both noted the potential opportunities from commercial and industrial rooftop solar and behind the meter (BtM) batteries, if the goal was additional energy.
- Ms Aitkin agreed but noted that, if energy were the target rather than the system peak, the funding value of the RCM would disappear.



4. ELIGIBILITY FOR PARTICIPATION

Mr Robinson presented Slide 16.

- Several members agreed that a time limit for the REM is needed to set clear understanding that it is a "transition" support mechanism, not an ongoing one.

Mr Robinson presented Slides 17 – 18.

Regarding the risks of overbuilding and unnecessary costs to consumers, the Chair noted that it may become apparent that, in some years, there is no need to incentivise additional projects, and consideration was required on how to pause the REM, if required, without adding uncertainty. The Chair added that, if the REM facilitates the entry of wind generators, commitments to them must be honoured for a period of 10 or 15 years.

- Mr Huxtable agreed that there must be an ability to pause the REM if, for example, the Commonwealth Government introduces new policy directions.
- Mrs Bedola asked whether the intention behind the eligibility criteria was to support any project that stacks up and comes online in 2030 or, whether the expectation is that, for example, a target of 1 Gigawatt is set for 2030 and then only the most viable renewable projects are eligible, rather than everyone who enters in that year. She added that the ability to deliver the generation should be verified, potentially using AEMO criteria.

The Chair agreed that only committed projects should be accepted. AEMO requires 25% Reserve Capacity Security deposits, which is substantial for wind projects and should serve as sufficient disincentive to uncertain proposals. The Chair noted that this needs examination to ensure that it is sufficient to result in project delivery.

The Chair noted that the ESOO shows considerable gaps from 2029, some of which must be met by renewable projects. This process isn't intended to change the fundamentals of the RCM, which requires a project to be committed and address part of the Reserve Capacity Target. (RCT)

- Mr King noted his concern with "committed status" which, by definition, should mean that the project will be built, and if it has reached committed status, it does not require a REM. He noted that Western Power has critical project status and banks also have criteria, i.e. everyone wants proof of something, but no one is willing to take the first step, and navigating this process is very difficult.

The Chair responded that customers' reliability and security of supply remain key objectives. The South West Interconnected System cannot afford to rely on projects that do not eventuate.

- Mr King suggested establishing a REM that provided revenue certainty at a level that is below current or projected energy costs. This would allow for excess projects, which would decrease prices and then let the market dictate. He had concerns that the eligibility criteria may restrict some projects and considered that the more projects that enter, the more prices will decrease, even if some projects drop off.

The Chair acknowledged Mr King's point that revenue certainty is required, even if it is at a lower price, and the intent of the proposed minimum guaranteed price is to ensure that projects meet their revenue requirements over a defined period.



Mr Robinson noted that the minimum price guarantee naturally mitigates the risk to consumers if there is overbuild, but there is still a risk to developers of economic curtailment.

The Chair responded that more generation than is required would lead to customers paying more than necessary, and the cost to consumers must be balanced.

- Mr King acknowledged this but suggested that, if a REM covered a portion of the debt payments, for example 70% of the project debt, the risk could be borne by investors through the project equity. This is a relatively low level of support, especially for a hybrid project.
- Several members agreed with a comment by Mr Trumble that cost certainty is equally important to large industrial users in their investment decision.

Mr Robinson noted that 'committed status' means a commitment to build. Projects with that status before a REM comes into effect do not require support and should not be eligible.

- Regarding deliverability, Mr Collins noted that it is not feasible for wind projects to be built within the timeframes outlined and an additional year or two was required.

The Chair responded that current evidence suggests that this is not the case.

The Chair noted that there are mechanisms in the ESM Rules which allow for early certification. However, forecasts, even two years out, do not eventuate and extending that timeframe further creates greater uncertainty about what consumers are purchasing and whether it is required. The Chair added that, in the WEM, if a project completes all the necessary steps in advance, AEMO cannot refuse to certify it for Reserve Capacity.

- Mr Collins suggested that a solution could be longer-term bilateral contracts.
- Mrs Bedola noted that timeframe projects need for delivery and the ability to pause the REM need to be balanced to ensure that investment certainty is not undermined.
- Mr Skinner noted that it is especially difficult during a transition to forecast further in advance. If a project cannot be delivered within the required timeline, it is not the right project to meet the need.
- Mr Carlberg noted that an option is delaying the go-live date. While the ESOO highlights unserved energy exceeding the target in 2030, it is a very tight target at 0.0002% and well below the NEM standard of 0.003%.
- Mr Kurz agreed with comments regarding delivery of projects that have reached FID. He cautioned that with significant generation entering around the same time, timeframes may be delayed due to factors like port availability, contract prices and resource supply chains.

The Chair noted that several points raised by members will be logged for consideration.

Responding to a question from Mr Peake, the Chair explained that if a project is certified and a deposit is paid, that project commits to delivery in a specific year. Once a security deposit is paid the project is committed.

- Mr Peake asked if a project goes through the certification process, but is not awarded Capacity Credits because it cannot deliver on time, it still meets the criteria for support.

Mr Robinson noted that Capacity Credits are awarded to committed facilities up to the RCT and proposed facilities above 103% of the RCT do not receive Capacity Credits. This REM



should work similarly, i.e. if enough committed facilities are available, proposed facilities are no longer in contention.

- Mr Peake suggested that projects should have to meet an additional criterion, for example, a certain percentage of Capacity Credits awarded to renewable projects. However, he noted that this creates a problem balancing between solar and wind.
- Mrs Bedola noted that Mr Peake's point needed to be considered during design. If a project has no Capacity Credits, then a project does not receive the REM support.
- Mr Schubert suggested that a Facility that provides energy for charging batteries, even if it is not awarded Capacity Credits (i.e. not available during peak) was still of value.
- Mr King noted the sequence of events required to reach FID, and that it will only occur after Capacity Credits are awarded and evidence of support from a REM. Finance will be contingent on demonstrating revenue certainty.

The Chair stressed that the goal was to minimise costs to consumers, and that the idea was to offset Capacity Credits against that minimum price and not to use the RCM to deliver energy.

5. TEN-YEAR FIXED RESERVE CAPACITY PRICE (RCP)

Mr Robinson presented Slide 20, adding that this option would require minimal system changes.

- Mr Collins noted that the option does not fix the volume requirement, so banks would treat the revenue as merchant rather than bankable, and that there is no ability for a proponent to specify the RCP required to make a project work.
- Mrs Bedola stated that this is not the best option.
- Mr Skinner agreed that this is not the best option and does not solve the problem but noted that he was not opposed to proceeding with it.
- Mr Schubert noted that the option presents a risk for consumers if the RCP is abnormally high, as is expected to be the case for the 2028-29 Capacity Year. He stated that the focus should be on firmed renewable energy solutions, and this should not be via the RCM as energy is needed to fill batteries outside peak times.

The Chair noted that the member comments suggest that the option would not be sufficient on its own and asked whether members wished to proceed with it anyway.

- Mr Frood stated that the option is of some help and should form part of the solution. He asked if the Network Access Quantity (NAQ) could also be fixed.
- Mr King and Mr Kurz agreed.
- Mr Peake stated that it would be logical to include the option within the minimum energy price option.
- Ms Aitken noted her support on the basis that it is low cost and that Capability Classes 1 and 2 already receive it, but she noted that it is not bankable alone due to the volume not being fixed. She suggested that a Capacity Credit floor be considered alongside it and



noted that she didn't see how NAQs could be fixed for 10 years due to the dependency on network plans.

- Mr Flynn noted that short term volatility kills projects and that he supports a REM which provides longer term signals.
- Mr Peake noted that, if capacity excess is driven by storage or gas fired capacity, the market will still be short of renewable energy.
- Mr Tan asked whether eligibility would be limited to capacity allocated within the 3% threshold above the RCT, as it is currently, noting that, if that is the case, then this would have a limited effect in an overcapacity situation.

The Chair replied that the proposal is an extension to the current arrangements, which seek to avoid consumers paying a potentially high price for 10 years for capacity that isn't required. NAQs are fixed for existing facilities, subject to significant changes in the network configuration or local demand.

- Mr Collins noted that these matters are beyond the control of an independent power producer, and that the risk is probably best held by another party.
- Ms Aitken agreed.

The Chair noted that, given the support in the meeting and previous requests from industry for this, the option will be retained.

6. VOLUNTARY SECONDARY MARKET

Mr Robinson presented slides 23-25 (voluntary secondary market), adding that the proposal does not extend to exchange traded standardised futures, as exists in the NEM, New Zealand and Singapore, and that it would likely need to be industry led if it is to be voluntary, with a facilitation role for DEED.

- Mr King asked how a voluntary secondary market would provide revenue certainty.

The Chair noted that the intent is to create more transparency to allow material renewable projects and large loads to identify each other to facilitate bilateral contracting, rather than to facilitate price discovery.

- Mr Mills asked whether a voluntary market would be sufficiently liquid to change market outcomes, and whether an industry led platform would be well managed.

The Chair confirmed that this would not be a sufficient fix on its own, but that an absence of such a market has been noted and that the proposal would only proceed if supported by industry.

- Mr Flynn noted that a market maker would be required for a voluntary secondary market to succeed and asked whether Government would support Synergy stepping into that role.

The Chair stated that forcing a Government entity to purchase energy will have an impact on competition, and the resulting impact on consumers would need to be considered.

- Mr Collins stated that an extension of the Standard Products to 5 years would help as it would aid in price discovery. It was his view that this would assist renewable developers.
- Mrs Bedola noted that she does not see customers wanting to lock in longer contracts.



The Chair considered that an extension of the Standard Products to 5 years assists retail customers and retailers rather than renewable developers, and referred members to the most recent review of the Electricity Generation and Retail Corporation (EGRC) scheme by the ERA, which illustrated the difficulty of forecasting prices.

- Ms Aitken noted that transparency is useful, but that thin liquidity in WA is a credit problem, given the small number of creditworthy off-takers, and that a platform alone will not fix contract market depth.
- Mr Prainito, Mr Mills and Mr Flynn agreed.
- Mrs Bedola added that a party would also be exposed to risk on its forecasts, as the future price is itself a matter of speculation. She added that contestable customers are generally smaller loads, which do not want to lock in longer term contracts, and that the option is unlikely to achieve the volume or duration required to support renewable generation.
- Ms Aitken and Mrs Bedola noted that this may become more useful if more data centres start being built.
- Mr King noted that this would improve transparency, but that it would not assist with financing renewable projects given banks require 10 years of revenue certainty.
- Mr Skinner noted that electrification will result in more large loads entering the market, and that transparency is a significant problem.
- Mr Collins and Mr Schubert agreed with the latter point.
- Mr Trumble noted that the larger loads seeking cost certainty over a longer term are capable of running their own request for proposal processes.
- Mr Peake, Mr Huxtable, Mr Prainito and Mr Arias agreed.

The Chair noted the potential for large future loads, including data centres, but observed that there was limited support for the option. She suggested that a simpler measure directed at improving transparency may be more useful.

Mr Robinson noted that there are options in that space, giving the example of New Zealand, where bilateral contracts above a certain size must be reported to the regulator, which publishes anonymised statistics on the prices and sizes of those contracts.

7. RENEWABLE BENCHMARK RESERVE CAPACITY PRICE (BRCP)

Mr Robinson presented slides 27-30, noting that:

- renewable facilities receive a lower proportion of nameplate capacity as Capacity Credits, so the benchmark price per Capacity Credit would need to be higher to cover fixed costs;
- the option would likely require a net cost of new entry (CONE) calculation, so the process of setting the price would be more complicated; and
- the relevant level method (RLM) incentivises energy production during the Individual Reserve Capacity Requirement (IRCR) intervals but that a facility, for which fixed costs are covered by capacity payments, is relatively indifferent to how much it generates.



- Mr Schubert proposed a benchmark renewable energy price based on delivered renewable energy instead. He added that IRCR intervals are not necessarily the intervals in which the energy is required, because energy is also needed to charge storage so that it can generate during the evening peak.
- Ms Aitken agreed.
- Mr King noted that hybrid facilities provide renewable energy yet would be excluded by virtue of being Capability Class 2.
- Mr Peake stated that this option could work if it were accompanied by a renewable target.
- Mr Trumble asked whether the option would result in a higher proportion of the delivered cost of energy being fixed rather than variable.
- Mr Collins noted that it would affect both price and volume.
- Mr Schubert agreed.

The Chair stated that this option would increase costs to consumers, because it recovers the full capital and fixed operating and maintenance costs of renewable technology through a capacity price materially higher than that paid to the rest of the market. She considered that the minimise cost criterion on slide 30 should be red rather than amber, and that a REM of this kind would be difficult to remove once introduced.

- Mr King noted that the option does not provide revenue certainty unless the price is fixed for 10 years and reiterated that revenue certainty is what is required for financing.
- Mrs Bedola noted that the option allocates costs to peak demand users which creates the wrong incentive given that renewable generation is required principally for energy. She noted that certain customers can avoid capacity costs, shifting those costs onto others, which increases the subsidy to Synergy in respect of non-contestable customers. She stated that “allocate costs appropriately and reduce taxpayer exposure” criteria should also be assessed as red (on the slide).

Mr Robinson asked whether any member supported progressing the option.

- No member indicated support, and many confirmed they did not support it, reiterating that a REM needed to target delivered energy not capacity.

The Chair concluded that the Renewable BRCP would not be progressed.

8. MINIMUM AVERAGE ENERGY PRICE FOR RENEWABLES

Mr Robinson presented slides 32-33.

- Mr Trumble asked whether the option is the same as the CIS.

The Chair noted that the CIS operates as a closed auction, and projects are not being delivered because proponents have set their floor below the level required to reach FID in the expectation of securing additional PPAs. This proposal seeks, instead, to reflect the cost of an efficient plant and to provide top up only when the market price falls below that level, which also avoids volatility.

- Mrs Bedola asked if there would be a volume limit.



The Chair confirmed that this is yet to be resolved.

- Mr Mills noted that the option is effectively a CfD scheme, with a variable, administratively set strike price.
- Ms Aitken noted that the top up guarantees a dollar per MWh and not revenue and that, because it is calibrated on the expected output of an efficient facility, a curtailed or underperforming project would still under-recover. She asked whether the developer carries that volume risk.

The Chair confirmed that the developer carries that risk.

- Mr Peake stated that the option has considerable merit. He noted that his internal analysis of wind output of various facilities over the past 10 years shows variation of plus or minus 10%, which investors should be able to bear. He considered that the key question is the quantum guaranteed and suggested engaging financiers, including the Clean Energy Finance Corporation, on the appropriate proportion of capital cost.
- Mr Collins agreed.

The Chair advised that public data would be used as far as practicable, noting that investors use CSIRO's GenCost publication and other publicly available data, and that modelling would be undertaken.

- Mr Trumble asked if existing PPA holders would pay twice if costs were collected through Market Fees, and if Synergy would still be bearing the majority of the costs on that basis.
- Mr Carlberg noted that customers pay regardless of whether they have already hedged, which disincentivises bilateral contracts, and that the arrangement could create a substantial exposure for customers.

The Chair noted that these issues are to be examined.

- Mr Huxtable asked if the minimum price continues indefinitely if a facility does not take the 10-year fixed RCP, and if it would be available to all renewable generators or only to new entrants.
- Mrs Bedola stated that this is the best option, but that the expected costs need to be established in terms of MW, MWh and the minimum energy price.
- Mr Peake cautioned that there is a complication of gentailers selling to themselves, in that a participant selling to a related party at a low price could also seek to capture the top up.
- Mrs Bedola suggested that the support period should be between 10 and 15 years.
- Mr Peake agreed.

The Chair agreed that the intended timeframe was 10-15 years.

- Mr Kurz asked whether the cost of the scheme is intended to be recovered from all Market Participants, noting that any share generators bear would be passed on.

Mr Robinson advised that cost recovery will be discussed at the next meeting, noting the trade-off between simplicity and accuracy, and the need to address issues raised in this meeting.



- Ms Aitken asked why this CfD scheme was not two sided, noting that an administered ceiling, with revenue shared above the strike price would protect consumers on the upside, without an auction.
- Mr Peake agreed.

The Chair noted that as more renewables enter the market the upside benefit may diminish, and modelling is required to confirm the impacts.

- Mr Collins asked whether a load could opt out if it contracts bilaterally.
- Mr Trumble asked what effect the sell-to-self issue would have on BtM proposals.
- Mr Skinner noted that early upside could be captured to help pay for the scheme itself.

The Chair noted that these comments are matters that need to be examined.

- Mr Prainito and Mr Peake noted that this is a better solution than the renewable BRCP.
- Mr Carlberg noted that there would need to be a limit to how much energy and capacity can be accepted, and that equity between existing participants and new entrants receiving the supported price needs to be considered.

Mr Robinson noted that payments apply only to MWh generated, creating a natural limit that caps consumer exposure.

The Chair added that transmission capacity is also a natural limit and that more curtailment of renewable facilities is likely in the future, which presents a risk for developers. She agreed that the volume limit or target is a key design issue to be examined and resolved, informed by modelling.

- Mrs Bedola agreed that consumer exposure is limited, but that the risk of curtailment presents unacceptable investment uncertainty and that volume limits are required.
- Mr Peake asked if the capacity could be limited to the Future Energy System Outlook (FESO) requirements.
- Ms Aitken noted that as more renewable generation enters, prices will fall and the per MWh top up will rise, so cost grows faster than volume. She added that transmission headroom is not a reliable cap as it depends on government decisions, bites through the curtailment the developer wears and is counterintuitive to the goal of having energy built.
- Mr Trumble noted that, on the calculation presented, a high point in the cost cycle would be locked in for an extended period.
- Mr Collins noted that the formula requires amendment, because using the post-curtailment capacity factor in the denominator will simply increase the price and that the tie breaking process would need to be worked through.
- Ms Gilchrist noted that there are a number of matters to work through in detailed design, including in settlements. For example, the current adjustment timetable for settlements might not allow for a yearly average Real-Time Market price, because the final adjustment for any given Trading Day is less than one year after that Trading Day. That means that by the time the third and final calculation run is carried out for a given Trading Day (ADJ3), the final full-year average settlement price would not be known, because two weeks would still remain in the year.



- Mr Schubert noted that curtailment can be limited by installing firming to an efficient level.
- Mr Skinner stated his support, subject to the issues raised being addressed. He noted that requiring participants to demonstrate renewable energy for charging is worth exploring.

Mr Robinson presented slides 34-37.

- Mr Skinner noted that other technologies other than wind or solar may become cost competitive in the future. Mr Mills agreed and asked whether offshore wind would be eligible.

The Chair noted the differentiation needs to be between renewable generation which is time of day limited and renewable generation which is variable but not time of day limited.

Mr Robinson presented slide 38-41.

Mr Robinson clarified on slide 41 that point 2 does not refer to raising the price floor in the market, but rather that the cost of energy from renewable generation in a particular interval may be higher than is represented by the Real-Time Market price for that interval given the top up.

- Mrs Bedola stated that off-takers may be more willing to enter into PPAs with a REM in the background, but that further consideration is needed. With regard to the energy price, she noted that preventing bidding at negative prices (by virtue of the deemed capture price) could have unintended consequences for charging behaviour.

The Chair agreed that this needs to be modelled to determine the outcomes.

9. MINIMUM AVERAGE PRICE FOR FIRMED RENEWABLES

The Chair advised that given time constraints this would be discussed in the next meeting.

10. NEXT STEPS

The Chair presented slide 48. She noted that the next meeting would focus on the design issues raised in relation to the minimum average price for renewables and would not revisit previous discussions.

The meeting closed at 12:00pm.