Department of Energy and Economic Diversification

GOVERNMENT OF WESTERN AUSTRALIA

Energy Policy WA

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

Date:	24 September 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)	
Mena Gilchrist	Australian Energy Market Operator (AEMO)	
Chris Wilson	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	
Francis Ip	BLT Energy	
Tom Frood	Bright Energy Investments	
Aaron Walker	Chamber of Minerals and Energy WA	
James Eastcott	Clean Energy Council	New member
Jake Flynn	Collgar Renewables	
David Dixon	Economic Regulation Authority	
Luke Skinner	Expert Consumer Panel	
Adam Kiley	Frontier Energy Limited	
Marcus Freese	Modo Energy	New member
Max Collins	Neoen	
Wayne Trumble	Newmont	
Patrick Peake	Perth Energy	
Tessa Liddelow	Shell Energy	Proxy for Paul Arias
Graeme Ross	Simcoa	
Shane Cremin	Summit Southern Cross Power Pty Ltd	

Grant Coble-Neal	Sustainable Energy Now	Proxy for Fraser Maywood
Katherine Lau	Synergy	Proxy for Rhiannon Bedola
Ben Tan	Tesla Corp	
Stephanie McDougall	Tilt Renewables	New member
Geoff Down	Water Corporation	Proxy for Peter Huxtable
Mark McKinnon	Western Power	
Laura Koziol	EPWA	
Shelley Worthington	EPWA	
Aaron Drizen	EPWA	
Observers / Guests	**From**	**Comment**
Catlianna Evans	RBP	
Eija Samson	RBP	
Naren Bharatwaj	RBP	
Apologies	**From**	
Lizzie O'Brien	APA Group	
Rachael Smith	Australian Gas Infrastructure Group	
Liz Aitken	Empire Carbon and Energy	
William Street	Entego	
Noel Schubert	Expert Consumer Panel	
Timothy Edwards	Metro Power	
Paul Arias	Shell Energy	
Fraser Maywood	Sustainable Energy Now	
Rhiannon Bedola	Synergy	
Peter Huxtable	Water Corporation	

1. WELCOME AND AGENDA

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

2. MEETING APOLOGIES AND ATTENDANCE

The Chair noted the attendance as listed above and invited new members to introduce themselves.

3. ELIGIBILITY AND COST RECOVERY

Mr Robinson presented Slide 4 and explained that the Renewable Energy Mechanism (REM) is intended to align with coal retirements, which, working back, requires the rules and AEMO system changes to be in place by the end of 2027.

- Mr Trumble asked whether a project qualifies for Capacity Credits before showing evidence of funding and a final investment decision (FID).

The Chair responded that:

  - In the Reserve Capacity Mechanism (RCM), both committed and proposed facilities can be assigned Capacity Credits.
  - Requiring committed status for the REM is likely to be appropriate, so that participating projects are delivered and do not crowd out other projects.

Responding to Mr Skinner, who questioned whether this was circular as projects cannot reach FID without the REM, the Chair noted that an eligible committed project can lock in its Reserve Capacity Price and a minimum guaranteed price for 15 years.

- Mr Collins noted that he had previously raised concerns that the Reserve Capacity Cycle is too short for new wind farms, which take two to three years to build. He therefore considered it almost impossible for a wind project to benefit from the REM, and asked that this be recorded. Responding to Ms Liddelow, he advised that one further year would be workable given the cost of late delivery.

The Chair noted that:

  - An early certification process is available, and consideration will be given to whether facilities using it should be eligible.
  - Proponents have not used early certification presumably because of perceived risks, including an earlier security deposit and Network Access Quantities (NAQs) being locked up.

In response to a question raised by Mr Kurz, the Chair noted that refunds never exceed the value of the Capacity Credits received, and she does not consider that they should be referred to as ‘penalties’.

Responding to Mr Trumble, who asked whether the security deposit must be provided before Capacity Credits are awarded, the Chair clarified that Reserve Capacity Security is due after certification and before NAQs are assigned and Capacity Credits awarded, and is returned if a facility is unsuccessful in being assigned Capacity Credits.

- Mr Walker noted that eligibility was aligned to the Reserve Capacity timeframes because the RCM is well established and helps identify serious projects, but that the REM is a separate mechanism designed to provide the revenue certainty renewables need, rather than Capacity Credits, given their low capacity value.

The Chair replied that:

  - The REM cannot be divorced from the RCM, as under the new Relevant Level Method (RLM) wind receives about 30% and solar 15% of nameplate capacity in Capacity

Credits, which wind projects say they need, and that this capacity must count towards the Reserve Capacity Target.

- The Reserve Capacity Security is a stronger incentive to deliver on time compared to the bond under the Capacity Investment Scheme (CIS).
- The volume supported will be set by a renewable energy or emissions target, not by a shortfall against the Reserve Capacity Target.

Responding to Mr Pearson, who asked whether projects unable to reach FID would instead be supported by the CIS or other PPA tenders, the Chair noted that the current CIS tender is the last, there will be no further PPA tenders, and the REM is intended to bring new renewable energy into the market from 1 October 2030.

- Mr Skinner noted that CIS backed projects cannot proceed without a power purchase agreement (PPA), and private PPAs are not being signed in Western Australia.

Mr Robinson presented Slide 5.

- Mr Trumble asked who the beneficiary of the REM is, and how loads that already have renewable contractual arrangements in place would be carved out.

The Chair replied that consumers are the beneficiary and that carving out existing arrangements, including those of vertically integrated entities, would leave the cost of the REM with a handful of consumers, and that the REM is intended to bring in *new* generation.

- Mr Trumble considered that the proposal shifts cost from the taxpayer to the market.
- Mr Skinner noted that costs only arise if wholesale prices fall very significantly.
- Mr Walker acknowledged the importance of simplicity, but considered that the proposal places simplicity above fairness, noting that:
  - Industry is not signing PPAs, as the price required to reach FID is above what is viable for large users.
  - Households are shielded because their bills are capped, but large industrial customers can neither avoid the cost of the REM nor pass it on, as there is no green premium for what they produce.
  - A customer with behind the meter (BtM) generation reduces its consumption and cost share, whereas a customer whose PPA energy is delivered through the network bears the full cost, despite equally reducing the gap.
  - A customer that has signed a PPA with a renewable facility has reduced the generation gap the REM is designed to fill, so there is a strong argument for some form of carve out or refund.

The Chair noted that the REM will not proceed unless the top-up required to bring in renewable projects is significantly lower than the benefit received from reduced wholesale prices. She asked whether members would support carving out the existing PPAs, including of the Government Trading Enterprises (GTEs), which would shift the cost to large users without PPAs.

- Mr Walker noted that his concern is about industrial customers that have entered into a PPA for renewable generation and how to minimise the cost of the REM for them. As there are only a few, he did not consider that accounting for them would be complex.
- Mr Trumble noted that Boddington is about 5% of system consumption, and that customers like Boddington that already contract for renewable energy should receive a carve out for the volume covered by their PPAs.
- Mr Skinner noted that the move away from high emissions technology reflects international commitments, and that industry does not currently bear the external costs of its emissions.

Mr Robinson noted that PPAs for new facilities can be negotiated to net off REM payments, and that the question is how existing contracts should be treated.

- Ms Gilchrist noted that AEMO is agnostic on the policy, but that carve outs add cost and time to implementation.

The Chair summarised that:

  - Some customers may have already covered part of their consumption by contracting for renewable energy. How these individual loads are accounted for requires further consideration.
  - No member supported carving out the GTEs' PPAs, in response to her request for views.

4. INTERACTION WITH OTHER SCHEMES

Mr Robinson presented Slides 7 and 8 and noted that:

  - Accounting for certificate revenue requires forecasting prices over 15 years.
  - REM payments appear unlikely in the 2030 Capacity Year.
  - The 2030 certificate price is about $6 to $7 and likely to fall.

The Chair noted that, unlike Large-scale Generation Certificates, the Renewable Electricity Guarantee of Origin (REGO) scheme will be voluntary.

Responding to Mr Trumble on why option 3 is undesirable (Slide 8), Mr Robinson noted that barring certificate creation would leave renewable generation uncounted, and requiring surrender would mean redistributing certificates, adding complexity. He asked whether members disagreed with this reasoning.

- Mr Carlberg noted his preference was to account for certificate revenue, to limit over procurement in the absence of a target or cap.

The Chair agreed that a target and cap are required, but noted that forecasting certificate prices adds uncertainty for projects.

- Mr Walker noted his preference for accounting for certificate revenue, provided that prices can be locked in through a forward market.
- Mr Flynn noted that forward markets exist for Large-scale Generation Certificates, but was unsure about REGOs, which are usually transferred to the offtaker.

Mr Robinson agreed that certificates are normally sold as part of a PPA, and noted that, if they are not, it would need to be decided whether the generator keeps the revenue or it is accounted for in the REM.

The Chair noted that the REM is intended to bring renewable generation into WA to lower costs here, whereas REGOs can be created outside WA.

Mr Robinson presented Slide 9.

Responding to questions from Mr Trumble and Mr Walker on whether CIS payments could be made before REM payments, the Chair noted that the Commonwealth offsets revenue earned in the Wholesale Electricity Market (WEM), so the order cannot be reversed.

- Mr Trumble considered that CIS proponents set their own bids, and questioned whose problem it is if those bids prove insufficient.
- Mr Carlberg agreed with Mr Trumble and preferred that Facilities with a CIS Agreement (CISA) be ineligible.
- Mr Walker questioned whether the choice between the options matters if the REM provides revenue certainty.

Mr Robinson noted that the intent had been to secure WA's share of Commonwealth funding, but that the design of the CIS means that this is only achieved if a project can proceed with a CISA alone.

- Mr Walker asked that the drafting allow a future Commonwealth mechanism supporting investment certainty to take precedence.

The Chair noted that the CIS tenders have ended, and the National Electricity Market (NEM) is moving very quickly to an Electricity Services Entry Mechanism (ESEM), which is for the NEM alone and risks the WEM losing investment to the NEM.

Mr Robinson noted that there will be an ability to pause the REM if it is not needed, although eligible facilities will retain their support.

The Chair noted that if facilities holding a CISA were made ineligible, there is a real risk that no CIS projects would be delivered.

- Mr Walker supported allowing Facilities with a CISA to be eligible.
- Mr Skinner noted his strong support for eligibility, as projects holding CISAs are the most advanced and viable. He considered that tying eligibility to possible future Commonwealth action would create uncertainty, contrary to the purpose of the REM.
- Mr Eastcott agreed with the Chair that the East Coast approach relies on the ESEM.

5. DISCOUNT FACTOR

Mr Robinson presented Slides 11 and 12 and noted that:

  - Target capture prices are highly sensitive to the Weighted Average Cost of Capital (WACC).

- The Clean Energy Finance Corporation, the ERA, investors and developers were consulted to test what investors require, and indicated that the required return depends on project risk.
- The modelling uses a real WACC, whereas the Electricity System and Market Rules will use a nominal WACC.

Responding to Mr Trumble and Mr Walker on whether the recent GTE PPAs could be used as WACC benchmarks, the Chair advised that no benchmarks from GTEs or any private participant will be used. The intent is to establish general principles for the cost building blocks, relying on published sources, including Oxford Economics, and discussions with the ERA.

- Mr Skinner considered that the PPAs Synergy was directed to sign should not be used as a benchmark, as he did not consider them to represent the best price available.
- Mr Peake supported the approach, noting that the WACC background work looked thorough.

6. LENGTH OF SUPPORT

Mr Robinson presented Slide 13 and noted that:

- 10 years was originally considered for consistency with existing ESM Rule provisions.
- If the REM is highly successful it can be paused, with existing facilities retaining support.

- Mr Skinner and Mr Prainito supported 15 years, with Mr Prainito noting that it would ensure the lowest cost of capital and therefore the lowest support required.
- Mr Trumble asked what the sources consulted provided, why the market should bear the risk of falling energy costs and what forecast of future energy prices had led to the REM.

The Chair noted that these would be addressed in the modelling. Responding to Mr Walker, she noted that the modelling runs to 2036, and that the REM was preferred given delivery timeframes, and its relative ease of implementation in the ESM Rules and AEMO systems.

- Mr Walker noted that 15 years lowers the cost of capital but may not reduce cumulative support if technology costs fall significantly, and reserved his view until the modelling.

The Chair noted that proponents, including Working Group members, have consistently stated a preference for longer term revenue certainty, even at a lower price, and that this is the intent of the REM by design. She asked members to advise if this was not the case.

- Mr Prainito and Mr Frood agreed.
- Mr Walker agreed in principle, but questioned whether a higher WACC over 10 years or a lower WACC over 15 years is better.
- Mr Carlberg agreed that the modelling results were necessary before deciding.

The Chair noted that the trade off between the length of support and the WACC can only be assessed with the modelling, and would be revisited when it is available.

7. HYBRIDS AND FIRMING

Mr Robinson presented Slides 15 to 17.

Responding to Mr Dixon on whether hybrid facilities, particularly those with a battery on site, would be treated differently, Mr Robinson noted that:

- The issue is grid energy used to charge storage, which the renewable energy component has not generated.
- On-site generation data is not available within settlement timeframes, and the National Measurement Act 1960 (Cth) restricts its use for settlement.

The Chair noted that, although not on the slide, the REM will support only the renewable energy the hybrid generates, preferably by excluding energy equal to any grid withdrawals or, alternatively, by assuming a contracted maximum demand of zero, which is more complex.

Mr Robinson added that this will be presented in the Consultation Paper, and that the slide should refer to withdrawing rather than charging.

- Mr Walker preferred the third option, as it retains the incentive to shift energy into higher priced periods, and asked what the benefit of the first option was.

Mr Robinson responded that the preference reflects implementation complexity and materiality.

- Noting the proposed change to the Benchmark Reserve Capacity Price, Mr Flynn did not consider it correct to assume that most new facilities will include batteries. He did not support zero maximum demand.

The Chair agreed that it was not a foregone conclusion that all new facilities will include a battery.

- Mr Trumble asked whether requiring zero maximum demand would be the preferred option if the aim is to drive renewable development.

The Chair replied that requiring facilities to have zero maximum demand raises other issues, and that excluding grid withdrawals from REM support achieves the same outcome.

- Mr Skinner considered zero maximum demand counterintuitive, as it would leave batteries idle when they could be providing services.
- Mr Carlberg supported excluding withdrawn energy, but questioned whether storage should contribute to cost recovery, as it cannot forecast the cost in each interval.

Mr Robinson noted that batteries would contribute through the consumption share when charging, but as recovery is on year to date consumption, interval decisions should be unaffected, although batteries must account for a higher round trip cost.

The Chair added that, in response to earlier cash flow concerns, reconciliation will occur each settlement period on a rolling basis.

- Mr Frood noted that he expected grid charging may not be unusual and supported the first or third option for simplicity.
- Mr Walker supported the preferred option, as it avoids paying twice when a battery charges from generation already receiving REM payments.
- Mr Prainito suggested settling on standard metering with a periodic true-up against sub-metered renewable output, otherwise favouring the second option.

The Chair noted that sub-metered data arrives three months later and cannot be used for settlement under national law.

On firming, Mr Robinson noted that the REM is not intended to support multi-day firming.

- Mr Walker asked whether the RCM is already sufficient to provide firming.

Mr Robinson noted that the new RLM, NAQs and the way storage is certified already encourage firm availability, and that in his view the need is for energy rather than firming.

8. PRELIMINARY MODELLING RESULTS

Mr Robinson presented Slides 19 to 32, noting that the results are preliminary and the methodology is still being refined, but that the overall findings are robust.

The Chair noted that the scenarios set the parameters while a renewable energy or emissions target is developed, with the base and high cases as extremes and the low case illustrative.

Mr Robinson noted that:

  - An additional sensitivity would be run on the base case using 10% probability of exceedance peak demand to ensure that the Planning Criterion can still be met.
  - REM payments are derived from the capacity price locked in and the proportion of nameplate capacity assumed as Capacity Credits, which has changed significantly this year with the introduction of the new RLM.

- Mr Collins asked why the RLM and the Electric Storage Resource Obligation Duration (ESROD) are inputs rather than outputs, and how curtailment of REM supported build is treated.

The Chair and Mr Robinson noted that:

  - The RLM and the ESROD are capacity mix dependent, and modelling them would require iteration beyond the time available.
  - The 14 hour storage duration is an input, rising one hour each year, not a modelled result.
  - The modelling uses actual renewable resource traces and network constraints, including approved Clean Energy Links, with all renewables equally exposed to economic curtailment.

The Chair added that the modelling must provide absolute certainty that top-ups will be significantly lower than the value of the REM to consumers through lower prices. Responding to a question from Mr Trumble, she confirmed that the modelling uses the 2026 Electricity Statement of Opportunities demand forecast.

- Mr Collins noted that:
  - The reference capacity factor may not be achievable if new generation the REM is designed to bring in is curtailed.
  - Developers cannot know how much the REM will bring in and therefore cannot make an informed decision.
  - Banks generally give no credit to the RLM or the ESROD as they are not forecastable.

    - The State is best placed to assess technical and economic curtailment, and therefore best placed to take that risk.
- Mr Skinner noted that the State means taxpayers and consumers.
- Mr Collins clarified that he meant the State as transmission planner.

The Chair did not accept that curtailment risk should sit with the State and noted that:

    - Total build over the five years modelled should be checked against transmission capacity.
    - Lower capacity factors from economic curtailment raise the target capture price and the cost of the REM.
    - The modelling may show whether more transmission is needed, which the Future Energy System Outlook (FESO) is examining.
- Mr Peake considered that gas capacity will be needed to cover a two to three day dunkelflaute.
- Mr Skinner considered it inaccurate to assume that this can only be met by gas.

Responding to Mr Walker, Mr Robinson confirmed that rooftop solar is reflected in the demand forecasts, and that commercial and industrial BtM solar counts towards the Reserve Capacity Target but is not REM eligible.

The Chair noted that BtM solar, not yet modelled, must be included if a renewable energy or emissions target is adopted.

Responding to Mr Trumble on whether battery technology allows the assumed growth in storage duration, the Chair noted that lithium ion can be built to any duration, but beyond a point may not be economic.

- Mr Skinner noted that longer durations would likely use other technologies.
- Mr Carlberg considered that the sensitivity to administered parameters favours a certificate scheme, questioned whether the 2030 volume is needed and suggested an auction as a stopgap.

The Chair replied that a certificate scheme has not been discarded, but would need to be considered in detail, as:

    - The Commonwealth is ending the national certificate scheme, and therefore a State scheme would need its own arrangements at considerable cost.
    - Experience in the NEM and the United Kingdom indicates that a certificate scheme on its own does not bring in new generation.

Mr Robinson noted that certificates are typically bundled with PPAs, which parties are not signing.

- Mr Collins asked how the REM would protect developers from extended negative prices in the high case and suggested that, if the State does not consider negative pricing to be a risk, the State should bear it.

Mr Robinson noted that facilities control their exposure through their offers, as a facility offering at a low price will not be dispatched when prices fall below its offer. Negative prices are treated as $0 so that bidding down cannot increase top-ups, consistent with the CIS, and he will check the incidence of negative prices in the modelling.

The Chair noted that:

- Only Market Participants can manage the risk of negative pricing, and it should not sit with the State, as it would fall on the same taxpayers and consumers.
- Climate change and emissions reduction are global issues, which the energy transition and the REM seek to address.
- The impact on existing generating assets and security of supply must be balanced very carefully.

Mr Robinson added that, if negative pricing was stopping deals being made, this had not been raised previously.

- Mr Peake considered REM facilities would bid negative to stay dispatched, displacing unsupported renewables.
- Mr Collins agreed, noting that prices near $20 per MWh would attract data centres.

The Chair advised that, separate to this work, governments are working to ensure data centres contribute value for that benefit.

- Mr Walker noted that more renewables lower wholesale costs but raise transmission costs, which is a broader question for the FESO, and suggested changes to how the results are presented:
  - The cost reduction shown reflects a higher renewable share, not the REM itself.
  - Energy and Essential System Services (ESS) savings and REM costs should be shown together as a net position.
  - Reserve capacity and transmission costs should also be shown, so a general audience can see the full cost stack.

The Chair noted that the exercise was not just theoretical, as it assumes facilities obtain through the REM the certainty a PPA would otherwise provide, and this certainty drives renewable entry.

- Mr Carlberg noted that, as most energy is bilaterally contracted, excessive entry could leave contracts out of the money. He considered the REM a paradigm shift that would make new development reliant on it.

The Chair agreed that this was important, and noted that:

- For the majority of the market, contracts roll over, and standard product pricing follows the energy forward curve.
- Although the WEM is commonly said to be 99% contracted, the numbers do not appear to support this. Three way analysis of settlement data with AEMO indicates that most energy is now settled through the Real-Time Market, suggesting its prices now closely track bilateral contract prices.

- Markets with support mechanisms retain hedging, and some risk must remain for contracting to be efficient.

Mr Robinson noted that, while the REM alleviates some risk, others remain with proponents, including curtailment, capacity factors and capital costs.

The Chair noted that, fundamentally, the REM must provide the certainty needed to bring in new renewable generation, or renewables will not enter.

Mr Robinson agreed, noting that the aim is to avoid repeating the CIS experience.

Responding to Mr Trumble, the Chair confirmed the cost to serve results cover energy and ESS only.

- Mr Walker asked whether the analysis could be extended to 2045-46 to show the cumulative benefits to consumers after REM top-ups.

The Chair noted that this would be interesting, but forecasts beyond five years are unreliable, and the results may reverse if the REM ends.

- Mr Peake suggested that modelling the first 10 years of the REM would be beneficial, as developers will want to understand the longer term impacts.

The Chair responded that this could be misleading, as something else will likely need to replace the REM.

The Chair noted that the REM will not solve all problems, including transmission and other market costs. Cost aside, the fundamental question is how to cover the reliability gap, as without new renewables there will be nothing to fill storage once coal has gone.

- Mr Walker considered that the FESO should set the lowest cost mix first, with the REM then delivering the renewables required.

9. NEXT STEPS

The Chair advised that the Market Advisory Committee will be updated on 15 October 2026, modelling will continue in tandem with drafting of the Consultation Paper, and the Working Group may reconvene on near-final modelling.

Responding to Mr Walker and Mr Carlberg, the Chair noted that the REM is to be settled by December 2027, before the 2028 Reserve Capacity Cycle, and that a target will be included in the Consultation Paper.

- Mr Skinner offered material on setting the target and favoured an emissions basis.

The Chair welcomed this and any ideas on a renewable energy or emissions based target.

The meeting closed at 12:00 pm.