17th September 2025

The NEM Review Panel
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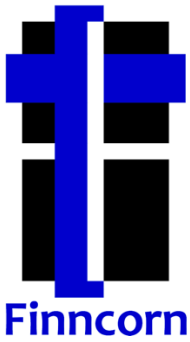


## Submission in response to the NEM Wholesale Market Settings Review draft report

Please find attached a public submission for the consideration of the Panel.

Finncorn has been engaged by Energy Consumers Australia ('ECA') to review and comment on the draft report. We understand this response may be incorporated into and/or referred to by ECA in their submission.

Yours sincerely,

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# NEM Wholesale Market Settings Review

Finncorn Consulting's response to the Panel's draft report

Released as a public submission



17th September 2025

# Purpose

Finncorn has been engaged by Energy Consumers Australia ('ECA') to provide advice on the NEM Wholesale Market Settings Review ('NEM Review'). We understand that ECA will incorporate or reference this submission with their own response to the draft report from the Panel.

Finncorn has prepared this response to focus on a small range of key issues of most concern to ECA, in relation to the interface of consumers with the NEM's market settings, and the long-term interests of consumers subject to the costs transmitted to them via the operation of the wholesale market.

We look forward to engaging further with the Panel and other stakeholders on these matters, in order to help deliver successful outcomes for consumers from the Panel's NEM Review.

# Much to admire in the Panel's approach

We think there is a great deal of merit in the Panel's overarching approach to link operational efficiency (via the energy-only gross pool market continuing to form the basis of the NEM) with timely investment, through enhanced liquidity and tenor in derivative markets.

We also agree that pragmatically, an entry support mechanism representing a form of centralised planning and procurement of energy services (such as the ESEM) is likely to continue to be required regardless of market settings (albeit for different or broader reasons than the Panel's 'tenor gap' argument).

The rough design of the ESEM shows a number of critical improvements over current approaches (the LRET, the CIS, etcetera) especially:

1. Actively supporting liquidity in derivatives markets, rather than draining it away; and
2. Withholding support for projects unless and until they demonstrate in-market contracting commitment for the near-tern period prior to the Panel's 'tenor gap'.

# Some concerns on the governance and details of the ESEM

While we support the ESEM in principle, we nevertheless offer a number of constructive suggestions on how can it be best-designed to serve the long-term interests of consumers, via its detailed design, governance and operation. These are discussed in more depth in the body of the submission.

1. **Are consumers the funding source for anything and everything?** As a fundamental issue, we question the presumption – not addressed at all in the draft report – that whatever the ESEM is, whatever policies it embodies from jurisdictions that may be outside the scope of energy supply, or counter to a least-cost supply and transmission portfolio, consumers will pay for it.

   The pace and extent of national emissions reduction, or a preference of jurisdictions for certain technologies that are not least-cost but may offer 'jobs & growth' or other attractive features, are unrelated to efficient electricity supply, and for the benefit of a broader constituency – all taxpayers / citizens.

2. **Identifying, minimising and managing the risks to be accepted by the ESEM.** Of these risks, volume over-procurement is the most obvious and material concern, but also a range of other potential risks are foreshadowed in the ESEM's rough design, which (it seems to be assumed) consumers would be asked to underwrite.

   These include tenor, credit exposure, falling technology costs, and resale value of hedges if (as advocated) those instruments evolve.

3. **No taxation without representation.** In light of these concerns, it will be very important to ensure consumers are pre-eminent in the governance of the ESEM. That requires a body with advocate representation providing oversight of the volume and type of capacity procured, and other risks accepted by the ESEM on behalf of consumers.

4. **Fit-for-purpose Market Price Settings.** We see a need for more thoughtful assessment of whether the ESEM reduces the need for extremes in market settings, such as the MPC.

   This seems to be the case, if it is accepted that the primary investment price signal is really via the ESEM's underwriting of revenues regardless of market outcomes, not in-market revenues as assumed previously in determining the Market Price Settings.

5. **Maintaining technology-agnostic market design.** For a long-term, durable instrument, the ESEM should be based on electricity prices and associated derivatives. Detailed design should avoiding conflation with technology-specific instruments such as REGOs, which were designed for assurance of carbon intensity in value chains, not as a replacement or extension of the LRET.

   Unlike the LRET, REGOs are not a compliance instrument and there is no natural long-term demand to place a value on them. As such, consumers should certainty not be asked to take long-term risk on the value of warehoused REGOs as part of the ESEM.

6. **Simplifying services procured via a realistic definition of 'Firming'.** The Panel should consider tweaking the ESEM design to extend the duration of "Firming" beyond only 8.5 hours (at least for the necessary capacity as modelled against low-likelihood events). This might avoid or greatly reduce consumer funding of a further out-of-market operational reserve (while maintaining the RERT if necessary instead – noting the draft report is silent on the ongoing role of the RERT).

# Bouquets and Brickbats, beyond the ESEM

Outside this constructive approach to optimising the ESEM, we identify two other key points:

- **One Bouquet:** We strongly support the Panel's suggestion to reform distribution network prices to a greater fixed-charge basis, a position ECA has supported via detailed analysis in its contribution to the AEMC's Pricing Review. This is consistent with our view that consumers with CER should contribute their equitable share of network costs (and – as proposed by the panel – contribute to wholesale market efficiency via at least visibility, if not aggregated dispatchability).
- **And one Brickbat:** The dismissal of LMP as an obvious and overdue market reform with major efficiency gains on offer to lower system costs and the burden on consumers is a failure of ambition.

## Linkage to distribution, retail and consumer outcomes is supported

We also appreciate the Panel's consideration (in Chapter 6) of wider impacts, including how NEM market settings can flow through to more efficient and equitable outcomes for consumers, including supporting a broader range of retail contracts that may better suits the needs of some consumers (without unduly increasing risk or cost for retailers).

In particular, we strongly support the Panel's expressed view that in circumstances of increasing CER penetration, the AEMC should take the opportunity to rebase network cost recovery towards fixed charges.

This is entirely consistent with the conclusions from detailed analysis commissioned by ECA on this topic – available here: https://energyconsumersaustralia.com.au/sites/default/files/2025-07/report-dragoman-aemc-pricing-review-electricity-pricing-consumer-driven-future-discussion-paper.pdf

## Locational Marginal Pricing should not be so quickly dismissed

We note the Panel stating it will not recommend LMP.

The issue has been prosecuted extensively (and is now once again the subject of a rule change request), and we think the Panel should reconsider its appetite to engage constructively on this topic, as it has in most other respects – for the following reasons:

- **Past reform failures are not a reason to oppose:** The recent failure to proceed on watered-down compromises with a reluctant stakeholder group of renewable developers – such as hybrid access reform and a voluntary congestion management model – should not be taken as a reason to

abandon the efficiency on offer from a clean LMP model, in both operational dispatch efficiency and investment price signalling.

- **The key benefit is the signal to storage:** The lack of distinction in marginal costs between renewable bidders behind a constraint is not reason to discount the benefits offered by LMP in dispatch. On the contrary, the price signal under LMP could not be clearer, regarding location of storage adjacent to constrained generation. Doing so would better-utilise a given transmission capacity, and (all else equal) lead to greater utilisation of otherwise-constrained generation capacity. This clearly means lower system costs for consumers to fund.
- **Recognise the incentives:** Failing to engage with the limitation of the NEM's regional pricing allows for a continuation of the 'build, constrain, complain' model by renewables developers, which leaves consumers exposed to footing the bill for transmission augmentation, once the generation is a sunk cost and not considered in the RIT-T process.
- **The ISP assumes it:** Consumers are asked to support the ISP as a least system cost model, one which nevertheless foresees very large additional transmission and generation capacity costs to be paid for. It is difficult for consumers to support the ISP when its assumption blithely ignore a failure to reform the market to match its assumptions of an efficient price signal for this new investment based on LMP.

Overall, it is unhelpful for the Panel to be advocating for the construction of out-of-market support mechanisms like the ESEM, while rejecting an actual reform that would improve market design, effectively represent the physical needs and limits of the system, sharpen the efficiency of investment prices signals, and lead to lower future system costs and consumer benefits.

# Optimising an ESEM

We accept the premise that energy-only market price signals are not adequate to drive in the type of capacity required by the NEM, especially when there is a deliberate bias to ensure 'entry before exit' as coal capacity reaches its end of life.

The ESEM appears to be a relatively attractive design for a necessary entry mechanism, and so our comments are related to the details of design and operation of the ESEM (and key surrounding market design aspects, such as the market price settings), in order to best-serve the long-term interests of consumers.

## Unsure 'tenor gap' is really the problem… but can agree to disagree

We take a slightly different view on WHY the market price settings alone will not lead to the desired portfolio and timing of capacity entering the NEM.

We see two distinct problems:

1. **Variable renewable energy – i.e., wind and solar – cannot earn its LCOE[1]:** With VRE capacity being driven in at the pace dictated by policy (including 'entry before exit'), it will not be likely to earn its LCOE from spot or related derivatives pricing. Dispatch-weighted average prices – especially for solar PV – will be too low to recover the necessary cost and returns.
2. **Batteries eat everyone's lunch:** Battery energy storage systems (BESS) are getting systemically cheaper (helped along by EV learning curves, a virtuous cycle). BESS cream the most valuable pricing in the spot market. BESS projects are quick to deploy initially, and amenable to rapid expansion in their storage duration as and when costs fall and/or market price arbitrage opportunities grow. From the point of view of investors in most other forms of capacity – pumped hydro, thermal peaking, wind with evening production – BESS are a formidable competitor, and likely to become more so over the life of new-entrant assets considering going head-to-head with BESS in the spot / contract market.

[1] Levelised Cost of Energy, or more generally, the breakeven for revenue sufficiency when investors deploy capacity into the NEM.

Mismatch in tenor for buyer versus seller contracting is clearly also relevant, but it seems perfectly rational for buyers NOT to contract at today's LCOE for wind or PV projects, knowing the dispatch-weighted average prices for those assets are likely to keep falling, as are the costs of tomorrow's projects (and thus the required LCOE).

Equally, it seems rational for buyers NOT to pay up for cap contracts over the medium to long term, if today's cap prices support gas, but tomorrow prices might be cheaper, based on longer-duration BESS playing most of that role.

## Consumers should pay the fair market cost for their electricity… but no more than that

There is an efficient portfolio of capacity that meets the needs of electricity consumers – including reducing emissions intensity towards zero – and overall, it is reasonable that consumers should fund this portfolio… but no more than that!

If the in-market revenues cannot meet that revenue sufficiency (whether it is dubbed a 'tenor gap' or our interpretation of the problem) then this demonstrates a market design failure and a mechanism such as the ESEM is needed.

We accept the pragmatic conclusion from the Panel that the ESEM is necessary. The question then becomes: does the ESEM represent that efficient portfolio cost, or not?

## Consumers should pay, of course… but not for everything

Despite the very recent example of the CIS being funded not by consumers, but by taxpayers, the Panel has quietly nominated consumers as the funding source for the ESEM, to top up capacity providers from their market-only revenues to the needed LCOE for them to invest.

It should be acknowledged that this is a market design choice that could be made, not a foregone conclusion. The Panel is silent on the rationale for this preference.

An alternative view might be that consumers should be happy to continue to pay for in-market revenues in a well-designed market structure (guided by market price settings that are appropriate for revenue sufficiency).

To the extent an externality disturbs this – such as jurisdictional policy overlays on the pace and extent of emissions reduction, or technology inclusions or exclusions, or top-down imposition of additional conservatism on reliability settings, or a determined need for 'entry before exit' – then **it is far from clear that consumers should also pay for those effects**.

The best example, in our view, is the tendency to conflate climate policy with energy policy.

Emission reductions are a broad societal goal that goes well beyond the electricity sector and energy consumers. When emissions policies impact on the electricity sector – such as accelerating the need to replace emissions-intensive capacity and build new transmission – we think there is a very good argument that taxpayers are the right constituency to pay, since all citizens benefit.

We also think there is a better governance aspect here too. Jurisdictional choices on wider policy should be funded from governmental resources, given policymakers are answerable to voters who both pay and benefit, in relation to taxation and resource allocation generally. They should not be obscured in electricity tariffs[2] where it is rarely the government a consumer fumes about when the bill shock hits.

At the very least, we think the Panel should explain:

- exactly WHY it believes consumers should be viewed as the default payer for the ESEM, and
- whether there are any limits to this belief.

[2] As is the case for quite a number of such policy initiatives, captured as 'Jurisdictional Scheme Amounts' and smeared over all electricity customers via network tariffs.

For example, if a jurisdiction insists on building capacity via the ESEM that is not least-cost, and which contradicts principles of assembling an efficient portfolio (for reasons which may be ideological, political, or at best outside the scope of electricity consumers' concerns) – then why should consumers be presumed to fund that policy?

## There is no escaping the missing money problem, only deferring it to future consumers

Evidence from analogous schemes suggest it is reasonable to expect the ESEM would be efficient in price discovery – sufficiently competitive to ensure for whatever capacity it procures, the overall cost of the capacity procured is close to LCOE.

However, this may be a tale of two halves.

We do NOT think the requirement for market contracting for the early years ensures ESEM support levels will be at a similar price to early-year contracting. In fact, we think it quite likely projects will average over lower early-year contracts, with higher ESEM support for out-years, if that is what the market demands.

For example, we can well imagine solar PV projects (with an LCOE of say, $50/MWh) contracting 5 years at what the market will bear, perhaps $25/MWh reflecting PV oversupply in the spot market, then making up the difference via bidding 15 years at $58/MWh under the ESEM.

The implication is 'jam now' for consumers via low spot prices and retailers contracting with new projects, but quite a hangover once ESEM contracts are recycled at a loss in future.

While this may be inequitable in terms of today's versus tomorrow's consumers, perhaps this is the best we can expect.

## The key risk to consumers under the ESEM is likely to be over-procurement…

However, we are far less sanguine about the quantity procured[3], relative to the actual needs of the market. This is especially acute given the acknowledged bias towards over-procurement implied by 'entry before exit'.

Compounding this are the agency issues when both Ministers and disinterested forecasting bodies seem likely to rationally favour over-conservatism. Nobody ever lost their job for keeping the lights on!

There are also significant vested interests among capacity providers who are likely to push for more, not less volume of supported capacity entry.

A partial offset to this is raised in the draft report: if volume is over-procured, spot / contract prices will be low and consumers will benefit. **But this is an illusion.**

One way or another (via wholesale market prices and/or via compensatory payments from ESEM contracts), **consumers will fund the LCOE of the volume of capacity procured**.

If the actual need was (say) 5GW of new entry in a period, but the ESEM has driven in 7GW, the fact that the 7GW is efficiently-priced is cold comfort.

If the volume is too high, consumers will simply pay too much, because the total of market price revenues plus ESEM support payment s will equal 7GW, not 5GW of LCOE being recovered from consumers.

A GW here, a GW there and soon you are talking real money.

[3] Or if you prefer, the timing of procurement relative to actual need driven by reliability. Either way, consumers are likely to pay more than they would wish to, earlier than they need to.

## … but not the only risk!

There are a number of other risks which electricity consumers (who have been volunteered as the funders of the ESEM[4] whatever its shape, discussed below) might be asked to accept as well. Combined with the above, this underpins our call for significant consumer input in the governance of the ESEM.

These other risks, beyond over-procurement, include:

- **Tenor:** Is the ESEM over-compensating capacity providers, if support is offered for (say) 20 years but a breakeven rate of return can be earned in 15? We suggest tenor of support should be a choice of bidders and an explicit merit criteria (not a fixed parameter), for example by measuring the NPV of the total support that is bid.
- **Credit risk:** The ESEM fundamentally must accept counterparty risk with the proponents supported (and a partial mitigant is the principle that no ESEM contracts should exist as an obligation on the ESEM unless and until the asset in question is built and commissioned). However the Panel contemplates ALSO accepting counterparty risk with retailers, in the operational phase of recycling the warehoused contracts – appealing to the need to support competition. Small retailers are challenging credit risks for a reason – they often fail. The exposures under ESEM contracts could be very large. Consumers should not also take on the role of a soft-touch line of credit support for small retailers to hedge. Instead, ESEM contracts should be recycled to the broader market via on-exchange transactions, with the ESEM administrator protected from credit risk via the exchange clearing and settlement arrangements.
- **Long-term technology costs:** The ESEM effectively opts-in consumers to underwrite up to 20 years of energy at today's LCOEs, in an environment where the expectation is for key technologies to continue to get cheaper – PV, wind, and batteries in particular. In doing so, consumers will forego the expected benefits of energy being cheaper in future, in return for certainty of reliability today. This is exactly why buyers do NOT enter into long-term contracts today, and that appears perfectly rational… as long as the lights don't go out! Under the ESEM model, there should be some honesty with consumers about this opportunity cost. Specifically, that there are likely to be large payouts to be funded in future as technology costs drive prices lower, and thus send the ESEM's contracts out-of-the-money[5].
- **Obsolescence of warehoused contracts:** On one hand, the ESEM will enter into 20-year contracts based on the hedge instruments du jour. On the other, the Panel encourages a regular evolution of hedge instruments as the market / technology / portfolio evolves. What risk are consumers exposed to that by the time warehoused contracts are due to be recycled, they are no longer in fashion and can't be sold at 'fair value'?

## Governance of the ESEM administrator should be controlled by consumers

Our concerns about the risk-transfer to consumers inherent in the ESEM are why we consider it absolutely essential that consumers are empowered to ensure the worst excesses of conservative or self-serving biases do not set the volume supported under the ESEM, and that other potential risks noted above are clearly identified, avoided or mitigates, not just accepted and passed through.

The rhetoric of the 'Consumer Trustee' as established for the NSW Electricity Infrastructure Roadmap[6] is a good basis for this. It should be supported by genuine consumer participation in the administration of the ESEM, especially its decision-making in relation to capacity procurement volume / timing.

There should be a clear consumer involvement in the key design and operational aspects of the ESEM, including oversight of its processes for:

[4] The Mechanism, and more particularly the entity (the ESEM Administrator?) which will enter into obligations on behalf of consumers and – in all likelihood – require substantial long-term funding from consumers to pay out against those obligations.

[5] As in the ACT with their pioneering large-scale solar PPAs at over $100/MWh, now funded by ACT consumers via network tariffs.

[6] https://asl.org.au/our-role

- determining the volume of energy and capacity to procure in the various 'in-market' categories (Bulk Energy, Shaping and Firming), as well as any out-of-market support that may be contemplated (such as operating reserves).
- accepting any other risks beyond the fundamental exposure to the supported assets
- ensuring only least-cost capacity is procured, that meets the requirement of consumers for supply of electricity under the NEO.
- considering how the ESEM should intersect with the MPC and other market price settings, to ensure capacity is not over-compensated.

## Further assessment of market price settings is called for

The draft report is difficult to interpret in relation to the role and interaction of the ESEM with the market price settings in future – despite Recommendation 8 indicating this should be explicitly considered.

But the panel does opine (p.111) '*The market price settings … should remain linked to the VCR*[7] ***and to revenue adequacy for efficient investment*** *in bulk energy, shaping and firming services* ' – our emphasis.

It also notes shortly afterward that "*[the marginal new-entrant], operating during scarcity conditions for a small number of hours, can recover its fixed and variable costs through a plausible number of high-price events.*"

This clearly explains how the market design works under the status quo, via the Reliability Panel's setting of the Market Price Cap ('MPC'), Cumulative Price Threshold ('CPT'), Administered Price Cap ('APC') and other factors.

It does not explain why, under the future state of capacity entry via the ESEM, the market price settings would need to address "revenue adequacy for efficient investment". By contrast it is clear that an appropriate MPC (or at the extreme, no MPC at all) is needed to govern the operational timeframe and ration scarce resources into dispatch as scarcity occurs – and if an MPC is used, it is appropriate this is based on the VCR.

But – which of these two factors is the one which actually sets the MPC and (via its allowed duration) the CPT?

1. Operational dispatch limited by the VCR; or
2. Revenue sufficiency, as an investment price signal?

We don't know – but IF it is the latter, then if there is another form of revenue sufficiency – such as contracts at 'above market' levels via the ESEM – then the MPC and/or the APC should be relaxed to lower levels, consistent only with operational dispatch rationing and the VCR as an upper limit.

If not, **we remain concerned that consumers could be doubly exposed, booth under the ESEM directly in supporting capacity, and also via the market price impacts from an MPC / CPT that is higher than needed** if it ISN'T doing the job to signal new investment any longer.

We note the Panel's reference to the AEMC's opinion that the market price setting are complementary to the CIS – but the CIS was not sized to ensure full procurement of needed investment. To the best of our understanding the ESEM will be – it will play the central role in bringing on investment.

As the ESEM moves to detailed design, more detail and clarity is needed on these points, if consumers are to be properly assured.

[7] The value placed on marginal supply by consumers, established via survey as part of the Reliability Panel's work in establishing the appropriate market price settings.

## ESEM should be technology-neutral, not an LRET lookalike

One of the strengths of the ESEM design as presented is its strenuous efforts to be technology-neutral.

Renewable energy guarantees of origin (REGOs) will play an important role in the assurance of carbon intensity in electricity and other electricity-intensive value chains, but were not designed to be a financial instrument to fund capacity, in the manner of the large-scale renewable energy target (LRET).

As such, we think it is important for the ESEM to focus its support via electricity market derivatives, not REGOs.

The ESEM will implement renewable capacity entry explicitly by virtue of contracting for (among other services) Bulk Energy, presumably from renewables. It does not need to also create a value on REGOs – not least because consumers would be highly exposed to the future value of warehoused and sold REGOs, which is a long way removed from the efficient cost of electricity supply.

We expect REGOs will play an important supporting role in (for example) assuring the carbon intensity of thermal fuel sources, such as hydrogen used in providing the Firming service.

## Consolidate Firming, Operational Reserves and the RERT?

The ESEM is described as supporting the systematic procurement of three energy services – Bulk Energy, Shaping and Firming – via derivative contracts, but also a fourth service of out-of-market reserves.

The definitions of Bulk Energy and Shaping are fairly clear and sensible, but we question the definition of Firming variously as:

- "Long-duration dispatchable capacity to delivery extra energy as needed" (p11);
- "Very long-duration and dispatchable resources that can be delivered as needed" (p59);
- "… capable of being dispatched continuously for the time it takes to reach the cumulative price threshold if prices are at the market price cap" (more formally defined on p161).

If the latter – which implies only 8.5 hours of dispatch – is used then the need for a further tranche of longer-duration capacity is clear. The Reliability Panel modelling suggests the needed duration is more of the order of ~24 hours (per Figure 52 on p188).

Given this, would it not make more sense to require ESEM-supported Firming – at least to a certain required volume - to cover (say) 24 hours of dispatch, allowing for a more efficient portfolio (e.g. thermal plant[8] and longer-duration pumped hydro that would ALSO operate in-market)?

This would appear to remove, or at least greatly reduce, the need for consumers to also fund out-of-market reserves.

On this model, would the RERT not remain adequate as a backstop?

# Conclusion

Overall, we think it is in the long-term interests of consumers to accept that a durable support mechanism for the entry of energy services is needed, even if that implies some risk-transfer from market participants to consumers

We acknowledge that many of the design features of the ESEM lend themselves to an efficient outcome.

We are calling for the Panel's high-level ESEM design to evolve into a more nuanced detailed design that:

- recognises the sensible limits of consumer funding for policy,
- minimises risk-transfer to consumers,

[8] The fuel for which need not be carbon-intensive (biodiesel, hydrogen)… or if so, it could be captured under Safeguard Mechanism / subject to robust offsets.

- embeds robust governance,
- demonstrates clear co-ordination with in-market settings,
- establishes long-term technology neutrality, and
- simplifies the procured services to the minimum efficient portfolio.

Such a version of the ESEM could be well-supported by consumers.