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Submitted via https://consult.dcceew.gov.au/nem-review-draft-report-consultation#consultation-documents

**RE: Submission to NEM Review Draft Report Consultation**

The Centre for Independent Studies (CIS) welcomes the opportunity to respond to the NEM Review's Draft Report.

The CIS is a leading independent public policy think tank in Australia. It has been a strong advocate for free markets and limited government for more than 40 years. The CIS is independent and non-partisan in both its funding and research, does no commissioned research nor takes any government money to support its public policy work.

Yours sincerely,

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# THEME 1: ENSURING EFFECTIVE OPERATION OF THE SPOT MARKET

**Recommendation 1: Maintain the real-time regional energy-only spot market as the core market for efficient dispatch and rewarding the provision of physical energy services**

*1. Do you have any feedback on this recommendation?*

We agree that the energy-only spot market should be preserved.

**Recommendation 2: Energy ministers should require a broader range of price-responsive resources to be visible or dispatchable to participate in price formation**

No feedback on questions 2-7.

**Recommendation 3: Governments should focus reforms and support for CER on facilitating market participation to enable consumers to benefit from being price-responsive**

*8. Do you have any feedback on this recommendation?*

In order to benefit from price responsivity, consumers must first own CER such as rooftop solar and batteries. This equipment requires capital investment up front, and typically is paid off over several years. This means that homeowners with excess capital are those most likely to benefit from this reform, with many renters or apartment-dwellers unable to participate. This creates the potential for a widening gap of inequity, where wealthy energy consumers benefit from the energy transition, while less wealthy consumers pay the cost.

Any future reform should consider, and seek to reduce, this inequity. Means considered should not include any additional subsidies designed to increase the uptake of solar. Such an action would merely exacerbate the issue. Likewise any welfare or transfer payments should be ruled out. Instead, the structural issues of the market distortion should be resolved by ensuring CER customers pay their fair share of network costs.

The Centre for Independent Studies has recently written about the uniquely Australian phenomenon of extremely high uptake of rooftop solar[1], and the impact this is having on the grid. In particular, we argued that households without solar panels are effectively subsidising those with them. These cross-subsidies arise because rooftop solar does not reliably reduce peak demand, and hence does not materially reduce grid costs. In fact, if anything, rooftop solar increases grid costs through lowering minimum demand, which increases grid stress. Network tariffs are structured in such a way that largely fixed network costs are passed through to consumers as largely variable per-kWh

network charges. Since rooftop solar self-consumption offsets grid consumption, solar households receive outsized savings by avoiding paying their fair share of network costs.

The commentary provided in *Rooftop Solar: Paradise Lost* was restricted to network charges, but there is a similar cross-subsidy that operates on the actual generation costs. A solar demand profile is more expensive to supply than a non-solar profile. Prices are frequently negative at the same time that demand is negative (when a household is exporting power), so a retailer will have to pay the feed-in tariff to the customer, *and* pay to offload that power in the wholesale market.

Any future reform should consider the emergence of cross-subsidies and seek to design policies that eliminate them.

**Recommendation 4: Market bodies should use the rule change process to ensure the efficient and competitive functioning of the real-time energy-only spot market**

No feedback on questions 9-11.

**Recommendation 5: The Reliability Panel should consider adjusting the form of the market price settings over time**

No feedback on questions 12-13.

## THEME 2: MAINTAINING LIQUIDITY IN THE DERIVATIVES MARKET

**Recommendation 6: Energy ministers should establish an always-on market-making obligation (MMO) in the National Electricity Law/National Electricity Rules (NEL/NER) for a small number of key derivative contracts in each NEM region, with contract types determined through a co-design process with the AER and industry**

No feedback on questions 14-20.

*21. Do you have any other feedback on this recommendation?*

Contracts should be designed to transfer risk between generators and consumers of electricity. Unless a contract performs this role, a market will not function. The draft report details a significant shift in generation risk profiles, and specifically notes the lack of dispatchable generation as the cause of the breakdown of existing contract types.[2]

In addition to this, the risk profiles of generators and consumers of electricity are diverging. For example, a utility-scale solar farm's generation profile would now be anti-correlated to most retail demand profiles. A derivative designed to allow the solar party to manage risk would be of little use to the retailer.

Sophisticated financial intermediaries have been able to provide these contracts OTC, but rely on liquid exchange-traded markets or access to dispatchable capacity to back out their risk. Ultimately, the risk is always passed through to a market participant with access to dispatchable generation (or dispatchable load).

While contract innovation may increase liquidity for some types of contracts, the price of these contracts will ultimately reflect the level of risk in the system.

There is no reason to expect contract design alone to solve the problems already being observed in South Australia – with the draft report already noting that the existing RRO has resulted in *decreased* liquidity in SA[3]. There is therefore little sense in mandating supply through a MMO.

**Recommendation 7: Ensure sufficient market information is available to support longer-term derivatives market liquidity and price discovery**

No feedback on questions 22-24.

## THEME 3: UNLOCKING LONG-TERM INVESTMENT IN NEW ENERGY SERVICES

**Recommendation 8: Energy ministers should establish an ESEM within the National Electricity Law (NEL) to facilitate investment in the NEM**

*25. Are bulking, shaping and firming appropriately defined?*

The draft report does not provide any indication of the feasibility of these types of contracts in the real world. Bulk energy in particular seems altogether undesirable from a consumer's perspective. AEMO's settlement process for retailers is calculated based on a *particular amount* of energy delivered at a *particular point in time*. Likewise, all end-users of energy require it on demand. The concept of bulk energy is foreign to all market participants. This proposal could only be supported if real market demand for bulk energy could first be demonstrated.

No feedback on questions 26-34.

*36. How should any residual ESEM costs or rebates from the closing out of contracts be allocated to consumers?*

The draft report proposes that the ESEM contracts should be issued and owned by a Scheme Financial Vehicle, and then ultimately sold to market participants, with residual profits and losses rebated or recovered from consumers. The proposal is for all related costs to remain inside the NEM (rather than passed to the taxpayer). This is a welcome improvement over the current Capacity Investment Scheme, which is both uncosted,

non-transparent, and ultimately paid for by the taxpayer, rather than the energy consumer.

Despite this, the proposed ESEM will still result in higher prices for consumers, since it underwrites a fundamentally expensive power system — one in which wind and solar generation is becoming *less* economical over time, not more. A market mechanism to warehouse risk cannot fundamentally alter the cost of the power system we are building. Instead, it introduces a 5+ year feedback delay into the market, effectively disconnecting supply and demand.

The 'tenor gap' narrative set out in the draft report is incomplete. Supposedly, the investment time-frame is much larger than the consumption contracting time-frame. But this 'tenor gap' only exists because of the particular policy objective of increasing renewable generation. Variable renewable generation (wind and solar) struggles to find long-term contracting for the simple fact that its capture price is decreasing as penetration increases. Centre for Independent Studies analysis clearly shows that wind and solar capture prices have continued to decline in recent years as their penetration has increased, now consistently below the average wholesale price (Figure 1).

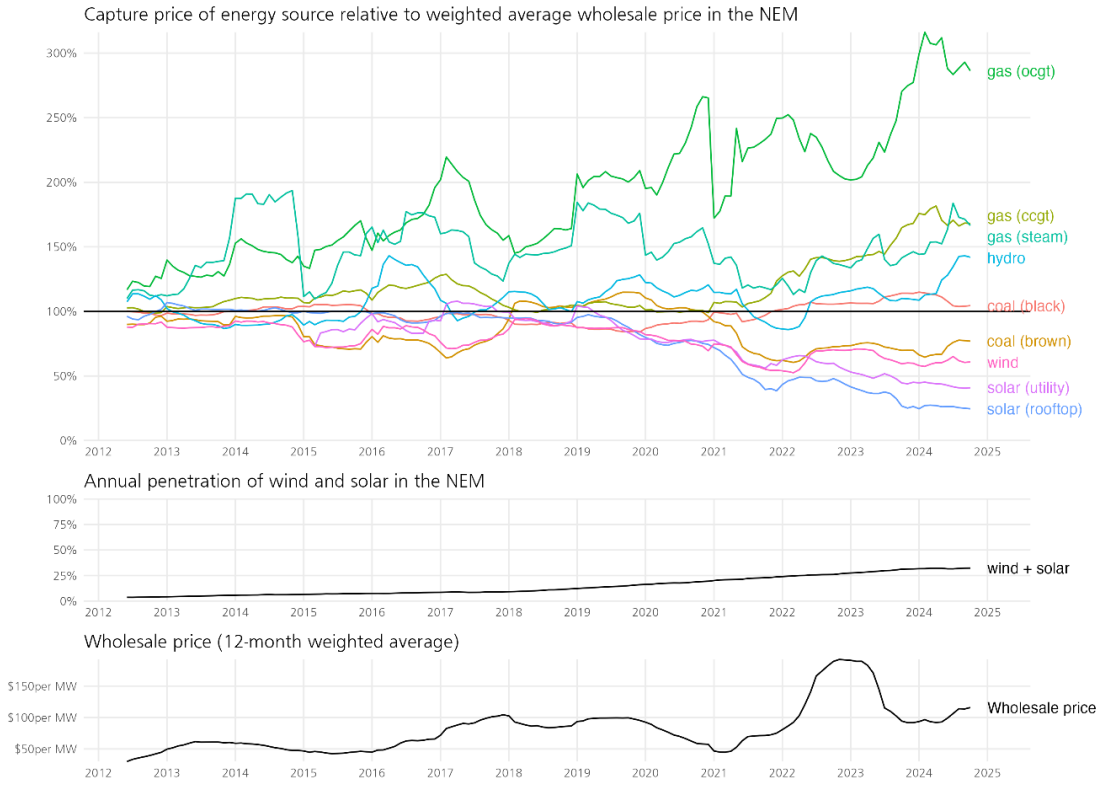


*Figure 1 - Capture price of energy source relative to volume-weighted wholesale price in the NEM. Data sourced from OpenElectricity*

It is therefore extremely likely that the SFV will accumulate very large losses while holding these contracts for several years. As renewables penetration continues to increase, the capture price will continue to fall, meaning that the overall value of every

contract issued will be lower in five years' time than today. This has the potential to amount to an enormous cost to the consumer.

One way losses could be avoided is if the value of these contracts rise over the coming years due to energy, firming and shaping becoming more valuable products than they are now. In other words, if our system becomes *less secure, more unstable, and more expensive*. Transgrid are already noting a steep rise in system instability, directly crediting it to the increase in renewable generation (Figure 2).[4] Either way, consumers lose.

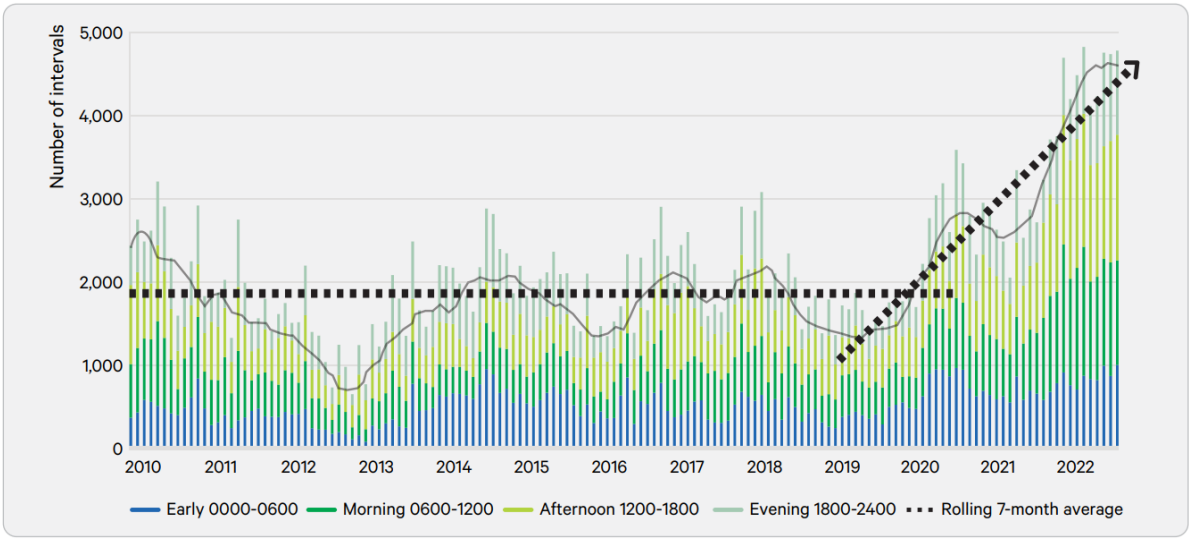


*Figure 2 - Transgrid - Operating intervals (5 minute granularity) per month when at least one credible contingency on the NSW transmission system would have resulted in*

The ESEM is therefore more like a compulsory charge to consumers than a market mechanism.

Although we oppose the implementation of the ESEM, if implemented, it is imperative that the cost of the scheme is passed on in a way that is timely and transparent. This is one of the core shortcomings of the current Capacity Investment Scheme. The mark-to-market of the Scheme Financial Vehicle's book of ESEM contracts should be calculated periodically and be publicly visible. Likewise, where this revaluation is negative, it should be passed through annually to consumers, to avoid large charges building up over the lifetime of the scheme and falling due in 15 years. Consumers should see these costs as a separate line-item on their bills, rather than being absorbed into the network costs.

No feedback on questions 36-41.

**Recommendation 9: Governments and market bodies in the NEM should pursue a coordinated suite of reforms to ensure regulatory settings, the innovation ecosystem, and existing policies and programs are aligned with the ESEM.**

No feedback on questions 42-45.

## THEME 4: ENSURING CONSUMERS BENEFIT

No feedback on questions 46.

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[1] Centre for Independent Studies, 'Rooftop solar: paradise lost', 2025, https://www.cis.org.au/publication/rooftop-solar-paradise-lost/

[2] DCCEEW, 'NEM Review Draft Report – August 2025', p. 10, https://consult.dcceew.gov.au/nem-review-draft-report-consultation#consultation-documents

[3] AEMC, 'Review of the operation of the Retailer Reliability Obligation', p 34-36., https://www.aemc.gov.au/market-reviews-advice/review-retailer-reliability-obligation

[4] Transgrid, 'System Security Roadmap', 2023, p. 29, https://www.transgrid.com.au/media/avyondr4/system-security-roadmap-2023.pdf