



AGL Energy Limited

T 02 9921 2999

F 02 9921 2552

agl.com.au

ABN: 74 115 061 375

Level 24, 200 George St

Sydney NSW 2000

Locked Bag 1837

St Leonards NSW 2065

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Electricity Contract Co-design Working Group c/o AusEnergy Services Limited

Submitted via the consultation portal

Dear Working Group members,

Industry-led Electricity Contract Co-Design Consultation Paper

Thank you for the opportunity to comment on the proposed contract structures for the ESEM. Our responses to the consultation questions can be found in **attachment A**.

The final report of the NEM Wholesale Market Settings Review recommended the ESEM be designed to close a tenor gap, on the basis that new projects need longer contracts than retailers and large users are prepared to sign. If that was the problem being solved, the market could choose the projects and provide cost discipline, the ESEM would only underwrite latter years and should be able to sell the contracts back to the market for about the same amount it paid, and customers would carry very little cost.

Unfortunately, the contracts proposed by the Working Group point to a different outcome. They appear to have been designed to make new projects as easy as possible to finance, with very little testing of whether market customers would want them. If buyers end up paying less than the ESEM Administrator paid, customers will have to pay the difference. At that point, the ESEM is no longer closing a tenor gap but funding a value gap, and customers are paying for it. The Working Group has not yet estimated how large that cost could be.

The NEM Review's Terms of Reference framed its task around delivering reliability at the lowest cost to consumers and its Final Report said the ESEM should return contracts to market to minimise those costs.

However, this focus on consumer costs appears to have been lost. It did not carry through to the Working Group's Terms of Reference, which only ask whether the contracts could finance new projects, be subject to a market making obligation and be put into standard templates. None of those criteria tests whether the contracts deliver value for customers or the complete range of services the energy system needs.

As coal and gas plant retire, the system will become more exposed to periods of low wind and solar output, which pose the greatest risk when they coincide with high demand such as during winter. None of the services procured by the three contracts will cover that risk.

For example, the design of the shaping contract will likely affect how new batteries operate in the market. Charge and discharge periods are nominated the day before, and sellers are likely to want to

preserve their position in those periods rather than risk costly payouts under the contract. That may make them less willing to respond to price spikes or other events as they arise.

Also, the proposed \$600/MWh firming cap could favour limited-duration plant without securing firming through a prolonged shortage. It may support new entry that covers the period before administered pricing begins, while leaving customers to fund reserves or additional capacity if the shortage continues.

By building each contract around a single technology, the ESEM may also close off hybrid projects or other products that could offer a more complete service.

Customers could end up overpaying for ESEM contracts and then paying again for the reserves or intervention needed to cover the gaps.

Before recommending any contract in its final report, the Working Group should be expressly tasked to consider customer interests, particularly household and small business customers. It must test how each contract would perform for a representative retailer and a representative large user, both individually and as a set, and publish an estimate of the likely recycling shortfall, its cost to customers, and the limitations of each contract. If that shortfall is material, decision makers and customers should be told plainly that the ESEM would be operating as a customer funded subsidy scheme, not a risk management scheme.

If you would like to discuss this submission, please contact Warren Vosper at wwosper@agl.com.au. Alternatively, we would be open to further discussions to assist in providing additional information to the Working Group.

Yours sincerely,

Chris Streets

Senior Manager
Policy & Wholesale Market Regulation

Attachment A – Responses to consultation questions

Bulk Energy – Regional Reference PPA

A swap based on the dispatched volume of the regional Reference Fleet that provides buyers with a hedge based on a regional technology (e.g. wind or solar) shape and renewable sellers with long-term price certainty.

Service definition: The capability to generate zero emissions electricity from one or more specified generating units or voluntarily scheduled resources.

1. Is the proposed contract structure suitable for a range of bulk energy technologies?

- The regional reference PPA (RRPPA) cannot be described as 'suitable' because:
 - the design is unfinished;
 - the Working Group acknowledges that further analysis is required;
 - modelling has been limited to wind (not solar or any other technologies) and only in New South Wales, Victoria, and South Australia;
 - buyer use is yet to be tested by the Working Group;
 - buyers receive less than under a PPA:
 - spot upside above \$600 goes to the seller
 - certificates stay with the seller
 - negative price exposure is unresolved
 - the cost to consumers has not been calculated – recycling shortfall analysis must be published

2. Does a cap on spot price exposure aligned to the strike price of the firming product (e.g. \$600/MWh) appropriately balance risks for sellers and buyers?

- No. The case for limiting the spot price exposure of RRPPAs at \$600/MWh (described as a 'cap' in this question) has not been made.
- The Working Group has not demonstrated:
 - that an uncapped RRPPA would be unbankable; or
 - if a cap is needed for bankability, that \$600/MWh is the optimal level to resolve it, ensuring that buyers give up no more protection than necessary
- If there is a bankability problem, there is no reason the firming product's strike price would also be the cap level needed to resolve it. Adopting that level for the RRPPA simply because it is already used elsewhere is arbitrary. If it happened to be right, that would be coincidence, not the result of any proper assessment.
- The Working Group's wind modelling found that the uncapped RRPPA had lock-up rates broadly comparable with a run-of-plant PPA in NSW, SA and Victoria. While that does not prove the uncapped RRPPA is bankable, it provides no clear basis for assuming a cap is necessary.
- Bankability should be treated as a threshold requirement, not something to be maximised at the expense of buyer value.
- We acknowledge that if a project is unavailable while the Reference Fleet continues to generate into high prices, the seller could face a significant cash call without the spot revenue needed to meet it.
- If a seller wants protection against prices above \$600/MWh, it could instead seek to buy a \$600/MWh cap, allowing that protection to be separately priced rather than automatically built

into the RRPPA. The availability, tenor and cost of that protection would need to be tested, but it does not appear the Working Group has considered this option or shown why the risk should instead be transferred to the RRPPA buyer by default.

- A cap should only be included if it is shown to be necessary to make the RRPPA bankable and the resulting reduction in tender prices justifies the loss of buyer value. The fact that it matches the proposed firming strike does not establish either of these points.

3. Is a negative price provision required for the proposed contract, noting it is settled against the Reference Fleet's performance and LGCs / REGOs are not included in swap? If so, is a volume knock-out (no settlement during negative price periods) or a \$0 price floor more preferable?

- A negative-price provision would address one deficiency in the RRPPA, but would not make the broader design attractive or acceptable.
- A volume knock-out is the correct option. Without one, the buyer effectively pays the fixed price plus the absolute value of the negative spot price on the Reference Fleet-derived notional quantity. A \$0 price floor is an unacceptable alternative, as it would still require the buyer to pay the full fixed price during these intervals.
- A volume knock-out would remove the swap settlement when prices are negative, preserve the underlying spot-price signal and avoid requiring buyers to pay for indexed output during those intervals. This is particularly appropriate given that LGCs and REGOs remain with the seller and may already provide value from continued generation.

4. Does the proposed design of the Reference Production Index appropriately balance risks for sellers (primarily basis risk) and buyers (long-term value of the product)?

- No. The Working Group has not demonstrated that the proposed Reference Production Index appropriately balances seller basis risk against the long-term value of the product to buyers.
- The seller's financial position is based on the dispatched output of an evolving regional fleet. Its own revenue may differ from that position because of differences in location, resource conditions, constraints, curtailment, availability and operating performance. The Working Group's historical modelling provides some information on this basis risk, but does not show that it can be confidently valued and managed over the proposed contract term.
- Also, the Working Group's modelling has been limited to wind – not solar, or other technologies. This makes it challenging to comment on the appropriateness of purely hypothetical Reference Production Indexes.
- Importantly, the buyer case has not been established. The product gives buyers exposure to the variable output profile of a regional wind or solar fleet. That profile will not necessarily align with customer load or the risks buyers need to manage, and the Working Group has not shown how effectively it would reduce portfolio risk for retailers or large users. An evolving fleet may keep the index representative of regional generation, but it also creates long-term valuation uncertainty for both sides. Also, as noted previously, buyers will receive less than under a PPA – the spot upside above \$600 is proposed to go to the seller as well as any certificates.
- Before finalising the index, the Working Group should demonstrate how the product performs for representative buyer portfolios, including the residual volume, shape and price risks and the cost of managing them through other contracts. It should also test the seller's basis risk across different locations and future fleet compositions.

- Further, any assessment of the balance of risks between buyers and sellers must include a recycling shortfall analysis to understand the potential cost to consumers.

Shaping – Dynamic Time of Day Block Spread Swap

A dynamically set swap that contracts the difference between daily low-price charge periods and high-price discharge periods, providing buyers with a hedge against intra-day volatility and sellers with long-term revenue certainty.

Service definition: The capability to consume or generate from one or more specified bidirectional units or voluntarily scheduled resources, or to consume and cease to consume from one or more specified voluntarily scheduled resources.

5. Does the proposed approach to determining charge/discharge periods on a day ahead basis, using residual demand calculation, appropriately balance operational risks/simplicity with long-term value?

- No. Setting the charge and discharge periods in advance makes the contract easier for sellers to manage and finance, but leaves buyers with the risk that the periods nominated on the preceding day will not correspond with the actual low and high-price intervals.
- If the nominations are accurate, a battery can plan its operations around them and the contract may provide value to both parties. If they are not, the contract still settles against the nominated periods, even though the price movements the buyer needed to hedge may have occurred at different times. The buyer therefore bears the risk that the contract pays out against the wrong intervals.
- The contract may also affect how new shaping plant operate in the market. Sellers will want to preserve their position in the nominated periods rather than respond to price spikes or other market events as they arise. The Working Group should test whether this effect could reduce the value of the battery's real-time flexibility, particularly when the day-ahead forecast is wrong.
- Working Group representatives have suggested that the product may appeal to buyers seeking passive exposure to battery returns without owning a battery or making daily nominations under a virtual toll. That may be a valid use case, but it is not the same as providing an effective hedge of customer load. Retailers are exposed to actual spot prices applied to actual customer demand. The proposed spread may not align with the timing or magnitude of that exposure.
- The Working Group's modelling suggests that nominations based on forecast residual demand captured only 75 to 85 per cent of perfect-foresight spreads. While this demonstrates a material loss of spread value, the Working Group has not provided analysis showing which high-price events the nominations would miss, how much exposure buyers would retain, or how effectively the contract would hedge a representative retailer or large user. Without that analysis, stakeholders cannot properly assess whether the proposed approach strikes the right balance between buyer and seller risks.

6. Does the use of AEMO's forecast data to determine shaping periods result in any material risks to the usability of this contract over the long-term?

- Yes. The risk is not just that AEMO's forecasts may be wrong on a given day. The contract also relies on residual demand continuing to identify the low- and high-price periods buyers need to hedge over its term.

- These risks add to the nomination risk identified in our response to Question 5. The contract would continue to settle against the nominated periods even if the price movements buyers need to hedge increasingly occur at other times. Buyers would value it less, the ESEM Administrator would recover less when it recycles it, and customers would cover the shortfall.
- The contract also depends on forecast data whose availability, definitions and methodology may change over its term. The proposed design does not explain how changes to these inputs would be managed, even though they could materially alter which periods are nominated.
- Changing the nominated periods each day does not, by itself, make the contract adaptable. The Working Group should demonstrate that residual-demand nominations provide a useful hedge across different market conditions, and set out clear governance, fallback and change-control arrangements for the underlying data. The published analysis does not establish whether the relationship between forecast residual demand, actual prices and buyer exposures will remain strong enough for the contract to retain its value over time.

7. Does the proposed approach of determining nominations at 4pm on a day ahead basis pose any material operational risks?

- Yes. Weather, demand and renewable output can change materially after nominations are set at 4 pm. The nominated charge and discharge periods may therefore miss the low- and high-price periods that emerge the following day.
- This is an operational risk for the system as well as for buyers. Because sellers are rewarded for operating within the nominated blocks, the 4pm nomination will shape how ESEM supported batteries run. When conditions change overnight, a battery has to choose between following a nomination that no longer fits the market and giving up its hedge to respond. Either way, the service is weaker than storage that can respond freely to actual prices.
- The Working Group has framed the lead time around giving sellers time to adjust their positions. It has not tested what that lead time means for buyers. It has not shown how much notice sellers actually need, how nomination accuracy changes with different lead times, or how those choices affect buyer outcomes. Those outcomes include spread capture, missed high price events, buyer exposure to the wholesale market and overall hedge effectiveness.
- Without that analysis, it is not possible to assess whether the proposed timing appropriately balances buyer and seller risks.

8. Does the proposed Daily Shaping Period that commences at the Trading Interval ending at 09:05 and finishes at the Trading Interval ending at 09:00 the following day pose any material operational risks?

- Yes. The proposed Daily Shaping Period does not follow the standard calendar day used elsewhere in the market. Participants would have to manage a contract with a different daily boundary from their other positions. That adds complexity to operations, valuation and portfolio management, and is likely to increase costs.
- The Working Group chose the 9 am boundary because it considered it a better fit with solar charging hours. It has not shown that this benefit outweighs the extra complexity, or that the contract could not work on a standard calendar day.
- Unless there is a clear and material benefit from the 9 am boundary, the Daily Shaping Period should follow the standard calendar day.

Firming – \$600 Cap Contract

A cap with a \$600 strike price that provides buyers with insurance against high-priced events and sellers with long-term, stable cash-flows and ability to retain some merchant revenues under the cap.

Service definition: Capacity from one or more specified scheduled generating units, bidirectional units, voluntarily scheduled resources or wholesale demand response units that is capable of being dispatched continuously for the time it takes to reach the cumulative price threshold if prices are at the market price cap.

9. Is a \$600 cap, in comparison to a \$300 cap, appropriate to support the entry of new firming assets? If not, why?

- No. The Working Group has not demonstrated that a \$600/MWh cap is an appropriate product for supporting the entry of new firming assets, or that it would deliver a better outcome than the established \$300/MWh cap.
- There are clear reasons why some prospective sellers may prefer a \$600/MWh cap. Compared with a \$300/MWh cap, it allows sellers to retain the spot-market upside between \$300/MWh and \$600/MWh. It also stops paying once the \$600/MWh Administered Price Cap (APC) applies.
- These features may make the product more appealing to sellers. However, the Working Group has not demonstrated that the established \$300/MWh cap would be unbankable or unable to support new entry. A \$300/MWh cap creates a greater obligation for sellers and would therefore attract a higher premium, but that does not mean it is unbankable or incapable of supporting investment.
- Bankability should be treated as a threshold requirement, not something to be maximised. Before adopting a weaker \$600/MWh product, the Working Group should demonstrate that a \$300/MWh cap cannot support the entry of the firming assets customers need at an acceptable cost. The published analysis does not establish this.
- Greater seller appeal also comes at a direct cost to buyers. A \$600/MWh cap leaves buyers exposed to prices between \$300/MWh and \$600/MWh. During an administered pricing period, it provides no payment, while a \$300/MWh cap would continue to pay \$300/MWh on the covered volume.
- Alignment with the APC also raises a more fundamental question about the firming capability the ESEM would support. Under current market settings, sustained prices at the Market Price Cap would trigger administered pricing after approximately eight hours. If the ESEM procures firming services capable of operating for only around eight hours, it could support assets that exhaust their capability at broadly the same time the \$600/MWh cap ceases to provide protection.
- A \$600/MWh strike would therefore actively favour limited-duration capacity without ensuring that it can continue providing firming once administered pricing applies. It risks locking in a weak form of firming that covers the period up to the Cumulative Price Threshold but cannot continue supporting reliability through prolonged scarcity conditions that may follow.
- The ESEM could consequently support new entry while failing to secure the sustained firming capability customers ultimately require. Customers may then be required to fund strategic reserves or additional capacity to cover the remaining reliability need.
- The Working Group should also consider whether departing from the established \$300/MWh cap would reduce liquidity or make the contract harder to value and recycle. Optionality for sellers is not enough to justify a second strike without credible buyer demand.

Common Contract Features

10. Are there any concerns with the proposed weekly settlement approach, aligned to the AEMO settlement calendar?

- No. Weekly settlement aligned to the AEMO settlement calendar is the preferred option.
- Aligning contract settlement with spot market settlement reduces timing mismatches between contract payments and the spot market cash flows they hedge, and lowers prudential requirements for buyers and sellers.

11. Are alternate approaches to manage FM risk exposure (outside of the contracts) required to support the entry of new assets?

- No. Managing risk is a core part of operating in the NEM, and FM risk is one of the risks sellers take on when they invest. Sellers can manage it through insurance, reserves, contracting levels or their own commercial arrangements, as existing generators do today.
- The NEM Review was clear that the ESEM should not address risks that market participants are able to manage. FM risk should stay with sellers. If they need to price it into their ESEM bids, that cost will be visible and subject to competition. A separate support arrangement funded by consumers would not be.
- The contracts recycled to buyers should not include physical force majeure provisions. These are cash-settled financial products. Linking them to the availability of individual assets would make them less valuable to buyers, less fungible and harder to trade.

Overarching Feedback

12. Do the proposed contract structures achieve the WG's Terms of Reference and perform well against the identified evaluation criteria?

- Insufficient information has been provided to conclude that the proposed contracts achieve the Working Group's Terms of Reference or perform well against its evaluation criteria.
- The Working Group's Terms of Reference require contract structures that could:
 - finance new projects through the ESEM;
 - be subject to an MMO; and
 - be developed into standard contract templates.
- The evaluation criteria also require the contracts to be:
 - bankable;
 - operationally achievable;
 - efficient at allocating risks;
 - attractive to buyers and sellers;
 - adaptable to the future market;
 - complementary within a set; and
 - simple to value.
- At this stage, the Working Group has shown that the proposed contracts may provide financeable revenue products for some sellers. It has not shown that they would also be useful and tradable risk-management products for buyers, or that they would deliver an efficient outcome for consumers.
- The analysis so far has focused mainly on how the contracts settle, the risks faced by sellers and whether the products could support financing.

- The Working Group has not done the same work from the buyer's perspective. It has not shown how the proposed contracts would perform against the load of a representative retailer or large user, which risks would remain, what other contracts buyers would need or how much the resulting hedge would cost.
- This matters because the contracts are intended to be sold back to retailers and large users. The Working Group needs to show not only that the contracts can support new projects, but also that buyers would value them and what they would be prepared to pay. If buyers value the contracts at less than the amount paid for them, consumers may ultimately bear the shortfall.
- The published material also identifies which risks are borne by buyers and sellers, but does not consistently explain why that allocation is efficient or appropriate. It is essential to understand who is best placed to manage a risk, what it costs them to do so and whether a different allocation would produce a better overall outcome.
- The Working Group has also not shown that the proposed contracts could support an MMO. This is expanded on in our response to question 13.
- There are unresolved questions about whether the products will retain their value over time:
 - the RRPPA relies on an evolving Reference Fleet
 - the shaping contract relies on forecast residual demand continuing to identify the periods buyers need to hedge
 - the firming contract uses a \$600/MWh strike rather than the established \$300/MWh strike
- The published analysis does not show how these features would perform across different future market conditions.
- Finally, the Working Group has not shown how the bulk energy, shaping and firming contracts work together. The contracts should be tested as a set against representative customer load to identify any gaps, overlaps and additional hedges buyers would need.

13. Are there any concerns with the ability of the contract structures proposed to be subject to a Market Making Obligation (MMO) in the future?

- Yes. The Working Group has focused on whether a new entrant could sell these contracts to finance a project. It has not looked at whether the participants who may have to make a market in them could buy and sell them each trading day within a fixed spread. Under the NEM Review's proposal, that could include large gas and hydro portfolios quoting the \$600/MWh cap, large wind and solar portfolios quoting the RRPPA and large battery portfolios quoting the shaping contract.
- Most of these participants would be natural sellers of the contracts they had to quote. A gas generator is a natural seller of caps, a wind farm owner is a natural seller of the RRPPA and a battery owner is a natural seller of the shaping contract. None has much use for the buyer side. For example, for a wind farm owner, buying an RRPPA would only increase its exposure to regional wind output.
- The ESEM Administrator will be selling these contracts back into the market, likely for the same periods market makers are quoting. If buyer interest is weak, market makers' bids could become the main source of demand, and they would bid low for positions they don't want. Consumers would then bear the recycling shortfall. Developers that build a large enough portfolio through ESEM tenders could also be caught by the MMO, with most of their capacity already committed. Lenders are likely to price that in, which could push up ESEM tender prices.
- The Working Group should test whether the kinds of participants likely to be obligated could manage positions on both sides of each contract at realistic spreads and volumes, and

whether there would be enough demand on both sides to support a reliable price. Its final report should also flag the issues that need to be resolved, including who would be obligated, how recycled ESEM contracts would interact with MMO trading and whether ESEM developers could be caught. Until then, it is not possible to say whether these contracts could support an MMO.

14. Will the proposed contract structures, in conjunction with other risk management contracts, such as flat swaps, evening peak swaps or caps, be effective for buyers (e.g. retailers, large loads, etc.) to manage financial risks?

- No. Buyers can already manage these risks with established products, including flat swaps, \$300/MWh caps, time of day swaps, morning and evening peak swaps, and exchange-traded and OTC options. The Working Group has not shown what its contracts would add to that suite.
- The ESEM contracts are meant to cover years that buyers cannot yet hedge. But they would be recycled when retailers and large users can use them, which is the same period in which established products are already available. At that point, buyers will compare them with contracts they already know and trade.
- Adding these contracts could also make existing hedging harder. Trading would be spread across more products, including two cap strikes, which could thin liquidity in the contracts buyers already rely on.
- The Working Group has not tested any of this against a representative retailer or large user. Until it does, there is no basis for concluding that the proposed contracts would help buyers manage risk. If buyers do not value them, they will be recycled at a discount, and consumers will bear the shortfall.