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Independent Expert Panel, NEM Wholesale Market Settings Review

Submitted via email: NEMreview@dcceew.gov.au

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NEM Wholesale Market Settings Review Draft Report

AGL Energy (AGL) welcomes the opportunity to make a submission in response to the independent expert panel's draft report and recommendations to the review of market settings in the National Electricity Market (NEM Review).

The draft report published by the NEM Review Panel (the Panel) provides thoughtful observations on the operation of the NEM and constructive recommendations to address emerging risks and support investment in Australia's energy transition. Many of these recommendations are helpful and should be progressed, but several require further explanation and supporting analysis prior to implementation.

We provide responses to each recommendation in the Appendix to this submission, but more broadly note that in progressing its final report, the Panel should continue to focus on the following principles:

KEY PRINCIPLES TO PROGRESS THE NEM REVIEW

- **Preserve the current market structure:** The energy-only market remains a strong foundation for Australia's energy transition.
- **Champion competition and customer choice:** Competitive markets drive innovation and deliver better outcomes for consumers. Reforms must enable diverse energy resources to flourish.
- **Embed flexibility and resilience:** Market settings must evolve with changing technologies and customer needs.
- **Enable robust risk management:** Financial markets should offer a broad suite of tools to manage risk and support investment.
- **Trial before implementation:** Complex reforms should be tested through simulations to understand market impacts.

Supporting the transition to a modern and productive energy system

AGL supports the purpose and focus of the review to recommend wholesale market settings to promote investment in firm renewable generation and storage following the conclusion of the Capacity Investment Scheme (CIS) tenders in 2027.

The NEM Review was given a limited terms of reference, focussed largely on wholesale market settings. As the Panel observes, there are several other issues that may require further consideration to support Australia's energy transition. These include retail markets and network regulation, carbon and fuel markets, as well as external issues such as environmental regulation, system planning and connections, and building social licence for the transition across customers and communities.

In responding to the NEM Review's report, it is worth remembering that reforms in these other areas will also serve to achieve the broader ambition of delivering Australia's energy transition. Nevertheless, a strong

wholesale market remains at the backbone of Australia's energy system, and reforms to support its efficient ongoing operation are vital to meeting Australia clean energy and climate ambitions.

Ensuring effective operation of the spot market

We agree with the Panel's observations that the current energy-only market is a core strength of the NEM and that it can remain efficient in a highly renewable system. In particular, as the Panel observes, the energy-only market supports useful price signals for short-duration storage, as well as an increasingly broad range of price responsive resources, which can meaningfully enhance market performance by smoothing out price spikes and responding quickly to support fluctuating demand.

The emergence of these new resources, products, and services to support the NEM is a distinguishing feature of Australia's energy system and should be encouraged. For these reasons, we agree with the Panel's recommendation to resist the development of additional short-term markets, which may dampen signals for innovation and new energy resources.

We support the Panel's comments on the impact of these resources on price formation and need to better integrate these resources into the NEM to maximise benefits. It is important that the approaches to make price responsive consumer resources 'visible' or dispatchable, are pragmatic and recognise their unique technical and operational limitations. While the behaviour of these resources may at times appear to increase system costs, it is important to remember that in most cases they are being operated for the purpose of creating direct value for customers. A balance needs to be found to meet these conflicting intentions

Maintaining liquidity in the derivatives market

We strongly support the Panel's focus on the role of contract and derivatives markets in supporting the operation of the NEM, both to manage participant risk and to support investment in new generation.

Having well-functioning markets that support standardised financial products is a positive ambition, but importantly these markets must reflect the needs of participants and investors within those markets. A process to facilitate the development of new products may be a welcome step forward; however, these products must be bankable for project financiers and attractive to prospective buyers.

Creating new standardised products to support investment presents a divergence from current practice, where projects are not only supported by well-established derivatives but also by more novel products, and where contracts between parties may not be exchange-traded but are nevertheless meeting specific needs. We look forward to working with the Panel to determine if the right products can be developed, which will be integral to supporting the overall vision of the Panel's reforms.

In considering reforms to derivative and contract markets, the focus should remain on whether all parties have access to a broad range of risk management options, either by entering in longer term contracts or through shorter-term approaches. Where these risk management approaches are perceived to be impacting long-term system efficiency, for example because too many parties are taking short-term positions, reforms should focus on the underlying reasons for this risk management approach rather than seeking to force parties to take on risks that they are not taking on voluntarily.

Unlocking long-term investment in new energy services

We acknowledge the Panel's concern that there may be a mismatch between the long financing timeframes required by potential new sellers and the short contracting horizons of market buyers (Tenor Gap). However, we do not give the same weight to this issue as the Panel does in framing it as the most significant barrier to investment in new generation. Although the Tenor Gap is a contributing factor to investment challenges in

the NEM and worth discussing, we describe the most significant challenge with new investment as being the uncertainty with the underlying value of generation in the future (Value Gap), noting that this challenge is different with respect to different types of generation projects and for different participants.

While longer term contracting support from a central authority may indeed help address this concern—as is proposed by the Panel in its draft report—there may still be a fundamental challenge with some types of generation requiring additional out of market revenue support. The Panel has also acknowledged this point in its commentary regarding an out of market reserves framework.

Following on from the Panel's commentary on derivative markets, we observe that a number of contract types have emerged in the NEM to support investment in new generation. For example, new firming and shaping generation has been commissioned in the NEM based on expected revenues from existing exchange-traded products, as well as expectations of captured value from energy and ancillary services markets. New derivatives have also emerged, such as the 'super peak' product, as well as greater utilisation of other products such as options. In our experience, where there is concern about the expected revenues of a new firming or shaping project that are impacting on that project's ability to attract finance, these are largely with the forecast value of generation output, not with the Tenor Gap.

For renewable projects, the challenge is different, as to date no exchange-traded products have emerged to back variable renewable energy. Instead, renewables have largely been supported by long-term power purchase agreements, with additional revenue from green certificates under the Renewable Energy Target (RET). Accordingly, there may be a stronger interest in purchasing long term bulk energy rather than firming and shaping products, and the recommendations put forward by the Panel may be useful in supporting this intention. At present, it is challenging to envisage an exchange-traded product that bulk energy developers would be able to offer without having to take on significant risk of non-delivery, given the variable nature of renewables, but we look forward to working with the Panel and industry to develop products that would meet the requirements of all parties.

Regardless, the concept of an Electricity Services Entry Mechanism (ESEM), which would seek to support some longer-term contracting, is a thoughtful and unique proposal, which commands more careful consideration. Key issues to understand include on what terms the ESEM administrator would seek to purchase contracts from projects, and whether the administrator would actively trade or manage these contracts and their overall market position prior to their sale.

Ensuring consumers benefit

The Panel has provided considered observations on interactions between the wholesale market and retail markets and network regulation and coordinated reforms that it considers would better align energy markets with evolving customer needs.

We are supportive of reforming tariffs to be simple, actionable, and fair for all customers. Simple, so that customers can understand and engage with the tariff; actionable, so that a customer (or their agent) can respond effectively to capture the benefits; and fair, so that the tariff is not punitive for a customer who can't respond.

Whether customers would prefer simple price offers over multi-year contracts is a position worthy of further investigation under existing price reform consultations. On default pricing methodologies, we agree that any material changes to the NEM wholesale market settings may provide helpful inputs into default pricing that provide greater transparency for regulators and customers, but this would depend on the clarity provided by the forward price signal.

In relation to consumer protections for new energy services, a new future energy services framework should have varying degrees of protections regarding the essentiality of the services. Development of consumer

protections for new energy services should be based on a flexible, principles-based, national approach that can enable rapid innovation while ensuring all consumers benefit from consistent and robust protections from all suppliers.

Implementation pathways

We observe that a number of recommendations put forward by the Panel are innovative and have not been tried in other markets. This is appropriate, given the unique nature of the NEM. However, we consider that several of the proposals would benefit from simulated trials to better understand how participants would manage new obligations and participate in the market. In particular, the operation of the ESEM and integration of price responsive resources through the Voluntary Scheduled Resource (VSR) mechanism would benefit from simulated trials that could investigate participant behaviour prior to more detailed design.

With regard to other reforms, we support analysis being undertaken through the regular market reform process, perhaps with industry representatives supporting the market bodies to undertake more detailed analysis to shape the direction of reform.

Should you have any questions in relation to this submission, please contact Aleks Smits (Senior Manager Policy) on 03 8633 7146.

Yours sincerely,

Ralph Griffiths

GM Policy and Market Regulation

AGL Energy

About AGL

Proudly Australian since 1837, AGL delivers around 4.6 million¹ gas, electricity, and telecommunications services to our residential, small and large business, and wholesale customers across Australia. AGL operates the largest electricity generation portfolio in Australia of any ASX-listed company, with a total operated generation capacity of almost 8000 MW across Australia. AGL is Australia's largest privately-owned hydro power station operator and operates the largest portfolio of renewables and storage assets of any ASX listed company. Since 2006, AGL has invested billions of dollars in the construction and delivery of over 2 GW of renewable and firming capacity in the National Electricity Market.

¹ Refer to AGL's [ESG Data Centre FY25](#)

APPENDIX – RESPONSES TO QUESTIONS

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?

AGL agrees with and supports this recommendation to maintain the real-time regional energy-only spot market as the core mechanism for dispatch and spot pricing. In particular, as the Panel observes, the energy-only market supports useful price signals for short-duration storage, as well as an increasingly broad range of price responsive resources, which can meaningfully enhance market performance by smoothing out price spikes and responding quickly to support fluctuating demand.

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

The emergence of new types of price-responsive resources, products, and services to support the NEM is a distinguishing feature of Australia's energy system and should be encouraged. We support the Panel's comments on the impact of these resources on price formation and need to better integrate these resources into the NEM to maximise benefits. It is important that the approaches to make price responsive consumer resources 'visible' or dispatchable are pragmatic and recognise their unique technical and operational limitations. Consumer Energy Resources (CER), individually and aggregated, are similar but not the same as large scale or dedicated energy resources. Improving visibility and dispatchability should work with the strengths of these resources and minimise unintended impact on innovation and development of new products and services that may limit the potential value of customer-owned resources. Requirements for visibility should be balanced with the need for customer flexibility, choice, and value.

While the behaviour of these resources may at times appear to increase system costs, it is important to remember that in most cases they are being operated for the purpose of creating direct value for customers. A balance needs to be found to meet these conflicting intentions. AGL supports the creation of new ways to integrate these resources with the market, and incentives need to outweigh the costs of participation and technology limitations. It is important to consider differences between types of resources being considered in this recommendation, focusing on the technology and its abilities rather than a one-size-fits-all approach that may lead to poor results.

We fully support improving visibility of resources through reporting and dispatch where there is a material impact of the asset on the market. Work underway by the AER and AEMO to understand materiality of impacts and identification of information gaps is a critical precursor in determining how price responsive resources may integrate and participate in the market.

2. Is the dispatch mode framework a suitable mechanism to underpin visible and participative price response under a mandatory framework?

We are supportive of the integration of price-responsive resources into the NEM through the Integrating Price Responsive Resource (IPRR) Rule, specifically a flexible dispatch mode design to promote voluntary participation and reduce barriers for CER. The dispatch mode framework is a suitable mechanism for some resources, however, not all price-responsive resources will be able to participate in dispatch mode. Batteries (both behind-the-meter and distribution-scale batteries) will be better suited to participate in dispatch mode in the short-term. While AEMO is still in the process of developing its technical requirements, AGL's initial assessment is that it will be harder for non-inverter based technologies to participate in dispatch mode in the short-to-medium term. For residential batteries, it will also be difficult to meet some of the proposed requirements with mixed original equipment manufacturer (OEM) fleets. Additional monitoring and reporting are required of resources which are not currently fit to participate in dispatch mode, to better understand the impact on system operations and to define boundaries. Alternative solutions (e.g., improved forecasting) may be required for these asset types.

3. *How should we structure a mandate for these resources to be visible and dispatchable, given the resources' different features and the different options for participation that currently exist in the NEM?*

How resources are structured to be visible and dispatchable will depend on their features, and there may be different implications with respect to different types of products, solutions, or technologies. In our view, resources that can be forecasted in aggregate (or have negligible impact even when aggregated) may not need to be visible and dispatchable. Resources that are dynamic and unpredictable may need to be scheduled.

Consumer choice and competitive markets must remain central to decision-making to build trust and enduring solutions, to avoid deterring CER participation. We believe that it's important to fully understand how these resources function under existing frameworks, and how they impact on the wholesale market, prior to any mandate on visibility and dispatchability. We note the AER and AEMO are currently investigating the system and market impacts, exploring improvements to market forecasting of CER/DER, and further identifying forecasting information gaps. This analysis is a critical precursor in determining how price responsive resources may materially affect the market forecasts and market outcomes and in turn the appropriate thresholds for mandatory participation. Once this is complete, we consider that extensive consultation and analysis should be undertaken to understand how new and existing regulatory frameworks can effectively integrate these resources to effectively inform and participate in the wholesale market.

4. *What thresholds should be set to require participation by medium-scale batteries, CER/DER aggregations and large loads?*

There is no clear threshold that is apparent that would be applicable across all resource types. Consistent with the IPRR rule change, the initial approach must first focus on facilitating voluntary participation with assets already capable to participate in the market. This approach will establish a strong foundation to further expand the industry requirements for participation. We support engagement between market bodies and industry to understand the scope and performance of different classes of assets, which could work towards developing thresholds for inclusion in different frameworks. In setting a threshold, market bodies should consider potential unintended consequences such as operators installing multiple smaller assets below the threshold to avoid being captured under mandatory participation requirements.

There may also be value in thresholds for aggregations of price responsive CER to consider the nature of the 'product' or 'response' service being aggregated, bundling like-for-like capability. For example, there may be value in separating 'demand response' resources that may be contracted and technically capable to respond occasionally to very high (or low) prices from more dynamic actively price responsive resources that may be contracted and technically capable of responding almost continuously to price signals.

5. *How should requirements for visibility of price responsiveness in retail contracts be established and does the VSR inactive mode provide sufficient information?*

It will be important to provide time for the implementation of the IPRR Rule change before considering new requirements. For example, AEMO is currently consulting on options to obtain visibility from inactive mode VSRs and it would be premature to comment on its effectiveness. However, we would support engagement between market bodies and industry to explore other options to improve visibility based on the more pressing system needs.

6. *What form and scale of support would deliver the best outcome for VSR participants, the wider market and customers?*

AGL supports the Voluntary Incentive Mechanism (VIM) as a means to promote participation in IPRR in early years. Market participants will be required to make investments to ensure their assets can participate in dispatch mode. Once the VIM expires, the market may have matured enough to participate in dispatch without the need for further incentives.

VSR participants and DNSPs will also need to continue to work together to coordinate participation in energy markets with dynamic operating envelopes. Adequate visibility of dynamic operating envelopes will be essential to promote participation.

It will be important to align network signals with wholesale incentives. For example, ensuring network tariffs do not limit the operations of CER/DER into wholesale markets and instead incentivise CER/DER operators to shape their generation and consumption to provide system and network services.

We consider that integration of price responsive resources through the VSR mechanism would benefit from simulated trials that could investigate participant behaviour prior to more detailed design.

7. Do you have any other feedback on this recommendation

Nil

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?

AGL agrees with this recommendation and supports CER funding being targeted and contingent on customers participating in competitive VPPs. We also support reforms to ensure that DNSPs can value and appropriately compensate CER for providing network benefits.

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

9. How might the increased use of autobidding and algorithmic machine learning impact dispatch?

AGL supports comprehensive assessment of the impacts of autobidding and algorithmic machine learning, and notes that any assessment should consider both the risks and opportunities. Improved efficiency and responsiveness to changing market conditions could improve dispatch outcomes and potentially result in lower overall costs. We agree with the Panel that there are likely to be risks, and that these risks are not currently well understood. We support ongoing work to identify the nature of the risks and mitigation approaches.

10. What other market information could be made public to help achieve the NEO?

11. Do you have any other feedback on this recommendation?

No response.

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

12. Would a forward-looking view of the form of market price settings provide greater certainty for buyers and sellers of electricity?

AGL contends that it is difficult to provide greater certainty for buyers and sellers of electricity through a longer-term outlook (of up to 15 years) of market price settings, given that market settings out that far are highly unreliable and, in essence, hypothetical.

For a longer time horizon, there's a real risk that forecasts are wildly different to reality. Incorrect assumptions could, over time, profoundly harm participant confidence. Adjusting the market price settings to provide a longer-term view may not provide much more certainty over the current settings and may not result in additional investment.

Rapid changes in technology, costs or demand require flexibility, not long-term rigidity in settings. We suggest that the Reliability Panel maintain its current medium-term outlook for market price settings, with the addition of high level longer-term 'guidance' to indicate the likely direction of settings or factors that could impact the market. This approach would retain flexibility and optionality and reduce the chance of unintended negative impact on participant confidence.

13. Do you have any other feedback on this recommendation?

No response.

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

AGL is supportive of the Panel's focus on the role of contract and derivatives markets in supporting the operation of the NEM. However, we are concerned that introduction of an MMO could add significant costs and risk to participants, with unclear benefits to consumers. There is little evidence in other jurisdictions around the success of mandatory market-making, and the proposed MMO may not lead to additional contracting or provide much more certainty over the current regime.

The AEMC's 2019 review into additional market making services found that additional market making services beyond the ASX scheme and MLO were not justified, concluding that current liquidity was generally healthy (with the exception of SA). In conclusion, the review found that the benefits of an additional mechanism would not outweigh the risks.

While we support the Panel's objective to ensure liquid, transparent and accessible contract markets, our view is that 'market making' is a complex, risky and specialised financial service, and so to support efficient provision of 'market making' services, they should be valued and rewarded by the market. As far as practical, market making should be voluntary and remunerated.

14. Which products should an MMO for the NEM encompass?

We note the current work underway through the NEM Review Derivative Contract Design Working Group to explore standardised derivative contracts to which the MMO should apply. Appropriate coverage of products within the MMO will be dependent on the final form of contracts that are designed for generation, shaping and firming within this co-design process.

We support the MMO covering contracts across bulk, shaping and firming services:

- Firming services enable strong price risk management and are a relatively simple evolution from current contracting. Cap products are currently widely traded and fungible, and therefore an obvious and logical choice for inclusion within the MMO
- Shaping services should enable strong intra-day price risk management and may be an evolution of swaps and caps to more tightly time bound products e.g. time of day swaps, super peak caps.
- Bulk services in a high renewable system are less clear. Standardisation of bulk energy contracts takes away from the ability to allocate risk efficiently, impacting bankability of these services. These contracts are often bespoke for this reason. It's unclear how a standardised contract for bulk energy may be designed to address these issues.

In designing standard contracts, it's important to not over-complicate the process - to not reinvent the wheel. There should be a focus on using existing products that are already traded (or close equivalents) where possible, with the flexibility to refine contracts as new and innovative solutions are developed over time.

Minimising the number of contracts designed under the MMO and ESEM may be more efficient for the purposes of maximising liquidity and fungibility, and reducing the burden to participants. However, it's worth considering that fewer products often translate to increased difficulty for participants to manage their risk profile effectively, and therefore the usefulness of these products may come into question.

We recommend that the Panel consider testing and trialling proposed products across a range of scenarios to ensure they are fit-for-purpose before more general application. This approach would allow for product refinement and help steer towards the most effective design for the market. We look forward to ongoing engagement on the design and delivery of products within both the MMO and ESEM.

15. What additional design elements should the Panel consider to ensure an MMO provides efficient outcomes for end users?

AGL proposes that the Panel consider the following to promote efficient outcomes for consumers and market participants:

- Using an incentives-based/voluntary market-making framework rather than mandated so that market participants are not forced to take on risk that places them at odds with their commercial interests and risk management frameworks.
- Focus on using existing products that are already traded (or close equivalents) where possible, with the flexibility to refine contracts as new and innovative solutions are developed over time.
- Minimising the number of products designed under the derivatives/ESEM streams to maximise liquidity and fungibility, and minimise burden on participants. Note that fewer products often translate to increased difficulty for participants to manage their risk profile effectively.
- Retaining flexibility in the MMO design and derivative contracts to allow adaptation to changing markets and technology.
- Conducting regular reviews (e.g. every 2-3 years) to ensure that the MMO is still required and fit-for-purpose.
- Which participants are best placed to offer products. An MMO should apply to a broad range of entities, however, entities should not be required to make markets for services they do not offer e.g. VRE providers shouldn't have to offer firming services if they are unable to do so. The entity with the rights over the asset, rather than the entity who owns the asset, should be the one obliged to market-make. It's also important to note that trading derivatives requires an Australian Financial Services Licence, which not all entities would have.
- In considering a market share threshold, care should be taken given that market share and participants will change over time. Any proposed thresholds should be reviewed regularly (e.g. every 2 years) as part of the contract review process recommended in the draft report.
- The success of the current MLO and whether it has been meeting its objectives. Note the parallel work underway by the AER to review the success of the MLO.

16. How can the proposed co-design process be designed to best accelerate contract market innovation, determine appropriate ESEM contract types, and identify contract types that should be subject to the market making obligation?

The design and review process needs to be led by those with the expertise, skills and relevant background. AGL supports an industry-led process with the AER providing a facilitator/oversight function. We note the current work underway through the NEM Review Derivative Contract Design Working Group to explore standardised derivative contracts to which the MMO should apply. Lessons learnt from this work will be important in informing the proposed future contract co-design and review process.

17. What should be the design and governance of an ongoing contract market co-design process in the NEM?

As a starting position, AGL proposes that there should be a mandated review period (e.g. every 2-3 years) with a trigger to assess earlier if required, for example, if rapid changes in factors such as technology or demand occur. We note that changing contracting types may be inconsistent with the proposed long term investment focus of the ESEM, however we strongly believe that retaining flexibility and optionality for contracting will be required. As with our views on the market price settings, there is a real risk that forecasts are significantly different to reality. Incorrect assumptions could, over time, radically harm participant confidence. Rapid changes in technology, costs or demand requires flexibility, not long-term rigidity in settings.

We also consider that the design process needs to be driven as much as is possible by market participants, those that will utilise these products on an ongoing basis. This could also be facilitated by engagement with the exchanges and platforms through which these products are traded. In addition, the relevant industry association, in this case the Australian Financial Markets Authority (AFMA) should be involved in a central role to represent its membership base. As such we consider that the role of any market body, such as the AER, should remain as a secretariat type function to facilitate this process with a specific and limited oversight function.

18. What contract types should the Panel explore, in consultation with industry and market participants, over the next six months for the purposes of market making and the ESEM?

Refer to response to question 14.

19. What actions can be taken to improve the accessibility of derivative markets for small retailers?

AGL considers that this question is best answered by small retailers.

20. Would reforms to AEMO prudential working capital requirements assist in reducing barriers to participation for small retailers?

AGL supports continued efforts to reduce barriers to participation in the energy market. This has included supporting recent changes to prudential requirements, allowing cash to be provided in lieu of credit support. However, as noted in that consultation process, the prudential requirements for participants in the energy market are a fundamental protection mechanism and any amendments must only be made after detailed assessment as to what level of risk is acceptable.

We do have some concerns that modifying prudential requirements to be artificially low for small retailers could incentivise poorer risk management practices and so this needs to be taken into account. Other market participants should not be used as a backstop to such behaviour.

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

No response

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

22. What information do market participants need to ensure efficient price discovery, and over what time frames is this information needed?

AGL is broadly supportive of the recommendation to extend MT PASA generation availability projections from three to five years with the intent to improve market transparency. However, we believe it's important to highlight the limitations of an extended MT PASA being that any reporting beyond two/three years is very limited, highly speculative and uncertain and not a sound basis for investment decisions. Therefore, an extension may be of limited value to the market.

23. What could be done to facilitate more accurate information being provided?

24. Do you have any other feedback on this recommendation?

No response

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 bulk energy, shaping and firming appropriately defined?

We broadly support the definitions put forward by the Panel, but suggest that some flexibility is built in so as not to limit technologies and available resources. For example, with regard to units, firming and shaping should be able to be expressed in both or either of MWh and MW. As the Panel observes, there may also be additional technical criteria that are relevant for technology types, such as availability, ramp rates, etc. This need not be specified in regulation—in a general sense, the definition of the service is best formed in the contract offered, rather than having a list of provider technologies defined in the NEL or NER. For example, if the ESEM and industry agree to a product such as a firmed swap, this may not necessarily be zero-emissions and may not need to be.

Furthermore, the definition of bulk energy as 'zero emissions electricity generation sent out from a generating unit or voluntarily scheduled resource' proposed may be unnecessarily restrictive. Although we acknowledge alignment with the NEO is important, the recommendation may have overstated the emissions aspect of the NEO, which requires emissions reduction, not necessarily zero emissions. Furthermore, each limb of the NEO is not mandatory but rather they are to be balanced contextually.

As an example, one of the examples technology types for bulk energy provided in the definitions put forward by the Panel is biomass, which may not be considered zero emissions under some approaches. Embedding specific technology types within the NEL therefore seems an unnecessarily rigid approach, particularly if these services change

in the future in response to new technologies. Further complications may arise if hybrid facilities are offering different services, or with different types of aggregated resources for whom measuring emissions may be onerous and unnecessary to meet scheme objectives.

26. How could single projects provide multiple services without undue scheme complexity?

At present, single projects can receive revenue from multiple derivatives as well as energy and ancillary services, especially when they are operating within a portfolio of assets. This is appropriate and efficient and supports investment. The nature of contracts should again emerge with reference to what developers and financiers are seeking to see in order to back new projects.

Following on from the previous questions, not limiting technology type may assist, ensuring that the service offered is formed in the contract. An example may be a hybrid facility that is capable of selling bulk energy as well as offering shaping services.

27. How can the ESEM provide a technology neutral level playing field to encourage maximum competition to provide services?

Standard contracts should not specify technology type. Although specific contract types lend themselves to being backed by specific assets, this need not necessarily be the case, especially when a participant is using a broad portfolio of assets to back the sale of a specific derivative. Contracts should be able to be supported by a range of assets, which also suggests that an undue level of prescription in defining services would be counter-productive to meeting the scheme's objectives.

28. How might an approach to support the later years of a project's life be tailored to address the varied dynamics across the three services (bulk energy, shaping, firming)?

No response.

29. For each service, what is the appropriate indicative timeframe for support (e.g. year 8 through 15)?

The level of revenue support required by provider technologies will differ depending on market conditions and the service being offered, as well as the nature of the underlying contract.

Some provider technologies are likely to require more revenue support in later years and potentially over different timeframes. The scheme should build in flexibility to ensure that funding periods are flexible: there is no great benefit in prescribing the period in regulation at this stage and as it will depend on underlying contracts and services, it should remain flexible as those elements also adapt to changing market needs.

30. What governance and processes should be established to determine the quantity and timing of each service procured through the ESEM?

Although there are several planning documents and exercises in place, we do not necessarily consider these should directly set procurement targets for the ESEM. Clearly, existing planning processes and agreements such as AEMO's ISP and Renewable Energy Transformation Agreements (RETAs) between state and federal governments should be considered as an input, as well as government energy and climate policies such as outlined in the AEMC's targets statement for greenhouse gas emissions. However, the purpose of the ESEM is to support generation that will not be otherwise built by the market, not to underwrite all generation in a way that meets certain forecasts, scenarios, and policy ambitions.

Instead, the ESEM should utilise a broad range of inputs and seek to contract for services in a way that continues to preserve the operation of the market and meet the terms of the overall NEO.

The ESEM (via any auction rules and guidelines) should contract for services at the lowest priced bids that satisfy established criteria, up to a decided volume for the auction, or up to budget or other constraints. Performance, delivery schedule feasibility, and eligibility all matter—not merely meeting targets or forecasts from external sources at any cost.

This is a key feature for the scheme to succeed. The ESEM administrator must have appropriate procurement and risk management processes in place to enter into contracts at levels that do not adversely impact the long-term interest of customers, assuming that risk borne by the ESEM administrator is likely to be eventually recovered by energy customers. Appropriate guardrails must be in place to prevent the central entity from over-procuring—either by design or because of a requirement to meet procurement targets that are unrealistic to deliver—and to ensure that there will be clear, transparent and consistent decision making with regards to contract procurement and recycling.

31. As per Recommendation 6B, which set of contracts would be useful for supporting the entry of new providers of bulk energy, shaping and firming through the ESEM and useful to manage spot price risk through derivative markets?

We note the current work underway through the NEM Review Derivative Contract Design Working Group to explore standardised derivative contracts to which the ESEM (and MMO) should apply.

As discussed in our response to Question 14, we look forward to working with the Panel and industry to support the development of possible candidate contracts that would work to achieve the ESEM's objectives:

- Firming services enable strong price risk management and are a relatively simple evolution from current contracting. Cap products are currently widely traded and fungible, and therefore an obvious and logical choice for inclusion within the ESEM.
- Shaping services should enable strong intra-day price risk management and may be an evolution of swaps and caps to more tightly time bound products, e.g., time of day swaps, super peak caps.
- Bulk services in a high renewable system are less clear. Standardisation of bulk energy contracts takes away from the ability to allocate risk efficiently, impacting bankability of these services. These contracts are often bespoke for this reason. It's unclear how a standardised contract for bulk energy may be designed to address these issues—although PPAs are less fungible, it may be worth considering if fungibility for bulk energy is as critical as for firming and shaping contracts, and whether more bespoke contracts could be accommodated within ESEM design.

32. Should any contracts be structured as options?

It would make sense to begin with more standard contracts if possible, as mentioned in the response to the question above; however, the merits of all contract types including options should be considered.

33. How could Snowy Hydro's capacity be used to kickstart the ESEM contract recycling platform and benefit the NEM overall?

No response.

34. How could any risks be managed?

No response.

35. How should energy ministers allocate roles and responsibilities for ESEM implementation and administration?

We agree that administrative roles should be independent from government where appropriate (e.g. determining winning tenders), and clear rules should govern operations (e.g. framework for recycling of contracts). It would be logical for ESEM implementation to build on existing institutions and policy architecture. However, there needs to be a significant number of operational and financial controls to ensure the procurement entity behaves rationally and economically, with significant and frequent risk and transparent reporting requirements, explaining how much risk and cost is being born by consumers. Following on from previous responses, the administrator should not procure simply to meet targets, policies, or forecasts – but instead should follow its own established parameters for supporting new generation. This may represent a new scope of obligations for existing institutions.

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

We broadly agree with the principles put forward by the Panel on cost recovery. While we acknowledge the Panel's perspective that the structure of the ESEM results in it being self-limiting, the costs of the scheme will largely depend on the ability of the ESEM administrator to effectively support valuable services at least-cost.

37. Will a model that procures ESS contracts alongside bulk zero-emissions energy, shaping, and firming support additional ESS provision in a cost-efficient manner?

Further analysis is required to consider whether ESEM is a useful mechanism for ESS. At present, ancillary services are not backed by derivatives, and although an FCAS hedge is a possible product, there does not presently appear any anticipated challenges with investment to support FCAS, which can be adequately procured by spot markets.

There may be some merit in considering whether long term contracts for inertia or system strength could feasibly be procured under the ESEM, although this does not need to be the focus of the ESEM in the first instance—work is already ongoing elsewhere to consider how these services can be best procured.

38. Are there any other alternative approaches that would support cost efficient provision of ESS through the ESEM?

As above, the ESEM may be able to procure inertia and system strength services over the long term, although products for these services would need to be developed, and the structure of the ESEM may be adjusted accordingly. The dynamics for procurement of services are materially different given there are not several buyers or a market for some services (i.e. inertia, voltage control, SRAS). However, the ESEM structure may still be able to facilitate competitive procurement of services on behalf of regulated entities or the market operator.

39. How could the ESEM help to keep the NEM competitive?

As outlined in our responses above, the definition of services and procurement targets are important. Ideally, the ESEM seeks to procure standard services from the broadest range of providers possible. On this basis, we reiterate the need to keep technology provider definitions broad, and not to dogmatically follow specific forecasts, scenarios, or policies that specify technologies rather than services.

The ESEM should fundamentally remain as a back-up to procurement of technology-neutral services, if the market is not procuring these services as quickly as required. It should not act as a vehicle to deliver government interventions into specific projects or technologies that are not competitive with other projects—as this will result in worse outcomes for customers over the long-term.

40. How could a new, longer term strategic reserves service be established in the NEM?

While we support further consideration of the ESEM to resolve the tenor gap, we also see a possible need for additional revenue streams to support firming in the short term and to maintain reliability on operation timeframes.

While an emergency reserves mechanism (such as the RERT) and directions powers from the market operator are useful to maintain operational reliability and security, these should be used sparingly. We would support the Panel providing some recommendations on the appropriate utilisation of emergency powers to ensure that investment signals remain in place to support new investment. There may be significant implication for the ESEM if out-of-market interventions are diminishing the value of firming or shaping contracts.

41. Do you have any other feedback on this recommendation?

No response.

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.

42. *How could government support schemes recycle bulk energy, shaping and firming from existing contracts to support market liquidity?*
43. *How satisfied are market participants with settlement residue auctions as a financial risk management tool?*
44. *Are other options for providing longer term contracting opportunities across interconnectors worth considering?*
45. *Do you have any other feedback on this recommendation?*

We support a holistic review of how other frameworks may interact with the ESEM.

THEME 4: ENSURING CONSUMERS BENEFIT

46. *Do you have any feedback on the observations made?*

The Panel has provided thoughtful observations on interactions between the wholesale market and retail markets and network regulation and coordinated reforms that it considers would better align energy markets with evolving customer needs.

We are supportive of reforming tariffs to be simple, actionable, and fair for all customers. Simple, so that customers can understand and engage with the tariff; actionable, so that a customer (or their agent) can respond effectively to capture the benefits; and fair, so that the tariff is not punitive for a customer who can't respond.

Whether customers would preference simple price offers over multi-year contracts is a position worthy of further investigation under existing price reform consultations—consideration should be given to customer preferences in determining whether longer term pricing is important to building perceptions of increased value and trust in energy pricing. On default pricing methodologies, we agree that any material changes to the NEM wholesale market settings may provide helpful inputs into default pricing that provide greater transparency for regulators and customers, but this would depend on the clarity provided by the forwards price signal.

In relation to consumer protections for new energy services, a new future energy services framework should have varying degrees of protections having regard to the essentiality of the services. Development of consumer protections for new energy services should be based on a flexible, principles-based, national approach that can enable rapid innovation while ensuring all consumers benefit from consistent and robust protections from all suppliers.

In response to proposals regarding higher fixed network charges, our initial concern is that price signals from network tariffs remain an important element of working towards greater levels of system-wide efficiency. Although not all customers are seeking to actively participate in the market, there is significant value that can be unlocked from customers who wish to respond to price signals to help respond to the cost of meeting peak demand by shifting or reducing demand.

The absence of network price signals may potentially lead to higher network costs in the future. As an alternate, we advocate for tariffs that are simple and actionable, and are embedded within a broader framework of additional supports such as appropriate concessions and rebates, electrification, energy efficiency, and a principles-based consumer regulation framework that ensures options are provided to customers who don't have the means to manage their costs.