17 September 2025

NEM Review
Expert Panel
C/o –
Department of Climate Change, Energy, the Environment and Water

Submitted via email to: NEMReview@dcceew.gov.au

Dear Panel

Re: Stanwell response to the National Electricity Market Wholesale Market Settings Review Draft Report and Draft Recommendations Consultation

Long-Term: Reforms to support new investment in the services the NEM needs

Stanwell Corporation Limited (Stanwell) welcomes the opportunity to respond to the Expert Panel's consultation on the National Electricity Market Wholesale Market Settings (NEM Review).

Stanwell is Queensland's leading provider of electricity and energy solutions to the National Electricity Market (NEM), and large energy users along the eastern seaboard of Australia. With over 40 years of continuous operations, Stanwell's experience in working with communities to build, operate and maintain reliable energy generation assets is also being applied to the rollout of renewable energy.

Stanwell is developing a pipeline of renewable energy and storage projects throughout Queensland, whilst maintaining a reliable supply of baseload power from two of the most efficient and reliable coal-fired power stations in Australia – the Tarong power stations near Kingaroy and Stanwell Power Station near Rockhampton.

This response contains the views of Stanwell only and should not be construed as indicative or representative of the views or policy of the Queensland Government.

The proposals in the Draft Report will have considerable impacts on the electricity market, its participants, and its customers. We again reiterate our concerns around the rapid consultation process and compressed timeframe for a review of Australia's largest electricity system and its financial and physical markets.

While the proposed design of the long-term market is preferred to the current Capacity Investment Scheme it is still a question as to whether it would indeed work as intended without the rigour of further analysis and market testing. Stanwell has considerable concerns that the market will not have the opportunity to review the Final Report and Final Recommendations prior to them being provided to Energy Ministers at the Energy and Climate Change Ministerial Council (ECMC) meeting in December 2025. We again recommend the Panel allocate additional time for further consultation and concept testing.

Introduction

The evolving nature of the Electricity Services Entry Mechanism (ESEM) and derivative contract design has created challenges for the market as we attempt to put some of the meat on the bones to the high-level concept proposed. As the conceptual design has evolved with the Panel's thinking and working groups running in parallel with this submission process, it has created further challenges, and as such, it is not possible to address every new detail within the allocated and compressed timeframe.

This response represents our understanding to date, and we emphasise the need for further work and a significant amount of testing on the design of the ESEM and derivative contracts, in order to ensure that substantial guardrails are in place to safeguard the market, its participants, and customers against both anticipated and unanticipated outcomes.

Recommendations 8

"Energy ministers should establish an Electricity Services Entry Mechanism (ESEM) within the National Electricity Law (NEL) to facilitate investment in the NEM." [3]

- Neither the *National Electricity Law* (NEL) [1] and the *National Electricity Rules* (NER) [2] are the appropriate vehicles to enshrine the entirety of the ESEM framework. The impact of which would likely see unnecessary duplication of regulatory requirements and oversight, costly implementation, and a negative impact on productivity for little or no benefit to either the market or its consumers.

- Given the new and untested central role proposed for the ESEM, a significant level of flexibility will be needed to ensure these mechanisms can adapt and be easily amended to facilitate emerging trends appearing in the market over time.

- As we suggested for the MMO, we instead propose an initial guideline with the flexibility to accommodate market structure and jurisdictional liquidity targets. The guideline could be reviewed at five years of implementation, at which time the workable elements to include or not include in a legislative framework and within the NER could be determined once the market has operationally tested the ESEM.

Recommendation 8A

"Establishing the Electricity Services Entry Mechanism (ESEM) as a long-term- investment signal to address the tenor gap." [3]

As a general principle, the ESEM, and the standard contract derivatives should not be a vehicle for consumers to fund private electricity projects that would otherwise struggle to get financial backing or reach financial close. We acknowledge that Recommendation 8D relates to a specific subset of investments where such an approach may be required as the strategic need is not matched by commercial opportunity. However, the current proposal would see any shortfalls resulting from contracts being sold back into the market at a loss being directly borne by consumers.

Whatever final mechanism is developed, it will need to ensure that losses and shortfalls on the back end are borne by the most appropriate party – this cost should not entirely rest with consumers.

However, we recognise this will likely be a Recommendation to energy ministers and as such we have provided our thoughts below.

Replacing tenor gap with volume risk

- Rather than some fundamental design flaw in the NEM, the tenor gap described in the Draft Report is a reflection of Investors not wanting to take on the long-term market risk of their investment.

    - This is in part because new projects tend to be developed as standalone special purpose vehicles (SPV) which by design have limited risk management options, and

    - In part because the NEM is inherently volatile both in terms of both spot market outcomes and policy inputs.

[1] *The National Electricity Law* set out in the schedule to the *National Electricity (South Australia) Act 1996 (SA).*

[2] *The National Electricity Rules* see for example version 235, 4 September 2025.

[3] Nelson,T, et al, "*National Electricity Market wholesale market settings review*", Draft Report, August 2025, pp 150, 151, 152

- The natural preference for most developers therefore is to sell a run-of-meter offtake arrangement as part of the commercial investment decision process. The developer is left with minimal volume risk relative to the sold offtake, but gains significant revenue certainty which ultimately assists in securing finance. That is, if a generator is not generating when a high price occurs or is generating when a low price occurs the developer is insulated.

- Critically, the risk is not removed but passed to the buyer who will logically only accept the risk if there is an appropriate risk-adjusted return. This tends to see buyers commit relatively late in an investment cycle once a return becomes more likely.

- Various Governments have sought to accelerate investment, initially through Power Purchase Agreements (PPA) and more recently through revenue underwriting via the CIS. These arrangements see Government accepting market risk to achieve their desired outcome.

- The ESEM proposes a very different mechanism. Firm financial contracts are to replace run-of-meter offtakes, meaning that the developer retains some volume risk to spot market outcomes. If a generator is not generating when a high price occurs, or is generating when a low price occurs, the developer is no longer insulated – at least in relation to the difference between actual generation volume and sold contract volume. The generator will still be insulated for a significant portion of its volume, but no longer all.

- The Draft Report still proposes to leave some tenor gap in place, with the ESEM contracts proposed to start around year five to seven (Recommendation 8B). Assuming a project takes two to three years to build, the first few years of output will need to be either sold into the spot or liquid contracts market much later than the investment decision is made.

- Government underwriting (even if imperfect) will be viewed favourably by financiers despite this increased risk for developers. As such Stanwell anticipates the ESEM to become the dominant mechanism for investment in the NEM, and we also expect that the re-application of risk to the developers will increase offer prices.

- The ESEM also proposes that the underwriting risk will be recovered from consumers, rather than held on the Government's balance sheet as is the case under the CIS. Stanwell are concerned that this will create a large investment vehicle with policy and volume drivers rather than value drivers, most likely to the detriment of consumers.

An implied central planning scheme

- While there are differences between the CIS and ESEM, there is a risk the ESEM will act similarly and overwhelm alternative investment pathways using the underwriting contracts.

- The CIS was initially announced as a complementary investment vehicle to support an increase in forecast renewables from around 60 per cent to the 80 per cent policy level. However, since the CIS was announced, it would appear limited non-CIS investments have been made.

- We expect the proposed ESEM to have an equivalent impact with virtually all new investment underwritten – at least in part – by the ESEM administrator, making it a de-facto central planning body.

Scheme Facilitator resourcing

- Because the ESEM is based on fungible financial contracts, the ESEM scheme administrator will require significant resourcing and expertise to operate even at a basic level. These include a Financial Services Licence, accredited traders, risk, finance, legal and settlement teams, all of which would likely incur significant costs to put in place, and then annually maintain. It is unlikely the Australian Energy Market Operator (AEMO) or ASL (formerly AEMO Services), will have the resources or expertise to undertake the role. To our knowledge neither AEMO nor ASL currently

hold an Australian Financial Services License, but rather operate under exemptions.

- Stanwell sees a significant likelihood that the risk management of the administrator becomes very complex over time with a dominant market position as discussed above.

- It is highly likely that the standard products bought by the scheme administrator at one point in time will be different to the standard products sold by the scheme administrator at a later time. This discrepancy will mean that a participant's Board (or equivalent entity) and risk function will need to reflect this.

- As an example, if the evening peak definition moves by an hour after underwriting is put in place, the scheme administrator will need clear guidance as to whether it is acceptable to sell the new evening peak product (creating a long exposure in one hour and a short exposure in another) or hold the entirety of the bought volume out of the market.

- Although it is not clear, the Draft Report appears to give consideration to using Snowy Hydro as part or all of the scheme vehicle. While that would overcome some of the licensing and resourcing issues, it appears directly contradictory to Recommendation 8C, and it is not clear how the proposed jurisdictional involvement in procurement and recovery would interact with a wholly Federal Government owned commercial entity.

- Stanwell considers the cost of setting up and operating this entity should be borne by the Government(s) causing it to occur, rather than being passed on to consumers.

Eligibility to participate in the ESEM

For the ESEM to be self-limiting as intended, participation criteria will need to be set by the procurement entity (i.e. scheme administrator).

- Participation assessment should include the level of project commitment, and committed projects will only be able to procure sufficient contracts to meet their tenor 'gap' in line with their forecasted outcomes.

- Under the current proposal, the priority will be least cost projects i.e. projects placing lower bids. This approach does not provide certainty that good quality projects bidding into the ESEM will be selected over those placing lower bids that may not be of high quality.

- We do not support projects costs being recovered at the project node and passed through to customers. Instead, we suggest the scheme administrator wear this cost given it has taken over the investor risk role (as proposed in the draft design).

- We do not believe crowding in projects before the market is ready will lead to efficient outcomes. For example, projects will likely want to connect in similar areas, thereby increasing connection queues, uncertainty for developers, and curtailment in areas of high renewable connection, all of which are likely to increase costs for consumers.

- As fungible contracts pay based on the profile determined in the contract, and not the output of the generator, a standard will need to be applied so that projects bidding into the ESEM can be differentiated between those of high quality and those that may not meet that same standard.

Defining 'new"

- Defining the terms and conditions of ESEM participation will be key to ensuring it can provide efficiency, transparency and be cost effective for participants and consumers.

- New projects will need further definition for ESEM participation. For example, a brownfield project say for firming, would likely be more efficient and cost effective to develop (when compared to a greenfield project), but would still have a tenor gap.

- Similarly, would a replacement battery or replacement gas turbine (utilising the existing water cooling, pipeline etc.) be considered "new" under the ESEM, given it may be more cost effective to replace the turbine asset than building an entirely new 'from the ground up' gas project.

Demand-side ESEM participation

- While it is proposed that existing assets will be ineligible to participate in the ESEM, further clarity is needed to understand how the ESEM will bridge the tenor gap for demand-side projects that will still require large capital investment to adjust their load and maximise their participation in the NEM.

Recommendation 8B

"The ESEM should procure new bulk energy, shaping and firming projects by offering fungible, financial contracts for the 'later years' of a project's life, where buyers and sellers are less able to manage market risk." [3]

ESEM auctions and procurement of contracts

- Stanwell considers the proposed model of the ESEM scheme administrator using standard, fungible financial derivatives to underwrite projects, then recycling those contracts into liquid markets at a later date, to be superior to the ex-post revenue underwriting of the CIS.

- Stanwell also support the use of the same standard financial contracts for both the proposed ESEM and MMO.

- Run of plant PPA and revenue swaps are not fungible and should be explicitly excluded from the list of standard products. Similarly, high and low price spreads that can only be determined ex-post, are not likely to be attractive to investors who need to choose when to operate using ex-ante information or support smaller consumers and those needing flexibility.

- Stanwell are concerned that the references to considering competition when running the ESEM auctions (Recommendation 8C) will see small developers favoured over larger portfolios despite the larger portfolios being better placed to support the sale of firm financial contracts. Ignoring a low-cost contract in favour of a higher cost contract offered by a smaller participant does not appear to be in the interests of consumers – particularly where it is intended that any losses the ESEM warehouse is expected to accrue will be passed through to consumers.

Underwriting the buy and sell side

- The Draft Report indicates the ESEM scheme administrator will buy long-term contracts and "warehouse" those contracts until buyer appetite emerges. Stanwell strongly recommend that this role be formalised by requiring the warehouse to be an obligated market maker.

- If the warehouse is acting as principle, it will be buying OTC, in which case it is likely to need the ability to recycle the contracts OTC, or take on extreme liquidity risk by selling exchange-based futures. Selling OTC appears to be supported in the Draft Report i.e. warehouse absorbing some credit risk to support small retailers.[4]

- Given the ESEM will facilitate a large quantity of derivative transactions, further clarity is also needed to understand the transaction requirements including whether parties will be subject to long-form confirmation, or transactions under an ISDA Master Agreement.

- There will need to be scope for ESEM participants to (sensibly) negotiate with the ESEM warehouse entity, to avoid credit support annex (CSA) margins and mitigate counter-party risk.

[4] Nelson,T, et al, "National Electricity Market wholesale market settings review", Draft Report, August 2025, p 183.

- While the Draft Report indicates that the gains or losses on warehousing and recycling contracts will be passed through to consumers, Stanwell considers this approach increases the risk that a government entity, will be tasked with procuring projects to deliver investment, not necessarily best for consumer outcomes. As such Stanwell considers that the cost of this action should be retained on balance sheet, or if passed through to consumers, should be as a separate line item on retail bills. An equivalent requirement has previously been included for other schemes such as the Carbon Tax.

The warehouse recycling target must be public

- There will naturally be a level of uncertainty around the quantity and types of new technologies needed to support bulk energy, firming and shaping services. We agree with the Panel that accurate and rigorous testing of forecasts will be needed.

- If the forecasting, procurement and recycling runs as planned it would be logical to require the ESEM warehouse to fully sell down its position before the physical delivery period commences. This would support investment in long-lived assets while providing maximum support to liquidity when consumers want to hedge their exposure.

- There remains the risk that procurement against a forecast does not align with actual demand when risk management and physical delivery occurs. In the event the warehouse grossly over procures contracts to meet an over forecasted demand, there does not appear to be assurance that the ESEM warehouse will be able to fully sell down its position and return to neutral, nor any consideration of whether this would actually be desirable.

    - Forcing the warehouse to return to neutral at any cost may not be in the interests of consumers or a functioning risk-management market.

    - Conversely, if the warehouse is allowed to withhold volume based on price there is a significant chance that the warehouse risk settings come to define the market.

    - The market should be aware of the overarching risk policy of the warehouse.

- Regardless of whether procurement is accurate or excessive, there will be a level of risk assessment required to manage the warehouse exposure to a desired level.

- As identified above, if the standard contract definitions change over time (i.e. in two yearly cycles as proposed in the Draft Report), the warehouse is likely to find that the contract it is selling does not fully match the contracts it has bought. In which case, the residual exposures should be clearly set out each time the standard contracts change.

    - We acknowledge that this approach differs from our general position on costs i.e. being retained by the decision makers and not passed through to consumers, it seems reasonable and (sensible) for the cost or benefit of these forced-residual positions to be recovered from consumers.

- We do note however that the obligation to act as Market Maker (MMO) may aid the ESEM warehouse to sell down, allowing for an extended liquidity period. Although if the MMO is ASX listed, this may create a situation where the ESEM warehouse is long in OTC and short in futures, locking in a specific derivative price.

"Where cost-effective, projects facilitated through the ESEM should also be able to provide Essential System Services. The ESEM administrator should coordinate with transmission network service providers (TNSPs). This should take the form of secondary contracting for the specific elements of the project that relate to providing ESS." [3]

ESEM projects and Essential System Services

- The proposal to utilise the ESEM as a coordinator of Essential System Services (ESS) procurement does not support the provision of the fundamental ESS needed to maintain real-time grid stability.

- Instead, it ultimately defers ESS procurement to TNSPs and supports the yet to be proven ISF contractual procurement framework – noting one distinguishable difference: the ISF Rule limits ESS contracts to 2030 and 2039, while the ESEM is intended to be enduring, thereby limiting any future value to support the creation of ESS markets.

- In the absence of an ESS market, there is, by definition, no market signals and no market price for ESS. Subsequently, there is no incentive to purchase ESS as a separate service through the ESEM, or as a contracted service through TNSPs as it will ultimately be provided as a byproduct of generation.

- As the ESEM facilitates ESS procurement through TNSP contractual arrangements, it will not provide the transparency needed to support investment and does not give line of site on whether TNSP decisions making will be in the best interests of consumers.

- Ultimately deferring ESS procurement to TNSPs does not move the market from the current existing opaque contracting arrangements.

Renewable Electricity Guarantee of Origin (REGO) certificates in the ESEM

- The proposal to provide new projects with a secondary revenue stream through the ESEM assumes that the Renewable Energy Target (RET) would still be in place, and does not consider that the RET ceases after 2030.

- We are concerned this proposal will channel funds into assets that are unable to provide services that are of value to consumers.

- Given new ESEM projects will be operational after 2030, there would be no requirement for liable entities (i.e. under RET), to surrender renewable energy certificates in compliance with their statutory reporting and surrender obligations. Without RET liability and with no obligations to surrender REGO certificates, it is unlikely the market would pay a high price for REGO certificates.

- Further clarity is needed to understand whether the proposal is suggesting:

    - Extending the RET liability past 2030 (this has been raised many times and has not received a life extension); or

    - ESEM heavily subsiding “purchase of REGOs” from new projects and then selling at a loss, and recovering it from consumers, through what is likely to be an opaque process; or

    - Mandatorily require ESEM projects to surrender their renewable certificates (similar to the CIS), effectively depriving these projects of the opportunity to sell these certificates elsewhere. There appears to be no consideration as to whether the ESEM warehouse would recycle REGOs in a similar way to its proposed recycling of electricity derivatives.

Recommendation 8C

“A framework should be established to ensure the ESEM is able to consider market concentration when running tenders.”

Auctions to consider market concentration

- We do not believe the ESEM scheme administrator / warehouse should consider market concentration when running a tender process given it will likely be a dominant participant in the derivatives market under the Draft design.

- Placing trading restrictions on participants that hold a larger market share appears to impose anti-competitive restraints on legitimate participants. This is particularly significant given these larger participants will be relied on to provide the market making needed to encourage and support smaller participants.

- It is recognised that the sale of firm financial contracts acts to dilute real-time spot market incentives, it is therefore unclear what this potential restriction is intended to achieve. Our view is that it would appear more beneficial to have large participants delivering projects within the ESEM, with financial obligations attached, rather than outside the ESEM with no such obligations and a reduction in ESEM procurement.

- If a market concentration factor is applied, further clarity will also be needed to understand the concentration benchmark that will apply when assessing a participant to be either included or excluded from the ESEM tender process.

- We do not support the exemption for Snowy Hydro who, under the proposal, will not only have obligations under the MMO but also appears to be intended as the platform to sell contracts back to the market, directly contradicting the market concentration premise. It is unclear how this could be alleviated as even if there were a ringfencing requirement for Snowy Hydro, it may instead create trapped capital across different entities resulting in higher compliance costs and regulatory differences across jurisdictions.

- If the intention is for market concentration to be a key consideration for the ESEM warehouse when running tenders, it becomes even more important that the MMO must also be applied to the ESEM warehouse given it is intended to hold, underwrite and sell a significant number of contracts at any given time. The ESEM warehouse will likely also be the principal counterparty on both the contract buy and sell side and would have significant market power. The MMO should be applied to the warehouse whenever it is not empty, or when the number of held contracts rises above a minimum predefined threshold.

Recommendation 8D

"A new longer-term out-of-market reserves service should be established to cover high-impact, low-likelihood events, with quantities to be procured at the discretion of jurisdictions, on advice from the Reliability Panel." [3]

- Stanwell generally supports the concept that where the intended use of an investment is "last resort" insurance, it may be beneficial overall, to have this resource paid to be available and effectively controlled by the market operator rather than paid to dispatch.

- As jurisdictions are responsible for the resources and reliability within their remit they can and will make long-term investment decisions in strategic assets. Such strategic assets may provide a long-term alternative to existing last-resort mechanisms such as Retailer and Emergency Reserve Trader (RERT).

- A strategic reserve can provide confidence that reliability will be maintained by keeping certain assets or capabilities out of market until they are required – an arrangement not supported by the current energy-only market design.

- Where jurisdictions choose to take these investments on balance sheet, the ESEM provides a mechanism to ensure the market operator is aware of the capability of these assets and uses them to support reliability.

- Alternatively, jurisdictions may seek cost recovery from customers as the ultimate beneficiaries. Where this occurs, Stanwell recommends it be a line item on bills rather than smoothed into other costs.

- Further clarity is required on the procurement process (entity, volume, value, timing).

- However, as an alternative to an out-of-market reserve, we have instead proposed a real-time reserves market [5] that would simply and rapidly support increased participation and could be implemented with minimal cost and complexity, while the benefit is likely to be material when compared to the other models covered in the Recommendations.

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." [3]

We agree that streamlining, and where possible, consolidating regulatory requirements would better incentivise and facilitate new projects into the market, and reduce the administrative burden on participants.

Working to streamline existing regulatory settings as a first step would provide a solid foundation to underpin further work on a coordinated suite of reforms as proposed in this Recommendation.

The examples below are not intended as a comprehensive list, and we note that further work will be needed to identify and consolidate existing policies, programs and regulatory settings.

- Given the NEM Review process is designed to create new investment incentives and signals, the Retailer Reliability Obligation (RRO) is no longer required. Our preference is to have the RRO removed as early as possible.

- Further work is needed for ESS markets. Simply relying on the existing process or slightly amending them to facilitate a new entry services mechanism, devalues ESS and does not provide certainty that these services will be in place well before they are needed.

- Ensuring consistency across operation guidelines and standards to accommodate a more dynamic mix of energy sources as the market moves away from thermal generation.

This will be a significant undertaking that should be considered holistically to ensure that regulatory settings and existing policies will indeed align, and will not create additional regulatory and compliance burdens for participants and new energy projects.

Conclusion

There are a number of issues that will need to be addressed before an ESEM can be introduced into the market, and enshrined within legislation. The high-level proposals introduced in the Recommendations clearly identifies that substantial further design work is needed to work through the requirements, obligations, and participation criteria that will incentive the best projects into the market at the best price.

We do not believe energy consumers should be required to fund projects that would not otherwise meet the prudential requirements to progress to commercial operation date, or fund projects (through pass through costs) that would operate at a loss. We are sceptical that the proposal to share the project upside with consumers will also be realised.

[5] See: Stanwell Corporation Limited Response to the National Electricity Market Wholesale Market Settings Review Draft Report and Draft Recommendations: Short-term: Reforms to support the continued efficient operation of the spot market, pp 2-3.

Substantial guardrails will need to be in place to safeguard and protect the market from adverse and perverse outcomes should the ESEM not operate as intended, or simply become a costly scheme for consumers and market participants.

We appreciate much of the operational detail of the ESEM will need further consideration and development. We hope the Review Panel will consider our suggestions for inclusion in the Final Report and Recommendations.

Stanwell welcomes the opportunity to further discuss any of the issues raised in this submission with the NEM Review Pane. Please direct any enquiries to Lya McTaggart via email at lya.mctaggart@stanwell.com

Luke Van Boeckel
General Manager
Modelling Analytics and Regulatory Strategy