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Department of Climate Change, Energy, the Environment and Water
Australian Government
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Submission on the Expanded Capacity Investment Scheme

Nexa Advisory welcomes the opportunity to share our perspectives and insights on the Federal Government's Expanded Capacity Investment Scheme (CIS) Implementation Design Paper. We appreciate the Department of Climate Change, Energy, the Environment and Water's (DCCEEW) considering our feedback on the proposed design of the expanded CIS, which will be critical to encouraging new investment in clean energy.

Context

Nexa Advisory welcomes the release of the expanded CIS. Like numerous industry stakeholders, Nexa Advisory, shares concerns regarding the current build rate of renewable generation and associated energy storage, potentially jeopardising achieving Australia's clean energy targets. Supercharging the CIS to 32 GW offers a practical and efficient solution for incentivising renewable energy and firming capacity that is zero emissions technology in a timely manner.

Facilitating new renewables and storage investment is crucial for achieving our 2030 climate and renewable electricity targets, while ensuring the reliable replacement of aging coal power stations. Expanding the CIS will minimise any potential adverse effects on consumers' and offer the most equitable solution for all Australians amid the clean energy transition.

As the Clean Energy Council's Clean Energy Australia 2024 report highlighted, a significant decline in investment in large-scale renewable generation projects occurred in 2023, particularly in utility-scale solar which experienced a decrease in new financial commitments, while wind saw no new commitments[1]. Nexa Advisory sees the CIS as an opportunity to reinvigorate large-scale renewable generation and energy storage investment, and it will be important to meticulously design the policy in the coming months to ensure its effectiveness in accelerating the deployment of utility-scale renewables.

To support delivery of the desired investment outcomes, we urge the DCCEEW to directly engage with investors and developers, on a continuous basis, to ensure that the CIS effectively delivers the intended policy outcomes, including the need for energy storage[2].

Nexa Advisory has identified several potential areas for improvement in the design of the expanded CIS, including aligning government targets and initiatives more effectively, increasing support for energy storage, integrating lessons from the LTESA design, and ensuring transparency in the CIS framework. Additionally, we have flagged several concerns

[1] https://assets.cleanenergycouncil.org.au/documents/resources/reports/clean-energy-australia/Clean-Energy-Australia-2024.pdf
[2] https://nexaadvisory.com.au/energy-storage-financeability-in-australia/

requiring immediate attention to guarantee the success of the CIS, including transmission, ring-fencing, project approvals, and sharing the responsibility of grid provision with the states. We explore these issues and offer recommendations throughout the remainder of our submission.

Design of expanded CIS

Longevity in federal policy to mitigate risk on Australia's decarbonisation

Emission targets have been established both at state and federal levels as Australia seeks to decarbonise. Concurrently, our aging coal generators are reaching end of their operational life and exiting the system faster than initially anticipated. This presents a challenge that is primarily being managed by the states, with support from the current Federal Government through the CIS. However, while the CIS and federal plans currently only extend to 2030, states have set targets extending to 2035.

Table 1: Federal and state decarbonisation commitments[3]

Jurisdiction	***Emission target***	***Delivery date***	***Renewable generation & storage***	***Delivery date***
National	43 % reduction Net Zero	2030 2050	82 %	2030
New South Wales	50 % 70 % reduction Net Zero	2030 2035 2050	12 GW 2 GW storage	2030 2030
Victoria	70-80 % reduction Net zero	2030 2035	65 % 95 % 2.6 GW storage 6.3 GW storage 2 GW offshore wind 4 GW offshore wind 9 GW offshore wind	2030 2035 2030 2035 2032 2035 2040
Queensland	30 % reduction 75 % reduction Net Zero	2030 2035 2050	50 % 70 % 80 %	2030 2032 2035
South Australia	50 % Net Zero	2030 2050	100 %	2027
Tasmania	Net Zero	2030	150 % 200 %	2030 2040

[3] https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2023/draft-2024-isp-consultation/draft-2024-isp.pdf?la=en

CIS targets must closely align and support state-level emission reduction and renewable generation targets to complement support programs and policy outcomes at the state-level, ensuring increased policy certainty across jurisdictions. Nexa Advisory is aware that the states already have state-based clean energy schemes and seek clarification on how the expanded CIS may either complement or compete with those initiatives.

Under the expanded CIS, states will be required to commit to accelerating the deployment of firmed clean energy to access the scheme. However, there is still a pressing need for federal and state governments to increase the development of transmission infrastructure to connect new renewable capacity to the grid. Consequently, the CIS risks shifting the responsibility for grid provision onto the states, as it does not offer solutions to the transmission challenge. Without support from the CIS, states may be left to grapple with the closure of coal plants and the task of ensuring adequate capacity to replace them.

Recommendation

Aligning the CIS with state targets for emissions reductions and renewable generation and storage to 2030 and 2035 is crucial for providing policy certainty and support the states to meet their targets. Close collaboration between federal and state governments is imperative to address transmission infrastructure challenges alongside the expanded CIS implementation, avoiding states bearing the sole responsibility of grid provision, particularly amidst coal plant closures.

Importance of energy storage

The Australian Energy Market Operator (AEMO) has projected a need for 19 GW of storage by 2030, requiring a significant increase from the current 1.4GW of battery storage and 1.6GW pumped hydro connected today. This necessitates a considerable escalation in energy storage capacity over the next decade to ensure a smooth transition.

As identified in our recent report[4], the number of utility-scale batteries connected to the power system has increased dramatically in the past year to 18 months, a trend which is anticipated to persist. However, more than 50% of the currently connected batteries have relied on government support to progress, and future developments will similarly depend on state and federal government initiatives to secure financing, especially those with a duration greater than 2 hours.

The expansion of the CIS can play a significant role in ensuring financeability of energy storage.

Nexa Advisory encourages the government to set minimum storage duration requirements on all CIS tenders. Specifically, supporting durations greater than 2-3 hours which are not currently supported by the current ancillary service market[5].

Nexa Advisory notes that projects seeking support from the CIS can apply under either a generation Capacity Investment Scheme Agreement (CISA) or a dispatchable CISA. However,

[4] Nexa-Advisory-Energy-Storage-Financeability-in-Australian-March-2024.pdf (nexaadvisory.com.au)
[5] https://nexaadvisory.com.au/energy-storage-financeability-in-australia/

projects incorporating an energy storage component are only eligible under the generation CISA.

While projects primarily focused on generation with a storage component fit within the generation CISA, those where storage is the primary component do not fall within this category, thus leading to inadequate evaluation in the merit assessment.

Nexa Advisory suggests that if storage is unable to succeed in standard CIS auctions, it should have its own independent scheme. The design of any mechanism aimed at increasing investment in storage should actively involve direct engagement with investors and developers to ensure its effectiveness and intended investment outcomes are achieved.

Recommendation
To ensure that storage projects are investable, a specific tranche for storage should be developed under the CIS.

LTESA design sets a good precedent

The Long-Term Energy Service Agreements (LTESA) approach in NSW has garnered significant interest from investors and developers. After being in operation for a considerable period, it offers valuable insights into contract arrangements conducive to fostering investment[6].

Recommendation
Integrating lessons and insights from the LTSEA approach into further development of the CIS could prove beneficial. On a national scale, the government can replicate the successful design of storage auctions seen in the NSW LTESA.

Transparency of design

The development of the CIS requires transparency with a feedback loop for lessons learned and program improvements. It is crucial to involve stakeholders, such as investors and developers, in this process to ensure that the scheme effectively facilitates the energy transition[7].

Transparency in the design of the CIS is essential to ensure it incentivises renewable energy auctions and provides assurance to energy ministers at the state level as coal closure dates approach.

Recommendation
Continuing the high standard of engagement with the stakeholders expected to deliver the outcomes of the CIS will ensure that scheme achieves its policy goals.

[6] https://nexaadvisory.com.au/energy-storage-financeability-in-australian/
[7] https://nexaadvisory.com.au/energy-storage-financeability-in-australian/

Issues requiring urgent attention

The effectiveness of the CIS hinges on the timely build out of the necessary transmission infrastructure, expediting the approval processes and connections of projects. We outline these challenges and offer actionable recommendations to ensure the success of the CIS.

Slow delivery and importance of transmission

The pace of the clean energy transition is not meeting expectations or desired timelines. While multiple complex factors contribute to this delay[8], the ongoing delay of new transmission projects, particularly transmission interconnectors, poses significant threats to power system security and increases costs for consumers both large and small[9,10].

While the CIS aims to stimulate investment in large-scale renewable energy, it overlooks critical issues such as ensuring adequate dispatchable capacity and transmission infrastructure to link new wind and solar projects to the grid. Transmission constraint issues, rather than just the cost of renewables, have been the primary barrier to investment in new generation[11].

Nexa Advisory acknowledges the Federal Government's efforts to address transmission challenges through the Rewiring the Nation program in partnership with the states[12].

In its current form, the CIS relies on jurisdictions to develop their transmission plans, with projects already able to connect to the grid receiving high scores. However, projects lacking access to transmission are at a significant disadvantage.

Addressing this transmission limitation requires a focus on opening transmission to market players, particularly transmission network service provider (TNSP) companies in Australia, rather than relying solely on regulated monopolies. Nexa Advisory urges the federal and state governments to prioritise building transmission lines to connect all new renewable capacity to the grid, otherwise the CIS risks inadvertently crowding out areas with access to transmission.

Australia's market is relatively small and geographically distant compared to overseas transmission markets, which are of a much more significant scale. Consequently, providers and operators in those markets have more established build experience, access to international supply chains and access to capital. Many of these entities already have a presence in Australia and have engaged in the tender process for the unregulated

[8] https://nexaadvisory.com.au/site/wp-content/uploads/2022/04/Removing-transmission-roadblocks-discussion-paper-080422.pdf
[9] https://nexaadvisory.com.au/site/wp-content/uploads/2022/06/Report-Modelling-Electricity-bill-impact-due-to-transmission-delay_2022-06-07.pdf
[10] https://nexaadvisory.com.au/site/wp-content/uploads/2024/01/Nexa-Advisory-The-Real-cost-of-delaying-VNI-West-Report.pdf
[11] https://assets.cleanenergycouncil.org.au/documents/resources/reports/clean-energy-australia/Clean-Energy-Australia-2024.pdf
[12] https://www.dcceew.gov.au/energy/renewable/rewiring-the-nation

Renewable Energy Zone transmission in NSW.[13] Allowing them entry to the broader NEM transmission market would accelerate the crucial infrastructure build-out and potentially lower the associated costs of expediting the transition to a clean energy system[14].

Recommendation

Adopting an open-market strategy for the build out of transmission is essential to reduce costs and speed up transmission expansion. Recent analysis by Nexa Advisory has shown that expanding the transmission market to include other entities beyond regulated monopolies could potentially save NEM customers approximately $13 billion[15].

Connecting projects to the Grid

The tine required to secure a connection agreement with the Transmission Network Service Providers (TNSPs) and the market operation is an ongoing concern[16,17]. There is a significant capacity of renewable and battery capacity awaiting connection, as this step is critical for ensuring the success of a project. However, without a connection agreement in place, progress towards financial close and construction cannot proceed.

While the competitive process for new connections has facilitated project connections more efficiently, there is still significant room for improvement. Given the critical significance of additional renewable generation, any potential barriers should be resolved as soon as possible to maximise effectiveness.

We support the AER's proposed rule change on Expanding the transmission ring-fencing framework, currently under consultation with the AEMC[18]. There is a potential risk of TNSPs discriminating in favour of themselves or an affiliate when providing connection services due to their monopoly provision of negotiated transmission services. Such bias could hinder competition in the connection market, leading to increased costs and a longer connection times, particularly for utility scale battery projects due to their complexity[19].

Recommendation

Considering the thorough consultation conducted by the Australian Energy Regulator (AER) during the review of the transmission ring-fencing guideline[20], along with the recent additional consultation focussing on this particular issue[21], we support the AER and Australian Energy Market Commission's (AEMC) call for the fast-tracked processed of this

[13] https://nexaadvisory.com.au/site/wp-content/uploads/2023/06/Nexa-Advisory_Transmission-Contestability-in-Australia-Research-Report-June-2023.pdf
[14] https://engage.vic.gov.au/download/document/27045
[15] https://nexaadvisory.com.au/site/wp-content/uploads/2023/06/Nexa-Advisory_Transmission-Contestability-in-Australia-Research-Report-June-2023.pdf
[16] https://nexaadvisory.com.au/eraring-can-be-closed-on-time-to-save-consumers-money/
[17] https://www.afr.com/policy/energy-and-climate/slash-grid-delays-to-get-the-energy-transition-back-on-track-20230818-p5dxox
[18] https://www.aemc.gov.au/rule-changes/expanding-transmission-ring-fencing-framework
[19] https://nexaadvisory.com.au/site/wp-content/uploads/2024/03/Nexa-Advisory-Energy-Storage-Financeability-in-Australian-March-2024.pdf
[20] https://www.aer.gov.au/system/files/AER%20-%20Draft%20Electricity%20Transmission%20ring-fencing%20guideline%20explanatory%20statement%20-%20November%202022.pdf, pages 25-28.
[21] https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/review-of-options-to-address-gaps-in-transmission-ring-fencing-framework/initiation

rule change. This will ensure the equitable and competitive delivery of the many connections required.

Streamline approval processes

Additional policy measures must accompany the expanded CIS to be successful. While the expanded CIS aims to boost investment in renewable energy, it is equally important for state and federal governments to streamline slow, complex, and inefficient planning and assessment processes[22].

Current planning approvals are not-fit-for-purpose to facilitate the necessary scale and pace of the energy transition. This is particularly true for NSW, where the backlog of development approvals for generation, storage and transmission is the worst compared to other Australian jurisdictions, resulting in project timelines being extended by 4-7 years[23]. Planning approvals are currently not fit-for-purpose to enable the scale and speed of the energy transition required.

Recommendation

To ensure that CIS policy outcomes are delivered there must also be a focus on accelerating the planning and environmental approvals processes in each state, otherwise there is a risk that successful CIS projects will not progress from the drawing board to delivery.

Coal-fired power station closure certainty

The ongoing uncertainty regarding the closure of power-fired power stations poses a substantial challenge to investors in new renewable generation and battery projects. While not a novel issue, it remains unresolved and continues to impact investment decisions. Certainty on the closure dates of the coal-fired power stations necessitates a balanced approach, combining both incentives and regulatory measures, to ensure a smooth and effective transition[24]. This is critical to ensuring certainty for investors and will provide the signals to enable investment in appropriate market solutions.

Recommendation

A ministerial declaration on coal-fired power station closure dates would offer certainty to the owners, operators, AEMO and developers of new generation and storage projects[25]. This should be coupled with a closure framework that ensures transparency and coherence in managing thermal generator retirements, incorporating safeguards to avoid deterring new investments and shield consumers from unnecessary costs. An orderly exit management framework should prioritise evaluating clean technologies' ability to address reliability, prevent exploitation by thermal generators and mandate annual AEMO assessments to offer alternative capacity solutions before extending thermal generator lifespans.

[22] https://ceig.org.au/wp-content/uploads/2022/07/HSF-CEIG-Report-Delivering-major-clean-energy-projects-in-NSW-14-December-202380.pdf
[23] https://ceig.org.au/wp-content/uploads/2022/07/HSF-CEIG-Report-Delivering-major-clean-energy-projects-in-NSW-14-December-202380.pdf
[24] https://nexaadvisory.com.au/site/wp-content/uploads/2024/03/Nexa-Advisory-Energy-Storage-Financeability-in-Australian-March-2024.pdf
[25] https://nexaadvisory.com.au/site/wp-content/uploads/2024/03/Nexa-Advisory-Energy-Storage-Financeability-in-Australian-March-2024.pdf

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Concluding remarks

Nexa Advisory would like to thank the minister and the DCCEEW for their significant genuine engagement with the industry, key stakeholders, and investors that has resulted in an expanded CIS which will provide confidence and accelerate the energy transition to get back on track.

Nexa Advisory encourages continuous engagement between the DCCEW and investors and developers to ensure that the expanded CIS effectively achieves its intended outcomes.

Nexa Advisory also underscores the importance of community engagement, not only with landowners but also with the communities hosting this critical infrastructure. We recommend direct engagement with affected communities, offering tangible benefits and targeted initiatives to involve them in the energy transition journey, adding concerns such as energy poverty and fostering economic growth.

Our submission has offered several potential design improvements and highlighted critical concerns that require attention. By implementing our recommendations and fostering collaborative engagement between stakeholders, the expanded CIS can secure its impact in accelerating the transition to a clean energy future.

Please contact me if you would like to discuss our submission in more detail.

Yours Sincerely,

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About Nexa Advisory

Nexa Advisory is a full-service advisory firm. We work with public and private clients including renewable energy developers, investors and climate impact philanthropists to help accelerate efforts towards a clean energy transition. We've been shaping the energy industry for over 20 years. With a proven track record across policy creation, advocacy, political risk assessment and project delivery, we're holistic in our approach and deliver solutions with commercial intent.

The Nexa Advisory team is a collaboration of passionate energy specialists, all committed to the successful transformation of Australia's energy markets. The team is focused on helping clients grasp the unpredicted opportunities the energy transformation will bring. The decentralisation of energy promises, for the first time, to enable a truly democratised ecosystem with people and communities at the centre. We believe in an energy industry where people are at the centre of every recommendation we make. This belief guides our approach to the challenges we solve, and the outcomes we create.