



25 March 2024

To: Australian Government Department of Climate Change, Energy, the Environment and Water (DCCEEW)

RE: Expanded Capacity Investment Scheme (CIS) – Design Paper

Thank you for the opportunity for the Institute for Energy Economics and Financial Analysis (IEEFA) to provide input to the Expanded Capacity Investment Scheme (CIS) – Design Paper.¹ IEEFA is an energy finance think tank that examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy.

IEEFA believes the expansion of the CIS to a total of 32GW of clean dispatchable and renewable capacity, comprising 23GW of renewable capacity and 9GW of clean dispatchable capacity, will help catalyse private finance and accelerate the energy transition in Australia.

Cadence of tender schedule and products

We welcome feedback on the proposed scheduling approach, including views on alternative options:

• *Would your organisation benefit more from a 6-monthly cycle of simultaneous tenders for both generation and clean dispatchable products, or would an alternating 12-monthly cycle (consisting of one tender every six months, alternating between generation and clean dispatchable products) for each be more desirable?*

More renewables are required to reach 82%

The CIS will underwrite 23GW of renewables. However more than 23GW of renewables are required to reach 82% renewables by 2030. IEEFA and ITP Renewables modelling showed about 36GW of large-scale wind and solar would be needed to achieve that target.² Therefore there is a gap of about 13GW. DCCEEW should consider whether further support is required to overcome the shortfall in variable renewable generation needed to meet the 82% target, and how to provide that support. This consideration should give regard to the fact that projects without CIS support will likely be at a significant disadvantage to projects with CIS support.

NSW should be kept separate until double-counting issue is resolved

NSW has committed to install 12GW of large-scale variable renewable energy (VRE) to 2030.³ Ideally, this would be additional to the commitments by the federal government, to help support (almost) the full amount of new large-scale renewables required to reach 82%. However, it appears there is limited clarity around whether the NSW roadmap 12GW is additional to the CIS 23GW. The CIS consultation paper reads:

“For projects in NSW, the department’s intention is that CISA products and tenders will be designed to meet the requirements of Long-Term Energy Service Agreements and associated tenders under the Electricity Infrastructure Investment Act 2020 (NSW). This would enable generation project proponents to engage in a single tender for the CIS and the NSW Electricity Infrastructure Roadmap, including those projects seeking access rights in NSW Renewable Energy Zones. Alternatively, if this cannot be agreed in time, to avoid duplication, the first national auction could be conducted in all states except NSW.”⁴

IEEFA recommends that the NSW roadmap 12GW be additional to the federal government's 23GW, to support the effort to reach 82% renewables. NSW should potentially be excluded from the first auction

¹ Australian Government Department of Climate Change, Energy and Water. [Expanded Capacity Investment Scheme – Design Paper](#). 29 February 2023.

² IEEFA. [The approaching surge of renewables and storage leaves no space for Eraring](#). 14 December 2023.

³ NSW Government. [Electricity Infrastructure Roadmap](#). Accessed 20 March 2024.

⁴ Australian Government. Department of Climate Change, Energy and Water (DCCEEW). [Implementation Design Paper Capacity Investment Scheme](#). 29 February 2023.



until such time the NSW VRE capacity build is confirmed as additional. Once that and the interaction between the CIS and the NSW LTESAS are clarified, there appears to be a benefit in including NSW in the CIS scheme. This would enable more states to compete against one another for the federal government underwriting, motivating the states to take fast action.

The CIS could be better aligned to coal exit dates

The CIS will support the entrance of new VRE capacity, however it is unclear how and when these new projects will support the exit of coal-fired power stations across the NEM. The CIS could provide more clarity around how the targeted amounts of new VRE (and dispatchable capacity) are scheduled to enable the closure of coal power stations.

Coal exit uncertainty is a risk to the mechanism

The underwriting mechanism will encourage investment in new VRE projects. However, investors still face a significant risk in the form of coal exit timing uncertainty. Some coal-fired power plants have brought forward their dates; others have extended theirs. This creates a challenging environment for investors as they need to make informed price and quantity forecasts when deciding whether to invest in a project. Shifting coal power station exit dates make revenue forecasts very uncertain.

The Orderly Exit Management Framework (OEMF) put forward by the NSW Government⁵ does not appear to provide the necessary certainty around exit dates and could disincentivise investment in new renewable energy generation and storage projects, as outlined in IEEFA's submission on the topic.⁶ The OEMF does not set a long-term enforceable coal closure schedule that provides certainty to the market.⁷

If the coal exit uncertainty risk is priced into the projects bid (which is the likely case), underwriting them could cost the government more than expected. Ideally, coal exit dates were firmed up with an agreed to schedule that provides certainty to the market. IEEFA has outlined various options that could help provide more certainty such as financial bond mechanisms.⁸ This would help reduce the cost of the CIS.

First auction may not deliver the desired capacity

The first auction aims to reach 6GW, however there is a risk there won't be enough projects sufficiently advanced through the planning approval and grid connection application process to make the auction competitive (while excluding projects for which there is high uncertainty around their feasibility). Wind farms in particular have been facing delays in the development process. There is greater risk of not having enough projects to make a competitive first auction if DCCEEW chooses not to include NSW in the first auction. The government should be prepared for the instance that they do not have 6GW of desirable projects. There may be an economic benefit to not contracting for the full 6GW, but just contracting for the amount of capacity that DCCEEW sees as economically rational given the auction outcomes. If the government wants 6GW in the first auction but the value for money is not there – it should consider contracting less than 6GW.

Standing offer should be implemented after the first auction

Given:

- the difficulties and time frames involved in evaluating projects' feasibility potentially in advance of them receiving planning approvals and grid connection agreements; and

⁵ NSW Government. Office of Energy and Climate Change. [Orderly Exit Management Framework Consultation Paper](#). December 2023.

⁶ IEEFA. [Submission to Orderly Exit Management Framework Consultation](#). 2 February 2024.

⁷ Ibid.

⁸ IEEFA. [There's a Better Way To Manage Coal Closures Than Paying To Delay Them](#). September 2021.



- The rapid pace of construction commitments required to achieve 82% renewables;

the government should provide an alternative path, outside of the tender process, for project proponents to access underwriting contracts. After the first auction, once DCCEEW has gained some understanding of the bid prices of participants, it could provide a standing offer at a declared floor and ceiling price for each state which it considers to represent good value to taxpayers. This standing offer underwriting agreement would be available to any renewable energy project (other than those contracted under the tender) which managed to reach construction commitment within 18 months of the first tender round closing. At the point the project had met all necessary conditions to be considered a committed project (e.g. financing, EPC contract, grid connection agreement, government approvals, land-holder agreement), the proponent could opt into the standing offer contract with the government. This alternative underwriting option gets around the fact that an ex-ante evaluation of projects' feasibility required under a tender is subject to considerable uncertainty and also inevitably takes several months to do thoroughly. To achieve the governments targets it needs as broad a pool of projects as possible and it needs projects to proceed to construction as quickly as possible. A standing offer option provides greater scope for pleasant surprises where a lesser known or less well-established proponent may nonetheless succeed in finding a way to successfully close a project when it has the benefit of certainty over the price on offer for its generation.

This could be especially beneficial to smaller developers and smaller projects that are not able to commit the resources needed to participate in the CIS auctions. Even very small projects could be included – for example 5MW and above (perhaps with the condition they participate in AEMO dispatch processes).

The standing offer could be revised on a rolling basis every 6 months to reflect the updated investment landscape such that proponents always had at least 12 months of price clarity.

In terms of how the floor and cap ceiling would be set the government faces inevitable trade-offs between contracting capacity at the lowest cost possible, versus maximising the volume and speed of new project commitments. If it prioritised lowest cost above all else then the standing offer could be set at or just below the lowest winning bidder of the first auction. If it wanted to encourage as much capacity as possible to come through as quickly as possible then it might instead aim to set the price at a level above the lowest price bidder but one that an economic evaluation still considered as good value to the taxpayer.

Oversubscription and 'expiring offers'

Given the limited time available to achieve capacity targets, DCCEEW could consider implementing expiring offers which reward the proponents who can commit their projects to construction as quickly as possible. This could involve a tender round seeking say 4000MW of capacity but providing conditional offers to 6000MW of capacity, with only the first 4000MW of projects committed to construction having their offers converted to a binding contract and the remaining 2000MW missing out. It may also be worthwhile overlaying an additional time constraint on all offers to meet commitment within say 18 months of receiving an offer which would expire irrespective of whether the capacity target was met. This would help to avoid a situation where excessively optimistic bidders with poor prospects of ever commencing construction drive out the more capable and more realistic bidders. At the same time, it helps to drive a sense of urgency amongst project proponents but also probably state authorities important to the progress of projects because their respective governments will readily see the lost investment if their approval processes are too slow.



DER should be considered

IEEFA has previously recommended “to allow aggregated storage (and, where possible, flexible demand) to participate in the Capacity Investment Scheme”.⁹ IEEFA notes that the CIS document states: “Virtual power plants, demand response, and other virtual aggregation and flexible load technologies will not be eligible for the upcoming April/May generation CIS tender. However, the intention is to include these technologies in future clean dispatchable tenders.”¹⁰ IEEFA recommends further work be undertaken in this regard, to ensure DER technologies are able to participate where it makes sense. This would help accelerate DER uptake and support Australia’s 82% renewables goal.

Generation support mechanism (Generation CISA)

We welcome feedback on the proposed generation support mechanism on the following:

- *Would the proposed Eligible Wholesale Contract requirements present a significant barrier to your organisation participating in the wholesale contracts market with a generation project with a CISA?*
- *Would the proposed negative price provisions present a significant barrier to any renewable capacity business model considered by your organisation? Could these provisions have any negative impact on project NEM bidding behaviour?*

Revenue sharing impact on equity investors

The sharing of revenue with the government above the ceiling may be a disincentive for equity investors. Debt investors are protected from the downside risk but equity investors will be at some disadvantage due to lower access to the upside potential. Care needs to be taken that the government does not encourage excessive debt gearing if it chooses to take a large proportion of the gains above the price ceiling and favours bids with low price ceilings.

Special Purpose Vehicle requirement

We welcome feedback on the proposed Special Purpose Vehicle requirement on the following:

- *Would the proposed Special Purpose Vehicle requirement present a major barrier to your organisation’s business model for renewable capacity and clean dispatchable capacity projects?*

Establishing an SPV for the CIS projects appears to be a sensible approach. IEEFA notes that market participants would have more detailed comments on this requirement.

Alternative options to preserve incentives for generators to participate in wholesale contracts markets

We welcome feedback on the alternative options to preserve incentives to participate in wholesale contracts markets, including:

- *Whether an option structure would be of value for the generation CISA*
- *Views on the inclusion of Eligible Wholesale Contract revenue into the net revenue calculation vis-à-vis the volumetric exclusion of Eligible Wholesale Contract revenue*
- *Views on the potential requirement for the Project Operator to physically deliver any Green Products to the Australian Government*

Selling LGCs to the federal government could reduce projects’ ability to sign a PPA

The “potential requirement for the Project Operator to physically deliver any Green Products to the Australian Government” under an alternative CISA structure could reduce the ability for projects to sign purchase price agreements (PPAs). Many PPA offtakers will want to buy bundled electricity and green products to meet their climate commitments, and if the LGCs are not available for purchase, it would reduce their likelihood of signing PPAs.

⁹ IEEFA. [Growing the Sharing Energy Economy](#). October 2023.

¹⁰ Australian Government. DCCEEW. [Implementation Design Paper Capacity Investment Scheme](#). February 2023.



Merit and eligibility criteria

We welcome feedback on the proposed eligibility and merit criteria.

Planning approval and social licence

For the initial tender the government unfortunately confronts a situation where there are few wind projects in particular with planning and environmental approvals in place. This consequently requires the government to replicate some of the planning and environmental approval processes in evaluating projects' degree of "social licence". However, hopefully this situation will improve over time as regulatory authorities increasingly recognise the need to speed up the approvals process. We would suggest that as the pool of projects with approvals in place reach a scale sufficient to support competitive tenders, screening and selection criteria relating to social licence be phased out. Instead they would be replaced by a simple, unambiguous condition that for project to be considered it has to have the necessary government approvals in place. This avoids the need to apply what are often highly subjective criteria which should support greater certainty and confidence in the selection process for both project bidders and other stakeholders.

If the requirement for the project to have the necessary planning approvals in place is *not* imposed, it creates significant risk that projects are awarded underwriting agreements, but they don't manage to reach completion. The CIS support could go to "ghost" projects, rather than the few projects that are very likely to proceed. While these "ghost" projects would never end up getting financial support as the floor payments are based on the MWh generated, they could prevent other stronger project candidates (that may bid at higher prices) from receiving the support to help them reach financial close. The federal government should consider including planning approval as eligibility criteria for subsequent auctions beyond the first auction.

Grid connection agreements

Similar to the comments above, ideally the CIS selection process should aim to avoid second guessing grid connection processes. While in the short term it is probably unavoidable that the government needs to evaluate projects' access to sufficient transmission capacity, in the longer term it would be better if the selection process could simply require a project to have a grid connection agreement in place before it could proceed to the bidding process.

Participation of hybrid projects

We welcome feedback on the approach to the inclusion of hybrid projects:

- *Would the proposed approach enable the better participation of hybrid projects in CIS tenders?*
- *Would your organisation consider bidding for separate clean dispatchable capacity and generation CISA for the components of a hybrid? Would the proposed schedule that includes simultaneous clean dispatchable capacity and generation tenders (detailed in section 1.1.3) support this option?*

Hybrid projects could be a strong enabler to help Australia reach 82% renewables by 2030. In particular, utility-scale solar projects may be less likely than wind projects to win a bid on their own, due to the financial characteristics of utility-scale solar in a NEM with increasing levels of rooftop PV. Pairing utility-scale solar with storage can deliver significant grid services, and could be easier and faster to drive into the system than wind, given the planning approval delays, particularly in NSW. IEEFA encourages DCCEEW to consider how the CIS could support solar-plus-battery projects, and the potential benefits they could deliver to the system, given the urgency of emissions reduction task and the need to quickly scale up to reach 82% renewables.

Kind regards,

Johanna Bowyer, Lead Analyst – Australian Electricity, IEEFA

Tristan Edis, IEEFA Guest Contributor

Saurabh Trivedi, IEEFA Energy Finance Analyst