

25 March 2024

Office of the Capacity Investment Scheme
Commonwealth Government
Via email: CapacityInvestmentScheme@dcceew.gov.au

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

Dear Madam/Sir,

Squadron Energy welcomes the opportunity to respond to the CIS Implementation Design Paper.

Squadron Energy is Australia's leading renewable energy company that develops, operates and owns renewable energy assets in Australia. We have 1.1 gigawatts (GW) of renewable energy in operation and an Australian development pipeline of 20GW. Our development pipeline has projects at differing stages of development and includes wind, solar and firming capacity such as batteries and gas peaking plants with dual fuel capability. With proven experience and expertise across the project lifecycle, we work with local communities and our customers to lead the transition to Australia's clean energy future.

We are generally supportive of the Commonwealth's proposed products and indicative commercial terms in the CIS Agreements (CISA), both for the Generation CISA and Clean Dispatchable CISA. However, regarding the Generation CISA we considered several principles that should inform the design of the product and we have set out our views on how these may influence the CISA design to ensure it effectively meets the objective of the CIS¹. In summary the principles are:

- Principle 1: The Generation CISA price structure needs to meaningfully support investability and bankability to accelerate project uptake.
- Principle 2: The Generation CISA product should support revenue in negative pricing periods for renewables.
- Principle 3: The scheme should provide clarity on what constitutes an acceptable arm's length third-party contract.
- Principle 4: Timing of the Generation CISA tender and contract award should align with existing sequencing of jurisdictional REZ access right tenders.
- Principle 5: The approach to assessing hybrid projects should not unnecessarily limit separation of assets.

These are discussed in the remainder of this paper. [REDACTED]

¹ The consultation paper defines the objective of the CIS as: (i) Delivering an additional 32 GW of new capacity by 2030; (ii) Supporting electricity generation growth and reliability in Australia's rapidly changing electricity markets as ageing thermal power stations exit; (iii) Supporting the delivery of the Australian Government's 82% renewable electricity by 2030 target.

Principle 1: The Generation CISA price structure needs to meaningfully support investability and bankability to accelerate project uptake

Average revenue vs aggregate revenue support

Overall we are supportive of the proposed payment mechanism for the floor and ceiling under the Generation CIS, noting that bid variables are to be based on a net revenue per MWh (\$/MWh) of generation. This approach, in contrast to the initial proposal of a revenue guarantee at a set dollar (\$) value, will limit some of the risks being underwritten by the Commonwealth. Generation risk, apart from day-to-day variability, is largely controllable by a project's proponents by virtue of their selection of their location with respect to grid connection and wind or solar resources, and their plant selection and configuration. The Commonwealth should not be underwriting these risks of the projects. Retaining, projects' exposure to these generation risks will help to avoid a 'race to the bottom' where poor projects are able to flood the market by virtue of Commonwealth support, impacting on network congestion (e.g. through physical curtailment). Limiting exposure to generation risks will support the integrity of existing market signals and structures while limiting the potential for perverse outcomes. The exception to the benefits of basing the support on average revenue relate to economic constraints as a result of negative prices. This issue is addressed in Principle 2 below.

Investors

In the context of the CIS objective to accelerate projects to reach financial close, the approach to price setting is critical to ensure investors value the proposed support appropriately. Typically, suitable investment outcomes will be achieved when project revenues are at a level that reflects the levelised cost of energy (LCOE)² (this is somewhat circuitous as the LCOE incorporates a capital charge which includes a cost of equity).

LCOE is in part a function of the cost of equity. To attract the lowest equity costs, which is consistent with achieving lowest tariffs, investors will need to have confidence in the stability of the long-term revenue of a project. The CISA will offer a floor to revenue expectations. Squadron believes that for investors this floor level should reflect equity returns lower than base case expectations (i.e. incentivising behaviour to contract with third parties) but at a level where projects remain solvent. Such pricing implies floor prices slightly lower than the LCOE of the project.³ It is necessary that this is considered carefully in the implementation of CIS tenders. A tendering process that aims on setting revenue well below LCOE, presents risks to the deliverability of projects as bids may be at unrealistically low levels (in cases where a project has already achieved financial close) and/or where other revenue streams do not materialise.⁴

Bankability

A key objective of the CIS is to support the financing of renewable generation projects. CISAs will do so by providing price support which may be required in the absence of those projects having sold revenue contracts, such as power purchase agreements (PPAs), at the time of financial close. The expectation behind the policy approach would be that over time the projects will contract with third parties and so rely

² LCOE is a widely used measure in the electricity industry to determine a single, comparable, cost for a unit of electricity (ie \$/MWh) between different generation options which takes into account capital costs, fuel costs (if any) and operating costs.

³ Enabling a project to meet its LCOE has not been the focus of other govt. support schemes, which limits their utility.

⁴ Risk associated with a successful tenderer not proceeding due to an environment of escalating costs have recently played out in the UK context.

less on the CISA. Prospective lenders will assess a project's cashflows when determining how much they would be willing to lend to finance a project. Typically, lenders will make this assessment based upon the certainty of the revenue flows. For renewables projects this will be a function of the variability in the volume of production (e.g. wind resource) and price.

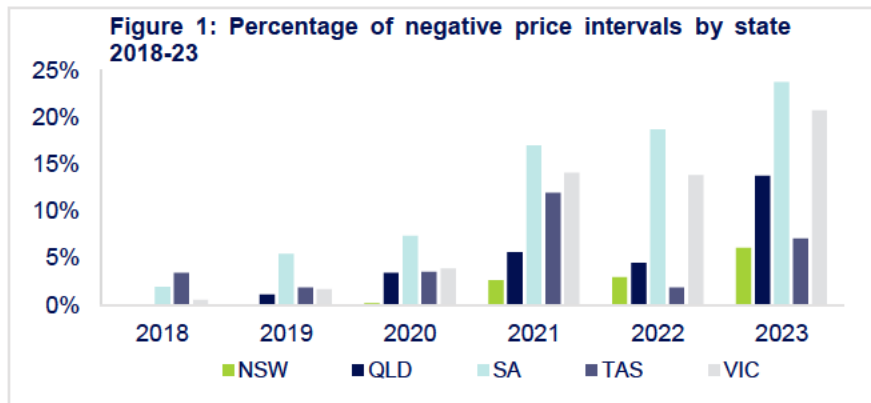
Squadron believes, based upon its discussions with lenders but more importantly, its experience in financing renewable generation assets, that lenders will assess projects holding CISAs by considering the projects' revenue that will be obtained based upon the floor price of the CISA as being "contracted" revenue. Lender will apply the credit metrics lenders usually apply to contracted revenues in determining the debt that they would be willing to lend. [REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]

Reasonable price setting is important for Generation CISA products to support new developments. The principal conclusion Squadron has taken from the modelling exercise is that if the CIS is going to be asked to facilitate new capacity investment for projects which do not yet have PPAs, by providing comfort to lenders and investors, the level of the floor price will need to be at a level which is not at a material discount to the corresponding LCOE level, say in the order of 10-20%. If the discount of CISA price to LCOE is much larger than this then is questionable if those projects will be able to be economically financed on the back of the CISA alone.

Principle 2: The Generation CISA product should support revenue in negative pricing periods for renewables

The number of periods when spot electricity prices are expected to be below zero (i.e. "negative pricing") can be expected to increase in future as more variable renewable energy (VRE) is brought online. This is because, absent battery or other storage usage, as circa 2.5 times the level of VRE capacity is required to replace each MW of displaced fossil fuel capacity, there will be many times when available VRE capacity exceeds demand. Figure 1 reflects the increasing incidences of negative price events in recent years, a trend that will be amplified as more renewables are brought on via the CIS.



We consider that it is essential for negative pricing risk to be managed under the Generation CISA for two key reasons:

First, as bringing on new VRE capacity can give rise to negative prices, which in turn inhibit new capacity, any new policy which seeks to encourage new capacity needs to deal with this impediment. If not managed it will mean that it is harder to retire coal generation because insufficient renewable generation has been built.

Secondly, explicitly managing negative price event via the Generation CISA may limit government liability under the scheme by removing an element of risk pricing. The current proposed treatment of negative pricing under the Generation CISA, which is to exclude and payments for generation in the event of negative pricing, makes sense in that it will retain the appropriate signals to VRE generators to stop operating during these periods. However, by now being based upon average net revenue (i.e. \$/MWh) rather than aggregate net revenue (i.e. set \$ value per annum), the proposed Generation CISA introduces a risk element in that prospective holders of Generation CISAs will need to anticipate how much economic curtailment (i.e. negative price periods) they are likely to face. Generators will then increase their required floor and ceiling prices by an equivalent amount. For example, if a prospective generator believed that they needed a Generation CISA floor price of X\$/MWh with no economic curtailment and expected that say 20% of periods would have negative prices, then they should logically gross up the Generation CISA floor price they needed by 20%, i.e. they would seek $X \div 0.8$ \$/MWh. While this would be a simple to do, the risk is that the forecast curtailment would change over time, and the forecast would be wrong, giving an incentive to the prospective Generation CISA candidate to price in a conservative risk buffer.

One simple way that Squadron believes that negative pricing could be addressed under the Generation CISA is by including a value for generation lost due to negative prices in the quarterly calculation of net revenue settlements. We believe that these amounts can be determined from the AEMO's unconstrained generation forecasts which are undertaken continuously and take into account actual wind conditions and plant availability. This amendment would mean that generators would not need to gross up their CISA prices and there would be no incentive to prospective Generation CISA holders to include a premium for the risk of mis-forecasting the number of negative price periods. The structure would retain generators' signals to stop generating when market prices are negative.

Overall, we consider that managing negative pricing risks via the Generation CISA will better support achieving the design principles to maintain momentum and stimulate investment by providing greater

revenue certainty for investors while limiting the Commonwealth's liability under the CIS. Such an approach would also go some way to addressing distortions in the exiting market design at a critical time of the transition.

Principle 3: Clarity on what constitutes an acceptable arm's length third-party contract is needed for investment certainty and to support innovation

That projects remain able to participate in wholesale contract markets on an arm's length basis is a key feature of the Generation CISA and is welcomed. This approach preserves incentives to engage in the wholesale contract market, avoiding the crowding out of existing corporate and industrial demand for PPAs by existing alongside market contracts. The requirement for a Special Purpose Vehicle (SPV) to be the counterparty and receive all financial value is a suitable approach. However, the current definition of an 'eligible wholesale contract' is not sufficient here. Squadron believes clarity is required on what constitutes acceptable arm's length contract terms, especially when contracting with related parties. While we would expect that the Commonwealth mandates that these contracts could not be on terms less favourable than the CISA floor without the explicit consent of the party managing the scheme on behalf of the Commonwealth, it would also be helpful for there to be a pathway for generators to test whether a contract is eligible prior to entering into it.

In cases where contracts are considered by the Commonwealth to be in-eligible for exclusion in the CISA, generators should have the option to elect whether the capacity related to supplying that excluded contract, and its associated volume of generation and therefore market revenue, is to be excluded from the net revenue calculation. This may be required to enable the generator to service difference payments to the counterparties of the ineligible contracts.

Principle 4: Timing of the Generation CISA tender and contract award should align with existing sequencing of jurisdictional REZ access right tenders

The consultation paper stated that for projects in NSW the intention is that CISA products and tenders will be designed to meet the requirements of the existing Long-Term Energy Service Agreements (LTESA), meaning proponents could engage in a single tender for CISA and various NSW REZ access right tenders. It also noted that if arrangements can not be agreed in time, NSW will not participate in initial CISA auction.

The CWO REZ illustrates the potential value that the CISAs can offer to generators. The REZ involves a complex interaction and interdependency of a number of generation projects and the transmission buildout, and also demonstrates the long time from financial commitments (Final Investment Decision (FID) / financial close) of generators where significant transmission build is required before they can connect. This could mean lead times in excess of four years from FID to the time generation is available to sell under contract. CISAs may help generator participants in the light of these long lead times. Accordingly, for developers participating in the Central-West Orana (CWO) access right process the timely confirmation of the CISA tendering process in NSW will be critical to support equity investors to commit material funding and financial bonding potentially before customer PPAs can be achieved.

Principle 5: The approach to assessing hybrid projects should not unnecessarily limit separation of assets

Hybrid projects are proposed to be defined as co-located generation and energy storage assets where both assets share a common connection point. For staged projects (i.e. the addition of an energy storage asset may be sequenced to follow the commercial operation of a generation asset) that utilise a shared connection point, the proposed treatment of hybrids may inadvertently disincentivise co-location. We

consider that an alternative approach that allows for co-located assets to remain separate entities under the CISA if their proponents wish to, provided they have separate SPVs and separated revenue grade metering. The practical effect of ringfencing assets in this way is to provide a transparent structure for managing finances, while effectively segregating the risks and liabilities associated with co-located projects. Such an approach retains the incentive and flexibility to support the development of innovation in the way that hybrid configurations can work.

We look forward to the opportunity to continue to engage in work to support the rapid uptake of renewable generation. If you would like to discuss this submission or any related content, please contact Rupert Doney, Director - Policy at rdoney@squadronenergy.com

Yours sincerely,



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For and behalf of Squadron Renewables Pty Ltd (ACN 127 205 645)