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EnergyAustralia
LIGHT THE WAY

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Capacity Investment Scheme — Implementation Design Paper — 1 March 2024

EnergyAustralia is one of Australia's largest energy companies with around 2.4 million electricity and gas accounts across eastern Australia. We also own, operate and contract a diversified energy generation portfolio across Australia, including coal, gas, battery storage, demand response, wind and solar assets, with control of over 5,000MW of generation capacity.

We appreciate the opportunity to comment on the Department's expansion of the Capacity Investment Scheme (CIS). The CIS is an important mechanism that will enable significant investment in renewable generation and dispatchable capacity, in line with 2030 policy targets. The CIS target of 32GW compares to around 65GW currently operating in the National Electricity Market (NEM). Roughly half of the CIS target would be subject to tenders in 2024, with the next tender to commence in April or May.

The scale and pace of investment under the CIS means that it will be critical to ensure CIS Agreements (CISA) are appropriately designed. CISAs are expected to have a term of up to 15 years and will thus have a material impact on how the NEM evolves into the long term. The timing, location and mix of technologies supported under the CIS will also have a lasting impact on price and reliability of electricity supply.

The Department has acknowledged concerns that the CIS could adversely affect contract market liquidity and bidding behaviour in the NEM. The collar design allows developers, subject to competitive pressure, to choose how much risk they take on, and how much is transferred to taxpayers. This risk allocation will dull incentives to operate in ways that otherwise support efficiency in the market. The Department proposes two modifications to the collar design, for generation projects only. Alternatives need to be considered for dispatchable technologies as they will play a key role in underwriting contracts in a future NEM. If the Department is unwilling to design CISAs that limit developers' risk exposure, for example by prescribing certain bid variables, bidders should be encouraged take on more risk via explicit merit criteria.

These are complex matters to resolve and with high consequences. The Department is under pressure from ministers to ensure the CIS delivers on 2030 renewable and emission reduction targets. However it must allow adequate time to digest feedback to this round of consultation and to further test alternative contract incentives. There is a risk that governments and developers will enter into CIS auctions without a full or

shared understanding of their relative financial exposures. The current VIC/SA CIS tender was intended to be a 'pilot' round to elicit potentially innovative bids, however it appears that tenders for large volumes of capacity will commence without having seen or assessed bids from this pilot round. Nevertheless, the Department should still invite non-conforming bids in the VIC/SA tender as this can inform future contract design.

The Department should also not pursue CIS GW targets at the expense of delivering emissions reduction and reliability at least cost to consumers and taxpayers. The design paper discusses tenders for 'clean dispatchable' technologies however it is clear the government is solely interested in battery storage given its shorter expected lead times. Energy systems with high volumes of variable renewables will be critically dependent on long duration technologies such as pumped hydro to ensure reliability. These complimentary technologies will not progress without durable policy support. This support needs to be set out now if projects with longer lead times are to be delivered by 2030 and beyond. The design paper also proposes to initially exclude virtual power plants (VPPs) and other demand side technologies. The lower cost and community benefits of VPPs suggests they should be included within the scope of the CIS, and doing so in a timely manner will ensure they can contribute to emissions reduction, reliability and least cost policy objectives.

All governments are involved in setting various policies to support the CIS and the broader energy transition. Critical policy enablers should be transparently defined and ideally resolved as CIS tenders progress, which should reduce developers' perception of risk and ultimately lower taxpayer burden:

- the scope of concurrent 'Post 2030' reforms, which will take affect during the life of CIS agreements. Ministers expect reforms to be decided by end 2025, however there is a risk that this becomes a 'catch all' of issues (including those not resolved in CIS incentive designs) or is otherwise politicised and delayed

- how state GW allocations and timings relate (if at all) to new transmission investment and release of hosting capacity

- setting of access frameworks for renewable energy zones as well as prolonged deliberations around the NEM's open access regime

- changes to jurisdictional planning frameworks to address social licence barriers. Renewable Energy Transformation Agreements (RETAs) will involve state commitments on these matters however any actions taken must be genuine, rather than under compressed timeframes in order to unlock CIS funding

- RETAs are also expected to set out jurisdictional reliability safeguards. How this affects the entry and exit of dispatchable capacity will need to be clearly set out.

Our responses to issues raised in the design paper are attached.

If you would like to discuss any of the above, please contact me on 03 9060 0612 or Lawrence.irlam@energyaustralia.com.au.

Regards

Lawrence Irlam
Regulatory Affairs Lead

Cadence of tender schedule and products

6 monthly cycles should be feasible provided information lodged with project bids can 'roll over' into subsequent tenders.

One of the Department's design principles is that CIS products will be adaptable to changing market conditions as the scheme progresses. The Department should consider whether it will have materially resolved detailed design issues and be in a position to tender for 13GW of renewables and dispatchable technologies this year. We consider it prudent to commence tender rounds of this scale after the Commonwealth has seen and assessed financial bids from its pilot tenders. Financial bids for the current VIC/SA tender are due in May. These will reflect bids from storage technologies, meaning that the Q2 tender would in effect be a 'pilot' but for 6GW of generation, or more than a quarter of the CIS total.

Proponents and other market participants need clarity on the likely volumes of CIS tender targets in terms of commissioning dates and jurisdictional capacity allocations. Capacity targets and allocations for the 9GW of 'clean dispatchable' technology should also specify whether this value reflects different storage durations. Any contingencies in tender volumes or schedules to align with critical infrastructure dates, namely transmission and assumed exits of thermal generators, should also be outlined. The Department has indicated that RETAs will soon be finalised which should enable it to divulge CIS GW allocations that are contingent on commonwealth funding agreements. Subject to RETAs, our understanding is that the relative mix of renewable generation and storage capacity will be set to ensure reliability is maintained within NER prescribed parameters in each region, such that there are no 'gaps' that require additional investment, for example under NSW 'firming' tender rounds or potential life extensions under the Orderly Exit Mechanism framework for thermal generators. If this is not the case, governments should make this transparent and set out means by which any gaps from a reliability or system security perspective will be resolved.

Risks to contract market liquidity and incentives for market participation

The Department's favoured collar design will not, of itself, ensure sufficient contract market liquidity.

Incentives to seek revenues outside the CISA (which also affect bidding behaviours) reflect the degree of risk exposure that is permitted within allowed bid variables and also how values are set for each parameter.

An example contract structure involving a very high degree of risk exposure and contracting incentives would be the payment of a fixed annuity or grant that is entirely independent of the project's operation. The developer would be able to retain the full benefits of additional revenue sources, as well as reductions in project capital and operational costs. Conversely, where market conditions deteriorate or costs increase, the developer is exposed to this in full, without any adjustments to compensation under the CISA. The drive for revenue maximisation and cost minimisation would ensure that contract and bidding behaviour align with desirable market outcomes (i.e. be unaffected by the presence of the CISA).

The degree of risk allocation is, however, being explicitly targeted by the government as means to subsidise investment. Any risk sharing will dull contracting and bidding incentives to some degree.

The proposed CISA now features annual payment caps which would limit subsidies to developers in the case of unfavourable market conditions, as well as the amounts of 'clawbacks' when market conditions are favourable. This limits the extent of risk transfer and bears a closer resemblance to 'firming' Long Term Energy Service Agreements in NSW, where bidders submit an explicit annuity cap, and clawbacks do not exceed the aggregate of prior support payments.

While this is an overall improvement, it still allows developers to seek a high degree of risk transfer. The preservation of existing markets is an explicit objective in implementing the CIS and should be reflected in merit criteria assessments. Specifically, tender guidelines should clarify that certain bid parameters will be of more value to the Commonwealth. Our suggestion is to assign higher weightings in applying financial merit criteria such that proponents are rewarded for:

- bidding a low annual payment cap on the downside, thus the need to seek market revenues to be sustainable
- presenting bids that already feature the forward-selling of output and hence have more certain income streams
- seeking shorter contract terms for the CIS relative to project life.

We expect CISAs to set various performance and oversight requirements, for example:

- minimum annual availability
- oversight of bidding strategies
- oversight of maintenance and outage regimes
- a general "reasonable endeavours" requirement to act in ways that minimise payments made by the Commonwealth.

The Department should clarify whether these provisions will be enforced during the life of the CISA to ensure providers are sufficiently selling into contract markets or bidding in accordance with market incentives.

The Commonwealth has not yet responded to the ACCC's recommendations that projects funded by CIS-type contracts provide priority access to hedge contracts to standalone and new entrant retailers.[1] The recent review of the Retailer Reliability Obligation raised various issues around the current Market Liquidity Obligation, including its potential replacement with voluntary market-making arrangements, which could assist in addressing liquidity issues arising in the NEM.[2] Obligations or voluntary arrangements such as this seem likely to arise during the life of CIS agreements and should be considered by the Department.

[1] ACCC, *Inquiry into the National Electricity Market Inquiry - December 2023 Report*, 1 December 2023, Recommendation 4.

[2] EPR0091 - Review of the RRO Final Report (aemc.gov.au)

Actual Lack of Reserve 3 (LOR3) performance event

The Department seems minded to retain a requirement in the dispatchable CISA for project operators to bid at least 50% of capacity during actual LOR3 events. This only seems necessary to the extent an operator does not face sufficient market price risk. That is, the best way to ensure operators 'show up' during times of system stress is to design CISAs such that operators respond to price signals. This has the double benefit of encouraging operators to forward sell output (thus preserving liquidity) and then physically backing their contracts such that reliability is maintained.

Linking performance requirements to LOR3 events is problematic for several reasons:

- LOR3 notices arise from the NEM's emergency interventions framework and are not part of the day-to-day operations of the market, which the Commonwealth should be primarily concerned with

- adherence to this requirement could worsen scarcity and contribute to reliability risk by having dispatchable capacity withheld from the market in anticipation of these events

- this arrangement in effect reflects a reserve service. However the CIS is not intended to compensate operators for their opportunity cost in foregone market revenues, or have up to 9GW of new firm capacity sitting 'out of market'.

LOR3 notices arising from demand-side dynamics should be relatively foreseeable and participants should be in a position to comply in these circumstances. However recent events (e.g. the storm in Victoria on 13 February) highlight that reliability drivers in the future NEM will reflect more shocks to the supply-side, and arise without warning. We therefore strongly urge the Department to amend its proposed LOR3 performance requirement by adopting one or more of the following:

- exempt events arising from 'non-credible' contingencies. This would limit the extent to which capacity needs to be held in reserve or out of market in anticipation of low probability events

- separately treat LOR3 events that were not subject to any prior forecast notices by AEMO. For example, Actual LOR3 notices that we issued without any prior forecast could be excluded or subject to lower performance penalties

- reduce the amount of revenue at risk. The current LOR3 requirement would likely involve rebates of a magnitude that makes most projects unbankable, or at least require prohibitively expensive financial support under the CIS. Sufficient performance incentives would exist if this were scaled down to nominal levels e.g. 5% of annual revenue

- exempt operators who are subject to AEMO directions. Such an exemption would be consistent with the calculation of annual availability factors and rebates

- rely on other oversight and ex post monitoring already in the CISA, as noted above.

Incentives under the generation support mechanism: contract market participation, negative pricing and bidding

We consider risks associated with negative pricing and curtailment are elevated, particularly given the large GW target and accelerating investment timing of the CIS. Compensating developers on the basis of volumes sold would also seem to encourage defensive bidding which has the potential to distort spot price outcomes. Any suppression of market prices that results from this bidding would see material wealth transfers from taxpayers to energy users. While this would serve political ends by lowering energy bills in the short term, it would harm the commercial standing of existing projects and those not supported by the CIS, with further distortionary effects on the market and higher costs in the longer term.

The design paper states that volume risk is best placed with the generator, as it will then be incentivised to maximise output. This is an appropriate first-principles approach. In reality, renewable generation projects face significant volume risk arising due to network congestion over which they have limited control or ability to forecast. Even with optimal investment timing and support for necessary technologies (namely those excluded from the CIS) the least cost development paths in AEMO's scenario projections involve material levels of renewable generation curtailment.[3] At present, curtailment risk is likely elevated due to government investment ambition in the face of planning and other barriers to transmission investment, including ongoing debates around access regimes at the regional and NEM-wide level. This is the type of risk best borne by governments at least for the near term, until policy and critical investment pathways become clearer.

The paper only suggests alternatives for the generation CISA in the form of:

- An option structure — our expectation is that debt financiers would require this to be always exercised, hence it is redundant.

- A volumetric exclusion — more information is required to understand this approach, including how it differs from nominating a contracted percentage.

The Department should explore alternative designs for the dispatchable CISA as these technologies will be more critical in supporting contract market liquidity. The design paper reflects a missed opportunity in this regard and learnings on this could still be drawn from the VIC/SA pilot, including by inviting non-conforming bids.

Special Purpose Vehicle (SPV) requirements

The design paper proposes that the SPV be a registered NEM participant however reliance on trading intermediaries should be permitted.

The design paper states that "a project must be owned by an SPV that has all the assets required to undertake the project." We take "asset" to mean operational rights to the asset which would be housed within the SPV. A full ownership requirement would be unduly restrictive of different contracting and operational arrangements and would not be feasible for VPPs and many grid scale projects. The Department should resolve this ambiguity in its tender guidance.

[3] Up to 20% by volume. See AEMO, *Draft 2024 Integrated System Plan*, Appendix 3 Renewable Energy Zones, pp. 13-14.

Alternative options for generation CISA: option structure, volumetric exclusion, and physically delivery of Green Products to the Australian Government

As above we see limited value in these alternative options.

We would not support proposals that involve the government becoming a counterparty for the purposes of green products, energy etc. If adopted, there would need to be clear guidelines setting out how the government would manage its own risk position and onsell products to maintain liquidity in relevant markets.

Merit and eligibility criteria

While not mentioned in the paper, we understand the Department is considering bonding requirements, which we support. Given the intention to seek large volumes of capacity in initial tender rounds, and to have rolling tenders, there is a high risk of speculative bids which would be detrimental to all parties.

The required commissioning dates under the CIS effectively preclude technologies like pumped hydro storage, even though they will form part of a least cost technology mix in the NEM. While the government's 2030 renewable target has been critical in mobilising real action to accelerate the transition, it is essentially arbitrary from the point of achieving emissions reduction and maintaining reliable supply, at least cost, over the longer term. The CIS and its bias towards shorter duration batteries will see increasing amounts of taxpayer funds allocated to projects with declining value from a reliability perspective. Unless dispatchable technologies of longer duration are included in the CIS, the total cost to taxpayers will be higher than it needs to be, and will potentially test the fiscal limits of the scheme. 'Tail risk' events arising in the NEM such as renewables droughts lasting several days would see greater dependence on aging coal and gas generation, with higher emissions, higher cost to customers and even greater pressure on resolving gas supply shortfalls. The desirability of market and policy settings that explicitly target emissions and system needs, rather than technology characteristics, will be a principle proposed by stakeholders in discussions on 'post 2030' reforms. The Department should pro-actively consider this now as part of the CIS expansion, rather than react to this in the coming 18 months.

The Department states that Virtual Power Plants (VPPs) and other technologies on the demand side will not be eligible for the upcoming CIS generation tender in April or May. VPPs would be more suited to dispatchable CIS agreements given their contribution to reliability outcomes and should be eligible to participate from the Q4 tender this year. VPPs offer the prospect of cheaper dispatchable capacity and with quicker lead times than grid-scale investment. VPPs, especially those that comprise of residential consumer energy resources (CER), play an important role in serving the community — one of the key themes in the CIS tender. The recent NSW 'firming' tender allowed VPPs that were serviced by commercial and industrial customers. The CIS should permit participation by VPPs that involve residential CER such as demand response, as well as residential and community batteries. In addition to addressing reliability gaps, this directly engages and involves the community which further helps with the shared responsibility by citizens of our energy market. To allow for this, we recommend that in addition to the existing 30MW capacity threshold, a 10MW capacity for residential VPPs be applied to help incentivise this category.