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Submitted online at: www.aemc.gov.au

Dear Amy

Submission: Transitional Services Update Paper

CS Energy welcomes the opportunity to provide a submission to the Australian Energy Market Commission's (**AEMC's**) *Transitional Services Update Paper* (**Paper**).

About CS Energy

CS Energy is a proudly Queensland-owned and based energy company that provides power to some of our state's biggest industries and employers. We employ almost 500 people who live and work in the Queensland communities where we operate. CS Energy owns and operates the Kogan Creek and Callide B coal-fired power stations and has a 50% share in the Callide C station (which it also operates). CS Energy sells electricity into the National Electricity Market (**NEM**) from these power stations, as well as electricity generated by Gladstone Power Station for which CS Energy holds the trading rights.

CS Energy also provides retail electricity services to large commercial and industrial customers throughout Queensland and has a retail joint venture with Alinta Energy to support household and small business customers in South-East Queensland.

CS Energy is creating a more diverse portfolio of energy sources as we transition to a new energy future and is committed to supporting regional Queensland through the development of clean energy hubs at our existing power system sites as part of the Queensland Energy and Jobs Plan (**QEJP**).

Key recommendations

The NEM is changing and will continue to do so as it transitions to a market with more variable renewable energy (**VRE**) and an overall lower carbon footprint. It has long been acknowledged that as the NEM undergoes this transition, frameworks that appropriately value all Essential System Services (**ESS**) will be paramount. CS Energy has been

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supportive of adaptive market and regulatory frameworks that appropriately price ESS. These will provide valuable information to the market about both the operational need in the near-term as well as establishing vital forward signals that will drive investment in the capability that is required in future as the existing ESS providers, predominantly coal generation, exit the market.

CS Energy acknowledges the AEMC's commitment to unbundling and valuing ESS through market mechanisms where practical but also accepts the need for a transitional mechanism for some. CS Energy maintains its support for a transitional *operability* service framework provided its design best facilitates a shift away from the reliance on directions and, importantly, the transition of the power system to a system that values system security capability from new providers. For this to occur efficiently and effectively relies on the Australian Energy Market Operator (**AEMO**) building its knowledge and experience in the system security capability of new providers prior to the exit of synchronous coal generation.

The proposed framework is a step in the right direction, but the opportunities are not fully realised. The timeline proposed by the AEMC in the Paper does not keep pace with the operational reality of the power system as forecast by AEMO in its Integrated System Plan (**ISP**). State and federal renewable energy targets and policies necessitate a faster shift from dependence on synchronous unit combinations.

The market does not want a repeat of the experience in South Australia where critical services were not procured ahead of generation exits, costing consumers. The framework and its proposed timeline risk an inefficient transition, with AEMO able to procure Type 1 contracts for eight years with no obligation to procure and enable Type 2 contracts. Given the pace of change and breadth of work AEMO is currently facing, it is not implausible that in the short-term, resources will be allocated to nearer term priorities rather than the trials necessary to unbundle ESS and understand system operability. This near-term "gain" will result in inefficient solutions for consumers in the long-term.

In this respect, the AEMC's proposed review of the framework after seven years is far too late; any review should be conducted no later than three years since the commencement of the framework.

While CS Energy is supportive of the AEMC's intention to establish two tranches of contracts, further design improvements need to be made for the framework to achieve its objectives in the most effective and efficient way:

(i) Type 1 contracts

CS Energy supports the ability for AEMO to contract known unit combinations through Type 1 contracts while it develops its engineering knowledge and confidence, however, in CS Energy's opinion the current proposal still formalises the directions process without adding value. This may be circumvented by improvements in the framework for Type 1 contracts:

- **Reducing the timeframe** over which procurement can occur from the current five-year allowance to three years. This would introduce a December 2028 sunset period for the use of 3-year Type 1 contracts and no 3-year contracts should extend beyond that date. If clear targets are in place (as discussed below in the context of Type 2 contracts), CS Energy would agree for this period to be extended;

- **Clarity and transparency over what can be procured** through Type 1 contracts and specifically unit combinations. Given the contracts are to be utilised to procure services that cannot be procured under existing planning frameworks, clarity and consistency in

what is being procured is essential. Given inertia and system strength are precluded, it appears that the focus of the Type 1 contracts is on system operability.

As proposed in previous submissions and below,[1] CS Energy considers that a system operability metric should be established. This needs to be treated like any other market parameter, with the economic trade-offs of the level of operational certainty considered and independently scrutinised.

A metric would also assist AEMO in its procurement and enablement of contracts, through a consistent parameter to which they must adhere. For example, AEMO has previously indicated the unit combination considerations in South Australia consider parameters such as energy reserves, energy ramping services and frequency control.[2] These are all the remit of existing market frameworks and should not be part of the procurement and enablement of any Type 1 contracts; and

- **Establishing a clear operational metric** for the system operability for which Type 1 contracts are procured and enabled. Additional to the operational advantages listed above, such a metric would also assist in the transparency objectives as the market would attain greater understanding of the security gap which AEMO is meeting through procured services, providing a forward investment signal.

  Without standards or specific operability targets, the trajectory via which to reduce the dependence on these system configurations is undefined and uncertain.

(ii) Type 2 contracts

CS Energy has several concerns with the design of the Type 2 contracts:

- **Length of contract**
  CS Energy is supportive of longer contract opportunities for newer technologies and the intent of the ten-year contracting period. This, however, only represents an upper bound on the contract length, with the ten-year sunset period meaning that realistically, very few providers will be contracted for the full ten years. Potential providers will be relying on AEMO's discretion to contract and trial early in the piece, however, the AEMC itself implies that it does not expect AEMO to enter into any Type 2 contracts in the near-term.[3] Contracts are therefore likely to be of reduced tenure, negating any efforts to provide investment certainty;

- **Eligibility**
  It is unclear whether services beyond system operability will be eligible under this framework. For example, it is proposed that synthetic inertia can be procured under the inertia planning framework yet it is unclear that AEMO is confident in relying upon synthetic inertia in operational timeframes. Type 2 contracts could provide a means to trial synthetic inertia in an operational timeframe however, it is unclear that this service is eligible under the proposed framework given proposed planning frameworks will be available.

  If Type 2 contracts are restricted to system operability considerations, this further emphasises the need for a clear operational metric and transparency from AEMO so that providers can understand and develop the necessary capabilities.

[1] CS Energy, Submissions to the AEMC, *Operating Reserves Directions Paper* and AEMC, *Improving System Security Frameworks Directions Paper*, 2023
[2] AEMO, *SA minimum synchronous generator requirements – stakeholder update package*, September 2022
[3] AEMC, *Transitional Services Update Paper*, December 2023, p.16

CS Energy supports the refined objective to consider "emissions reduction" rather than "synchronous generators" noting that low emissions synchronous assets are likely to form a part of the future system. In this respect, the AEMC needs to ensure there are no regulatory barriers to the participation of such assets in the provision of system services. For example, CS Energy is concerned that there currently is no suitable registration category for standalone synchronous condensers which may then impede an asset in that class from being awarded a contract (and participation in potential future markets), and therefore the business case for the conversion of existing coal plant; and

- **Lack of incentives**
  There is no firm requirement on AEMO to use Type 2 contracts, and the AEMC itself has implied that it doesn't expect any procurement in the short-term. The Paper does indicate that the emissions reduction component of the National Electricity Objective will provide an incentive for AEMO to use these Type 2 contracts, but CS Energy does not generally agree. This is supported by AEMO's response in its submission to the Second Directions Paper where it states that "*transitioning away from synchronous generation is not always equivalent to an aim to decarbonise*."[4]

  AEMO will also, understandably, prioritise Type 1 procurement given it is, by definition, for services that meet critical and immediate security needs. Trials to manage security will not be undertaken at times of system stress, with Type 1 contracts relied upon in the absence of any strong incentives. As a result:

  - Type 1 contracts will be prioritised over all timeframes with little incentive to trial Type 2 contracts for these system operability services. This will stymie progress to transition away from unit combinations; and

  - For Type 2 contracts demonstrating the provision of other services such as synthetic inertia in operational timeframes, they are likely to be "kicked down the road" as the priority is considered not immediate.

  These risk increased costs to consumers through an inefficient transition.

  The proposed transitional framework would benefit from clear targets for the trialling of new technologies, with a preference for systematic and transparent market trials rather than trials being ad hoc at AEMO's discretion. A process similar to Eirgrid's DS3 programme is CS Energy's expectation.

(iii) Integrating dual objectives of Type 1 and Type 2

While the Type 1 and Type 2 contracting approaches have individually been given attention in the Paper, consideration of how they effectively integrate is absent. As discussed above, AEMO has no incentive to procure Type 2 contracts and no incentive *not* to procure Type 1 contracts.

Without greater consideration of how these contracts interact and, in CS Energy's view, clear targets, the transitional services framework is going to fall short of its objectives.

CS Energy considers there needs to be two types of targets:

- Firstly, a target in the near-term on AEMO to trial capabilities via Type 2 contracts; and

[4] AEMO, Submission to AEMC, *Second Directions Paper – Improving System Security Frameworks*, September 2023, p.6

- A subsequent target on the incorporation of Type 2 contracts to replace Type 1 contracts.

In the short to medium-term, AEMO would procure Type 1 contracts to meet system operability needs but would also be required to procure a level of Type 2 contracts to trial system service capabilities such as synthetic inertia *as well as* trials for system operability. After this time, AEMO would have to establish targets that would enable it to increase the level of procurement from low emission sources in lieu of Type 1 contracts. CS Energy would expect this target to be transparent, revised annually and would have input by the Reliability Panel. Such a target would be consistent with the ISP scenarios.

If such a target-based approach was adopted and was a Rules based trajectory, then CS Energy would be supportive of the transitional services framework being in place longer than five years.

These targets will be particularly critical in the near-term to ensure that Type 2 contracts are prioritised and not delayed to the medium or long-term as suggested by the AEMC (particularly given the long lead time for investment in any new kinds of asset).

(iv) Transition Plan for System Security

CS Energy welcomes the AEMC's response to stakeholder concerns about the need for transparency around transitional services and essential system services in general. The proposed Transitional Services Report is progress towards the level of transparency required and the Rules must be explicit in its contents to maximise its benefit to the market and facilitate AEMO to allocate the required resources to ensure its integrity. For example these could be of the form of the dot points in section 2.3.3 of the Paper.

CS Energy has provided detail of the level of transparency it expects in previous submissions which includes, at a minimum:

- The timeframe for developing operational metrics and standards for all ESS and system operability, with explicit definition and quantification of the service(s) being procured under this framework;

- An indication of the timelines in which these security services are expected to be required to allow investment decisions to reflect the future security need. This should be linked to the Electricity Statement of Opportunities (**ESOO**) and the timing of exits;

- Key milestones and forward targets for replacing Type 1 contracts;

- A separate report outlining the progress to unbundling, separate to the procurement of Type 1 contracts; and

- Reporting on the outcomes of trials annually rather than biannually.

CS Energy supports the need for AEMO to consult with stakeholders prior to the finalisation of the report but considers that the Reliability Panel should have a role greater than oversight.

(v) Role of the Reliability Panel

Given its remit includes obligations to determine power system security standards, the Reliability Panel should have a greater role in the transitional services framework. CS Energy proposes that the Reliability Panel:

- Work closely with AEMO in the development of operational standards and metrics for ESS and system operability;
- Work with AEMO to set targets for the procurement of services from low emission sources, with these targets relating both to the level and pace of trials and the displacement of Type 1 contracts as discussed above;
- Approve Type 1 and Type 2 contracts, in particular their relative mix. Furthermore, any Type 1 contracts procured after five years would need approval from the Panel; and
- Act as an independent assessor of the progress towards unbundling.

CS Energy believes that a greater role for the Reliability Panel will not only improve transparency for industry but is likely to foster greater collaboration on understanding system security needs which in turn will benefit consumers in the long run.

(vi) Operational framework for inertia

CS Energy welcomes the AEMC's commitment to unbundling ESS and its reiteration that the transitional services framework will not detract from exploring market-based procurement mechanisms. This sentiment has not been demonstrated with the *Efficient provision of inertia* Rule change of which consideration has been continuously delayed and discouraging. CS Energy implores the AEMC to give cadence to a thorough exploration of an inertia spot market, and again refers the AEMC to the experience of Eirgrid. CS Energy would be fully supportive of the AEMC obtaining international technical advice to progress this rule change and support the broader ESS work.

If you would like to discuss this submission, please contact myself on either 0407 548 627 or ademaria@csenergy.com.au.

Yours sincerely

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