Your ref: ERC0346

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Ms Lisa Shrimpton
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Submitted online at: www.aemc.gov.au

Dear Ms Shrimpton

Submission: Unlocking CER benefits through flexible trading

CS Energy welcomes the opportunity to provide a submission to the Australian Energy Market Commission's (**AEMC's**) *Directions Paper – Unlocking CER Benefits through Flexible Trading* (**Directions 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 inarguably transforming and will continue to do so as it transitions to a market with more distributed renewable energy resources including Consumer Energy Resources (**CERs**). The ability to effectively and efficiently manage power system security and reliability against this evolving landscape is paramount, and CS Energy supports the need to develop market and regulatory frameworks that harness the potential of flexible CERs to

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manage system security and reliability. Further, CS Energy supports CER frameworks that enable innovation and enhanced competition in consumer service offerings, which lower costs for all consumers in the long run.

The Directions Paper examines options to improve the flexibility and trading of CERs and facilitate better integration of these resources into the NEM. Key flexible CERs (or price-responsive resources) identified by the AEMC include:

- Responsive load and generation at small customer premises, such as controllable distributed energy resources (**DERs**) including rooftop solar PV, batteries, electric vehicles (**EVs**), flexible hot water systems and pool pumps; and

- Controllable load at large customer sites, such as refrigeration, heating ventilation and air conditioning.

Before providing specific comments regarding this Directions Paper, CS Energy would like to provide broader feedback in relation to the overall process of reviewing market and regulatory frameworks pertaining to DERs/CERs.

While the proposed reform initiatives for DERs/CERs, including this Directions Paper, stemmed from the Energy Security Board's workstream that had a holistic view, subsequent progression of individual initiatives also needs to continuously reflect this broader context and be as integrated as possible. CS Energy is concerned that disparate consultation processes for individual initiatives undertaken by the AEMC may lead to a series of ad-hoc incremental layers over current mechanisms, the complexity of which will risk efficient and effective outcomes for consumers.

In CS Energy's view, the AEMC should consider the following:

- Apply a more holistic approach to the development of market and regulatory frameworks pertaining to DERs/CERs, such that the interaction between existing and potential frameworks (and technical standards) are fully examined;

- Re-evaluate the timing of the processes to allow for the appropriate sequencing of work that will properly inform the development of potential mechanisms. It is crucial to allow for the prerequisite work (such as technical work) be completed prior to considering the merits of new mechanisms; and

- Examine ways in which stakeholders can assess the proposed mechanisms holistically rather than through disparate processes. This could be achieved by the AEMC establishing a stakeholder strategic working group or similar that provides an umbrella assessment of the mechanisms pertaining to DERs/CERs.

In terms of specific feedback regarding the Direction Paper:

- CS Energy does not consider there is sufficient evidence to suggest that separately identifying and measuring flexible CERs would produce a net benefit for industry participants, customers and the market;

- CS Energy does not support a flexible trading model that enables multiple energy providers at a single site for large customers as the framework proposed in the Directions Paper, in CS Energy's view, is unnecessary, inefficient and complex. When

evaluating this proposed framework for large customers, CS Energy suggests that the AEMC applies the same rationale that resulted in the discontinuance of the flexible trading model for small customers.

Separately identifying and managing flexible CERs

The AEMC notes that identifying and measuring customers' flexible CERs separately to their passive load would facilitate the following key improvements:

- Flexible CERs could participate in the scheduling and dispatch process as a separate entity, potentially changing how energy service providers may participate in the NEM;
- New products and services would be developed and offered, where customers could have access to different network and retail offers for their flexible CERs based on their preferences (separate from their passive load); and
- Distribution network service providers (**DNSPs**) could procure services from flexible CERs, potentially reducing the need for network augmentation.

To separately identify and measure flexible CERs, the AEMC is considering the following options:

- Changes within the existing metering arrangements, including:
    - Establishing a second connection point to the distribution network (with a NEM compliant meter);
    - Installation of a metering device with dual and/or subtractive metering[1]; and
    - Non-market options that use measuring devices behind the primary meter (although these are not recognised for the NEM settlement purposes); and
- AEMO's proposed option that allows for an additional settlement point behind a customer's primary connection point, which would be recognised for the purpose of NEM settlement.

CS Energy supports the undertaking of a cost-benefit analysis to evaluate the potential net benefit of separately identifying and measuring the load/generation of flexible CERs. Such an analysis should incorporate not only AEMO's implementation costs but also costs to industry and consumers. This analysis, however, cannot be undertaken in isolation of other related reviews underway including:

- The *Integrating price responsive resources into the NEM* rule change, which explores integrating price responsive resources (such as controllable CERs and DERs) into the scheduling and dispatch process of the NEM;
- The *Review into the CER technical standards*, which aims to improve compliance of technical standards for CER devices, thereby enabling greater uptake of CERs; and

[1] Dual metering is typically used for controlled hot water and subtractive metering is used in embedded network (with a parent/child metering arrangement).

- The *Dynamic operating envelopes (**DOEs**) and Flexible export limits (**FELs**)* review, which proposes to allow DNSPs to dynamically vary the network connection export (and import) limits of CERs, instead of adopting static limits, thereby better managing network congestion and potentially increasing the penetration of CERs.

Although these reviews are yet to be finalised, they may have substantial impacts on the potential benefits of separately identifying flexible CERs. For example, if CER technical standards, DOEs and FELs were effectively implemented, this would lead to greater uptake of, and higher limits for CERs, which in turn would enhance the benefits of such a reform.

However, as noted in its submission to the parallel process[2], CS Energy does not consider there to be sufficient justification for the integration of price responsive resources as proposed. At this stage, CS Energy is not convinced that "Schedule lite" would deliver net benefits to the market and consumers, and furthermore appears to negate some of the benefits sought in this Directions Paper. This reaffirms the need to consider these multiple consultation processes holistically.

It is also important to assess whether a complex framework to separately identify and measure flexible CERs would provide tangible consumer/market benefit and choice additional to existing opportunities. Currently, in addition to offsetting load, CERs can receive benefits by providing services through the following existing frameworks:

- Contingency Frequency Control Ancillary Services (**FCAS**), if a CER meets the technical requirements under AEMO's Market Ancillary Services Specification (**MASS**);

- Direct contracting of network support services, including network support and control ancillary services (**NSCAS**); and

- Behind-the-meter arrangements, where retailers or aggregators use CERs to reduce the costs of NEM spot market purchases through load shifting and exports.

It is unclear whether separately identifying flexible CERs would lead to the development of new retail products or network services that provide additional benefits or whether it would simply displace benefits accrued under the above-identified existing processes. It is important that any cost-benefit analysis incorporates only the potential additional benefits specifically derived from separately identifying flexible CERs.

Instead, CS Energy suggests that the AEMC explores whether improvements could be made to market participants' registration processes and technical requirements that enable access to the FCAS and NSCAS markets. This could potentially reduce the costs and complexity faced by participants and therefore enhance the value of CERs.

Limited uptake of controllable CERs in the short-term would also diminish the benefits of the proposed reform. Research from Oakley Greenwood suggests that limited uptake is likely in the short-term due to economic forces at work as technologies underpinning flexible CERs are nascent (and likely still costly).[3] Therefore, it is crucial to undertake a sensitivity analysis for different levels of uptake for controllable CERs as part of the cost-benefit analysis. Most of the costs of separately identifying flexible CERs would be upfront and fixed, while the benefits of this proposed reform are sensitive to the levels of uptake.

[2] CS Energy's submission: Integrating price responsive resources into the NEM, September 2023
[3] AEC, Response to AEMC's Consultation Paper - Unlocking CER Benefits Through Flexible Trading, accessed September 2023.

In summary, at this stage, CS Energy does not consider there is sufficient evidence to suggest that separately identifying and measuring the load/generation of flexible CERs would produce a net benefit for industry participants, customers and the market.

Flexible trading of CERs with multiple energy providers at large customer sites

The AEMC is considering a flexible trading model to allow for multiple financial responsible market participants (**FRMPs**)[4] at a large customer site to manage responsive CERs. This could be enabled via the following:

- Two connection points;
- Establishing an embedded network to obtain a separate connection/settlement point; and
- AEMO's proposed Flexible Trader Model 2 (**FTM2**) with a private metering arrangement for responsive CERs (specifically a secondary settlement point behind the primary connection point).

CS Energy does not support a flexible trading model that enables multiple energy service providers at a single site for large customers and suggests the AEMC applies the same rationale that resulted in the discontinuance of this proposal for small customers. The framework proposed in the Directions Paper raises several key concerns that demonstrate that, in CS Energy's view, this model is unnecessary, inefficient and complex. These include:

- The disaggregation of load/generation would lead to higher costs for customers and market participants;
- Imposing all network charges on the primary FRMP would likely lead to inefficient use of CERs;
- Decision-making based on the incentives of individual (disaggregated) loads would risk making customers worse-off and not optimising the value of flexible CERs;
- There are existing mechanisms that provide a similar level of benefits for a customer's CER at lower costs (and complexity) compared to the FTM2; and
- The presence of multiple FRMPs at one site increases the complexity for customers, which may lead greater risks of disputes.

Electricity retailers rely on economies of scale to maintain the viability of their businesses. Retailers incur substantial fixed costs associated with establishing systems and processes to meet regulatory and market requirements. These significant fixed costs mean that retailers seek to maximise the volume of electricity they manage (sold to or purchased from customers) to maintain their margin (return on investment). This is also why large customers typically have access to lower electricity prices relative to small customers.

While the NEM is transforming with a greater uptake of controllable CERs, CS Energy considers this would not alter the fundamental reality that contracting for a greater volume of electricity would be economically more viable than lower volumes. Customers under the

[4] The AEMC defines FRMPs as market participants (such as retailers and aggregators) that buy electricity from the wholesale electricity market, and then on-sell electricity to end-users under a retailer authorisation or exemption granted by the Australian Energy Regulator.

flexible trading model would be more costly to serve given the separation of load (i.e., lower and unpredictable volume) would increase risks in financial hedging and energy forecasting. These risks would be heightened at times of high spot prices and ultimately lead to higher costs for market participants and customers.

AEMO's proposal to allocate network charges to the primary FRMP would also lead to inefficient use of CERs in reducing the need for network augmentation. This is because the secondary FRMP has no incentive to operate the CER in a manner that aligns with the needs of the network as it would not benefit financially from shifting demand from the peak to off-peak network periods. This may lead to higher network costs overall (assuming cost-reflective network charges) and therefore higher bills for customers.

This may be addressed through the DNSPs developing new network tariffs that allocate network charges between FRMPs. However, it is worth noting that such an approach will incur additional costs, which would further reduce any potential benefits derived from AEMO's proposed model.

In addition, CS Energy considers that such a proposed model would lead to decision-making that risks making customers worse-off and not optimising the value of customers' CERs. A site with a single FRMP would have visibility of a customer's entire load/generation (profile) to undertake activities that reduce both energy and network costs by taking advantage of fluctuating spot prices or different peak and off-peak network demand windows (such as through load shifting and discharging or charging of batteries). In contrast, the flexible trading model would create a secondary FRMP with no visibility of part of a customer's profile or no/limited exposure to network tariffs. This means that the secondary FRMP would undertake activities that only make economic sense when considering a part of a customer's profile and limited network exposure.

For example, a secondary FRMP may choose not to reduce demand (through load-shifting) during a network's peak demand window when spot prices are not high enough. However, a FRMP with full visibility of the entire site may act differently by reducing demand as the customer would benefit from lower network costs even in absence of high spot prices. In short, the flexible trading model risks creating an environment where decision-making is based on the incentives of individual (disaggregated) loads that would result in customers not optimising their CERs and being worse-off overall.

In some circumstances, large customers may benefit from separate arrangements for their different load and generation. However, these customers already have options and do not require a new mechanism as proposed in the rule change request. Key initiatives include behind-the-meter arrangements, the Small Generation Aggregator (**SGA**) framework and Wholesale Demand Response Mechanism (**WDRM**). Further, the SGA framework also allows for the contracting of multiple FRMPs through two connection points or an embedded network.

These initiatives would likely provide customers with a similar level of benefits at lower costs (compared to the FTM2). The proposed model would impose additional implementation costs, including the development of new metering arrangements and technical standards.

Moreover, the presence of multiple FRMPs at one site increases the complexity for customers, which may lead to greater risks of disputes around billing and responsibilities. While some customers may benefit (or feel at ease) in engaging with multiple FRMPs, CS Energy considers that large customers would typically prefer a simpler and more holistic approach with a single FRMP having visibility of their entire load/generation, which facilitates better optimisation of the value of their responsive CERs.

If you would like to discuss this submission, please contact Wei Fang Lim, Market Regulatory Manger, at wlim@csenergy.com.au or on 0455 363 114.

Yours sincerely

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