Your ref: REL0086

19 January 2024

Reliability Panel
c/o Australian Energy Market Commission
GPO Box 2603
Sydney NSW 2000
Submitted online at: www.aemc.gov.au

Dear Panel

Submission: Directions Paper – Review of the Form of the Reliability Standard and the Administered Price Cap

CS Energy welcomes the opportunity to provide a submission to the Reliability Panel's (**the Panel's**) *Directions Paper on the Review of the form of the Reliability Standard and Administered Price Cap* (**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**).

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Key recommendations

The power system is undergoing unprecedented change with the uptake of new generation technology as the system transitions to a lower carbon footprint. This change in generation mix will change the landscape of reliability and security risks that the power system may face due to the increased reliance on the weather as a fuel source. This will result in a shift from the consideration of reliability primarily based on capacity adequacy to a more energy adequacy perspective. It is thus prudent to consider whether current market settings and processes appropriately encapsulate these emerging risks and requirements, as well as generating meaningful market signals.

Although informative, the Paper does not present the case for changing the form of the reliability standard: the modelling outcomes confirm the intuitive but cannot be leveraged to inform this consideration. This is acknowledged by the Panel, stating that the results "*cannot be used to draw any conclusions about the reliability of the system of the future".*[1] The modelling does, however, represent a useful exercise to inform the Australian Energy Regulator's (**AER's**) process to assess the Value of Consumer Reliability (**VCR**).

Results of the simulation modelling

CS Energy acknowledges the modelling effort undertaken by the Panel to better understand how the nature of reliability risk will potentially change in a future system that has large proportions of Variable Renewable Energy (**VRE**). As acknowledged by the Panel, the modelling is unrealistic and, so while it provides confirmation of the intuitive outcome that a certain generation mix will change the distribution of reliability risks, it provides no compelling evidence for the need to change the form of the standard.

The Paper lists four key outcomes of the modelling which are interrelated. An outcome of a system with significant proportions of generation dependent on weather as a fuel source will invariably see reliability risks increasingly driven by weather. This outcome then naturally leads to the two outcomes related to reliability risk shifting from being concentrated in the evening to being distributed across the day and the risk shifting from summer to winter given typical weather patterns. This changing risk profile will be reflected in the market through market prices and the portfolio planning of market participants.

The strongest advocate proposed for changing the form of the standard is related to the outcome of deeper and longer duration reliability events, termed large Unserved Energy (**USE**) events. Without a quantification of the size, frequency, and ability of the market to respond to such events, it is not apparent whether such events are not already captured by the current standard let alone whether they should influence its form. In particular, CS Energy is concerned that firming technology such as gas generation has not been considered in the modelling and notes that gas generation has been identified as a key part of the future system by the Australian Energy Market Operator (**AEMO**) in its latest Integrated System Plan (**ISP**).

CS Energy maintains that most large USE events are best captured in the operationalisation of the standard rather than the standard itself. A metric for tail risks won't necessarily incentivise investment nor will it appropriately reflect the expectation and willingness of consumers as meeting the standard may require material changes to the market price settings. As outlined in its previous submission[2], CS Energy considers the current frameworks and processes to be sufficiently flexible to accommodate the risk environment

[1] Reliability Panel, *Directions Paper – Review of the form of the reliability standard and the administered price cap*, November 2023, p.ii
[2] CS Energy, Submission to Issues Paper - *Review of the form of the reliability standard and the administered price cap,* May 2023

during and after the transition and cautions the Panel against conflating a statistical representation issue with a risk management framework issue. The Paper seems to recognise this, stating that a change in risk profile "*may not of itself be a reason to change the form of the standard [but] it is likely to contribute to a change in the way it is identified and quantified*,"[3] that is, how it is operationalised.

CS Energy notes that, as part of the Renewable Energy Transformation Agreements (**RETAs**), jurisdictions are being tasked with establishing strategic reserves to address tail risks that may lead to large USE events. Given this, it would seem duplicative and economically irresponsible to explicitly consider these risks in the form of the reliability standard. Instead, CS Energy encourages the Panel to utilise this work to quantify the potential size and frequency of such events to inform the level of strategic reserves that may be required thereby avoiding potential over-investment.

Although CS Energy considers that the current form of the reliability standard caters for the changing risk profile and focus is best directed towards improvements in how the standard is operationalised, CS Energy is supportive of the Panel conducting further modelling. This is on the proviso that it is based on scenarios that produce more realistic reliability outcomes, including considerations of:

- Appropriate levels of capacity as reflected in the ISP rather than the contrived USE scenarios in the Paper;

- Sensitivity of reliability outcomes to different technology mixes, in particular different types of firming capacity. Higher levels of energy producing capacity such as gas plant would have a different outcome to higher levels of battery storage type capacity. This would provide greater insight and confirmation about how reliability risks may manifest in the future with a different technology mix;

- Demand response capabilities;

- Market response to the reliability risks. This could be modelled for example by utilising the ISP outlook, and considering sensitivities to different technologies and whether the market settings can deliver on reliability; and

- CS Energy suggests limiting the outlook period to ten years. Technology capabilities are likely to change over the coming decades and its important that this modelling reflects realistic capabilities.

CS Energy does not consider it plausible to consider the form of the standard separate to its operationalisation through the market settings and AEMO's processes. It would be insightful if the modelling could test the ability of the standard and settings in meeting the changing risk given different technology mixes.

This modelling exercise may also help AEMO in its process for operationalising the standard against a changing underlying risk profile.

<u>Consideration of Value of Customer Reliability</u>

CS Energy agrees that is important to investigate potential changes in attitude towards reliability particularly in the context of increased uptake of Consumer Energy Resources

[3] Reliability Panel, *Op cit*., p.21-22

(**CER**). The Panel's work should be used to inform the AER's process to garner consumer attitudes for different types of reliability risk. For example, consideration could be given to:

- Consumer willingness to pay for dark doldrum events based on their duration and frequency;
- Consumer willingness to pay for a change in the form of the standard (particularly given wholesale reliability events only constitute 0.3% of USE[4]); and
- How consumer attitudes vary between those that have CER and those without.

The latter will be extremely important to understand given the increase in CER is a contributing factor to the changing reliability risk profile. Issues of equity already exist in which consumers can access CER, and so any value of reliability needs to acknowledge a "CER cost of choice" and not inadvertently disadvantage consumers without CER, whether economically via an increased cost in meeting the reliability standard, or physically in any changes to the standard.

CS Energy considers that most changes in consumer preferences can be accommodated within the form of the existing reliability standard.

Form of the Administered Price Cap

The Directions Paper also presents the Panel's preferred approach to the form of the Administered Price Cap (**APC**). CS Energy supports the Panel's decision not to change the form of the APC. The increase in the APC to $600/MWh has yet to be tested in terms of its adequacy to drive the desired market outcomes.

Given the role of the APC in managing risk and how contracts are priced, its form and level must provide the necessary confidence and certainty to the market. CS Energy reiterates its position in its submission to the Issues Paper that the current form of the APC is appropriate but considers that it be indexed to the Consumer Price Index (**CPI**) consistent with the other market price settings. The Panel could also consider linking the APC to the Market Price Cap (**MPC**).

Conclusions and recommendations

CS Energy acknowledges the changing risk profile that will result from the changing generation mix but remains unconvinced that the form of the reliability standard needs to change to explicitly cater for these new risks. The modelling presented provides a limited snapshot of potential risks, confirming the intuitive conclusion that greater levels of weather-dependent resources will lead to increasingly weather-driven reliability risks.

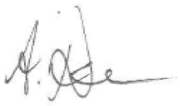
While the modelling does not present any evidence on the need to change the form of the standard, CS Energy is supportive of the Panel conducting further modelling to inform both the AER's assessment of the VCR and AEMO's process of operationalising the standard with respect to a changing risk profile.

CS Energy is supportive of the Panel's proposal to not change the form of the APC but rather to index it to CPI.

[4] Reliability Panel, *Fact sheet on the Reliability Standard*, accessed January 2024

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

Yours sincerely



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