



29 October 2021

Ms Anna Collyer
Chair
Australian Energy Market Commission

Lodged via the AEMC website

Dear Ms Collyer,

PROJECT ERC0263: Primary frequency response incentive arrangements

The Clean Energy Council (CEC) is the peak body for the clean energy industry in Australia. We represent and work with hundreds of leading businesses operating in renewable energy and energy storage along with more than 7,000 solar and battery installers. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

The CEC welcomes the opportunity to provide comment on the Australian Energy Market Commission (AEMC) draft determination on the primary frequency response (PFR) incentive arrangements rule change process. The CEC and its members have been deeply engaged in recent frequency related rule change processes including the implementation of the mandatory PFR rule change.

The CEC are concerned that the AEMC are proposing to make the mandatory PFR mechanism an enduring feature of the frequency control framework, without developing an adequate enduring incentive framework to appropriately reward providers and support ongoing provision of the service through the power system transition.

As a principle, the CEC supports improved frequency performance in the national electricity market, (NEM)¹. The mandatory mechanism has been successful in improving poor frequency performance as noted in the AEMCs draft determination. However, industry support for the mandatory mechanism was caveated by the inclusion of a sunset trigger, to ensure there was sufficient time for the AEMC to develop an effective incentive mechanism.

An effective mechanism is one that not only allows the provider of the service to recoup the costs of providing the service, but also creates meaningful incentives to support efficient investment and operation of assets to provide essential system services. This is critical to ensuring there is enough of the service provided by available plant and that sufficient investment occurs in new plant to provide the service as the system transitions.

The CEC are concerned that the incentive mechanism proposed in the draft rule will not achieve the above noted objectives. We understand that the bulk of the detail of the mechanism will be designed

¹ CEC, Frequency control rule changes directions paper submission, 4 February 2021, available at https://www.aemc.gov.au/sites/default/files/documents/rule_change_submission_-_erc0263_erc0296_-_clean_energy_council_-_20210204.pdf

by the Australian Energy Market Operator (AEMO). We are concerned that by derogating the bulk of the design of the incentive mechanism to AEMO, there is a risk the final design will not send efficient investment and operational signals to participants. AEMO's primary driver in designing such a mechanism will inevitably be on system security and operability. There is a real risk that very little thought, if any, will be given to ensuring efficient price signals to support effective operation and efficient investment. Over time, this will have negative consequences for effective provision of this crucial system service, as participants will have no real incentive to provide it. In fact, to the extent that the mechanism actually imposes a loss on certain participants, they may have strong disincentives to provide the service.

The AEMC has a central role to play here, to ensure that the incentive design work is effective, to ensure that it adequately balances day to day frequency management and long term enduring PFR provision.

Further collaboration with AEMO and industry is needed to design a mechanism that appropriately values the services of frequency regulation. Regulation FCAS currently has two services built in. One is time error correction, the second is intended to keep the frequency close to 50 Hz. The delineation between these services and the associated payments for each service isn't clear. Industry would welcome further clarity here.

The AEMC must play a greater role in designing the incentive mechanism, to ensure that it provides efficient operational and investment signals. This means that greater detail of the mechanism's design must be hard wired into the NER. At a bare minimum, this should include specific principles as to what the design must achieve. Preferably, more detail included in the NER will lower risks that may occur where AEMO has significant discretion to modify guidelines as they see fit, and will improve the likelihood that incentive mechanisms are designed in a way that actually sends meaningful operational and investment incentives.

More generally, as identified by industry through the CEC/AEMO joint connection reform initiative, there is an issue around the lack of restriction or control over how and when AEMO amends its guidelines. This creates significant uncertainty for industry. It is therefore crucial that the NER provide sufficient guidance and/or limitations on AEMO as to what must be included in any incentive mechanism.

Similarly, the AEMC must give thought to ensuring how an enduring mechanism is developed to complement the mandatory PFR requirement. As the AEMC's consultant GHD has noted, the proposed framework could lead to a serious shortage of PFR headroom towards the middle of the decade and that additional PFR support may be required. This is compounded by the use of the integrated system plan (ISP) central scenario in this modelling, which is widely believed to be far slower than the actual pace of system transition.

The original sunset mechanism played a key role in maintaining a degree of discipline on AEMO to support development of a meaningful incentive mechanism. However, combined with the significant derogation of decision-making powers to AEMO, we are concerned the draft rule will compound the risk that a long-term meaningful incentive mechanism will not be developed. For this reason, the CEC urges the AEMC to include some form of NER based statutory review mechanism, to ensure that further assessments are undertaken to refine and improve the PFR incentive mechanism. Failure to do so will, over time, see industry facing significant disincentives to provide this critical system service.

With the above points in mind, and the fact that the high-level proposal for the incentive framework does not value reserve held for providing PFR, the AEMC should consider how to include parameters in the NER to ensure that the price signals sent by the mechanism are sufficient to 1) ensure that no technology is forced to incur a loss by participating and 2) that efficient operational and investment signals are sent. Providing PFR must not be seen as a disincentive to generators providing supply into the market as this would have significant impact on reliability through supply possibly being withheld

until optimal times in order to manage PFR requirements. Similarly, for generators facing the costs incurred by the mechanism it is important they represent the true cost of correcting their deviation.

Further to these general points and noting our concerns regarding the lack of detail that has been provided about the incentive mechanism, we also consider there may be some issues with what has been provided. These are set out in more detail below.

Incentive framework

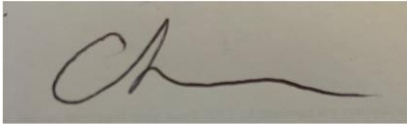
The draft rule notes that much of the detail of the incentive's framework is yet to be developed by AEMO and will be completed following publication of the final rule. This makes it difficult for CEC and its members to assess and model payments that may be received from providing PFR. However, high level assessment by CEC members through analysis of the draft determination and information provided through the technical working group has raised a number of key points the AEMC must consider.

- The decision to recover unused regulation costs pro-rata from load and generation may result in poor outcomes. This may result in situations where a generator performs adequately, therefore causes no need for frequency services, but receives a penalty as they are allocated their share of unused regulation services costs. This is counter to the principle of allocating costs to those who cause the need for them.
- The draft determination and CEC member analysis indicates there will be approximately 10% increase in costs for primary frequency control resulting in an increase of approximately \$8 million per year. With the mandatory mechanism enforcing response from all generators this may result in all generators across the NEM sharing in this payment, meaning a relatively immaterial payment for all generators. The CEC is concerned with this outcome as it does not provide an appropriate incentive for this service and it is unlikely generators would volunteer the service for such a small reward.
- Short term costs for providing PFR are likely to be low, as indicated by the AEMC and its consultants. However, as the power system transitions and synchronous units retire, this cost is likely to grow as remaining generators take on more responsibility and additional wear and tear. As wear and tear accrues participants are likely to see costs increase on plant. Its therefore critical that the incentive mechanism allows for all parties to recover sufficient revenues so that suppliers are not penalised.
- Modelling conducted by CEC member Iberdrola suggests that positive performance payments for a battery for providing PFR may be in the range of \$13 per cycle. With new battery costs in the range of \$100-200 per cycle, this indicates that PFR incentives may not be a significant factor when financing a new project. This an important factor when structuring the incentive mechanism as system services are a key revenue stream for battery developers.

Like any other form of frequency control service, PFR is a service that should be paid for and requires providers to incur ongoing costs. There must be a mechanism for these ongoing costs to be recouped and providers of the service to be made whole. Without it, the mandatory requirement to provide PFR will be seen to be a disincentive to new investments in the NEM and frequency performance will be negatively impacted in the long term. The CEC suggest the AEMC to consider an enduring incentive mechanism as they approach a final rule that will encourage providers to invest in new plant that is capable of supporting power system frequency.

Thank you for the opportunity to nominate CEC members to participate in the technical working group and to comment on this consultation. If you would like to discuss any of the issues raised in this submission, please contact me at czuur@cleanenergycouncil.org.au.

Yours sincerely,



Christiaan Zuur
Director Energy Transformation