



Your ref: ERC0364

25 January 2024

Mr Victor Stollman
Project Lead, AEMC
Submitted online at: www.aemc.gov.au

Dear Mr Stollman

Submission: Clarifying Mandatory Primary Frequency Response Obligations for Bidirectional Units

CS Energy welcomes the opportunity to provide a submission to the Australian Energy Market Commission's (**AEMC's**) *Draft Determination – Clarifying Mandatory Primary Frequency Response Obligations for Bidirectional Units (Draft Determination)*.

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 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. 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 ensure frequency control frameworks are appropriate to meet the requirements of the NEM and long-term consumer needs.

CS Energy has always advocated for the development of metrics and mechanisms that appropriately value system services and is not supportive of frameworks that further seek to mandate the provision of system services. In its previous submissions, CS Energy was supportive of mandatory wide-band Primary Frequency Response (**PFR**) but considered the provision of narrow PFR should be at the discretion of individual participants based on market incentives. The development of primary frequency performance incentives to commence in June 2025 was, prior to the mandatory sunset clause being revoked, welcomed as a step towards providing market signals that facilitate participants to voluntarily provide narrow PFR when effective to do so.

With respect to PFR obligations for bidirectional units (**BDUs**), CS Energy maintains its position that these should mirror those that were placed on batteries under the mandatory PFR rule, that is, the provision of PFR is mandatory only when a battery is operating in scheduled generator mode. The Draft Determination's claims that the preferable Rule "builds upon" previous reforms and therefore constitutes good regulatory practice is disingenuous given the obligations on BDUs was previously considered at length and finalised in September 2022. The Draft Determination provides a further contradiction, stating that to "*require scheduled bidirectional units to adhere to the PFRR when charging would promote good regulatory practice and system security by continuing the **existing** obligations that batteries face under the IESS and PFR frameworks.*"¹ Under existing obligations, BDUs have no obligation to provide PFR when charging.

CS Energy does support the AEMC's desire to minimise future regulatory risk and investment uncertainty that this proposed Rule change has introduced. With respect to the preferable draft Rule:

(i) Obligation to provide PFR when generating (discharging)

CS Energy is supportive of this obligation as it reflects the original intent of the mandatory PFR Rule and agrees that it should commence in line with the Integrating Energy Storage Systems (**IESS**) Rule change on 3 June 2024.

(ii) Obligation to provide PFR when charging

As stated above, CS Energy disagrees with this obligation and considers it does not minimise regulatory risk. Furthermore, as outlined in its previous submission², since mandatory PFR came into effect, observations of the power system have suggested that there is currently too much narrow band PFR and this is causing challenges in the power system. Increasing the obligation on BDUs will only serve to exacerbate these challenges.

¹ AEMC, *Draft Determination - Clarifying mandatory primary frequency response obligations for bidirectional plant*, November 2023, p.13

² CS Energy submission to AEMC, *Consultation Paper – Clarifying mandatory primary frequency response obligations for bidirectional plant*, August 2023

If this obligation does remain (which CS Energy does not think it should), then CS Energy agrees that it should not be applied when BDUs are solely charging auxiliary load.

(iii) No obligation to provide PFR when idle

CS Energy strongly agrees that there should be no obligation on BDUs to provide PFR when at zero MW.

(iv) Obligation to provide PFR when enabled for regulation FCAS

CS Energy does not support the obligation to provide PFR when enabled for regulation Frequency Control Ancillary Services (**FCAS**) and suggests the AEMC further explore market-based solutions such as that suggested by Shell Energy.³

(v) No obligation to provide PFR when enabled for contingency FCAS

CS Energy supports the decision to not apply obligations on BDUs when enabled for contingency FCAS. If the obligations were to apply when units are enabled for FCAS but not actually charging or discharging it would result in an increase in costs due to the increased cycling. The cumulative effect of this cycling will reduce the battery's throughput, having implications for both the lifetime of the asset and its warranty. Consequently, BDUs will have disincentives to participate in the FCAS markets or, if they do participate, will do so at increased costs.

Should the proposed changes proceed, CS Energy supports the clarification that BDUs would not need to renegotiate their connection agreements when revising settings in accordance with the PFR Requirements.

Conclusions

CS Energy does not support the continued reliance on mandating services where alternative market-based mechanisms are available. This does not represent good operational or regulatory practice and, in CS Energy's opinion, will not establish a resilient future power system. CS Energy maintains that the long-term provision of PFR should be via a market-based mechanism, a position advocated by much of industry, and encourages the AEMC to continue exploring this option.

CS Energy reasserts that the preferable Rule change should only impose obligations on BDUs that mirror the intent of the original mandatory PFR Rule change. With respect to the Rules drafting oversight that initiated this Rule change, CS Energy restates its suggestion to the AEMC regarding all potential future Rule changes: Rules drafting that accompanies draft determinations should be based on the version of the Rules that *will be in effect* when the relevant Rule is proposed to commence rather than the *current* version of the Rules. This may help reduce inadvertent drafting errors such as occurred with the IESS rule and PFR obligations on BDUs when generating.

³ Shell Energy submission to AEMC, Consultation Paper – Clarifying mandatory primary frequency response obligations for bidirectional plant, August 2023

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

Yours sincerely

A handwritten signature in black ink, appearing to read 'A. Demaria', with a long horizontal flourish extending to the right.

Dr Alison Demaria
Head of Policy and Regulation