AEMC

Directions paper – Frequency control rule changes

STAKEHOLDER SUBMISSION TEMPLATE

The template below has been developed to enable stakeholders to provide their feedback on specific questions that the AEMC has identified in the directions paper for the frequency control rule changes.

The rule changes discussed in the frequency control directions paper are:

- AEMO – *Primary frequency response incentive arrangements* (ERC0263)
- Infigen Energy — *Fast frequency response market ancillary service* (ERC0296)

This template is designed to assist stakeholders provide valuable input on the questions the AEMC has identified in the directions paper. However, it is not meant to restrict any other issues that stakeholders would like to provide feedback on.

Given the breadth of issues discussed in the directions paper, it is not expected that all stakeholders respond to all the questions in this template. Rather, stakeholders are encouraged to answer any and all relevant questions.

SUBMITTER DETAILS

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CHAPTER 4 – FAST FREQUENCY RESPONSE MARKET ANCILLARY SERVICE

Question 1: Section 4.5.3 – PROBLEM DEFINITION AND REFORM OBJECTIVE — FFR RULE CHANGE	
What are stakeholders' views on the problem definition and reform objective for FRR as set out in section 4.5.3 of the directions paper?	Alinta Energy supports the AEMC's problem definition and reform objective. We agree that fast frequency response services are a current 'missing' market that is necessary to uplift to support the energy market transition.
Question 2: Section 4.7.1 – FFR PROCUREMENT	
In relation to the discussion of potential procurement arrangements for FFR services in section 4.7.1 of the directions paper: • What are stakeholders' views on the pros and cons of establishing new FCAS market arrangements for FFR services versus revising the existing arrangements to incorporate FFR within the fast raise and fast lower services? • Do stakeholders agree that the existing arrangements for contingency FCAS provide an appropriate model for FFR market arrangements? • What are stakeholders' views on how each of the proposed procurement arrangements for FFR would interact with the arrangements for the existing contingency services? • Are there any aspects of the existing contingency FCAS arrangements that should be varied for procurement of FFR services?	Alinta Energy prefers implementation of Option 1; that is the creation of new FFR 2 second or faster raise and lower markets services. While we acknowledge that Option 2 (a and b) can also deliver the same end objective, it is more complex and has the potential to impact existing FCAS service providers unnecessarily. The development of new FFR markets, mirroring existing operating arrangements should be simple, relatively cost efficient and will enable broad market participation without impacting existing services. Using the same procurement arrangements would also enable continuity in service provision and will also create an additional value stream for FCAS providers. Option 1 could also be cooptimised with a future inertial service. However, we note that in implementing option 1, the technical specifications must support inertia – this is currently excluded from 6 second raise and lower services in the MASS.
Question 3: Section 4.7.2 – FFR PRICING ARRANGEMENTS	
In relation to the discussion of potential pricing arrangements for FFR services in section 4.7.2 of the directions paper: • What are stakeholders' views on the pros and cons of maintaining the existing FCAS pricing arrangements for FFR services?	As above, Alinta Energy encourages the AEMC to maintain the existing FCAS pricing arrangements for FFR services. These arrangements are simple and well understood by market participants. Implementing similar arrangements will minimise establishment and operating costs. The existing performance based multiplers recognise the different levels of value provided by market participants and apportion value accordingly. We support keeping these same arrangements for the reasons above.

• What are stakeholders' views on the potential pros and cons of incorporating performance-based multipliers into the pricing arrangements for FFR services? • Do stakeholders have any other comments or suggestions in relation to the pricing arrangements for FFR services?	
Question 4: Section 4.7.3 – FFR COST ALLOCATION	
In relation to the discussion of arrangements for the allocation of costs associated with FFR services set out in section 4.7.3 of the directions paper: • What are stakeholders' views on the arrangements for the allocation of costs for FFR services? • Would it be appropriate for the cost of FFR services to be allocated in a similar way to the existing arrangements for the allocation of contingency FCAS costs?	Alinta Energy supports the AEMC's view that FFR services could be provided in a similar way to existing contingency services. We therefore agree that the allocation of costs should be broadly replicated, although an adjustment may be necessary to account for framework changes to recognise inertial services.
Question 5: Section 4.8 – ISSUES FOR CONSIDERATION - FFR	
Are stakeholders aware of any additional issues that the Commission should take into account in developing market ancillary service arrangements for FFR?	Alinta Energy suggests that AEMC explore the concept of energy requirements vs. capacity requirements for a battery system providing FFR services. For example, it may be possible to hit the capacity requirement briefly, but not for the sufficient length of time required by the service due to lack of energy.
Question 6: Section 4.8.1 – VALUATION OF INERTIAL RESPONSE	
In relation to the potential arrangements for the valuation of inertial response described in section 4.8.1 of the directions paper: • What are stakeholders' views on the valuation of inertial response as part of the contingency services, including the proposed new FFR contingency services? • What are stakeholders' views on the current governance arrangements for contingency services; where the detailed service specification is determined by AEMO and documented in the MASS? (Is it appropriate for the NER to provide further guidance on how inertial response should be considered in	Alinta Energy strongly supports the valuation of inertial response as part of a FFR service. We note that the desire to introduce FFR as a 'missing market' outlined in the ESB's Post 2025 Review is in response to the decline of system inertia which is a critical service necessary to stablise power system frequency. Combining inertial response with 2 second fast raise and lower services would be an optimal outcome in the short term. However, broader valuation of inertial services, is necessary to recognise the 'free' spinning reserves provided by large synchonrous generation, and suitably incentivise their operators to keep these assets in-market for as long as possible. With respect to governance arrangements, we support the current split between broad rule and technical service parameters. Ideally this split is continued for FFR services to maintain a common

the MASS?)	approach across all FCAS services. However, noting the value of inertia response and the ability to combine this with FFR, we believe some additional guidance in the rules may be necessary to instruct AEMO appropriately in its revision of the MASS.
Question 7: Section 4.8.2 – PRICE RESPONSIVE DEMAND FOR CONTINGENCY SERVICES	
In relation to the discussion of arrangements for incorporating price responsiveness into the procurement of contingency services in the NEM set out in section 4.8.2: • What are stakeholders' views on the potential pros and cons associated with the implementation of a "demand curve" approach to procurement of FCAS? • What are stakeholders' views on the priority of such a change to the market frameworks? • If such an approach was to be implemented, what are stakeholders' views on the appropriate governance arrangements, including the potential oversight role for the AER?	
Question 8: Section 4.8.3 – INTERACTION BETWEEN MANDATORY PFR & FFR ARRANGEMENTS	
What are stakeholders' views in relation to the potential interactions between new FFR arrangements and the Mandatory PFR arrangement?	Alinta Energy considers that any new FFR arrangements be designed to complement a market-based PRF arrangement. We note that development of FFR with the expectation of a continued mandatory narrow deadband PFR arrangement would run conflict with the ESB's Post 2025 Review view that missing markets should be valued.
Question 9: Section 4.8.4 – IMPLEMENTATION AND STAGING FOR FFR	
In relation to the discussion of the implementation arrangements for FFR services as set out in section 4.8.4: • What are stakeholders' views in relation to the process for the implementation of FFR arrangements in the NEM?	Alinta Energy supports the implementation arrangements proposed by the AEMC, on the basis that it is transparent, cost efficient and timely. We do not believe an interim solution is necessary, where existing contingency FCAS processes are largely mirrored, with the exception of consideration to inertial service provision via the MASS.

• What are stakeholders' views on the potential need for interim or transitional arrangements as part of the transition to spot market arrangements for FFR?	

CHAPTER 5 – PRIMARY FREQUENCY RESPONSE INCENTIVE ARRANGEMENTS

Question 10: Section 5.1.3 – THE ROLE OF MANDATORY PFR	
In relation to the discussion of the role for a mandatory obligation as part of the enduring PFR arrangements in the NEM, set out in section 5.1.3: • Do stakeholders agree that a mandatory PFR arrangement provides a valuable safety net to help protect the power system from significant non-credible contingency events? • Do stakeholders agree that the narrow, moderate and wide settings for a mandatory PFR response band adequately represent the broad policy options for the frequency response band for Mandatory PFR?	While Alinta Energy accepts the policy options set out by the AEMC and its desire to maintain a safety net from large non-credible events, at this stage we do not support an enduring mandatory PFR arrangement coupled with the provision of continuous PFR reserves. This approach may not deliver the intent of the ESB's Post 2025 Review's recommendation to value missing markets. Further information about the design of this option is necessary before we finalise our position. In the absence of further information above, our preference remains that a widely procured market-based arrangement can deliver the intented level of support as long as it is well defined, and suitable incentives to participate exist.
Question 11: Section 5.4 – PROBLEM DEFINITION AND REFORM OBJECTIVE — PFR INCENTIVE ARRANGEMENTS RULE CHANGE	
What are stakeholders' views on the problem definition and reform objectives for enduring PFR arrangements set out in section 5.4?	Alinta Energy supports the AEMC's views on problem definition and its broader reform objective. However, we believe the Reliability Panel should determine the role of frequency before a solution is devised, noting that the Panel comprises expert representatives across the sector.
Question 12: Section 5.4.1 – ECONOMIC ANALYSIS OF MANDATORY PFR	
In relation to the discussion of the costs and benefits of Mandatory PFR arrangements set out in section 5.4.1: • What are stakeholders' views of the indicative curves for costs and benefits of Mandatory PFR with respect to the frequency response band settings, set out	Alinta Energy is currently completing its evaluation of the initial roll out of the Mandatory PFR arrangements for generators >200MW. Our initial observations are that the LYB units have experienced a step change in the frequency and the magnitude of the droop response from LYB governors since the changes were implemented on unit 2 in October and unit 1 in December 2020. This response (~+/-5MW) is causing noticeable increases in

in figure 5.4? • Do stakeholders agree that the frequency response band setting is a key variable for the determination of enduring PFR arrangements that meet the power system needs and are economically efficient over the long term? • What are stakeholders' views on the effectiveness of the exemption framework under the Mandatory PFR arrangement? • What are stakeholders' views on the role that the allowance for variable droop settings plays in relation to the cost impacts of Mandatory PFR? • Based on the initial roll out of the Mandatory PFR arrangement to generators over 200MW, what are stakeholders' views on how the cost impacts of Mandatory PFR are impacted by the proportion of the fleet that is responsive to frequency variations? • What other considerations are there in relation to developing effective and efficient arrangements for PFR in the NEM?	cycling of plant items; more notably governor valves and hydraulic service control units, which, over time is likely to increase maintenance costs and could impact on plant reliability. In addition, disturbances and oscilations are also being experienced to a lesser degree in boiler, feedwater and firing systems. We will continue to monitor as the remaining tranches implement PFR changes. Noting our experience, we encourage the AEMC to consider that if any future obligation to provide mandatory PFR (beyond 2023) is applied, it should only be such to provide a consistent and fair obligation on all generators to meet a 'minimum standard' (eg a wide but consistent deadband) and should not be used in lieu of a commercial market for a genuine market need.
Question 13: Section 5.5 – ADVICE FOR ENDURING PFR ARRANGEMENTS	
What are stakeholders' views of the Commission's proposed approach to obtaining advice to inform its determination of enduring arrangements for PFR in the NEM?	While Alinta Energy agrees that AEMO will have an important role to play in terms of the provision of technical and operational advice, their role should not cover market design. Instead, the AEMC in consultation with the Reliability Panel should contemplate and develop a market design approach, testing this with AEMO as appropriate. In addition, noting the significance of the decision to progress an enduring PFR arrangement, we would support the engagement of an independent technical consultant to review AEMO's technical input to ensure a rigorous assessment.
Question 14: Section 5.6.1 – PROCUREMENT ARRANGEMENTS FOR NARROW BAND PFR SERVICES	
In relation to the discussion of potential procurement arrangements for narrow band PFR services in section 5.6.1: • What are stakeholders' views on three options identified for further consideration?	Alinta Energy supports the development of an incentive-based arrangement for voluntary provision of narrow band PFR (option c). Further information around design elements of a new market ancillary service (option b) is required before we provide a position.

a. Existing market ancillary service arrangements b. New market ancillary service arrangements c. New incentive-based arrangements for voluntary provision • Are there any other options that would be preferable?	
Question 15: Section 5.6.2 – PROCUREMENT ARRANGEMENTS FOR NARROW BAND PFR SERVICES	
What are stakeholders' views on the arrangements for the pricing of PFR as described in section 5.6.2?	Alinta Energy welcomes the AEMC's initial assessment on the options for pricing PFR. While we do not support pricing using contribution factors or an alternative measure of plant frequency response, we believe it is worthwhile further exploring a competitive dispatch approach or regulated pricing outside of existing FCAS markets. The latter would require further analysis on price setting and governance arrangements to ensure that the regulated price accurately reflects market dynamics.
Question 16: Section 5.6.3 – ALLOCATION OF COSTS FOR NARROW BAND PFR	
What are stakeholder's views on the allocation of costs for narrow band PFR services as described in section 5.6.3? Do stakeholders agree that the any additional costs for narrow band PFR be allocated through the existing causer pays procedure for the allocation of regulation costs (or a revised version as described in section 5.9?	Alinta Energy supports the allocations of costs through existing procedures.
Question 17: Section 5.7 – PATHWAYS FOR ENDURING PFR ARRANGEMENTS	
In relation to the pathways for enduring PFR arrangements set out in section 5.7: • What are stakeholders' views on the enduring PFR pathways? • Do stakeholders agree with the Commission's preliminary preference for pathway two? (the widening of the PFCB and the introduction of market arrangements for narrow band PFR)	While Alinta Energy's preference is to end mandatory PFR at sunset and proceed with a market-based arrangement, we are not adverse to the AEMC's preference. However, further detailed design is necessary before we take a firm view.
Question 18: Section 5.8 – FUTURE REVIEW OF THE FOS	

What are stakeholders' views of the Commission's proposed approach towards a future review of the FOS as part of the development of enduring PFR arrangements?	Alinta Energy strongly supports a review of the FOS as a first-step in developing an enduring PFR arrangement to determine optimal frequency outcomes in the NEM. Refer to our response to Question 13.
Question 19: Section 5.9 – REFORMS TO THE NER RELATING TO COST ALLOCATION FOR REGULATION SERVICES – CAUSER PAYS	
In relation to the proposed reforms to the NER relating to the allocation of regulation costs, set out in section 5.9: • What are stakeholders' views on the proposal to allocate regulation costs on the basis of performance against system frequency as opposed to Frequency indicator (FI)? • What are stakeholders' views on the proposal to align the sample and application periods for determination of causer pays factors and shorten the application period to 5 minutes, in line with the NEM dispatch interval? • What are stakeholders' views on the removal or shortening of the ten-day notice period for causer pays contribution factors? • What are stakeholders' views on AEMO's proposal to pre-calculate seven sets of contribution factors including local contribution factors? • What are stakeholders' views of AEMO proposal to include non-metered generation in the residual component for allocation of regulation costs?	Alinta Energy considers that any costs generated through the allocation of regulated FCAS services should, within reason, be funded by those market parties who contributed to the generation of those costs. In our view, alignment of the sample and allocation periods, plus shortening to a 5 minute dispatch interval period, would likely produce a more fair and beneficial market outcome. Alinta is also of the view that non-metered load should be included in allocation of regulation costs, especially with the allocation of unaccounted for energy under changes to global settlements, as this will also likely lead to a more equitable market outcome.