Consultation paper - System services 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 Consulattion paper for the System services rule changes.

The rule changes discussed in the system services consultation paper are:

* AEMO – *Primary frequency response incentive arrangements* (ERC0263)
* Hydro Tasmania — *Synchronous services markets* (ERC0290)
* Infigen Energy — *Operating reserves market* (ERC0295)
* Infigen Energy — *Fast frequency response market ancillary service* (ERC0296)
* TransGrid — *Efficient management of system strength on the power system* (ERC0300)
* Delta Electricity — *Capacity commitment mechanism for system security and reliability services* (ERC0306)
* Delta Electricity — *Introduction of ramping services* (ERC0307)

This template is designed to assist stakeholders provide valuable input on the questions the AEMC has identified in the consultation 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 consultation 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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| **ORGANISATION:** | |  |
| **CONTACT** | **NAME:** |  |
| **EMAIL:** |  |
| **PHONE:** |  |

**CHAPTER 1** – INtroduction

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| **Question 1: Section 1.2 & 1.3 – Current ESB & AEMO work relating to the rule change requests** | |
| 1. What are stakeholders’ views on how the rule change processes should be integrated with ESB and AEMO work programs? |  |
| 1. Are there any additional processes that should be closely considered by the Commission when progressing these rule change requests? |  |
| **Question 2: Section 1.6 – Timetable for the consultation process** | |
| 1. Do stakeholders have any comments on the proposed timetable for the system services rule changes? |  |

**CHAPTER 3** – Approach

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| **Question 3: Section 3.2 & 3.3 – Three work streams: dispatch, commitment and investment** | |
| 1. Do stakeholders agree with the AEMC’s approach to grouping the rule changes, at least for initial consideration? |  |
| 1. Do stakeholders believe that Figure 3.1 captures the key issues to be considered for each rule change in each time frame? |  |
| 1. Do stakeholders have views on whether/which services should be procured in certain time frames and not others? |  |

**CHAPTER 4** – Assessment framework

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| **Question 4: Section 4.2 – The system services objective** | |
| 1. Do stakeholders agree with the AEMC’s proposed system services objective being used to assess these rule changes? If not, how should it be amended or revised? |  |
| **Question 5: Section 4.3 – The planning, procuring, pricing and payment service design framework** | |
| 1. Do stakeholders agree with the ‘4Ps’ service design framework being used to assess these rule changes? |  |
| **Question 6: Section 4.4 – Principles for assessment** | |
| 1. Do stakeholders agree with the principles proposed for assessing the rule change requests? If not, should any principles be amended, excluded or added? |  |

**CHAPTER 5** – The rule change requests

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| **Question 7: Section 5.1 – Infigen – Fast frequency response ancillary service market** | |
| 1. What are stakeholders' views on the issues raised by Infigen in its rule change request, Fast frequency response market ancillary service? |  |
| 1. Do stakeholders agree with Infigen's view that a change to the NER is required to encourage efficient provision of FFR services in the NEM following contingency events? |  |
| 1. What are stakeholders’ views on if there are any other issues or concerns in relation to frequency control in the NEM as levels of synchronous inertia decline? |  |
| 1. Do stakeholders consider there are alternative solutions that could be considered to improve the frequency control arrangements in the NEM for managing the risk of contingency events as the power system transforms? |  |
| 1. Do stakeholders consider that 5-minute markets for FFR ancillary services likely to be effective and efficient in the global interconnected NEM and on a regional basis? |  |
| 1. Do stakeholders consider Infigen’s proposal will provide adequate pricing signals to drive efficient investment in FFR capability in the NEM? |  |
| 1. What are stakeholders’ views on, if introduced, how the costs associated with any new FFR market ancillary services should be allocated? |  |
| 1. What do stakeholders consider to be the likely costs associated with establishing two new ancillary service markets for FFR in the NEM? |  |
| 1. What are stakeholders’ views on how the proposed solution may result in any substantial adverse or unintended consequences in the NEM? |  |
| 1. Are there specific issues with FFR that stakeholders think should be addressed in the NER as part of the establishment of markets for FFR services? |  |
| **Question 8: Section 5.2 – Infigen – Operating reserves market** | |
| 1. Do stakeholders agree with Infigen that tight capacity conditions and increasing uncertainty in market outcomes are problems that an operating reserve would address? |  |
| 1. Are there alternative solutions that could be considered to address tight capacity conditions and increasing uncertainty in market outcomes? |  |
| 1. Do stakeholders consider Infigen’s proposal would provide adequate pricing signals to drive efficient use of and investment in operating reserve services now and in the future? |  |
| 1. How do stakeholders think separate operating reserves arrangements would affect available capacity in the spot, contracts and FCAS markets now and in the future? |  |
| 1. How do stakeholders think separate operating reserves arrangements would affect prices in the spot, contracts and FCAS markets now and in the future? |  |
| 1. How could the design of an operating reserve market (e.g. criteria for eligible capacity) best support competitive outcomes both in the operating reserves market but also energy and FCAS markets? |  |
| 1. What are the factors that should be considered when seeking to set and procure efficient levels of operating reserve? |  |
| 1. Would Infigen's proposed operating reserve market result in any substantial adverse or unintended consequences in the NEM? |  |
| 1. What are the costs associated with establishing an operating reserve market in the NEM? If introduced, how should these costs be allocated? |  |
| 1. What kind of incentive/penalty arrangements would be necessary to be confident the operating reserves procured are available when needed? |  |
| **Question 9: Section 5.3 – Delta Electricity – Introduction of ramping services** | |
| 1. Do stakeholders agree with Delta that price volatility that occurs when dispatchable generators ramp through their energy bid stacks in response to predictable, daily, high rates of change from solar ramping up and down is a problem that needs addressing? |  |
| 1. Do stakeholders think that a new raise and lower 30-minute FCAS would address the price volatility at these times? Are there alternatives that could be considered to address this problem? |  |
| 1. Do stakeholders consider Delta's proposal would provide adequate pricing signals to drive more efficient use of and investment in ramping services thanks existing price signals and information provided through the PASA and pre-dispatch processes? |  |
| 1. How do stakeholders think a separate 30 minute ramping product would affect available capacity in the spot, contracts and FCAS markets now and in the future? |  |
| 1. How do stakeholders think a separate 30 minute ramping product would affect prices in the spot, contracts and FCAS markets, now and in the future? |  |
| 1. How could the design of a ramping FCAS product (e.g. criteria for eligible capacity) support competitive outcomes in both energy and FCAS markets? |  |
| 1. What are the factors that should be considered when seeking to set and procure efficient levels of ramping services? |  |
| 1. Would Delta's proposed new 30-minute raise and lower FCAS products result in any substantial adverse or unintended consequences in the NEM? |  |
| 1. What are the costs associated with establishing new 30-minute raise and lower FCAS products in the NEM? If introduced, how should these costs be allocated? |  |
| 1. What kind of incentive/penalty arrangements would be necessary to be confident the new 30-minute raise and lower FCAS products procured are available when needed? |  |
| **Question 10: Section 5.4 – Delta Electricity – Capacity commitment mechanism for system security and reliability** | |
| 1. Do stakeholders agree with Delta that there is an increasing risk that capacity capable of providing reserves or services may not be available at times when the power system may need them to respond to unexpected events because of increasing incentives to de-commit? |  |
| 1. Do stakeholders think that a mechanism to commit capacity one day ahead of time would deliver the reserves or services needed? Are there alternatives that could be considered to address this problem? |  |
| 1. Do stakeholders consider Delta's proposal would provide adequate pricing signals to drive more efficient use of and investment in reserves and system services? |  |
| 1. How do stakeholders think Delta's capacity commitment payment would affect available capacity in the spot, contracts and FCAS markets now and in the future? |  |
| 1. How do stakeholders think Delta's capacity commitment mechanism would affect prices in the spot, contracts and FCAS markets now and in the future? |  |
| 1. How would a capacity commitment mechanism and payment affect entry, exit and competition in the NEM over the short and long term? |  |
| 1. What are the factors that should be considered when deciding how much capacity to commit ahead of time? |  |
| 1. Would Delta's proposed capacity commitment mechanism result in any substantial adverse or unintended consequences in the NEM? |  |
| 1. What are the costs associated with establishing a capacity commitment mechanism in the NEM? If introduced, how should these costs be allocated? |  |
| 1. What kind of incentive/penalty arrangements would be necessary to be confident that the committed capacity would be available throughout the commitment period and/or when called upon? |  |
| **Question 11: Section 5.5 – Hydro Tasmania – Synchronous services markets** | |
| 1. Do stakeholders consider this rule change proposal presents a viable model for the provision synchronous services?    1. Could this proposed model be used to provide the essential levels of system strength (and / or inertia and voltage control) needed to maintain security and the stable operation of non-synchronous generation?    2. Could this proposed model be used to provide levels of system strength (and / or inertia and voltage control) above the essential level required for security? |  |
| 1. Do stakeholders consider that the creation of a synchronous services market could have any adverse impacts on other markets in the NEM? If so, what are these impacts? |  |
| 1. Would the proposed model set out in the rule change request efficiently price and allocate costs for synchronous services in the NEM? |  |
| 1. Do stakeholders consider the model set out in the rule change request to be capable of sending price signals sufficient to encourage new investment in synchronous capacity? |  |
| 1. Do stakeholders consider the rule change provides an appropriate incentive mechanism for existing synchronous generators to make operational decisions to provide synchronous services? |  |
| 1. Do stakeholders consider the rule change provides the appropriate locational signals for the provision of synchronous generators to provide synchronous services? |  |
| 1. What do stakeholders see as the primary opportunities / limitations of the mechanism as proposed by Hydro Tasmania? |  |
| 1. Would the model proposed in the rule change request enable effective competition in the market for the provision of synchronous services? |  |
| 1. What suggestions do stakeholders have in relation to the first order changes that would be required in NEMDE to facilitate this proposal and any second order changes that may be required as a result of this rule change proposals' implementation? |  |
| **Question 12: Section 5.6 – TransGrid – Efficient management of system strength on the power system** | |
| 1. Do stakeholders consider that TransGrid’s approach addresses all issues related to system strength currently experienced in the NEM? |  |
| 1. Do stakeholders consider that a system strength planning standard met by TNSPs would effectively and pro-actively deliver adequate system strength? |  |
| 1. Do stakeholders consider TransGrid’s proposal will provide useful and timely locational and financial signals to new entrants? |  |
| 1. Do stakeholders agree that the 'do no harm' obligations should be removed?    1. If so, do stakeholders consider an alternative mechanism is required to regulate or incentivise the minimisation of a new connecting generator's impact on the local network and proximate plant? |  |
| 1. What are stakeholder's views regarding generators' being required to make a financial contribution for provision of system strength services? |  |
| 1. Would stakeholders be supportive of the ownership of existing private system strength assets being transferred to TNSPs, as suggested in TransGrid's rule change request? |  |
| 1. Would the proposed, TNSP-led solution to system strength result in any adverse or unintended consequences for market participants in the NEM? |  |

**CHAPTER 6** – System Strength

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| **Question 13: Section 6.1 – Evolving the regulatory definition of system strength** | |
| 1. Do stakeholders consider that the AEMC's working description of the effects of system strength, and related problem description of system strength and its components accurately represents all elements of system strength, as experienced in the NEM? |  |
| 1. If not, are there other components of system strength that the AEMC should include? |  |
| 1. What measures might be used to define system strength? Is fault level the only measure that can be used practically, or are other measures available? |  |
| **Question 14: Section 6.2 – Mechanisms to provide system strength above the essential levels that are necessary for security** | |
| 1. Do stakeholders consider the centrally coordinated model, as proposed by TransGrid, is the preferable option for providing system strength above the essential levels required for secure operation? |  |
| 1. Do stakeholders consider the decentralised, market-based model proposed by HydroTasmania to be the preferable option for providing system strength above the essential levels required for secure operation? |  |
| 1. Could a hybrid of these models be used to deliver system strength above the essential level? |  |
| 1. What do stakeholders perceive to be each model’s strengths and weaknesses? |  |
| 1. Do stakeholders consider there are other, alternative models for delivering system strength above the minimum levels required for secure operation? |  |
| 1. What do stakeholders perceive to be the biggest benefits and risks to introducing a mechanism to deliver system strength above the minimum levels required for secure operation? |  |

**CHAPTER 7** – Operating reserve service

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| **Question 15: Section 7.1 – Requirement for a dedicated in-market reserve service, mechanism or market** | |
| 1. What do stakeholders see as the key drivers or changes in the NEM that could be addressed by introducing an explicit in-market reserve arrangement? |  |
| 1. Do stakeholders’ think there is a need for an explicit in-market reserve arrangement in the NEM. If yes, do stakeholders consider the need to be permanent or transitional? |  |
| 1. How would an explicit in-market reserve mechanism or market impact stakeholders? What would be the key benefits and costs? Would it effect stakeholders’ operational or investment decisions? |  |
| 1. Do stakeholders see there to be an explicit need for a capacity commitment mechanism as proposed by Delta?  Do stakeholders see this as a separate need to an in-market reserve service? |  |
| **Question 16: Section 7.2 – Achieving security and reliability using dedicated in-market reserves** | |
| 1. Do stakeholders have views on whether an in-market reserve market or mechanism should solve primarily for reliability outcomes and security outcomes second? Or can this be more effectively co-optimised? |  |
| 1. How do stakeholders see an explicit in-market reserve market or mechanism interacting with the existing NEM reliability framework? What are the policy design priorities for a new operating reserves arrangement that would deliver the reliability needs of the power system? |  |
| 1. How do stakeholders see an explicit in-market reserve market or mechanism interacting with the existing NEM security framework? What are the policy design priorities for a new in-market reserve market or mechanism that would deliver the security needs of the power system? |  |

**CHAPTER 8** – Frequency Control

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| **Question 17: Section 8.1 – Reforms related to the provision of synchronous inertia** | |
| 1. Do stakeholders consider that the issues relating to declining levels of synchronous inertia have been adequately and accurately described? |  |
| 1. Are there any other issues related to the provision of synchronous inertia that have not been adequately described? |  |
| 1. What are stakeholders’ views on the approach to considering the interaction between FFR and inertia in the NEM? |  |
| **Question 18: Section 8.2 – Reforms related to frequency control during normal operation** | |
| 1. Do stakeholders consider that the issues relating to frequency control during normal operation have been adequately and accurately described? |  |
| 1. Are there any other issues related to frequency control during normal operation that have not been adequately described? |  |
| 1. What are stakeholders’ views on the proposed approach to reforming the process for the allocation of the costs of regulation services (Causer pays)? |  |
| 1. Is the level of specification of regulation services in the NER fit for purpose as the power system transforms? |  |
| **Question 19: Section 8.3 – Reforms related to frequency control following contingency events** | |
| 1. Do stakeholders consider that the issues relating to frequency control following contingency events have been adequately and accurately described? |  |
| 1. Are there any other issues related to frequency control following contingency events that have not been adequately described? |  |
| 1. What are stakeholders’ views on the best way to address the challenges to managing system frequency following contingency events, including reforms to value and reward FFR? |  |
| 1. Is the level of specification for contingency services in the NER fit for purpose as the power system transforms? |  |

**CHAPTER 9** – Interactions between system services

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| **Question 20: Section 9.1 Technological and temporal issues for system service provision** | |
| 1. What are stakeholders' views on how the arrangements for system services can be developed, to best utilise the capability of both established, as well as new and emerging technologies? |  |
| 1. Do stakeholders have any initial thoughts on how the arrangements for system services can be best coordinated over dispatch, commitment and investment time frames? |  |
| **Question 21: Section 9.2 – Aheadness and commitment** | |
| 1. Do stakeholders agree with the characterisation of arrangements for aheadness and commitment, including the potential benefits? |  |
| 1. What are stakeholders' views on the potential downsides of introducing arrangements for commitment of capability ahead of dispatch? |  |
| 1. Are there alternative arrangements that can reduce the increasing uncertainty associated with power system operation in the NEM? |  |
| **Question 22: Section 9.3 – Cost recovery arrangements** | |
| 1. What are stakeholders' views on the appropriate approach to cost recovery for each of the system services discussed in this paper? |  |
| 1. In each case, how can the cost recovery arrangements be developed to lower the overall costs of the NEM? |  |
| **Question 23: Section 9.4 – Implementation considerations** | |
| 1. What are the challenges or implications associated with implementing proposed arrangements discussed in this paper? |  |
| 1. What are stakeholders’ views on the prioritisation or staging of the reforms to address the issues discussed in this paper? |  |