

8th October 2020

Att: Ms Merryn Yorke
AEMC
Level 15
60 Castlereagh Street
Sydney, NSW, 2000

Dear AEMC,

AEMC rule change request – Creation of Bi-Direction Resource Provider

Y.E.S. Energy is a Small Generation Aggregator (SGA) (**YESSASGA**) and a market customer (Energy Retailer) (**YESSA**) in the NEM. Y.E.S. requests the AEMC make a rule change in accordance with section 91 of the National Electricity Law. The proposed rule change would create a new defined term under the National Electricity Rules (**NER**) – “Bi Direction Resource Provider”. The reason for the rule change request is that current FCAS raise contingency recovery charges incurred by SGAs are unfairly disproportionate to their material impact on the national grid. We are supportive of the AEMO proposed rule change and would like it to be implemented immediately.

Summary of the issue

There are currently three classifications of NMI's in the NEM (Small/Large/Generator) which are published by through MSATS by the LNSP (Local Network Service Provider). Only NMI's that are classified as Generator and registered under an SGA currently incur Raise Contingency FCAS recovery charges from AEMO. (An example of a Generator NMI is a solar farm where its prime purpose is to export energy to the grid). FCAS contingency raise charges are recovered for energy exported to the grid within the contingency event to SGA and Market Generators. In Q1 2020 the largest recovery costs in history since the commencement of the NEM were recovered.

In conjunction with this a commercial and industrial (C&I) site with on-site consumption and a large solar system installation has its NMI classified by the LNSP as large. The C&I site shall be registered under a market customer (Energy Retailer). A C&I site still has the ability to export energy to the grid during a FCAS raise contingency events, however because the NMI is classified as Large and the site is registered under a market customer it does not incur FCAS raise recovery costs as currently market customers only pay FCAS Lower recovery costs for energy imported not FCAS raise recovery costs for energy exported.

Regardless both types of generators, either registered under an SGA or Market Customer have the ability to export and contribute equally to variations to the frequency of the network. However, with the current rules only SGAs and market generators are required to bear the associated FCAS raise recovery costs to AEMO.

Bidirectional flows are occurring at connection points for all market participant categories – Market Customers and SGA's. No market participant should be advantage over another market participant as this will lead to perverse outcomes within the market.

Non Energy cost recovery under the NER is based on market participant categories, it assumes that a generator or SGA exports energy and a Customer Consumes Energy, Increasingly this assumption is invalid as bi directional flows are occurring at connection points for all market participant categories, this is clear where both market customers and SGA at the connection point both produce and consumer energy. The AEMO rule change notes that the use of net metering data will further reduce the basis of how recovery costs can be made. With a bidirectional resource provider and SGA's recovery costs can be based on consumed and exported energy. This approach should be adopted for all market participants as it is of particular concern that a market customer with a similar portfolio to SGA should

also be required to pay their fair share of non-energy recovery costs within the region where they are contributing.

Case study

In February 2020, during the two-week period where South Australia was disconnected from Victoria, Y.E.S. Energy's ancillary payments which are usually around \$300 per settlement week increased to \$40,000 (WK5) and \$89,000 (WK7). Y.E.S Energy currently operates around 30MW of distributed Generation in South Australia across 80 NMI's, having all of its NMI's classified as GENs and registered under its SGA participant ID. Y.E.S Energy was 100% exposed to the FCAS raise recovery events during these weeks and it was the end customer (regional farmers and owners of solar farms) who were required to pay the recovery costs to AEMO via YESSASGA.

In contrast, it was identified NMI's that were classified as GEN but registered under a market customer (Energy Retailer) did not incur FCAS raise recovery charges. It is also noted that a C&I NMI's with a solar system, classified as Large and registered under a market customer (Energy Retailer) did not incur FCAS raise recovery charges. As currently these sites only incur FCAS lower recovery charges, however, contribute equally to variations to the frequency of the network. The current rule structure for FCAS raise and lower recovery has created a significant financial disadvantage. A solution needs to be implemented so NMI's that contribute to variations to the frequency of the network through raise or lower contingency events are recovered from equally by AEMO

Proposal

We propose to create a new defined term in the NER of "Bi Direction Resource Provider" (**BDRP**). The term would capture all sites with generators that also consume electricity, whether exempt or SGAs. BDRPs would be required to install interval metering and obliged to be charged or remunerated accordingly depending on their contribution during FCAS contingency events. Please find attached the text of the proposed rule change.

Objective

We submit that the proposed rule change will contribute to the achievement of the National Electricity Objective as set out in s 7 of the National Electricity Law. The rule change would continue to ensure the reliability and security of the national grid and supply of electricity. While there may be some short term costs associated with implementing the change, ultimately it lowers costs for SGAs by disbursing them amongst other market participants in a fair and equitable manner. Continued encouragement of small generation capacity will lead to lower long term prices faced by consumers due to increased market participation and competition in peak generation capacity and improved efficiency in the use of peaking capacity.

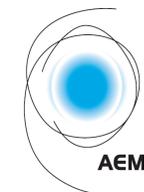
Y.E.S. Energy would be grateful if the above matter could be considered by the AEMC. If you would like further details on any of the above, please contact Mark Yates at mark@yateselectrical.com.

Thanks and Regards

A handwritten signature in black ink, appearing to be "Mark Yates", written in a cursive style.

Mark Yates

YES Energy (SA) Pty Ltd
Lot 41 Sturt Highway
Paringa SA 5340



Integrating storage – consultation paper: stakeholder feedback template

The template below has been developed to assist stakeholders in providing their feedback on the questions posed in this paper and any other issues that they would like to provide feedback on. The AEMC encourages stakeholders to use this template to assist it to consider the views expressed by stakeholders on each issue. Stakeholders should not feel obliged to answer each question, but rather address those issues of particular interest or concern. Further context for the questions can be found in the consultation paper.

Organisation:

Contact name:

Contact details (email / phone):

Questions		Feedback
Chapter 1 – Introduction		
Question 1: Proposed assessment framework (p. 5)		
1	Do you agree with the proposed assessment framework or are there any additional assessment criteria the Commission should use when assessing identified issues and possible solutions?	Yes – We are supportive of the proposed rule change and would like to see this implemented immediately.
Chapter 2 – The threshold question: should storage be defined in the NER?		
Question 2: Current issues caused by the treatment of storage (and hybrids) under the NER (p. 14)		
1	Do you agree with AEMO that there are currently significant issues for storage units and hybrid facilities being caused by the rules not including a storage definition? Why, or why not?	Yes – We agree with AEMO. Bi Directional flows are occurring at connection points for all market participant categories – Market Customers and SGA's

Questions		Feedback
2	Has AEMO identified all the current issues for storage and hybrid facilities that arise from its primary issue that the NER does not recognise and adequately define storage? If not, what are the other issues?	No – We would also like to see this applied to SGA’s allowing SGA to provide energy from a combination of both Generation and Storage behind the connection point.
Question 3: Implications for storage forecasts (p. 21)		
1	Do you agree that storage and hybrid facilities are likely to play a significant role in the future market? If so, do you agree that this indicates that the issues AEMO has identified in its rule change request, arising from the current treatment of storage under the NER, are likely to become worse over time? Why, or why not?	Yes – We agree with AEMO. Bi Directional flows are occurring at connection points for all market participant categories – Market Customers and SGA’s
Question 4: AEMO’s rationale for defining storage and hybrids in the NER (p. 25)		
1	Do you agree with AEMO that there is a strong rationale for defining storage and hybrid facilities in the NER (as different to load and generation)? Why or why not?	Yes – We agree with AEMO. Bi Directional flows are occurring at connection points for all market participant categories – Market Customers and SGA’s
2	Bearing in mind that the two-sided market reforms (as discussed in section 2.2.4) propose to move towards service-based requirements (rather than technology-based requirements), are there differences in the nature of the services provided by or to storage facilities that require these services to be distinguished from generation and load?	No Comments.

Questions		Feedback
Question 5: AEMO's rationale for defining storage and hybrids in the NER (p. 27)		
1	Do you have any comments on AEMO's wording for its proposed definitions of storage and hybrid facilities?	No Comments
Question 6: Alternative to AEMO's proposed solution to integration issues for storage (p. 29)		
1	<p>In light of the alignment issues between AEMO's rule change request and the direction the ESB's two-sided market reforms are taking, which of the following approaches do you support and why?</p> <ul style="list-style-type: none"> a. Waiting for the implementation of the two-sided market reforms to address the integration issues facing storage and hybrid facilities b. Introducing AEMO's rule change proposal as an interim step prior to the implementation of the two-sided market reforms c. Implementing certain aspects of the two-sided market reforms through this rule change project, such as combining the different types of market participants and imposing obligations based on services rather than assets d. Taking an alternative approach - please specify. 	We are supportive of either B or C.

Questions		Feedback
Chapter 3 – Registration issues for storage units and hybrid facilities		
Question 7: Understanding the interest in registering hybrid facilities and the challenges that exist (p. 35)		
1	Why would you consider aggregating different technologies together in a hybrid facility? Which technologies do new participants propose to combine in hybrid facilities?	Bidirectional flows are occurring at connection points for all market participant categories – Market Customers and SGA's. No market participant should be advantage over another market participant as this will lead to perverse outcomes within the market.
2	Are you considering using storage to minimise causer-pays liabilities by balancing the output of your units across multiple connection points under the current NER? What are the challenges of this approach?	Yes – We would like to see the SGA and Market Customers to be treated equally for the recovery costs as it is quite evident that the bi directional flows at connection points for each type of market participant are having equal effects on the causes pays issues, these costs should be equally shared at the connection point.
3	Would you prefer to balance output and consumption across multiple connection points or combine technologies behind an individual connection point?	Yes – We would like to see the recovery costs based at the connection point and netted out for all market participants – Market Customers and SGA based on the net value of either generation or consumption at the connection point.
4	Are you considering aggregating renewable plant and batteries together as a scheduled generating unit under the current rules? What regulatory challenges do you see with this approach?	Indifferent – We are considering aggregating batteries to our current Market SGA portfolio of Exempt Non-Market Non Scheduled generation and would like to see the same rules as applied to Market Generation and Scheduled Generators applied to the SGA also.
5	Do you consider that the lack of clarity in the NER on whether different technologies can be aggregated is a significant issue for registering hybrid facilities? If so, why?	No Comment

Questions		Feedback
Question 8: Registration process issues (p. 36)		
1	What are your experiences with the current registration categories for storage projects and hybrid facilities?	It is unclear if an SGA adds storage to an existing non-scheduled generation asset how this is to be classified?
2	Do you agree the existing approach imposes high administrative and financial costs for participants registering storage units and hybrid facilities or create barriers to entry?	No Comment.
3	Do you consider that the NER should set out how participants with storage units and hybrid facilities should register and participate in the market, rather than AEMO guides? Or have AEMO's guides and fact sheets now solved the identified registration issues for storage and hybrid facilities?	No Comment
4	Do you consider the registration issues AEMO has raised in its rule change request will become worse in the future if the current NER are retained?	No Comment.
5	Are there other registration issues for intending participants with storage and hybrid facilities that arise from the fact that the NER do not fully consider these technologies, which are not detailed in AEMO's rule change?	No Comment

Questions		Feedback
Question 9: Issues with small storage units (p. 38)		
1	Do you agree that there is not sufficient clarity regarding whether SGAs and other market participants, can include small storage units in their portfolios?	Yes – As a current MSGA it is not clear if an SGA adds storage to an exempt generation asset how this is to be classified. We would also like to see this rule change apply to the SGA and allow provision for the SGA to participate in FCAS contingency markets as currently this option is not available.
Question 10: Proposed approach to registration categories and classifications (p. 43)		
1	Do you consider that AEMO's proposed solution will make the registration process simpler and less expensive for intending participants seeking to classify storage units and hybrid facilities?	Yes.
2	In relation to the registration of hybrid facilities, do you agree that the NER should provide that participants cannot aggregate units with different classifications or different technology types (unless AEMO approves it on a case-by-case basis)?	No Comment
Question 11: Registering pumped hydro facilities (p. 44)		
1	Do you support AEMO's proposed approach to registration and classification for pumped hydro facilities?	No Comment
2	Is a storage unit's ability to ramp linearly from production to consumption the best way to determine whether it should classify as a bi-directional unit, or classify as a scheduled generating unit and scheduled load?	No Comment

Questions		Feedback
Question 12: Proposed approach for transitional arrangements (p. 44)		
1	Would participants with storage that are currently registered as a Market Generator and Market Customer want to transition to AEMO's new category and classification? If so, what advantages would it offer?	No Comment
2	Should owners/operators of existing standalone storage units be grandfathered, i.e. permitted to remain on their current registration and classification arrangements?	No Comment
Question 13: AEMO's solution to clarify what small units SGAs can aggregate (p. 45)		
1	Do you agree with AEMO's proposal to clarify how an SGA can include storage units in its portfolio?	Yes – It should be made clear that an SGA can provide energy storage as it is currently not clear in the rules, we would also like to see the SGA have the ability to participate in FCAS Contingency markets.
2	Does AEMO's solution provide flexibility for an SGA to include DER, other than storage, that may have bi-directional energy flows?	Yes. We would also like to see the SGA to have the ability to participate in FCAS contingency markets as part of this rule change proposal.
Question 14: Adding further registered participant categories (p. 47)		
1	Is there a strong case to add a participant category for storage or are there other alternative solutions that could help to reduce complexity?	No Comment
Question 15: Alternative solutions for registered participant categories (p. 48)		
1	Is AEMO's proposed rule the most efficient and effective way to address the identified	No Comment

Questions		Feedback
	issues relating to participant registration and unit classification? Are there alternatives or ways to potentially improve it?	
Chapter 4 – Technical and operational challenges relating to utility scale storage and hybrid facilities		
Question 16: Bidding in scheduled storage facilities (p. 54)		
1	How complex are the current arrangements for bidding for a scheduled storage facility compared to bidding for a scheduled generator or load?	No Comment
2	If available and if you had storage facilities, would you opt to change from the existing arrangements to a single DUID model, with 10 price bands rather than 20?	No Comment
Question 17: Dispatch conflicts (p. 55)		
1	How often these conflicts occur in relation to energy and FCAS, and how material are they for the operators of scheduled storage units and other market participants?	No Comment
2	To what extent can these conflicts be, or to what extent have they already been, remediated through experience and through improved bidding systems?	No Comment
3	Would moving to a single DUID model be an appropriate and proportionate response?	No Comment

Questions		Feedback
Question 18: Aggregation and ramp rates (p. 57)		
1	What problems arise under the current arrangements in relation to the application of minimum ramp rates?	No Comment
2	Do you agree with AEMO's proposal to rely on the aggregation approach set out in Chapter 3 of the NER (rather than the one set out in Chapter 2 of the NER)?	No Comment
Question 19: Forecasting and energy availability (p. 60)		
1	Are there problems arising from energy-limited plant not being reflected in forecasts?	No Comment
2	Could this problem be addressed by requiring storage facilities to provide additional information on energy limits in their bids, as proposed by AEMO?	No Comment
Question 20: Performance standards (p. 62)		
1	Are the current rules unclear on how performance standards should apply in facilities with a mix of asset types? Do the current rules create barriers for storage hybrid facilities? To maintain power system security, should AEMO have greater visibility of the assets behind a connection point?	No Comment

Questions		Feedback
2	Could these challenges be mitigated by having a single set of performance standards for each asset, as proposed by AEMO?	
Chapter 5 – Issues with fees and charges		
Question 21: Issues with how fees and charges, and non-energy costs are recovered (p. 69)		
1	Do you agree that there is an inconsistency with how fees and charges and non-energy costs are recovered from Market Participants?	Yes, particularly in respect of FCAS contingency raise charges. This is because Market Customers also export electricity to the grid, including during FCAS contingency raise events. Unlike, MSGAs and Generators, Market Customers are not required to pay FCAS contingency raise charges despite their exported electricity contributing to the event.
2	What is the impact of this issue? Does it create an uneven playing field and does it create (or has it the potential to create) perverse behaviours and outcomes?	<p>Participants registered as Market Customers that also generate have a clear advantage over MSGAs which also consume electricity. Both participants have the same impact on the frequency of the network, and both consume and export electricity.</p> <p>Despite this, Market Customers are not required to contribute in FCAS contingency raise events and can actually receive payment in FCAS contingency lower events by virtue of their generation. Conversely, energy consumed by MSGAs during a raise event does not reduce their FCAS contingency raise charges.</p> <p>Furthermore, MSGAs are required to contribute a greater amount in FCAS contingency raise events. This is because generators registered as Market Customers do not contribute to the charges, meaning they are borne entirely by MSGAs and Generators.</p> <p>Non Energy cost recovery under the NER is based on market participant categories, it assumes that a generator or SGA exports energy and a Customer Consumes Energy, Increasingly this assumption is invalid as bi directional flows are occurring at connection points for all market participant categories, this is clear where both market customers and SGA at the connection point both produce and consumer energy. The AEMO rule change notes that the use of net metering data will further reduce the basis of how recovery costs can be made. With a bi directional resource provider and SGA's recovery costs can be based on consumed and exported energy. This approach should be adopted for all market participants as it is of</p>

Questions		Feedback
		particular concern that a market customer with a similar portfolio to SGA should also be required to pay their fair share of non energy recovery costs within the region where they are contributing.
3	Do you consider the burden of costs will be exacerbated as exempt generating units increase behind the meter?	No – With Net Metering it will reduce the basis on where the recovery costs can be made. No participant should be advantaged otherwise this will lead to perverse outcomes, this can be aligned back to the NEO.
4	Are there any other issues that the Commission should consider with respect to fees and charges, and non-energy cost recovery?	<p>Case study</p> <p>In February 2020, during the two-week period where South Australia was disconnected from Victoria, Y.E.S. Energy’s ancillary payments (which are usually around \$300 per settlement week) increased to \$40,000 (WK5) and \$89,000 (WK7). Y.E.S Energy operates approximately 30MW of distributed generation in regional South Australia across 80 NMIs. All of its NMI’s are classified as Generators and registered under its SGA participant ID. Y.E.S. was exposed to the FCAS raise recovery events during these weeks and regional owners of solar farms were required to pay the recovery costs.</p> <p>In contrast, it was identified that NMIs that were classified as Generators with AEMO, but registered under a Market Customer did not incur FCAS contingency raise charges. This is despite the fact that the sites under Market Customers had the same impact on the frequency of the network during this time.</p> <p>No participant should be unfairly advantaged based on their market participant classification if they have similar portfolios which are equally contributing.</p>
Question 22: Solutions for issues with fees and charged and non-energy cost recovery (p. 71)		
1	Do stakeholders agree with AEMO's proposed solution that MSGA and the proposed bi-directional resource provider participant categories should pay non-energy cost recovery and NEM Participant fees and	Yes – We agree – With Net metering it will reduce the basis on which the recovery costs can be made.

Questions		Feedback
	charges based on consumed and sent out energy separately (as is the current practice for a grid-scale battery registered as both a Market Generator and Market Customer)?	
2	Will AEMO's proposed solution level the 'playing field' between existing grid-scale batteries, MSGAs and participants under the proposed new category bi-directional resource provider? That is, will AEMO proposed solution more efficiently allocate fees and charges and non-energy costs between these Market Participants categories?	Yes - We are supportive of this and would also like to see the SGA have the ability to participate in FCAS contingency markets
3	For hybrid facilities are further requirements needed, for example, should each asset in a hybrid facility be required to have a revenue meter or is supervisory control and data acquisition (SCADA) data appropriate?	All current SGA generation sites between 200KW and 5000KW are required to have SCADA this is a requirement of the LNSP.
4	Are there practical or implementation issues associated with charging MSGAs non-energy costs and NEM Participant fees based on consumed and sent out energy?	No – This can be calculated from the Net Metering Point from energy consumed or exported.
Question 23: Alternative solutions for issues with fees and charges and non-energy costs recovery (p. 73)		
1	Do you consider it appropriate to recover non-energy costs from Market Customers and Market Generators in the same way AEMO recovers costs from grid-scale batteries? That is, should participant fees, charges and non-	Yes – in relation to non-energy costs in particular. Our responses to Question 21 above demonstrate it is inequitable for Market Customers with generation not to have the energy they export taken into account.

Questions		Feedback
	energy costs for Market Generators and Market Customers be calculated on energy consumed and energy sent out separately, not on netted energy as is the current practice?	
2	If changes are made to how participants' fees, charges and non-energy costs are recovered, do you consider creating a new participation category, bi-directional resource provider, is the best way to do this? Or could it be appropriate to make changes to existing market participant categories to achieve the same outcome?	Yes – We are supportive of this bi directional resource provider classification.
3	Do you consider that there are other changes that could be made to Participant fees and non-energy cost recovery that would create a more consistent and level the playing field across Participant categories?	No Comment
Question 24: Issues with TUOS and DUOS charging arrangements (p. 76)		
1	Do you agree that there is ambiguity and uncertainty around how transmission and distribution network businesses calculate and charge TUOS and DUOS for battery systems?	Yes
2	Does this ambiguity and uncertainty create a material issue for investment in battery storage projects now, or in the future as the number of energy storage projects increase across the NEM?	No Comment

Questions		Feedback
3	What are the pros and cons to allowing each NSP discretion in developing and applying TUOS and DUOS charges? On balance, should the approach and method to applying TUOS and DUOS charges be harmonised among NSPs?	Yes – It should be made consistent based on the connection point type.
4	Is there a regulatory risk when NSPs interpret how to apply the current rules to battery systems?	No Comment
Question 25: Solutions for clarifying the application of TUOS and DUOS charging (p. 79)		
1	Do you agree with AEMO's proposal to exempt all energy storage systems from TUOS charges? If you agree with an exemption, should the exemption of TUOS charges also apply to energy used on site (auxiliary load) i.e. energy that is not stored and sent out into the network?	Yes.
2	<p>If battery systems are exempt from TUOS charges does this:</p> <ul style="list-style-type: none"> a. create a subsidy for battery technology and therefore an advantage over other generation technologies? b. remove the ability to provide an efficient location and/or price signal to potential battery system proponents, and therefore impact on the efficient entry and location of new battery system participants? 	No Comment

Questions		Feedback
3	<p>If battery systems are not exempt from TUOS charging does this:</p> <ul style="list-style-type: none"> a. create double charging of TUOS /DUOS for end use customers? b. distort investment signals and not align with the need for significantly more storage investment across the NEM? 	
4	<p>How should TUOS and DUOS charges apply to hybrid facilities? Should TUOS and DUOS charges be based on metered data at the network connection point, or another option? Are there technical or implementation issues with this?</p>	<p>Based on the metered data at the connection point for the net value of both consumed and generated energy</p>
5	<p>Do you agree that battery systems should pay DUOS charges for consumed energy? Please explain why or why not.</p>	<p>No Comment</p>
<p>Question 26: Alternative solutions for issues with TUOS and DUOS charging (p. 82)</p>		
1	<p>How would charging all Market Participants TUOS and DUOS, based on the services received by participants (energy consumed) rather than based on the asset type, impact participants' behaviour and market outcomes? This would mean that all Market Participants would be liable for TUOS and DUOS charges for the energy that is consumed at their network connection point.</p>	<p>No Comment</p>

Questions		Feedback
2	If all Market Participants were charged TUOS and DUOS, would this have any impact on existing external arrangements?	No Comment
3	Is a definition for storage technologies needed to clarify TUOS and DUOS charging, or could AEMO's proposed solution or an alternate solution be implemented using the existing Market Participant categories, such as a scheduled load?	No Comment
4	Are there technical issues or complications with implementing AEMO's proposed solution or an alternative solution?	No Comment
5	Do stakeholders consider there is an inconsistency in the approach NSPs use to calculate network prices? If yes, would a more harmonised approach to network pricing provide clearer investment signals across the NEM and reduce costs for battery system proponents?	No comment
6	Does the introduction of LMP and FTRs as contemplated through transmission access reform impact whether storage should face TUOS?	No Comment
7	Are there any other approaches that could be considered to address the issues raised by AEMO?	No Comment

Questions		Feedback
Chapter 6 – Storage and hybrid integration drafting and other issues		
Question 27: Technology specific drafting in the NER – issues (p. 88)		
1	Are you concerned that the terms relating to load and generation, or other terms in the NER, are not sufficiently technologically neutral? If so why?	No Comment
1	Do you consider key terms in the NER such as 'generation' and 'load' are ambiguous when applied to storage and hybrids? If so, why?	No Comment
Question 28: Technology specific drafting in the NER – proposed solution (p. 91)		
1	Would AEMO's proposed changes to these key terms in the NER assist with the effective integration of storage and hybrids in the NER? Are there other terms or definitions that are more appropriate than those suggested by AEMO?	No Comment
2	Do you think the benefits of this proposed drafting solution would likely outweigh the costs, given the scale of the changes?	No Comment
3	Would changes to these fundamental terms in the NER affect related external documents such as contracts, procedures and guidelines (other than AEMO's), and if so would the changes cause you to incur costs or other difficulties? What implementation period would be needed to address these issues?	No Comment

Questions		Feedback
Question 29: Technology specific drafting in the NER – other options (p. 91)		
1	Are there other terms and definitions in the NER that are not sufficiently technology neutral?	No Comment
2	What are some other drafting approaches which could be used to make the NER more technology neutral?	No Comment
Question 30: Intervention compensation – issues (p. 97)		
1	What other specific issues relating to storage and hybrid assets need to be considered in formulating appropriate intervention compensation arrangements?	No Comment
2	Are the current arrangements for applying the market suspension framework and administered price period compensation framework to storage and hybrid appropriate in light of the increasing numbers of these facilities in the NEM? If not, what changes do you consider are required?	No Comment
3	Should changes be made to clause 3.15.7B to create consistency with the existing definition of direct participant and address the omission of scheduled loads?	No Comment

Questions		Feedback
Question 31: Intervention compensation – solutions (p. 97)		
1	Do you consider that a separate compensation framework should be developed for storage and hybrid assets, or should they continue to be compensated in line with existing intervention compensation frameworks in order to minimise market distortions, subject to the amendments currently under consideration?	No Comment
2	If you consider a separate compensation framework should be developed, how should it differ from the existing frameworks?	No Comment
3	If you consider that the current frameworks should continue to apply to storage and hybrid assets, are any additional amendments required?	No Comment
Question 32: RRO – issues (p. 100)		
1	Is it appropriate for the electricity imported from the grid for the purposes of energy storage to form part of a liable entity's liable load under the RRO?	No Comment
2	Should operators of storage assets be liable entities under the RRO?	No Comment

Questions		Feedback
Question 33: RRO – solutions (p. 100)		
1	Do stakeholders agree with AEMO that the RRO should apply to storage only when the storage system is co-located with a separate load in a hybrid facility (this does not refer to the battery's own load)?	No Comment
2	Would alternative or additional changes to the application of the RRO to load for storage be more appropriate?	No Comment
Question 34: RRO – storage contribution to reliability issues (p. 101)		
1	What are your views on the issues which relate to whether or not storage contribute to reliability issues?	No Comment
2	Are there any other issues to consider when evaluating the treatment of load used for storage under the RRO?	No Comment
Question 35: RRO – implementation issues (p. 101)		
1	Should RRO liabilities for hybrid facilities continue be calculated at the connection point? If not, where?	No Comment
Question 36: RRO – other options (p. 102)		
1	Can the issues (if any) related to the application of the RRO to storage and hybrids be resolved without establishing a	No Comment

Questions		Feedback
	new market participant category for these facilities?	
Question 37: Marginal loss factors – issues (p. 103)		
1	Are the current arrangements for calculating and applying MLFs to storage and hybrids appropriate in light of the increasing numbers of these facilities in the NEM? If not, what changes do you consider are required?	No Comment
Question 38: Marginal loss factors – solution (p. 103)		
1	Do you agree with AEMO's proposed solution of applying the existing arrangements for applying MLFs to its proposed new market participant category (if this category were to be established)?	No Comment
Question 39: Reliability Panel representation (p. 104)		
1	Is it appropriate to require that the Reliability Panel include a member to specifically represent storage and hybrid asset proponents, or are the current mandatory and discretionary membership provisions adequate?	No Comment
Question 40: Other drafting issues – issues (p. 106)		
1	Do you consider it appropriate to address these additional drafting issues	No Comment

Questions		Feedback
	identified by AEMO in the course of this rule change process?	
2	Are there any other issues similar to those presented in Table 6.3 which have not been identified by AEMO, which you consider should be addressed in the course of this rule change process?	No Comment
Question 41: Other drafting issues – solution (p. 108)		
1	Do these solutions proposed by AEMO in 6.3 effectively resolve the issues identified in 6.2? If not, what solution would be preferable?	No Comment