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16 September 2020

Ms Merryn York
Chair
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Reference code: ERC0280

Dear Ms York,

Response to Integrating Energy Storage systems consultation paper

AusNet Services is pleased to have the opportunity to make a submission to the Australian Energy Market Commission's (**AEMC**) consultation paper on rule changes proposed by the Australian Energy Market Operator (**AEMO**) to design the market framework associated with energy storage facilities in National Electricity Market (**NEM**).

AEMO has proposed to create a new Market Participant registration category of Bi-directional Resource Provider and classifications for bi-directional units to enable fit for purpose treatment of energy storage facilities. We consider the rule change consultation should improve the framework for integrating energy storage systems while complementing other major reforms, including the Energy Security Board's post 2025 market reforms and the Distributed Energy Resources integration rule changes.

We support, in principle, reforms that create greater certainty for investment in energy storage and hybrid facilities. With the rapid growth in adoption of these technologies, it is important that the registration categories for energy storage systems are clearly specified in the rules on the transmission and distribution networks. However, at the distribution network level, we consider there is currently no uncertainty on whether Distribution Use of System (**DUOS**) charging framework applies.

As identified in the consultation paper, we agree that the points below are issues to be resolved:

- participant fees for bi-directional units applying to both charging and discharging;
- uncertainty associated with the application of Transmission Use of System (**TUOS**) charges for bi-directional units connected to the transmission networks; and
- the need to prescribe fit for purpose treatment for batteries for managing limited energy capacity reserves of a storage system.

We consider the changes proposed by AEMO would address these issues, although we observe that amending the existing generator registration category to enable bi-directional energy flow would also address the issues without creating an additional new bi-directional registration category.

Additionally, we recommend not including small bi-directional units in the proposed changes. The Integrating Energy Storage rule changes have the potential to be applied to thousands of aggregated small battery systems at the distribution network level. Changing these connection point level arrangements to conform with the likely forthcoming post 2025 market reform two-sided market solution may be complex and costly.

Please find our completed stakeholder feedback template addressing the questions posed in the consultation paper.

If you have any queries on our submission, please do not hesitate to contact Justin Betlehem on 03 9695 6288.

Yours sincerely,

Charlotte Eddy
Manager Economic Regulation

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: AusNet Services
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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?	AusNet Services agrees with the proposed assessment framework for the integrating storage rule change.
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?	AusNet Services agrees there appears to be uncertainty regarding the application of participant fees, TUOS charges and the handling of limited energy capacity reserves of a storage system. In relation to DUOS charges for energy storage facilities, the National Electricity Rules (NER)

Questions		Feedback
		make it clear that Distribution Network Users and Embedded Generators are subject DUOS charging in accordance with the pricing principles. We note the issues associated with participant fees and TUOS charges were only introduced by recent 2017 changes to generator registration guideline, which required registering a storage unit as a generator and market customer. Previously, storage units could be registered as generators, with auxiliary consumption, and therefore avoided paying TUOS and market fees for both generation and storing energy.
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?	We have identified no further issues.
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?	We agree the rapid growth in storage and hybrid facilities warrants a greater amount of focus.
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?	We consider there is some merit to defining storage and hybrid facilities in the NER, as different to load.
2	Bearing in mind that the two-sided market reforms (as discussed in section 2.2.4) propose to move towards service-	AusNet Services provides no position on whether a service-based market removes the need for defining storage or bi-directional unit in the NER.

Questions		Feedback
	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?	
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?	We consider AEMO's proposed wording of bi-directional units is appropriate in distinguishing them from generators and market customers.
Question 6: Alternative to AEMO's proposed solution to integration issues for storage (p. 29)		
1	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? 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	AusNet Services recommends a "no regrets" interim option of establishing AEMO's rule change and applying it for new sites, without including provisions that enable small bi-directional units to operate in the distribution network. The reason for excluding small bi-directional units is to avoid the risk of establishing complicated arrangements for small scale distribution connected battery systems and those arrangements subsequently changing after the two-sided market reform is implemented. The benefit of our recommended no regrets interim option is it would resolve the issues of paying TUOS and market fees for consumption and generation. Updates to registrations and classifications at the transmission level (or large unit connected at the distribution level) are not likely to create extensive change or incur significant implementation costs. While our recommended option avoids the likely risk of mandating unnecessary changes for the more complicated arrangements of aggregated batteries at the distribution network level.

Questions		Feedback
	participants and imposing obligations based on services rather than assets d. Taking an alternative approach - please specify.	
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?	No response provided
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?	No response provided
3	Would you prefer to balance output and consumption across multiple connection points or combine technologies behind an individual connection point?	No response provided
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?	No response provided

Questions		Feedback
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 response provided
Question 8: Registration process issues (p. 36)		
1	What are your experiences with the current registration categories for storage projects and hybrid facilities?	No response provided
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?	We are not directly impacted by costs of registering storage units or hybrid facilities, but we consider registration process issues associated with financial costs could also be resolved with amendments to AEMO's electricity market fee structure, which is currently under consultation.
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 response provided
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 response provided
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,	No response provided

Questions		Feedback
	which are not detailed in AEMO's rule change?	
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?	AusNet Services agrees with the Commission in stating there may be a lack of "oversight of how small generating units participant in the market, not just small storage units." However, we consider the post 2025 reform is the appropriate place to consider the arrangements for aggregated small bi-directional units at the distribution level. Incorporating the small bi-directional units into this rule change may not align with the two-sided market solution and cause unnecessary costs.
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?	No response provided
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 response provided
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 response provided
2	Is a storage unit's ability to ramp linearly from production to consumption the best way to	No response provided

Questions		Feedback
	determine whether it should classify as a bi-directional unit, or classify as a scheduled generating unit and scheduled load?	
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 response provided
2	Should owners/operators of existing standalone storage units be grandfathered, i.e. permitted to remain on their current registration and classification arrangements?	No response provided
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?	AusNet Services observes small batteries at the distribution level normally share a connection point with other generation facilities (e.g. solar powered inverter energy systems) or the retail customer's premises consuming electricity. Proposed rule 2.3A.1(b)(2) precludes these sites being small bi-directional units. Hence, this small bi-directional units would be sparsely applied. As discussed earlier, we consider the post 2025 two-sided market solution is the appropriate reform to consider the arrangements for aggregated small bi-directional units at the distribution level.
2	Does AEMO's solution provide flexibility for an SGA to include DER, other than storage, that may have bi-directional energy flows?	No, proposed rule 2.3A.1(b)(2) precludes these sites being small bi-directional units.

Questions		Feedback
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?	We consider that adding a participant category for storage would be an equally valid approach to addressing the issues associated with storage.
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 issues relating to participant registration and unit classification? Are there alternatives or ways to potentially improve it?	No response provided
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 response provided
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 response provided
Question 17: Dispatch conflicts (p. 55)		
1	How often these conflicts occur in relation to energy and FCAS, and how material are they	No response provided

Questions		Feedback
	for the operators of scheduled storage units and other market participants?	
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 response provided
3	Would moving to a single DUID model be an appropriate and proportionate response?	No response provided
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 response provided
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 response provided
Question 19: Forecasting and energy availability (p. 60)		
1	Are there problems arising from energy-limited plant not being reflected in forecasts?	AusNet Services agrees with AEMO that there is insufficient information on the energy limited capacity reserves of scheduled storage and especially battery systems.
2	Could this problem be addressed by requiring storage facilities to provide additional information on energy limits in their bids, as proposed by AEMO?	We consider there are other ways for storage facilities to provide adequate information on energy limits in their bids, but we provide no views on how effective these arrangements would be.

Questions		Feedback
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 response provided
2	Could these challenges be mitigated by having a single set of performance standards for each asset, as proposed by AEMO?	No response provided
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?	We consider that under the current electricity fee structure and generator registration guideline there is an issue with storage facilities paying market fees for both generating electricity and storing energy. However, we note that AEMO is currently consulting on the electricity fee structure and this matter may be resolved as part of that review.
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?	No response provided
3	Do you consider the burden of costs will be exacerbated as exempt generating units increase behind the meter?	No response provided
4	Are there any other issues that the Commission should consider with respective	No response provided

Questions		Feedback
	to fees and charges, and non-energy cost recovery?	
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 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)?	No response provided
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?	No response provided
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?	No response provided
4	Are there practical or implementation issues associated with charging MSGAs non-energy	No response provided

Questions		Feedback
	costs and NEM Participant fees based on consumed and sent out energy?	
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 form grid-scale batteries? That is, should participant fees, charges and non-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?	See our response to 21.1.
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?	No response provided
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 response provided

Questions		Feedback
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?	AusNet Services considers the question of whether TUOS and DUOS charging is permitted is not ambiguous, because these arrangements are defined in the pricing principles of chapters 6 and 6A of the NER. However, there is uncertainty on how DUOS should be applied. The perceived ambiguity for TUOS charging arrangement may have been caused by the 2017 introduction of the generator registration guideline requiring a storage facility to be registered as a market customer and a generator, while prior to the generator registration guideline storage facilities were classified as a generator with auxiliary supplies.
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?	AusNet Services is supportive of resolving the current uncertainty in whether TUOS applies to energy storage units, and we consider this would provide greater investor certainty.
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?	We agree there should be a NEM-wide approach to whether NSPs should charge for energy storage systems in their network. However, there needs to be flexibility for networks to provide signals on location/ charging behaviour, which may include the ability to waive DUOS charges (in full or in part) if we are able to define dispatching and storing operational conditions on the energy storage unit. Applying TUOS to bi-directional units is different because the operation of transmission constraints which directly impact the dispatch of scheduled and semi-schedule generators and auxiliary loads are governed by AEMO and the TNSP. Further, non-firm access to the transmission network prevent generators and bi-directional units from contributing to TNSP costs. Therefore, we do not support harmonisation with treatment of DNSP and TNSP network tariffs charges.

Questions		Feedback
4	Is there a regulatory risk when NSPs interpret how to apply the current rules to battery systems?	We have sought clarification from the AER on this issue in the past and consider that there is there is a benefit in further clarifying the arrangements. Regulatory risk could be mitigated through extensive consultation with proponents and NSPs, engagement with the AER and NSPs providing transparent information.
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?	AusNet Services agrees with AEMO's proposal to exempt all energy storage systems from TUOS charges, except for loads not associated with the storage of energy for re-injection into the transmission network. The framework adopted for transmission connected hybrid facilities should be fit for purpose and not allow gaming. For example, if large load facilities added generation and sought to avoid paying TUOS for the existing underlying load component.
2	If battery systems are exempt from TUOS charges does this: 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?	For auxiliary loads associated with energy storage, the exemption from TUOS charges provides energy storage units means equal treatment with generators. As the charging of energy storage facilities would be scheduled it would provide strong signals for the load to be placed in a part of the network that can support it. The incentives of avoiding congestion and paying lower marginal loss factors help promote the efficient location of new energy storage facilities.
3	If battery systems are not exempt from TUOS charging does this: a. create double charging of TUOS /DUOS for end use customers?	AusNet Services agrees that subjecting battery systems to TUOS charges disadvantages the operator of the battery system compared to generators, and ultimately means consumers paying more for TUOS network charges than they should and distort investment signals.

Questions		Feedback
	b. distort investment signals and not align with the need for significantly more storage investment across the NEM?	
4	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?	We suggest that hybrid facilities should be treated no differently to single a bi-directional unit to the extent hybrid facilities consist of generation unit and bi-directional unit. Loads for the normal load consuming plant and the storage device load would require separate revenue meters. TUOS charges would apply to non-energy storage loads in hybrid facilities.
5	Do you agree that battery systems should pay DUOS charges for consumed energy? Please explain why or why not.	Yes, we agree that battery systems should be eligible to receive network support payment for deferring network augmentation and be eligible under the NER to pay DUOS charges that reflect the long run marginal cost on the distribution network. However, DNSPs should have the discretion to waive DUOS charges, if the energy storage system will be operated to the net benefit of customers. Ultimately, DNSPs can benefit from smart investment by, and cooperation with, proponents in energy storage systems and waiving network charges is one way to attract that investment into their network.

Questions		Feedback
Question 26: Alternative solutions for issues with TUOS and DUOS charging (p. 82)		
1	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.	We consider charging network fees for consumption and generation is very different at the distribution and transmission network levels, for the following reasons: • DUOS charges to storage facilities are required to be cost reflective and can be minimised by consuming at times of low utilisation of shared network assets. • Bi-directional units connected to the distribution networks can benefit from network support payments to the extent they operate in a way that avoids the need for augmentation. • Further, operators of battery systems at the distribution network often minimise these costs by co-locating generation at the site of the battery system. Current reviews are only considering the option for charging both at the distribution network level, not transmission connection points.
2	If all Market Participants were charged TUOS and DUOS, would this have any impact on existing external arrangements?	The charging of DUOS for all Market Participants for energy consumed and generated is the subject of another rule change consultation process on Distributed Energy Resources Integration. We suggest the question of whether all market Participants pay DUOS be addressed in the Distributed Energy Resources Integration rules change consultation. As outlined above, we support the proposal that the NER permit the application of DUOS, and not TUOS, for bi-directional units. The AEMC should be mindful of the broader implications and transition to the broader post 2025 two-sided market reforms.
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?	We consider under the current generator registration guideline, defines an energy storage facility as a generator and market customer, a clarification in the Rules is required to provide certainty on TUOS charging arrangements.

Questions		Feedback
4	Are there technical issues or complications with implementing AEMO's proposed solution or an alternative solution?	At this time, we have not identified any specific issues. However, we recommend further consideration of consequential impacts to guidelines, codes and jurisdictional arrangements of changes to add bi-directional units to the Rules.
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?	AusNet Services is aware of some inconsistency in the approach NSPs use to calculate network prices for energy storage systems. Notwithstanding that NSP pricing is based on in the pricing principles of chapters 6 and 6A of the NER and approved by the AER. We consider transmission and distribution networks should be able to have separate network pricing arrangements that comply with a common set of principles. We continue to consult with stakeholders and engage with the AER to provide greater consistency with other NSPs.
6	Does the introduction of LMP and FTRs as contemplated through transmission access reform impact whether storage should face TUOS?	AusNet Services suggests that the impact of LMP and FTRs be considered in the other broader reforms, including post 2025 two-sided market design.
7	Are there any other approaches that could be considered to address the issues raised by AEMO?	No response provided
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 response provided
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 response provided

Questions		Feedback
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 response provided
2	Do you think the benefits of this proposed drafting solution would likely outweigh the costs, given the scale of the changes?	No response provided
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 response provided
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 response provided
2	What are some other drafting approaches which could be used to make the NER more technology neutral?	No response provided

Questions		Feedback
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 response provided
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 response provided
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 response provided
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 response provided

Questions		Feedback
2	If you consider a separate compensation framework should be developed, how should it differ from the existing frameworks?	No response provided
3	If you consider that the current frameworks should continue to apply to storage and hybrid assets, are any additional amendments required?	No response provided
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 response provided
2	Should operators of storage assets be liable entities under the RRO?	No response provided
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 response provided
2	Would alternative or additional changes to the application of the RRO to load for storage be more appropriate?	No response provided

Questions		Feedback
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 response provided
2	Are there any other issues to consider when evaluating the treatment of load used for storage under the RRO?	No response provided
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 response provided
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 new market participant category for these facilities?	No response provided
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 response provided

Questions		Feedback
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 response provided
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 response provided
Question 40: Other drafting issues – issues (p. 106)		
1	Do you consider it appropriate to address these additional drafting issues identified by AEMO in the course of this rule change process?	AusNet Services considers some of the changes identified would impact to other market reforms, including Global Settlements and Market Reconcilliation.
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 response provided

Questions		Feedback
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 response provided