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Merryn York
Acting Chair
Australian Energy Market Commission
201 Elizabeth Street
Sydney NSW 2000

21 October 2020

Dear Ms York,

Project ERC0280: AEMC Consultation Paper, National Electricity Amendment (Integrating Energy Storage Systems into the NEM) Rule

Enel Green Power (EGP) welcomes the opportunity to respond to the Australian Energy Market Commission's (AEMC's) Consultation Paper.

Founded in 2008, and part of Enel Group, EGP builds and operates large scale renewable generation capacity in energy markets around the world. EGP operates in 28 countries on 5 continents with a managed capacity of over 46 GW and over 1,200 plants. EGP is the largest privately owned renewable energy company in the world, generating approximately 100 TWh of renewable electricity from hydro, solar, wind and geothermal resources every year.

With some 41,532 MW of renewable generation capacity potentially entering the National Electricity Market (NEM) over the next 20 years,[1] battery energy storage systems (BESS) will become an increasingly critical link between achieving climate change objectives while at the same time maintaining a secure and reliable power system.

EGP strongly supports the broad intent of AEMO's rule proposal to simplify and clarify the rules for battery energy storage systems (BESS) and remove regulatory barriers to their participation in wholesale markets. We do however hold different views on a number of key aspects of the rule proposal.

In summary, we agree with the following proposals in the rule request:

- BESS and hybrids should have their own definition and registration category in the rules (i.e. bi-directional resource provider), which would ensure that BESS are not treated as both load and generation in the rules;
- BESS should have a single asset DUID (rather than two as it does currently), which should apply to every asset that sits behind a connection point (i.e. there should be multiple DUIDs for hybrid facilities). The latter would allow flexibility for allowing both scheduled and semi-scheduled units to be included as part of the bi-directional facility.
- Performance standards should apply at the asset level, which would avoid the complexity of having to negotiate a single performance standard applying at a connection point that is impacted by the performance of all the facilities behind the connection point;

[1] AEMO ESOO 2020, p 7

- Transmission Use of System (TUOS) charges should not apply to BESS, as this is inconsistent with the principles underpinning the open access network. End users pay because they benefit from the guaranteed delivery of secure and reliable electricity. Generators on the other hand are not required to fund the shared network because the network is open access and their ability to deliver their energy is not guaranteed, it is based on a combination of their offer price and the available transmission capability. Further, under the existing consumption based approach to cost recovery applied by network service providers (NSPs), applying network charges to BESS means customers would in fact be paying twice for the network, as BESS providers will inevitable seek to recover their network charges in their market offers.

Our views differ with AEMO's rule proposal on the following matters:

- We do not agree with AEMO's proposal for recovery of participant fees and non-energy costs to be based on both consumed energy and sent out energy for small BESS (i.e. forming part of a Small Generator Aggregator) and grid scale BESS. We consider this is likely to lead to the over-recovery of these costs from BESS and will require a raft of overly complicated drafting changes to the rules to ensure competitive neutrality between small and grid scale BESS. We consider that a better approach may be to apply a different cost recovery structure to BESS – a subscription style charge (e.g. $ MW/month) based on capacity size, which would create an even playing field between small and grid scale batteries.
- We also do not consider that BESS should pay Distribution Use of System Charges (DUOS). It is not clear to us why AEMO is recommending BESS pays DUOS. The principle for why storage should not pay TUOS also applies to DUOS
- Finally, we disagree with many of the technology specific drafting changes proposed by AEMO, which appears to create unnecessary administrative complexity and risks confusion over interpretation. By and large existing definitions should be retained where possible. Many of the changes are unlikely to be necessary if AEMO's proposed approach to recovery of non-energy costs and participant fees is not implemented. We have a particular issue with replacing the term 'load' with 'consumed electricity' throughout the rules. BESS does not consume electricity per se (other than a small amount through losses). Rather, it stores electricity that has already been produced elsewhere for the purpose of deliver for consumption later (large and small customers). The drafting changes have the potential to confuse cost recovery arrangements for network charges, which are based on customer consumption.

These issues are covered in more detail to the specific questions posed in the consultation paper, which we have set out in the Appendix to this letter.

Please feel free to contact Con Van Kemenade, Head of Regulatory Affairs, on 0439399943 to discuss anything we have raised in this submission.

Yours faithfully,

Javier Blanco

Country Manager

Enel Green Power Australia

Appendix

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?	The assessment framework is appropriate
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. AEMO has articulated the reasoning for these issue adequately in the rule proposal. From EGP's perspective the key issues relate to additional administrative complexity, the complexity surrounding the negotiation of performance standards for hybrid facilities and application of costs and fees. Creating a new participant category for bi-directional facilities would clarify obligations and cost allocation requirements, increasing certainty and confidence for investors in BESS.
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?	Yes.
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. BESS will be required to play an increasingly important role in the energy transition, which means a streamlined and simple framework for connection, registration and market participation will be important in providing market participants with the necessary confidence to invest in this technology.
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	Broadly yes. BESS is a fundamentally different technology to generation and load and operates differently in the market. It

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	defining storage and hybrid facilities in the NER (as different to load and generation)? Why or why not?	doesn't produce or consume energy as such, which justifies having own category in the rules.
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?	Yes. The nature of the service BESS provides is storing already produced electricity for consumption at a later point in time. This is a different service to that provided by generation and loads. The classification of a connection point as generation suggests energy is being produced at that site while classification of a connection point as load suggests electricity is being consumed on site. We see potential merit in moving to a service based requirements under the two-sided market reforms. However, this would entail substantial long term market reform and a complete rewrite of the NER. The addition of a new registration category as proposed by AEMO represents an incremental change that could be implemented relatively quickly and would provide significant benefits for BESS in the market.
▪ **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.
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	Strongly support option b. See our answer to 4.2

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	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.	
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?	There are a range of reasons. A hybrid facility could allow a participant to manage congestion, causer pays liabilities, semi-schedule obligations, ramp rates, intermittency and losses. These issues will become far more prevalent as the energy transition progresses.
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?	NA.
3	Would you prefer to balance output and consumption across multiple connection points or combine technologies behind an individual connection point?	It depends entirely on what the purpose of installing the BESS is. Participants will use both strategies depending on their particular circumstances and therefore it will be important for the rules to provide sufficient flexibility to allow for both approaches without incurring excessive or unnecessary costs for the particular approach pursued.
4	Are you considering aggregating renewable plant and batteries together as a scheduled generating unit	These have largely been outlined in AEMO's rule request. One aspect deserving more attention is the complexity of negotiating performance standards for hybrid facilities, where

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	under the current rules? What regulatory challenges do you see with this approach?	there are multiple and different types of units behind a single connection point.
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?	Yes. The rules are unclear on how different types of technologies may be aggregated for dispatch. Given such aggregation will become an increasingly adopted strategy in our view (see answer to Q7.1), we support AEMO's proposals for clarifying and simplifying the rules for aggregation.
Question 8: Registration process issues (p. 36)		
1	What are your experiences with the current registration categories for storage projects and hybrid facilities?	The current registration categories contribute to a connection process that is administratively complex unclear, and unwieldy. We support AEMO's proposals to simplify and clarify these arrangements
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?	Yes.
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?	Yes. AEMO's guidelines are helpful but ultimately can only operate within the given constraints of the NER. For long term certainty the rules themselves need to change in order to comprehensively and transparently address the issues identified by AEMO. BESS should be treated in the same way as generation as far as the balance of guidance that should be set out in the rules versus guidelines.
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?	Yes. Some 30,000 MW of renewable generation capacity is expected to enter the NEM over the next 15 years. To support the intermittency of this capacity will require a substantial volume of BESS to be installed.
5	Are there other registration issues for intending participants with storage and hybrid facilities that arise from the fact that the NER do not	No.

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	fully consider these technologies, 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?	The rules could provide greater clarity on this point.
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)?	AEMO's rule change permits aggregation, provided certain conditions are met, which must be demonstrated on a case by case basis. We have no issue with this approach and consider it prudent.
Question 11: Registering pumped hydro facilities (p. 44)		
1	Do you support AEMO's proposed approach to registration and classification for pumped hydro facilities?	NA
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?	NA

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?	Yes. One obvious reason is if the network charging arrangements are changed for Bidirectional providers then existing BESS participants would want to benefit from that.
2	Should owners/operators of existing standalone storage units be grandfathered, i.e. permitted to remain on their current registration and classification arrangements?	This is likely to be appropriate, to give participants the choice of not having to reopen agreed performance standards.
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?	NA
2	Does AEMO's solution provide flexibility for an SGA to include DER, other than storage, that may have bi-directional energy flows?	NA
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 there is a strong case for a new participant category for 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?	Yes. However, we consider there is potential merit in moving to a services based approach as proposed under the two-sided market arrangements. However, such a complete rewrite of the rules would require considerable additional analysis to evaluate the costs and benefits of doing so.

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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?	They are significantly more complex.
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?	We would support a single DIUD model, however would prefer the flexibility 20 price bands, given the bi-directional nature of BESS
▪ **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?	NA
2	To what extent can these conflicts be, or to what extent have they already been, remediated through experience and through improved bidding systems?	NA
3	Would moving to a single DUID model be an appropriate and proportionate response?	Yes.
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?	NA.
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)?	NA.

Questions		Feedback
Question 19: Forecasting and energy availability (p. 60)		
1	Are there problems arising from energy-limited plant not being reflected in forecasts?	Yes.
2	Could this problem be addressed by requiring storage facilities to provide additional information on energy limits in their bids, as proposed by AEMO?	Yes. We support that storage production forecasting should reflect energy availability. However, storage should be allowed to offer FCAS beyond its energy limits because these services are related to bi-directional energy flows and actual activation is limited to short periods of time.
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?	Yes. Part of the complexity of managing a battery connection in a hybrid facility is negotiating a performance standard that applies as the connection point. We support AEMO's proposal to have performance standards applied at the asset level.
2	Could these challenges be mitigated by having a single set of performance standards for each asset, as proposed by AEMO?	Yes. This would mean that separate performance standards could be brought forward in parallel for the different components of a hybrid project. One of the main issues we are facing today is that having a single performance standard causes delays due to the difficulty in aggregating multiple facility models and an issue with one of the models could lead to the delay of the full hybrid project
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.
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?	Yes. Small batteries are currently not charged in the same way as grid scale batteries, which creates an uneven playing field in favour of batteries.

Questions		Feedback
3	Do you consider the burden of costs will be exacerbated as exempt generating units increase behind the meter?	Yes.
4	Are there any other issues that the Commission should consider with respective to fees and charges, and non-energy cost recovery?	No.
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. As a fundamentally different technology and registration category a new fee structure will need to be determined for batteries that should not be based on consumption or sent out energy, as this approach no longer makes sense for a bi-directional facility. For NEM participant fees the FRMP for the BESS should pay their fair share of these costs, perhaps in the form of a fixed payment $MW/annum (subscription fee) based on the size of the BESS. This would require a change to the structure of participant fees. This approach would create an even playing field between small and large batteries. Charging with respect to both sent out and consumed energy amounts to double charging. It is important to recognise in this regard that batteries do not consume energy. They store energy which is produced and consumed by others.
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. Charging for both sent out and consumed energy will lead to excessive charges for bi-directional facilities small and large.
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	No. Where any kind of BESS is included behind a connection point then a monthly or annual capacity charge (based on the size of the connection) is likely to be a simpler structure for allocation of participant fees.

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	acquisition (SCADA) data appropriate?	
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?	Installation of revenue meters at all sites behind at connection point is likely to be costly and unnecessary.
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?	Please see answer to Q 22.1.
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?	Creating a new category participation is simpler.
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?	Please see answer to Q 22.1

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?	Yes. Because network charges are recovered on the basis of consumption
2	Does this ambiguity and uncertainty create a material issue for investment in BESS projects now, or in the future as the number of energy storage projects increase across the NEM?	Yes. TUOS and DUOS charges applied to BESS are a significant barrier to entry.
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?	There should be no discretion. A uniform approach across both TUOS and DUOS is required.
4	Is there a regulatory risk when NSPs interpret how to apply the current rules to battery systems?	Yes.
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?	BESS competes with generation in the wholesale market and should therefore be charged in the same manner to avoid distortions to competition. For this reason, DUOS and TUOS should not be applied to BESS, as generators do not pay network charges at the present time (only connection charges). The current philosophy underpinning recovery of TUOS and DUOS is that customers should fund the cost of the grid, for three main reasons: • First, they are deemed to be the ultimately beneficiaries of the grid, as it provides them with guaranteed delivery of secure and reliable energy. • Second, the open access nature of the grid means that while generators and grid scale BESS have a right to connect, there is no guarantee they will be able to deliver their energy to market, which will

Questions		Feedback
		depend on their offer price and level available transmission capacity. • Third, the cost of the network is largely fixed and sunk, which means recovering these costs from generators would lead to distortions in the wholesale energy market, as they would seek to recover these costs in their market offers. Customers would therefore still end up paying for them, but at the expense of a distortion being created in the wholesale market.
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?	No, because peaking generators with whom they compete also do not pay TUOS or DUOS. With respect to efficient locational signals, this is noted. However, network charges are a blunt signal for locational decisions. COGATI will be a fare more effective mechanism for delivering efficient price signals to batteries. In the meantime, losses and exposure to being 'constrained off' will provide sufficient locational signalling.
3	If battery systems are not exempt from TUOS charging does this: 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?	Yes. Batteries are a critical technology for addressing peak demand, by making them pay network charges, while peaking generation does not this creates an uneven playing field. Further, network charges applied to batteries will need to be recovered from consumers, which under existing cost recovery mechanisms means consumers will be double charged for the network.
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	TUOS and DUOS should apply at the facility level. This means that some form of subtractive metering will need to be installed to account for any loads that sit behind the connection point.

Questions		Feedback
	another option? Are there technical or implementation issues with this?	
5	Do you agree that battery systems should pay DUOS charges for consumed energy? Please explain why or why not.	No. This is inconsistent with the principle outlined in our response to Q25.1. There is no economic principle that would suggest TUOS should be treated differently to DUOS with respect to cost recovery.
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.	This would be inconsistent with the principles for cost recovery we outlined in our response to Q25.1, which suggests end use customers should pay for the network.
2	If all Market Participants were charged TUOS and DUOS, would this have any impact on existing external arrangements?	NA
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?	Yes, a new registration category for storage is necessary to clarify arrangements, including those that apply to cost recovery of both participant fees and network charges.
4	Are there technical issues or complications with implementing AEMO's proposed solution or an alternative solution?	Implementing a new registration category for BESS and clarifying that neither TUOS or DUOS applies (much like generation) would be straightforward.
5	Do stakeholders consider there is an inconsistency in the approach NSPs use to	NA

Questions		Feedback
	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?	
6	Does the introduction of LMP and FTRs as contemplated through transmission access reform impact whether storage should face TUOS?	LMP would provide the signals required to site and operate BESS efficiently. Exposing TUOS would subsequently lead to over signalling for
7	Are there any other approaches that could be considered to address the issues raised by AEMO?	Ensuring BESS pays no TUOS or DUOS in line with generation is the most efficient and straightforward approach.
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. We disagree with AEMO on this point. We are concerned with the concept of 'consumption' as proposed by AEMO. In our view, storage does not consume energy, it simply stores it for use at a later point in time.
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.
▪ **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?	While some changes will be necessary, we believe the vast majority of AEMO's proposed technology specific drafting changes are unnecessary if our suggested approach to charging for non-energy services and network charges is implemented.
2	Do you think the benefits of this proposed drafting solution would likely outweigh	No we do not.

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	the costs, given the scale of the changes?	
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?	Yes. It is important that changes are kept to a minimum. The majority are unnecessary.
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
2	What are some other drafting approaches which could be used to make the NER more technology neutral?	Some minor drafting changes can be introduced to achieve this objective in our view.