21 December 2020

Arek Gulbenkoglu
Acting General Manager, Consumers and Markets Branch
Australian Energy Regulator
GPO Box 520
Melbourne VIC 3000

By email: AERInquiry@aer.gov.au

Dear Arek

Re: Updating the ring-fencing guidelines for stand-alone power systems and energy storage devices issues paper

CitiPower, Powercor and United Energy welcome the opportunity to respond to the Australian Energy Regulator's (AER) issues paper on updating the ring-fencing guidelines for stand-alone power systems and energy storage devices.

These subjects are relevant to how our networks are facilitating new ways of generating, using and transporting electricity to enable homes and businesses to maximise the benefits of low emissions opportunities and technologies. We recognise climate change is affecting the local communities we operate in due to hotter summers, more erratic weather conditions and longer bushfire seasons. How our society generates and uses electricity directly influences this change. We therefore acknowledge our role in planning, building and managing electrical infrastructure so it is more resilient to conditions, continues delivering safe and reliable power to our customers, and helps achieve environmental objectives.

We are pleased the AER has recently approved our ring-fencing waiver for United Energy's pole-mounted battery energy storage system (BESS) trial. This trial will allow us to demonstrate 'value stacking' to deliver the greatest benefit to consumers by using a single device to provide network and market benefits, offsetting some of the cost of the BESS units, and delivering lower cost outcomes to consumers. The AER's decision allows us to implement innovative solutions to efficiently improve customer outcomes and manage increasing levels of distributed energy resources and aligns with our customers' expectations and preferences.

We support updating the ring-fencing guideline to account for the changing energy landscape and the rapid rate of development of alternative technologies to traditional distribution assets. Updates to the guideline should be flexible to accommodate the many avenues for technological advancements in distribution assets in the medium and long-term. A flexible and technology-neutral guideline will significantly reduce the uncertainty and transaction costs of seeking and processing waivers, resulting in lower costs to consumers for services that deliver long-term benefits.

Our submission demonstrates the following:

Energy storage

- Distributors are well placed to enable the realisation of the full value stack through use and operation of grid-scale energy storage, and United Energy has already demonstrated this capability. In cases where

the distributor-led storage solution delivers the highest net benefit or long-term interest to consumers, distributors should be able to carry out the innovative solution without the administrative and time-consuming burden of waivers and similar restrictions.

- Distributors participating in the market do not require exclusivity and the ultimate ownership structure, service model and price of any such initiative will be dictated by the market. We are incentivised to seek efficient solutions under the current incentive-based regulatory framework and as such do not have a commercial incentive to prefer any ownership structure or block access to other market participants.
- As the market for grid-scale energy storage is still immature, there is an opportunity for distributors to foster the market and provide dynamic efficiencies through the provision of services that deliver customer benefits at efficient cost through economies of scale.

Standalone power systems (SAPS)

- We support exemptions of SAPS under a broad category such as cost threshold or size threshold. A broad category is practically and administratively simple to enact and monitor. Conversely, specific exemption categories will be challenging to define and may not be suitable for energy market transition.
- A cap of 1% of revenue is an appropriate exemption threshold, where the value for Powercor (the most likely of our networks to implement SAPS) is similar to the threshold for the Regulatory Investment Test for Distribution (RIT-D).
- There should be a consolidated single register of all SAPS for customer and stakeholder information, including SAPS run by distributors and other third parties.

Improving the guideline

- We support the AER's proposed clarifications to the guideline on staff sharing information requirements, which reflects our voluntary improvements made since 2019.
- The AER should further explain any flow on effects of definitional changes and make these clearer in its upcoming draft decision.
- Where a breach is immaterial or trivial, the reporting requirement should not apply. A requirement to report all breaches increases the administrative burden on both distributors and the AER, where trivial or immaterial breaches pose no threat to competition.
- We consider that 10 or 15 business days to report breaches (rather than current five days) is a more realistic timeframe that all distributors could meet.

We provide further details on the above in the body of the submission.

Should you have any queries about this submission please do not hesitate to contact Sonja Lekovic on (03) 9683 4784 or slekovic@powercor.com.au.

Yours sincerely,

Renate Vogt
General Manager Regulation
CitiPower, Powercor and United Energy

1 Energy storage

Our networks are leaders in innovation in network management, including through our Summer Saver and Energy Partner demand response programs, the United Energy BESS trial, and several electric vehicle integration trials currently in-flight. Our innovative thinking reflects our customers' expectations and preferences for continuous improvements in how we do things, and preference for use of latest technology to reduce costs and defer traditional network investment.

Grid-scale energy storage is an innovative solution that can provide efficient network management services, with opportunities for unlocking other benefits such as community electricity sharing and/or competitive energy market participation. Due to its potential 'value stacking', the demand for various storage solutions is growing rapidly across our communities—we are already in discussions for a potential new community battery program in CitiPower and are also working with the Victorian Government on its recently announced its $11 million 'neighbourhood battery' initiative.

As the demand and viability of grid-scale energy storage grows, there is great potential in expanding our use of this technology at large scale to improve the efficiency of our network management, provide better customer outcomes and ultimately reduce both short and long-term costs to consumers.

In the sections below we demonstrate that distributors are well placed to own and operate grid-scale storage units, that we can provide those services today, and that distributor participation in the grid-scale storage market is likely to foster further market development rather than hinder competition in the long-term.

1.1 Grid-scale energy storage is primarily a network asset

While grid-scale energy storage can provide multiple services to multiple parties, including network management and competitive energy services, any asset connected to the distribution network 'in front of the meter' will primarily serve as a network asset for our purposes. Connecting assets to the network and aligning it with our systems, communications network and performance standards will only be beneficial to our customers if we are able to optimise outcomes from:

- managing maximum and minimum demand, avoiding or deferring augmentation in constrained parts of the network, ultimately reducing costs to consumers associated with addressing network constraints
- reducing export curtailment and increasing customers' ability to export their excess energy, through voltage control and dynamic operating envelopes in the future
- transport the stored electricity from shared grid-scale infrastructure to customers when they need it at a competitive price.

This is regardless of the ownership structure of the asset—whether we own or lease the asset, if we are not able to prioritise and optimise its use for managing network constraints, our customers would be worse-off and we would not be investing in that model. The incentive-framework under which we operate is a highly effective in rewarding efficient network management over the opportunity of earning unregulated revenues.

As such, we consider the grid-scale energy storage unit's primary purpose is providing system security and network optimisation, with the opportunity to unlock other value streams. This is reflected in the commercial arrangements of United Energy's BESS trial.[1]

It is important to make this distinction given the likely increase in batteries and similar technologies that will be connecting to the network 'in front of the meter' over the medium and long term. If the BESS trial is successful, and with the expected decline in the cost of grid-scale storage, we expect these types of technologies will replace traditional network asset over time, albeit providing a similar network service.

Grid-scale assets should be treated as primarily network assets for regulatory purposes. However, to remove doubt, we support the update of the clause 3.1(d) to make it clearer that, in addition to 'shared assets' for the purposes of the shared asset rules, it also applies to other circumstances in which third parties might use a distributor's other assets (such as grid-scale storage) to provide distribution services, transmission services or other services.

1.2 Customers benefit from distributor-led grid-scale energy storage

In the issues paper, the AER acknowledges using storage to provide multiple services across the electricity supply chain can improve the competitiveness of storage, known as 'value stacking'. This is because a well-utilised storage unit can deliver a range of benefits across the value chain, including:

- managing peaks, minimum demand and exports on the network, which defers traditional augmentation and replacement expenditure and reduces overall long-term costs to consumers
- storing and supplying electricity at the local level, minimising network usage and related costs
- providing wholesale energy services in the National Electricity Market (NEM) at competitive rates
- providing ancillary services in the NEM
- enabling customers with solar photovoltaic systems to benefit from storing export power at a lower cost than the alternative investment in a personal, residential battery which remain high-cost.

Distributors are well placed to enable the value stack by ensuring the network benefits are optimised, while providing opportunities for other competitive services to be delivered by third parties. In cases where the distributor-led storage solution delivers the highest net benefit or long-term interest to consumers (in accordance with the National Electricity Objective (NEO)), distributors should be able to carry out the innovative solution without the administrative and time-consuming burden of waivers and similar restrictions.

Preventing or delaying distributors from providing the most beneficial innovative solutions in a timely manner, and therefore preventing the full value stack from being realised, will lead to poorer customer outcomes and higher long-term costs to consumers.

As demonstrated by United Energy's current Bayside Battery project, the value proposition is supported by retailers who retain the direct relationship with contracted customers utilising the shared infrastructure.

1.2.1 Distributors can enable network benefits at least cost

Optimising network benefits from a grid-scale storage solution requires specialised knowledge of:

[1] United Energy, Ring-fencing Waiver Application, 12 October 2020, p.15.

- localised low voltage (LV) network constraints, including maximum and minimum demand and power quality constraints. This includes multiple streams of constraint information from tens of thousands of distribution transformers and connected customers
- a deep understanding of the condition of tens of thousands of distribution assets across the network. The condition of the asset is an important factor in determining both the future use of the asset and is ability to work in conjunction with the new technologies introduced on the network.

In addition, it requires the understanding of exceptional safety and reliability standards under which we operate, as well as the acceptance of duty to deliver to the same standard.

As such, distributors can provide the grid-scale energy storage solutions at low cost and should be allowed to deliver these benefits to consumers. As the owners and operators of the distribution network, our knowledge and experience is inherently superior to those of third parties. While we can share the necessary information with third parties, and we can enforce the delivery of performance standards, there is a transactional cost related to sharing, interpreting, analysing, and tracking of significant quantities of information, as well as the risk cost related to safety and reliability performance expectations. In cases of storage units that are attached to network assets, third parties would also incur costs of storing batteries on the network asset.

Conversely, we can deliver efficient network solutions without transitional or asset sharing costs, resulting in lower costs to consumers. Our experience also shows that third parties are often unwilling, or only willing at significant premiums, to take on the risk of safety and reliability performance standards.

1.2.2 The market for grid-scale batteries is still immature and would benefit from distributor-led initiatives

As three of the most efficient networks in Australia, we continuously seek innovative solutions to optimise network performance, including using network and non-network options. United Energy is an industry leader in implementing innovative solutions to manage demand, including the annual Summer Saver demand response program, multiple non-network arrangements to defer traditional augmentation, and most recently the BESS trial.

Following the introduction of the 2018 demand management incentive scheme (DMIS), all of United Energy's planned augmentation works are open to the competitive market, not just projects over the $6 million RIT-D threshold. (The same approach will apply in CitiPower and Powercor from 2021.) This means that we will never just augment the network—rather we test the market for the most efficient solution each time, evidencing our decision with the cost-benefit analysis of the identified need and the preferred solution.

However, our experience shows the market for grid-scale batteries is still in its infancy as the cost of the batteries is too prohibitive for most third parties currently in the market and the full suite of customer benefits is still unclear. This means there is an opportunity for distributors to participate in the market through provision of regulated service that deliver customer benefits at efficient cost. We can utilise our economies of scale and purchasing power to roll-out new technologies in the network at efficient cost and at scale. Alternatively, third parties and aggregators may find it difficult to get enough contracted residential batteries in the annual cycle to offer a service.

If distributors were prevented from installing grid-scale batteries to optimise network benefits, our customers would likely have to wait much longer to extract the value from batteries and at higher cost.

A comparison can be made to the progress of the competitive smart meter market across the NEM. Victorian customers have unlocked more than $1 billion in customer benefits since 2009, through a distributor-led smart meter infrastructure roll-out where more than 95% of customer had a smart meter within five years. Conversely, in other states where distributors have been precluded from participating in the competitive market and the smart meter penetration remains less than 20% since the new national framework for delivering smart metering services was introduced in 2017. It is evident customers in other jurisdictions in the NEM are missing out on significant benefits from smart meters due to the immaturity of the market and distributors' inability to provide the service at low cost.

Allowing distributors to participate in the market for grid-scale storage services is likely to help foster the overall market for energy storage and encourage more uptake. In turn, dynamic efficiencies from innovative solutions may instigate technological and commercial advancements that will lead to efficiencies and lower costs in the long run.

1.3 There are safeguards against potential harms and risk of distributor-led energy storage

The ultimate success of the grid-scale energy storage initiatives is ensuring customers benefit from the optimised value stack at least cost. If distributors are best placed to enable the value stack at an efficient cost, they should be allowed to participate in the markets. To do otherwise is likely to prevent the realisation of lower energy costs for consumers.

In the issues paper the AER expresses concern over several potential harms and risks of distributor-led energy storage solutions. These are either already addressed under the current framework, or can be managed through voluntary reporting, transparency and data sharing.

We address each concern below:

- **cost allocation and risk of cross-subsidies**—while there may be challenges in pre-determining the exact use of batteries over the life of the asset, the most relevant information for setting the cost allocation at the time of investment is the cost benefit analysis that clearly identifies the purpose of the battery use and value to customers, e.g. avoided reliability impacts and avoided cost of replacing failed assets. We agree with the AER that the cost sharing should be based on the combination of cost and benefit sharing between the parties.[2]
- **risk allocation**—similarly to the cost allocation, the cost benefit analysis of the preferred energy storage solution should include the consideration of risk in its calculation, to reduce potential for inappropriate risk allocation.
- **discrimination**—while there are inherent information asymmetries between us and third parties, there are multiple ways the potential for discrimination can be removed. We are incentivised to seek the most cost-effective solution to any constraint, and as such have no preference over ownership or leasing of assets or services. The efficiency incentives act as strong commercial deterrents to inefficient discriminatory behaviour, including setting connection conditions that would lead to inefficient investment.
- **information sharing**—we have increased sharing of information on constraints on the low voltage network through sharing of smart meter data. This will improve third-party's understanding of low

[2] AER, Final Decision Untied Energy Ring-fencing Waiver, Pole-mounted battery trial, December 2020, p.8.

voltage constraints and limit the risk of restricted access. We also produce lengthy distribution annual planning reports (DAPR) every year which requires us to publish all our network constraints and planned augmentation and replacement.

- **market development**—we consider the market for energy storage is still immature and there is benefit in distributor participation fostering further market development through economies of scale. In turn, dynamic efficiencies from innovative solutions may instigate technological and commercial advancements that will lead to efficiencies and lower costs for customers in the long run.

2 SAPS

2.1 Exemptions from the guideline

Like with innovative battery storage solutions, as technologies develop opportunities for efficient SAPS are likely to increase. We agree with the AER that for some types of SAPS the time and cost necessary to apply for a waiver would be disproportionate and wasteful. Without automatic exemptions in place, the risk is that the distributor-led roll-out of SAPS will be slower and there will be fewer SAPS in the market, resulting in unnecessarily higher costs to all consumers.

For this reason, we support exemptions of SAPS under a broad category such as cost threshold or size threshold. A broad category is practically and administratively simple to enact and monitor. Conversely, a more specific list of exemption categories will be challenging to define and may not be suitable for the energy transition.

We note there are a number of possible broad exemption categories. A revenue cap or expenditure cap threshold is a simple and appropriate measure, and reflective of the size of each distributor. We propose 1% of revenue to be an appropriate threshold, where the value for Powercor (the most likely of our networks to implement SAPS) is similar to the threshold for RIT-Ds.

It is important to note that a broad exemption does not automatically provide the distributor with exclusivity over service provision. Distributors will still in practice respond to the incentive regime, and if over time it emerges that some component of the SAPS service may be efficiently provided through a third-party, distributors will be free to pursue this.

Finally, to provide certainty of investment in SAPS, exemptions should last the lifetime of the SAPS asset and any guideline changes should be grandfathered.

2.2 SAPS exemption register

We support the introduction of a publicly available SAPS exemption register that is maintained by each distributor. The level of detail required of that register should be well targeted to matters that will assist the AER in its functions and assist our customers and stakeholder to understand the benefit of each SAPS.

However, we consider there to be benefit for the AER to track the ownership and operation of all SAPS, including those that are provided by third parties. This will allow our customers and stakeholders to have a full picture of all SAPS on the market. As such, we propose the register be consolidated with a single entity and include all information on SAPS in one place.

3 Improving the distribution guideline

3.1 Staff sharing

We largely support the AER's proposed clarifications to the guideline as outlined in the issues paper.

We have greatly improved our controls around staff sharing to ensure we do not confer a competitive advantage on any of our affiliates who participate in competitive markets. We support changes to the guideline that will ensure all distributors publish staff sharing registers which contain enough detail to demonstrate compliance with the guideline. We acknowledge that distributors have experienced control weaknesses regarding sharing procurement staff, and staff on secondment. We consider that detailed and transparent staff sharing registers can mitigate the risks of these shared staff undermining the intent of clause 4.2.2.

In 2019, we voluntarily and proactively undertook a comprehensive review and update of our public staff sharing registers. Our registers now include:

- role category
- descriptions of roles in that category
- whether any of the roles are shared with a related electricity service provider
- whether one of the exemptions to the staff sharing obligations contained in clause 4.2.2(b) of the guideline apply
- whether the role category and/or roles can be shared under clause 4.2.2 of the guideline.

We suggest that these categories may be appropriate for all distributors to adopt in their updated staff sharing registers. Consistency between distributors is ideal as it will make it easier for the AER and third parties to assess the appropriateness of distributors' staff sharing arrangements.

We support a requirement for distributors to update their staff sharing registers in a timely manner when staff sharing arrangements or circumstances change. We update our registers at least twice per year, or more where company restructures or role changes have occurred in between the biannual updates.

3.2 Information access and disclosure

Clauses 4.3.2 and 4.3.3 of the guideline provide that unless particular circumstances apply, a distributor must not disclose confidential information to any person, including a related electricity service provider. The AER is considering replacing the term "confidential information" in the guideline with the term "ring-fenced information," while the definition itself would remain unchanged. The intention of this change is to reduce confusion amongst distributors and stakeholders around the term. We agree with the AER's assessment that the current term "confidential information" can lead to confusion around what information is required to be kept confidential under the guideline.

However, we query the AER's assertion that following such changes to cl. 4.3.2 and 4.3.3 "the operation of this section of the Distribution Guideline would remain substantively the same."[3] We suggest that the AER

[3] AER, *Updating the Ring-fencing Guidelines for Stand-Alone Power Systems and Energy Storage Devices – Issues Paper*, November 2020, p. 33.

further explain what flow on effects such changes may have and make these clearer in its upcoming draft decision.

3.3 Materiality of breaches

3.3.1 Reporting requirement

The guideline requires that distributors report all material breaches to the AER within five business days. However, the AER has indicated in the last 12 months to us and other distributors that it expects distributors to report all suspected breaches, even immaterial or trivial ones. The AER then would engage in a dialogue with the distributor to jointly determine whether the reported breach was material or immaterial.

It is appropriate that the requirement to report material breaches remain. However, we consider that where a breach is immaterial or trivial, the reporting requirement should not apply. A requirement to report all breaches increases the administrative burden on both distributors and the AER, where trivial or immaterial breaches often pose no threat to competition and increases the risk of near misses going unreported internally. The robust and fulsome annual ring-fencing audit is intended to capture immaterial breaches, and to assess distributors' responses to them, and we consider that this is a sufficient control to assess these types of breaches.

3.3.2 Defining materiality

We agree with the AER that there has been confusion over the definition of materiality of breaches. We note that whilst the ring-fencing best practice compliance manual was updated in July 2019 and contains guidance on how to assess a breach's materiality,[4] there is still insufficient clarity around what constitutes a material breach.

Ideally, the ring-fencing guideline itself would clearly define what constitutes a material breach. Such a definition would need to be developed in conjunction with distributors.

3.4 Timeframes

The current requirement in the guideline is for breaches to be reported within five business days. This timeframe is unrealistic and does not consider the realities of operating in a commercial business where General Manager level sign offs can take time to obtain. Distributors need time to assess breaches and escalate these before reporting to the AER.

We consider that 10 or 15 business days is a more realistic timeframe that all distributors could meet.

3.4.1 Timing of annual compliance reports

The AER is considering introducing calendar year compliance reporting for all distributors. We are already on calendar year reporting as are the other Victorian distributors. As such we have no objection to the other states' reporting years being changed to align with ours.

[4] AER, *AER Electricity Distribution Ring-Fencing Guideline – Compliance reporting best practice manual – version 2*, July 2019, s. 2.1.