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### **Australian Energy Regulator – Updating the Ring-fencing Guidelines for Stand-Alone Power Systems and Energy Storage Devices**

Essential Energy welcomes the opportunity to provide a submission in response to the Australian Energy Regulator's (AER) Issues Paper: *Updating the ring-fencing guidelines for Stand Alone Power Systems and energy storage devices* (the Issues Paper). Essential Energy would also like to commend the constructive and consultative approach undertaken by the AER to date.

Distribution network service providers (DNSPs) have a vital role to play in the transition of customers to off-grid supply and the adoption of stand-alone power systems (SAPS) represents a significant opportunity to reduce network costs for all energy consumers. Essential Energy has constructively supported this view through engagement with various stakeholders in the development of the National SAPS model and subsequent regulatory advocacy.

Nonetheless, as identified by the AER, the National SAPS model contains a number of practical issues which would likely hinder the efficient implementation of SAPS solutions. Given this, Essential Energy welcomes the AER's approach taken in the Issues Paper which balances pragmatism and simplicity. Whilst some of the proposed exemptions require further refinement, the vast majority, if adopted, would resolve identified concerns raised by stakeholders and result in net customer benefits.

Energy storage devices have the potential to play a key role in the energy transition to a more distributed energy market and lower emissions economy. The Issues Paper succinctly identifies many of the benefits in allowing DNSPs greater flexibility in supporting the wider facilitation of battery roll outs where doing so contributes to improved customer benefits. This discussion is timely given the rapidly changing technology and innovative business models currently being investigated.

Broadly speaking, Essential Energy supports ring-fencing waivers being granted where the benefits generate the greatest net benefit for the community and outweigh the costs of doing so. We would also encourage clarification of clause 3.1(d) with the intention that it not be confined to shared assets, but rather have a broader application for storage devices in select circumstances.

These points are outlined in further detail below. If you have any questions in relation to this submission, please contact me on 0406 534 682 or Anders Sangkuhl, Regulatory Strategy Manager via [anders.sangkuhl@essentialenergy.com.au](mailto:anders.sangkuhl@essentialenergy.com.au) or via phone on 0409 968 326.

Yours sincerely,

A handwritten signature in black ink that reads "Chantelle Bramley". The signature is written in a cursive, flowing style.

Chantelle Bramley  
**General Manager, Strategy, Regulation and Corporate Affairs**

## Essential Energy submission to the Issues Paper

### General comments

Essential Energy is committed to improving customer experience, creating operating efficiencies, building a resilient network and lowering prices for all network customers. Deploying SAPS and energy storage devices, when it is efficient to do so, is a mechanism for delivering these benefits to customers.

There can be significant benefits for customers and communities in deploying SAPS, particularly in regional and remote locations:

- When the 'poles and wires' of the traditional electricity infrastructure in remote areas are removed, and customers are supplied electricity via a SAPS, there may be a significant reduction in DNSP expenditure which in turn has the potential to deliver savings to all network users. These savings are driven by reduced operational costs (such as vegetation management around infrastructure) and the ability to remove sections of the network that traverse through difficult terrain and serve very few customers;
- SAPS can reduce bushfire risk, significant portions of our electricity infrastructure is located in high risk bushfire areas, the risk that energised powerlines could cause a spark which may ignite a bushfire is removed;
- SAPS have the potential to embed resilience in the network, enabling a customer or community to isolate itself and remain energised in an emergency. This is particularly important for keeping telecommunication towers and fire-fighting equipment operational;
- SAPS can be modular and easily transportable, making them especially suited to emergency response situations.

Initial modelling by Essential Energy has shown that SAPS could serve between 800 and 1400 customers (dependent on the cost-based assumptions used) with potential savings of \$120 million over 20 years of avoided network refurbishment and vegetation management. We estimate that there are potential benefits from reduced bushfire risk of \$1 million per annum, as well as expected reliability improvements for customers. Essential Energy supports the development of a robust ring-fencing framework which can deliver significant benefits while ensuring that SAPS customers experience the same service standards and protections afforded to other customers.

In relation to energy storage devices, an increase in DNSP facilitated energy storage devices installed across the network has the potential to play a key role in the energy transition to a more distributed energy market and lower emissions economy. As such, the discussion regarding the amendment of ring-fencing restrictions for the provision of storage devices is timely, given the growing complexity and rapid technological developments in this area.

As such, it is crucial that in the development of the ring-fencing guideline the AER maintain a strong focus on positive customer outcomes that both SAPS and energy storage devices can deliver customers. Broadly speaking, the AER's approach taken within the Issues Paper appears to be pragmatic and, if adopted, could resolve many of the concerns identified.

## Specific responses to consultation questions - SAPS

### Q. Do stakeholders agree that in some circumstances an exemption would be preferable to requiring DNSPs to apply for a ring-fencing waiver?

- A. The development of a simplified and streamlined process for SAPS exemptions is critical in ensuring that networks can roll out SAPS where there are clear customer benefits in doing so.

Ring-fencing waivers are intended to be a time-limited transitional measure, can be time consuming and costly to obtain, and may be subject to revocation. For many types of SAPS, the costs and time associated with applying for an individual application would be disproportionate and inefficient to the benefits derived. This is true both for DNSPs in submitting applications and AER staff in considering them.

Further, ring-fencing waivers create stranded asset risks due to the timebound nature of the waivers. These waivers are generally issued for a set period (typically tied to a regulatory control period and therefore a maximum of five years) that would be shorter than the lifespan of a SAPS asset. SAPS involve assets with life spans between 10 and 25 years and therefore DNSPs should expect to earn a return on those assets for the duration of their economic lives, in the same way as other assets within the regulatory asset base.

Therefore, it may be difficult and risky for DNSPs to invest if there is a possibility that the assets will be stranded when the waiver expires. In addition, when SAPS are installed the network lines are often de-energised and/or decommissioned which is a permanent decision. Again, the necessity for these types of permanent decisions make a SAPS unfeasible if DNSPs only have short-term certainty through a waiver.

Exemptions are more permanent as they are deemed to apply if the DNSP is able to satisfy the stated criteria and therefore have no specified sunset date, provided business circumstances and regulatory provisions continue to remain unchanged (noting the existing exemptions under the Ring-fencing Guideline may still be subject to revocation, though we would expect grand-fathering to apply for existing SAPS should this occur). As such, Essential Energy strongly supports exemptions as preferable to waivers.

### Q. Are there other types of exemptions we should consider?

- A. Please see table 1 below for a detailed assessment of the exemption categories.

### Q. In regard to the exemptions above, or any others, what is an appropriate threshold?

- A. Please see table 1 below for a detailed assessment of the exemption categories.

### Q. Should exemptions for SAPS be defined in specific detail or are generic exemptions, which would apply more broadly, preferable?

- A. For efficiency and administrative simplicity reasons, it would be preferable to progress with generic exemptions. Ideally some select exemptions would also exist to ensure unnecessary restrictions for particular situations, such as emergency response or provider of last resort.

For example, a generic exemption type, such as the proposed “up to a specified cap” (further assessed in table 1 below) would give a DNSP appropriate discretion to maximise flexibility and would administratively require far less onerous associated tasks for both the AER and DNSPs.

Nonetheless the establishment of a generic exemption must also allow for unique divergences between DNSPs, such as metropolitan or regional. For instance, in the example of the proposed “up to a specified cap” exemption, regional DNSPs would require a higher cap than urban distributors who do not face the same quota or cost imperatives to roll out SAPS for efficiency and reliability purposes due to the inherent differences in the network areas that they serve.

If specific exemptions are offered without any generic exemption categories, it will be more likely that DNSPs will have to request waivers in certain circumstances, which is burdensome and time

consuming. In addition, the more specific criteria parameters are set, the more likely the guidelines will require consequent updates as technology and / or customer requirements inevitably change over time.

**Q. How can we be sure that DNSPs using exemptions are complying with the Distribution Guideline?**

- A. Essential Energy is incentivised to always comply with the existing ring-fencing requirement framework and guidelines for reasons of reputational integrity as well as effective corporate governance. The existing incentives which drive behaviour and compliance in this area are robust as evidenced by the limited number of ring-fencing non-contraventions to date. The annual Ring-fencing audit is the mechanism by which compliance with the Ring-fencing Guideline is assured. Given customers are already funding the cost of this audit, it makes sense to expand its scope to include a review of any SAPS exemptions applied in the financial year.

To foster transparency and good faith, we agree that a publicly available SAPS register could be established containing information on the SAPS generation services being provided to the market under the automatic exemption's framework. This register could be included on the DNSP's website like other Ring-fencing related registers and annual updates included in the DNSP's annual Ring-fencing Compliance report. The information required to be published on this public register should ensure the privacy of participating individuals is preserved and that the information published is targeted to the select matters that will assist the AER in performing its functions.

## Table 1 - Proposed SAPS exemptions

It is worth highlighting that Essential Energy's expectation is that the competitive market will almost always be able to deliver a SAPS installation, however they may be unwilling to undertake the Operating & Maintenance activities and unlikely to be able to deliver Fault & Emergency services to the levels required for DNSPs to meet their licence reliability obligations in remote or difficult to access locations. Where the competitive market can't deliver all three services to the level required, then these exemptions apply to: allow such SAPS to be included in the DNSPs RAB and allow the DNSP to perform simple Fault & Emergency services and potentially Operating & Maintenance services on such SAPS. Essential Energy has listed which exemptions we preliminarily consider to be of critical importance as well as preferred exemption categories.

<u>AER Proposed Exemption</u>	<u>Positive Attributes</u>	<u>Negative Attributes</u>	<u>Threshold Considerations</u>
<p><b>Remoteness</b> – With the threshold set with respect to the distance of a SAPS from nearby population centres of given size.</p> <p>For example, the regional office exemption in the Guideline applies to offices that have less than 25,000 connection points within a 100-kilometre radius of that office.</p>	<p>Straightforward application process.</p>	<p>Inflexible. Essential Energy's network covers 95% of NSW and a hard cut-off of a certain distance (e.g., 100km), any customer located outside of that distance may be disadvantaged. For instance, an ideal SAPS customer may be located in a heavily vegetated and hilly district with high vegetation management costs, yet are only 20 kms from a major population centre.</p> <p>This will be less of an issue if this exemption applies in addition to, rather than in the absence of, other exemptions.</p>	<ul style="list-style-type: none"> <li>• The use of Connection Points rather than population is useful and is consistent with the regional office exemption in the Guideline. For example 25,000 connection points could be a reasonable proxy indicating a moderately sized town.</li> <li>• Due to the need for ongoing operation and maintenance of a SAPS, a preliminary suggestion is a threshold radius of 25km from a population centre of 25,000 connection points or above.</li> <li>• We see merit in including this exemption within a suite of factors that can be applied to a SAPS.</li> </ul>
<p><b>Access</b> – Where installation will face difficult terrain or other access issues.</p> <p>This would allow a DNSP to provide a SAPS generation service where the terrain is too difficult to build anything else or it results in poorer reliability and/or higher costs to serve relative to the SAPS</p>	<p>This exemption is one of the fundamental reasons for DNSP-led SAPS as it relates to both improved reliability outcomes for customers as well as cost-efficiencies for DNSPs.</p>	<p>Thresholds must be set clearly and comprehensively so as not to add unnecessarily to the time that DNSPs need to spend assessing the site.</p>	<p>A physical definition based on the local site topography and other factors including:</p> <ul style="list-style-type: none"> <li>• Inaccessible terrain, steepness and gradient, bushland thickness, existence of rivers, creeks, flood prone areas, vehicle accessibility, bushfire prone area, feeder length or even being located in a national park or water catchment area.</li> </ul>

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<p>alternative. For example, where a significant section of the connection would sit within a national park or wilderness.</p> <p>Essential Energy considers this exemption category to be of critical importance.</p>			<ul style="list-style-type: none"> <li>• Essential Energy understands there may be an opportunity to align this definition with existing standards, for example many DNSPs maintain easement track standards for national parks and bushland which contain criteria suitable for topography assessments. In addition, the rural fire service runs a Bushfire Prone Land (BFPL) identification data base which could act as a proxy for SAPS exemptions.</li> <li>• Access issues could also consider alternative forms of access constraints (as a subset provision). For example, many of the areas Essential Energy serves contains complex private land holder access issues whereby certain connection points can only be accessed or maintained by traversing multiple other private landholders' properties. This requires multiple easement consent forms that often add points of complexity and cost. As such, we would encourage the AER to consider complex non-physical related access issues as a subset threshold of the Access exemption.</li> <li>• This exemption category could also consider the effective utilisation of DNSP's existing relationships with Government stakeholders such as State forests and National Parks and Wildlife which are used to create the required easements for network assets and the civil works required to establish a SAPS. Consideration should be given to the potential additional cost impacts which may occur if third party providers are required to lead this access.</li> <li>• We see merit in including this exemption within a suite of factors that can be applied to a SAPS.</li> </ul>

<b><u>AER Proposed Exemption</u></b>	<b><u>Positive Attributes</u></b>	<b><u>Negative Attributes</u></b>	<b><u>Threshold Considerations</u></b>
<p><b>Cost</b> – With a threshold based on a particular cost.</p> <p>This would allow a DNSP to provide SAPS generation services where the SAPS is a small size and has a low cost (in absolute terms).</p> <p>Essential Energy considers this is a preferred exemption category.</p>	<p>Flexible up to a point. In many respects this exemption interacts quite strongly with the efficiency exemption.</p>	<p>Cost thresholds may over time become outdated with technological improvements and due to the application of CPI.</p>	<p>Allocating specific dollar threshold figure is challenging given the likelihood to become outdated relatively quickly. Nonetheless, based on Essential Energy's preliminary analysis of the cost for a residential customer, the threshold for a SAPS intended to service a single connection point would be approximately \$250,000.</p> <p>Consideration could also be given to cost levels based on consumption. By way of example a DNSP could provide generation assets up to a consumption of a 50MW per year per site when installed and cost levels set accordingly.</p>
<p><b>Up to a specified cap</b> – A DNSP would be allowed to earn revenue from SAPS up to a given percentage of a DNSP's revenue cap.</p> <p>This exemption would allow a DNSP to provide SAPS generation services up to a specific cap, such as 1% of annual revenue.</p> <p>For example, a DNSP would be unrestricted in its choices to deploy and earn revenue from a SAPS up to a given cap. The cap would mean that only a portion of the DNSP's network would be able to be displaced by the SAPS. This mirrors the Transmission Guideline, which currently allows a TNSP to undertake retailing and/or generation activities up to a specified limit.</p>	<p>Flexible up to a point.</p>	<p>Restrictive after cap is reached.</p> <p>Would need to allow for divergences between metropolitan DNSPs and regional DNSPs. Regional DNSPs should have a higher cap than urban distributors who do not face the same cost imperatives to roll out SAPS for efficiency and reliability purposes due to the inherent differences in the network areas that they serve.</p> <p>If this exemption were to apply in addition to others, (i.e. if DNSPs were able to deploy SAPS in remote or hard to access areas, or disaster relief even after the cap was reached), this exemption would afford greater flexibility.</p>	<p>Consideration of the appropriate cap should involve modelling the forecast annual revenue to be received from SAPS generation services at a level that reflects the ideal level of SAPS deployment. It could increase slightly each year, up to another higher cap, to reflect the likelihood that deployment will increase rapidly before tapering off as SAPS systems are installed in high priority areas. A preliminary model could be a cap of 1% the first year, increased by 0.25% each year over the next 5 years up to a total cap of 2%.</p> <p>We only see merit in including this exemption if it applies on top of and in addition to a suite of other factors that can be applied to a SAPS.</p>



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<p>Essential Energy considers this is a preferred exemption category.</p>		<p>If it would apply to the exclusion of others, this would only be a desirable exemption if the cap was sufficiently high to allow for adequate SAPS deployment and increased annually to reflect the likelihood that SAPS deployment will increase over time.</p>	
<p><b>Type of SAPS</b> – Certain type of SAPS systems, such as streetlights or for agricultural purposes.</p> <p>This exemption would allow a DNSP to provide a SAPS generation service under specific identified applications of SAPS systems, such as streetlights.</p> <p>Essential Energy considers this exemption category to be of critical importance.</p>	<p>Straightforward to apply.</p>	<p>If the specified identified applications are not sufficiently broad, this exemption category may be restrictive. However, this would only be an issue if this exemption category applied in the absence of, rather than in addition to, the other proposed exemption categories.</p>	<p>One way to identify connection points to be targeted under this exemption category is to have the exemption apply to all connection points with Type 7 metering (e.g., streetlights, phone boxes, traffic lights and other similar supplies).</p> <p>Another way to identify connection point sites to be targeted under this exemption category is to specifically define in the guideline the following sites:</p> <ul style="list-style-type: none"> <li>• Streetlights</li> <li>• Agricultural single use sites (pumps, shearing sheds etc)</li> <li>• SAPS that supply a single customer</li> <li>• SAPS that use an Low Voltage microgrid only to supply multiple customers of a single SAPS</li> <li>• SAPS that are installed on private rural holdings</li> </ul> <p>In Essential Energy's experience these sites should qualify for an automatic exemption due to their low consumption levels which wouldn't justify the complexity of having third party owned and operated SAPS which subsequently is required to interact with AEMO's settlement price methodology for a likely immaterial consumption amount.</p>



<u>AER Proposed Exemption</u>	<u>Positive Attributes</u>	<u>Negative Attributes</u>	<u>Threshold Considerations</u>
			<p>There is a strong interaction between this proposed SAPS exemption and the Essential Energy proposed “<i>number of connection points served by the SAPS</i>” alternative exemption proposed further below. These exemption categories could be cross-checked against each other to ensure alignment.</p> <p>In addition, please see below for alternate exemption proposal for “critical and communications infrastructure”, this exemption type could be contained within this “Types of SAPS” exemption or treated as a standalone exemption.</p>
<p><b>Absence of alternatives</b> – Where no offers have been received for a third party SAPS generation service below a threshold size (kW) of a particular SAPS.</p> <p>This exemption would allow a DNSP to provide SAPS generation services in a situation where there is no other market alternative. However, this exemption could be limited so that it only applied below a threshold (kW) size in generation capability. Essential Energy considers this is a preferred exemption category.</p>	<p>This exemption is one of the fundamental reasons for DNSP-led SAPS as it relates to both improved reliability outcomes for customers as well as cost-efficiencies for DNSPs.</p>	<p>Likelihood of delays arising out of the need for customers or Essential Energy to seek offers from third parties.</p>	<p>The existence of an offer does not necessarily guarantee net positive customer outcomes if the offer is prohibitively high. The AER’s ring-fencing considerations should not only consider the existence of an offer, but whether the offer promotes positive customer outcomes in terms of both price and potentially non price factors that may affect the service. Care should be taken to ensure that positive customer outcomes are not sacrificed in the name of increased competition.</p> <p>We see merit in potentially merging this exemption with the ‘Efficiency’ exemption below to ensure efficient customer outcomes are obtained and it is part of a suite of factors that can be applied to a SAPS.</p>
<p><b>Emergency response</b> – In response to a natural disaster or fault that caused disruption of service, a DNSP could provide</p>	<p>This answers a key situation in which Essential Energy wishes to use SAPS. Essential Energy is presently investigating the deployment of temporary</p>	<p>Limiting to temporary or partial solutions could be inefficient, potentially leading to double-spending.</p>	<p>Further consideration on the definition of “temporary” is required – is there a timeframe reference or is it purely where the solution is only a stopgap?</p>

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<p>temporary support or simple fault repair.</p> <p>This exemption would allow a DNSP to provide SAPS generation services from a temporary or existing SAPS under special circumstance of natural disaster. This is already provided for in the Distribution Guideline as 'an event that is beyond the DNSP's reasonable control'.</p> <p>Essential Energy considers this exemption category to be of critical importance.</p>	<p>renewable energy generation SAPS trailers in response to emergency events.</p> <p>Portable SAPS trailers generators are cheap to deploy, reliable and scale from very small loads to microgrids.</p> <p>As the licence holder responsible for reliability outcomes, it is imperative that a DNSP can respond to a SAPS unplanned outage and provide a simple repair or temporary support until a service provider can attend the site. Essential Energy's recent Expression of Interest for SAPS service provision in NSW elicited 26 responses ranging from 'mum and dad' operations through to well-established, reputable operations. In discussions with the parties, their ability to provide emergency response is necessarily reliant on sub-contractors and thus the time to respond to an unplanned event ranged from anywhere between 2 days to six weeks.</p>		<p>Essential Energy is of the view that if DNSPs are able to implement a SAPS solution in response to an emergency that can perform a long-term service, there should be a mechanism for this to be converted into a long term exempted service in certain circumstances or potentially under another exemption.</p> <p>Once installed it would be inefficient if DNSPs had to go to market to ascertain if a third party can replace and own the generation asset. DNSPs will have made substantial sunk costs on a temporary system which they should be able to maintain going forward. Asset rebirth events may provide a useful example point.</p> <p>Please see suggested temporary solution criteria below, which would be a useful complement / supplement for planned works/outages.</p> <p>Agree the existing phrase from the Guideline 'event beyond the DNSP's reasonable control' would be an appropriate definition to activate this exemption.</p> <p>We see merit in including this as an automatic exemption for all DNSP led SAPS.</p>
<p><b>SAPS provider of last resort</b> – When a SAPS provider leaves the market, a DNSP could take over ongoing responsibility. To prevent existing customers of a SAPS being left without support, a DNSP could, under this exemption, provide</p>	<p>Positive outcome for customers which guarantees reliability and customer service.</p>	<p>There would need to be a framework in place for DNSPs to be able to recoup the reasonable costs of repairs, maintenance and operation of the SAPS during the period of time over which it provides this support to customers.</p>	<p>A strict time limit should be removed and the exemption should continue to for the remaining life of the SAPS as:</p> <ul style="list-style-type: none"> <li>&gt; An existing SAPS provider leaving the market likely signals that their business model is unprofitable. As such, it would be unlikely a third party provider would take on such customers as the servicing of highly</li> </ul>

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<p>support to customers for a given period of time (e.g., 12 months).</p> <p>Essential Energy considers this exemption category to be of critical importance.</p>		<p>DNSPs would need to have the option of making changes it considers necessary to the SAPS to provide a safe and efficient supply to the customer.</p> <p>This ability is proposed to apply for only a specified period of time (e.g., 12 months). If a private owner/operator of the SAPS does not step in within that timeframe, Essential Energy would presumably have the benefit of the “absence of alternatives” exemption.</p>	<p>remote edge of grid customers likely contributed in some format to the reason for failure.</p> <ul style="list-style-type: none"> <li>&gt; A new provider would likely not take on the SAPS technology previously utilised by the now default provider due to reasons of warranty and general unfamiliarity with the technology kit installed.</li> <li>&gt; Given DNSPs will incur administrative onboarding costs associated with taking on new customers, perhaps SAPS providers could provide guarantee payments to an operator of last resort scheme to cover the costs of transferring SAPS.</li> </ul> <p>We see merit in including this as an automatic exemption should it eventuate.</p>
<p><b>Efficiency</b> – When the DNSP's price for installing a SAPS system is materially lower than anything available in the market. This exemption category interacts heavily with the ‘cost’ exemption as detailed above.</p> <p>This exemption could apply in situations where the price of a third-party SAPS is excessively and prohibitively higher than what a DNSP could provide a similar SAPS generation service for.</p> <p>There is a strong interaction between this proposed SAPS exemption and the Essential Energy proposed “Complementary test - SAPS for predominantly</p>	<p>This is a situation in which it would make sense for DNSPs to supply the SAPS service from a consumer point of view.</p> <p>DNSPs could help build the competitive market by having contracts in place to help bring revenue certainty to SAPS providers e.g. a contract to install 20 SAPS from one supplier over, say, 3 years</p>	<p>Likelihood of delays arising out of the need for customers or DNSPs to seek offers from third parties and compare them.</p> <p>Burden for DNSPs as they would likely need to attend the site and carry out a full cost analysis to come up with an estimate against which third parties’ offers can be compared.</p>	<p>The DNSP could on some projects go to market for the supply and install tender plus a lease option to check the market viability of 3rd party owned systems, and of the NPV over 40 years. In this manner DNSP integrated SAPS solutions would be efficiently compared against market leasing arrangements</p> <p>In addition, the efficiency exemption could be expanded so that the costs of rebuilding / building existing poles and wires solutions is also considered as a benchmark comparator from which ‘efficiency’ can be gauged. If the costs of a SAPS unit are materially lower than the costs of the costs of a traditional network solution, then the efficient outcome would be a SAPS exemption.</p> <p>We also would encourage closer consideration on the consistency of language being used. The phrasing “excessively and prohibitively higher” may not be the correct standard:</p>

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<p>network purposes ” exemption explored further below. These exemption categories could be cross-checked against each other to ensure alignment.</p> <p>Essential Energy considers this is a preferred exemption category.</p>			<ul style="list-style-type: none"> <li>• “Prohibitive” means “serving to prevent the use, purchase, etc., of something.”</li> <li>• The use of the word in this context would mean the other provider’s price is so expensive that it is completely unaffordable.</li> <li>• Better consumer outcomes would be achieved if DNSPs had the ability to provide a SAPS where its price is “significantly” lower than the third party’s price.</li> </ul> <p>We see merit in including this as an automatic exemption where the circumstances arise.</p>
<p><b>Population density</b> – with a threshold based on when the person per unit area falls below a defined level.</p> <p>This exemption would allow for a SAPS generation service to be provided when the population density is sufficiently low.</p>	<p>Straightforward to apply.</p>	<p>Population density may over time become outdated as certain population centres grow or decline, likely requiring frequent updating.</p> <p>We only see merit in including this exemption if it applies on top of and in addition to a suite of other factors that can be applied to a SAPS.</p>	<p>Australian census data and Australian Bureau of Statistics data may provide an adequate threshold consideration as we understand remote towns are defined by these processes.</p> <p>Nonetheless, as discussed above, the use of Connection Points rather than population density may be more useful is useful and is consistent with the regional office exemption in the Guideline.</p>
<p><b>Potential exemptions</b></p>			
<p><b>Number of connection points served by the SAPS</b> – This exemption would apply for a single SAPS that supplies up to a given number of connection points.</p>	<p>If a DNSP intends to use SAPS to serve only a small number of connection points, this would be a useful, flexible and straightforward exemption to permit this.</p>	<p>The exemption could restrict a DNSP’s ability to expand its SAPS use to small scale SAPS. However, this would only be an issue if this exemption category applied in the</p>	<p>This exemption could be used either as an exemption category in itself or as a delimiter on some of the broader exemption categories set out above (such as the revenue cap).</p>

<u><b>AER Proposed Exemption</b></u>	<u><b>Positive Attributes</b></u>	<u><b>Negative Attributes</b></u>	<u><b>Threshold Considerations</b></u>
<p>As noted above, there is a strong interaction between this proposed SAPS exemption and the “types of SAPS” AER proposed exemption. These exemption categories could be cross-checked against each other to ensure alignment.</p> <p>Essential Energy considers this is a preferred exemption category.</p>		<p>absence of, rather than in addition to, the other proposed exemption categories.</p>	<p>The relevant threshold will depend on the grouping and location of a DNSP’s connection points (especially remote ones) and its proposed strategy for SAPS implementation. For example, if there are:</p> <ul style="list-style-type: none"> <li>• many single connection points for which a SAPS would be a good network solution; and/or</li> <li>• many groups of up to 3 connection points located close enough together to use a single SAPS; but</li> <li>• rare connection points of 7 or more that would benefit from a single SAPS solution, then an appropriate threshold is likely to be 7 connection points.</li> </ul> <p>Alternatively, the threshold could be set at the substation level. For example, a single distribution substation site of less than 50kva regardless of customer count.</p> <p>We see merit in including this exemption within a suite of factors that can be applied to a SAPS.</p>
<p><b>Complementary test - SAPS for predominantly network purposes</b> – This exemption would apply where the predominant purpose of the SAPS can be shown to be avoiding or reducing network costs, rather than to earn revenue from generation.</p> <p>As noted above, there is a strong interaction between this proposed SAPS exemption and the</p>	<p>Assuming DNSPs’ primary intention for SAPS deployment is to avoid inefficient network costs and improve reliability, this exemption would provide flexibility in the way in which it does so. It would also deter the type of SAPS usage by DNSPs which the Guideline aims to prevent.</p>	<p>The relevant formulae for the definitions would require considerable thought and testing to ensure they achieved the purpose.</p>	<p>This could be used either as a potential delimiter on some of the broader exemption categories set out above (such as the revenue cap).</p> <p>This exemption would be available where the predominant purpose of the SAPS is for network replacement (as opposed to earning revenue through the supply of generation services). There are many formulae that could be tested to establish this, with each requiring modelling to work out the practical effect. Examples of formulae that might achieve this purpose are:</p>

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<p>“efficiency” AER proposed exemption. These exemption categories could be cross-checked against each other to ensure alignment.</p> <p>Essential Energy considers this is a preferred exemption category.</p>			<ul style="list-style-type: none"> <li>the estimated network costs avoided by the use of SAPS instead of a network solution are greater (or greater by x%) than the estimated earnings from generation services over the life of the SAPS; or</li> <li>[50%] or higher of charges paid by the SAPS customer over the life of the SAPS are attributable to network costs and less than [50%] is attributable to generation.</li> </ul> <p>The aim of this exemption would be to allow DNSPs use SAPS for the purpose of enhancing efficiency and reliability on their networks, a greater ability to do so.</p>
<p><b>Temporary solution during non-emergency network upgrade or repairs</b> – This would allow DNSPs to use SAPS as a network and power replacement solution where it needs to perform works on the network that are not related to an emergency.</p> <p>Essential Energy considers this is a preferred exemption category.</p>	<p>This would provide flexibility for Essential Energy to use SAPS as a temporary network and power solution where desirable.</p>	<p>None, provided this exemption applies in addition to the other categories outlines above.</p>	<p>Consideration would need to occur over what period may be appropriate. To be ‘temporary’ it is probably no longer than 3 months, but this may depend on the types of works that this exemption is likely to be useful for.</p> <p>We see merit in including this as an automatic exemption where the circumstances arise.</p>
<p><b>Communications and critical infrastructure</b> – This would allow DNSPs to use SAPS as a network and power replacement solution where the infrastructure the SAPS is supporting is deemed critical infrastructure.</p> <p>Estimates are that there may be 50 communications sites that could be</p>	<p>The outcomes and lessons learnt from the 2019-20 bushfires inquiry revealed the importance of communications and the role DNSPs play in supporting critical infrastructure during and after natural disasters. Communication sites are typically a constant load and are unable to demand manage due to the critical nature of the load.</p>	<p>If the specified identified applications are not sufficiently broad, this exemption category may be restrictive.</p>	<p>One way to identify connection points to be targeted under this exemption category may be via meter type and / or location within bushfire prone area.</p> <p>Direct connections/no retailer on critical sites. This capability can allow for telecommunication companies to remove battery backup systems and back up generators if direct engagement with DNSP is possible, this would allow a JV approach with Telcos to design and install the optimal system for increased reliability at reduced cost.</p>

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<p>potential SAPS sites across Essential Energy’s network area.</p> <p>Essential Energy considers this exemption category to be of critical importance.</p>	<p>Communications and critical infrastructure sites are normally located in highly vegetated remote areas at the ends of feeders. This can result in a higher frequency of outages and longer average outage durations. SAPS can provide the resilience our critical customers require.</p>		<p>We see merit in including this exemption within a suite of factors that can be applied to a SAPS.</p>



## Specific responses to consultation questions – Storage Devices

### Q. What other benefits should we consider?

- A. The discussion regarding the amendment of ring-fencing restrictions for the provision of storage devices is timely, given the growing view that such reforms will lead to much stronger returns on investment for batteries. These stronger returns would in turn, deliver improved benefits to customers, mainly in the form of reduced cost.

In this regard, the Issues Paper has succinctly summarised the primary benefits of allowing DNSPs to use storage devices to offer both network services as well as offering other contestable services to consumers. Namely these benefits relate to DNSPs being able to:

1. “Value stack” a larger number of services than third parties and to avoid the costs imposed by the third-party contracting arrangements necessitated by the ring-fencing requirements;
2. Be in a better position to provide access to efficiently located storage assets for third-party providers on a neutral basis, and in doing so support competition; and
3. To maximise locational value to the network from storage devices due to DNSPs detailed understanding of current and future network needs.

In addition to the primary benefits outlined within the Issues Paper, the following benefits may also result from permitting DNSPs to provide other services using storage devices:

**Ability to leverage synergies with existing distribution assets:** DNSPs have the unique ability to leverage synergies with existing (and planned) distribution assets to derive more value for customers, as well as better support the network more generally.

**Overcoming cost barriers to reduce network pressure:** The DNSP value proposition of lowering overall costs to consumers, is more likely to overcome the high cost barrier for consumers purchasing batteries than if batteries were offered by third parties. This would likely result in quicker uptake, which would assist the more efficient utilisation of local renewable generation. This would reduce pressure on existing network assets and, at scale, may help defer or avoid network costs.

**DNSPs can best manage network issues:** DNSPs are best placed to use batteries to support the network by managing voltage issues and absorbing excess intermittent energy at a community level. This would most effectively be done as owner-operator of batteries as well as the provider of a storage service to customers.

**DNSPs can offer other market services to optimise usage:** DNSPs are well placed to use storage to provide ‘other services’ like ancillary services when the battery is available. This provides an opportunity to optimally use the available energy storage capacity.

**Increased competition in the market for the provision of storage services:** Enabling DNSPs to compete in the contestable market for energy storage will increase competition in the storage services market and incentivise competing providers to be more efficient and innovative.

**Access to economies of scale:** DNSPs have access to economies of scale that could allow for greater investment in more intelligent storage technology and programming if able to be offered to consumers.

**Solve coordination problems:** The AER accepts that the use of storage in the NEM is likely to increase significantly over time. If DNSPs are only able to use storage to provide distribution services, there will likely be more batteries in the grid than would otherwise be efficient. Each third party owned battery will likely provide different services to different stakeholders at different times, in order to maximise their value stack. This may increase grid instability and cause coordination issues at a local and network level. Allowing DNSPs to offer contestable storage services would enable many of these services to be centrally controlled and coordinated.

There will also be merit in looking at circumstances where storage can form part of SAPS, and whether / how relevant safe harbour exemptions for storage may also be made available in the Guideline.

**Q. How should we weigh these benefits and harms to determine if a waiver should be granted?**

- A. Ring-fencing waivers should be granted where the benefits generate the greatest net benefit for the community by outweighing the costs of the status quo. As outlined above, energy storage devices have the potential to play a key role in the energy transition to a more distributed energy market and lower emissions economy.

Under the existing ring-fencing framework environment, battery storage devices when utilised by DNSPs have the potential to create several complexities. This is primarily because the DNSP business models supporting the greater utility of energy storage devices have not yet been settled, as the boundary between regulated and unregulated markets can at times operate in a grey area.

To resolve this complexity, multiple energy storage innovation trials are currently being undertaken with the objective of developing the most efficiently structured and compliant business model. These innovation trials promote research learnings about the utility energy storage devices can provide both the network and customers.

Essential Energy is of the view that many of these benefits could be facilitated and initially demonstrated through AER granted waivers through the ring-fencing framework. As such, ring-fencing waivers should be granted where the benefits generate the greatest net benefit for the community.

**Q. Should we clarify the scope of clause 3.1(d)I of the Distribution Guideline?**

- A. The effect of clause 3.1.(d)I is one of legal separation, that is, DNSPs may provide distribution network services but must not provide other services. However, DNSPs do have the ability to grant another legal entity the right to use those assets where doing so does not materially prejudice the provision of direct control services by the DNSP.

Whilst this clause was introduced as part of the 'shared asset' rules that were introduced in 2012, as currently drafted it is not immediately apparent clause 3.1.(d)I is only confined to shared assets, and there is no indication within the clause that it is intended to be limited in that way.

Given the benefits outlined above, Essential Energy would encourage the AER to consider clarifying the interpretation of clause 3.1(d)I with the intention that it not be confined to shared assets, but rather has a broader application for storage devices in circumstances in which third parties might use a DNSP's assets to provide distribution services.

In effect, such a change may allow DNSPs to progress select efficient battery storage assets, based on a business model that may include the outsourcing of some excess capacity to a third party (e.g., for the provision of frequency control ancillary service), to the extent that the doing so does not materially prejudice the battery's provision of network support. Such an outcome would positively contribute towards generating the greatest net community benefit.

We would also encourage the AER to consider the concept of DNSPs being allowed to install and include batteries in the RAB, but where the value of any earnings from leasing spare capacity are offset against regulated revenue.

**Specific responses to consultation questions – Other Ring-Fencing Issues****Q. Will reporting all breaches in relation to substantive Distribution Guideline clauses in 10 business days improve the overall timeliness of breach reporting and reduce the administrative burden on DNSPs?**

- A. Essential Energy supports the proposal to extend the reporting timeframes within the guidelines from five to ten business days. Such a proposal is a sensible compromise which balances both market participants and the AER's administrative workloads whilst still maximising compliance objectives.

We would also suggest that further clarification on the definition of materiality would be beneficial within the guideline to provide participants guidance on what constitutes a non-material or trivial breach. Potential options worthy of further consideration include:

- Defining a concept of actual or significant harm, with some assessment criteria or threshold to establish what is in fact material;
- Identifying specific examples of breaches that would or are likely to result in significant harm; and
- Identifying examples of breaches that clearly will not or are highly unlikely to result in actual harm.

A simple approach based on factors such as financial gain, systemic non-compliance vs inadvertent non-compliance, or did actual harm occur vs the potential for harm to occur, would all be beneficial in providing further clarity to participants.

**Q. Will calendar year compliance reporting minimise the administrative burden on DNSPs?**

- A. The existing timing of compliance reporting works well for Essential Energy and does not currently result in any negative administrative impact for the business. The existing timing aligns with regulatory and financial years, so any change to the reporting period may result in additional audit costs:
- when new service classifications begin to apply at the start of the regulatory year;
  - unless the audit of the Cost Allocation Methodology (CAM) from the previous regulatory reporting year could be relied upon by the Ring-fencing auditors. Such a reliance would ideally be made explicit to auditors as part of the Ring-fencing Guideline rather than in the Explanatory Statement; or
  - Should the CAM change between the regulatory and calendar year end.

It may be worth revisiting this potential change to ensure it does not potentially lead to increased compliance costs for electricity consumers.