

6 February 2019



Mr Andrew Truswell  
Director  
Australian Energy Market Commission  
PO Box A2449  
Sydney South NSW 1235

Dear Mr Truswell

**EMO0037 Review of Stand-alone Power systems – Draft Report**

Energy Queensland Limited (Energy Queensland) welcomes the opportunity to provide comment to the Australian Energy Market Commission, on its draft report on the *Review of Stand-alone Power Systems*. This submission is provided by Energy Queensland, on behalf of its related entities Energex Limited (Energex), Ergon Energy Corporation Limited (Ergon Energy), Ergon Energy Queensland Limited (Ergon Energy Retail) and Yurika Pty Ltd (Yurika).

Energy Queensland has addressed the questions raised in the Consultation Paper in the attached submission.

Should you require additional information or wish to discuss any aspect of this submission, please do not hesitate to contact myself or Alena Christmas on (07) 3851 6784.

Yours Sincerely

A handwritten signature in black ink, appearing to read "Trudy Fraser", enclosed in a thin black rectangular border.

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*Encl: Energy Queensland's submission*

# **Energy Queensland Submission on the Australian Energy Market Commission's**

## **Draft Report on the Review of the Regulatory Frameworks for Stand-alone Power Systems – Priority 1**

**Energy Queensland Limited**  
6 February 2019



## About Energy Queensland

Energy Queensland Limited (Energy Queensland) is a Queensland Government Owned Corporation that operates a group of businesses providing energy services across Queensland, including:

- Distribution Network Service Providers, Energex Limited (Energex) and Ergon Energy Corporation Limited (Ergon Energy);
- a regional service delivery retailer, Ergon Energy Queensland Pty Ltd (Ergon Energy Retail); and
- affiliated contestable business, Yurika Pty Ltd.

Energy Queensland's purpose is to "safely deliver secure, affordable and sustainable energy solutions with our communities and customers" and is focussed on working across its portfolio of activities to deliver customers lower, more predictable power bills while maintaining a safe and reliable supply and a great customer service experience.

Our distribution businesses, Energex and Ergon Energy, cover 1.7 million km<sup>2</sup> and supply 37,208 GWh of energy to 2.1 million homes and businesses. Ergon Energy Retail sells electricity to 740,000 customers.

The Energy Queensland Group also includes Yurika, an energy services business creating innovative solutions to deliver customers greater choice and control over their energy needs and access to new solutions and technologies. Yurika is a key pillar to ensure that Energy Queensland is able to meet and adapt to changes and developments in the rapidly evolving energy market.

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# 1 Introduction

Energy Queensland Limited (Energy Queensland) welcomes the opportunity to provide comment to the Australian Energy Market Commission (AEMC) on its Draft Report on the Review of the Regulatory Frameworks for Stand-alone Power Systems – Priority 1 (the Draft Report). This submission is provided by Energy Queensland, on behalf of its related entities Energex Limited (Energex), Ergon Energy Corporation Limited (Ergon Energy), Ergon Energy Queensland Limited (Ergon Energy Retail) and Yurika Pty Ltd (Yurika).

In response to the AEMC's invitation to provide comments on the Draft Report, Energy Queensland has focused on responding to the key recommendations in the Draft Report. Further, we have summarised our key messages in the points below:

- Energy Queensland fully supports the ability for Distribution Network Service Providers (DNSPs) to use stand-alone power systems (SAPS) as a tool for new technologies which will drive improved customer outcomes.
- Once SAPS are established, they exhibit natural monopoly characteristics, such that regulation is required regardless of who is the owner of the SAPS system.
- The application of SAPS as a solution will vary greatly across the country; therefore, the framework needs to be flexible to cater for its diverse application while ensuring appropriate and positive customer outcomes.
- The efficiency pre-condition needs to be fit-for-purpose while recognising existing market capabilities and linkage to tender processes for services.
- SAPS solutions for new customers can allow for improved efficiencies, particularly where there is an obligation to connect.
- Ring-fencing obligations could have unintended consequences if the service classification of SAPS prevents DNSPs from offering integrated solutions.
- The recommendations relating to the transition of customers to third party SAPS may be premature as they contain very little detail. Deciding on these positions now could have unintended consequences when the rest of the third party SAPS framework will be discussed at a later date under priority 2.

It is clear that the AEMC has undertaken a thorough review and analysis of stakeholders' submissions presented in response to the AEMC's Issues Paper and taken time to understand the customer perspective during site visits in Western Australia and regional Queensland. At a high level, Energy Queensland is supportive of many of the AEMC's policy positions. However, we are disappointed that our request to reframe the national framework has not progressed. We still consider there is merit, given that SAPS are a local/community issue, for the national framework to contain high level principles with jurisdictions developing the detailed design and prescription. Energy Queensland

considers that this is a complex area where uniformity may be difficult to achieve across the jurisdictions given the diversity in customer base, geography and location. In our opinion, providing high level principles at the national level would enable DNSPs to adjust and respond appropriately based on local conditions. This would ensure best practice regulation and allow flexible delivery and execution, of cost efficient SAPS solutions.

Currently, some of the recommendations as they relate to the DNSP-led SAPS framework are too prescriptive. Energy Queensland is concerned that creating a single set of rules to apply consistently across the jurisdictions may not achieve the best outcome for customers. In particular, given the diversity of customers, a prescriptive uniform national framework would prevent customers being provided with the best solution for their circumstances, ranging from, for example, independent power systems through to a microgrid SAPS. We consider this is primarily because of the different drivers and demand for SAPS across jurisdictions, as well as the potential multitude of different circumstances, technical arrangements and delivery models that may be required to suit a particular customer or community. Further, technological innovation is expected, and learnings from practical experiences should inform the regulatory evolution and treatment of SAPS.

We note that the Council of Australian Governments Energy Council's Terms of Reference excludes existing SAPS that operate under current jurisdictional legislative frameworks. Energy Queensland's DNSP, Ergon Energy owns and operates 34 isolated networks and 33 isolated generators (referred to together as isolated systems or SAPS) that supply isolated communities across Queensland which are not connected to the national electricity grid. These operate under a mix of national and jurisdictional regulatory requirements. These have been in operation for a considerable time and are a good example of an effective mix of both national and jurisdictional regulation.

In putting the customer at the forefront in terms of their long term interests, as referenced in the National Electricity Objective (NEO), the AEMC needs to ensure that the national framework for SAPS provides regulatory certainty to stakeholders and continuity on all elements of the supply chain with little or no noticeable impact to customers when transitioning to an off-grid solution. Additionally, the framework should facilitate the provision of flexible SAPS solutions that provide cost reductions to customers in the long term.

Our detailed comments on the AEMC's draft positions are outlined below in section 2 of this submission.

## 2 Specific comments

### 2.1 Efficiency pre-condition

Energy Queensland is supportive of imposing an efficiency pre-condition to determine whether a DNSP may provide a SAPS solution or not. We also support the AEMC's proposal that a DNSP will either:

- complete the RIT-D for SAPS projects that meet the RIT-D threshold; or
- apply a new set of SAPS evaluation requirements.

While we support the intent of minimum SAPS evaluation requirements and market engagement requirements, we do not support the inclusion of evaluation requirements in the National Electricity Rules (NER). Rather we would support the development of guidelines that are proportionate, balanced, and enable innovation, while considering the scale of the SAPS project relative to the level of engagement required. Such guidelines would need to be flexible, so as to cater to diverse scenarios for all SAPS applications ranging from a microgrid for 2 or more customers, to an individual power system.

Furthermore we are concerned that prescriptive requirements based on network solutions may not encourage active market competition, especially in cases where a SAPS is preferred to a disproportionately high cost network option, which may occur in remote areas. Currently, the AEMC's proposed set of evaluation requirements set out in Box 8 of the Draft Report are too prescriptive and onerous. Additionally, there may be privacy concerns relating to information sharing of customer data with third parties which is required under the evaluation requirements.

We understand that the aim of having these requirements is to seek an equivalent outcome as provided for under the RIT-D process. However, it is important that in designing a regulatory framework with minimum evaluation requirements, it is agile and dynamic, and allows DNSPs to provide a timely service to customers in remote areas where the competitive market is small and unlikely to develop; or, until such time that the market can provide the service.

### 2.2 SAPS customer engagement strategy

Energy Queensland is supportive of a formal customer engagement process and the inclusion of this in a published SAPS Customer Engagement Strategy. Customers should be provided information and the opportunity to raise matters given that their consent is not

required. However, in developing this strategy, the level of engagement required should be relative to the scale of project and number of customers impacted; it must be balanced and flexible. We also, support the development of overarching principles that DNSPs must apply when developing their customer engagement strategy. Energy Queensland has adopted the International Association of Public Participation (IAP2) engagement best practice framework to guide our level of engagement with customers depending on the issues to be consulted and would apply this methodology to our customer engagement in relation to SAPS. In addition, as part of our engagement activity and subsequent decision making process we apply our Customer Principles, “Know our Customers, Deliver Value and Make it Easy”, which helps us tailor, deliver and assess our customer engagement activity with our customers and communities.

### **2.3 Regulatory oversight and jurisdictional participation in the national framework**

Energy Queensland supports the AEMC’s view that no additional oversight role is required by the Australian Energy Regulator (AER). However, as stated in our response to the AEMC’s Issues Paper, we believe that oversight may be required in some circumstances, for example, when the decision to move to a SAPS will have a negative impact on the economic efficiency of a particular community. For example, when a third party is looking to provide a SAPS solution in an area that is earmarked for economic development, or where the SAPS solution could impact multiple customers within the community. In these conditions, oversight may be warranted and Energy Queensland considers the relevant jurisdictional regulator is the appropriate regulatory body to make that decision, not the AER. This aligns with ensuring that decision-making is made as close as possible to the local level.

Energy Queensland supports the ability for jurisdictions to opt-in to the national framework for DNSP-led SAPS. Notwithstanding the Australian Market Agreement’s commitment for consistent regulation, there needs to be recognition of jurisdictional differences and that non-grid supply in practice affects a local community and may require a very specific solution based on a number of variances. Therefore, it may be difficult to seek uniformity nationally in the application of a SAPS framework and this should be recognised by the AEMC when developing a framework.

### **2.4 Grid-connection pre-condition**

Energy Queensland does not believe that the development of a competitive SAPS market will be stalled by allowing the DNSP to provide SAPS solutions for new connections. We consider that SAPS provide an opportunity to utilise new technology to reduce connection costs, which are currently included in the Regulated Asset Base (RAB) and recovered from all customers. The service classification process will consider factors, such as



competition in the market, which will determine the appropriate classification in the lead up to a DNSP's regulatory proposal. As the SAPS market is in its infancy, DNSPs shouldn't be excluded from SAPS service provision for new connections. DNSPs inherently have an obligation to connect (new and existing customers) and there should be no restriction, subject to jurisdictional discretion where relevant, on them making an offer for a SAPS solution. Similarly, customers should be entitled to accept an offer from a DNSP as well as the competitive market for a SAPS solution. Giving customers more choice in who delivers the supply model is in the long term interests of consumers.

If the AEMC's preference is to exclude DNSP-led SAPS for new connections with exceptions in areas where there is limited or no competition in the SAPS market, for example remote areas, this will raise ring-fencing issues if the DNSP were to consider providing a SAPS service. Consequently, a new SAPS system would have to be a ring-fenced activity, in which case the DNSP would have to seek a waiver from the ring-fencing guidelines in order to provide this service. Energy Queensland is concerned with this approach, especially as it applies to remote locations where there is no competition and/or little access to support services. We suggest that the framework enables DNSPs to provide SAPS services for new connections in remote locations where there is little/no competition under an automatic ring-fencing exemption. To this end, Energy Queensland considers that the provision of SAPS supply in remote locations where there is no competition should be classified as a standard control service and therefore, automatically exempted from the ring-fencing guidelines. The SAPS market is relatively new and in many locations does not exist yet. DNSPs would primarily be looking at providing an off-grid solution in these remote locations where the potential for competition is low. Under these circumstances it is appropriate that SAPS provision is classified as a standard control service. This approach will provide regulatory certainty to market participants and customers alike for a set regulatory control period and allow for a revision of the service classification in the following regulatory control period if market conditions have changed.

Finally, we support new remote customers seeking connection services for a premise from a pre-existing DNSP-led microgrid which is closer than the interconnected grid. However, this is only where it is economically more efficient than a grid connection. This raises the more general question of whether new remote customers, that have never connected, could be provided a SAPS from DNSPs. We note that the AEMC will further consider this during the next stage of the review. This is an important factor in developing the policy to support a SAPS framework which is led by DNSPs. There needs to be clear boundaries and clarity under what circumstances DNSPs can provide a SAPS solution.

## **2.5 Reconnection**

Energy Queensland agrees with the AEMC's position that customers supplied by a SAPS solution do not have a right to reconnect to the interconnected national grid. We echo our reasons<sup>1</sup> provided in our response to the AEMC's Issues Paper and do not support reconnection rights for customers supplied by a SAPS solution. This is especially where customers are guaranteed equivalent consumer protections, reliability and security standards as an interconnected grid customer. Further, the right of a customer to reconnect limits the ability for DNSPs to remove that part of the network which a SAPS is seeking to replace, and therefore miss the opportunity to pass these savings onto customers. Reconnection costs could be significant if parts of the network have been removed and replaced with a SAPS and these costs should not be shared by all customers.

Further, we support the AEMC's approach in implementing this policy by amending the definition of the DNSP's network to include DNSP's SAPS assets. This will provide regulatory certainty and clarify the rights associated with connection and reconnection. Energy Queensland welcomes the next stage of the review and the AEMC's proposed amendments which will enable DNSPs providing SAPS solutions as a regulated supply option.

## **2.6 SAPS service classification**

As previously stated, the inclusion of SAPS as a regulated standard control service will provide regulatory certainty to DNSPs. It would also ensure that DNSPs do not have to comply with the ring-fencing guidelines and provide them the flexibility to deliver a technical solution that would benefit the customer based on their circumstances. Further, the treatment of generation as an input would allow the DNSP to consider delivering the full integrated SAPS solution, for example to an individual customer. It is important that DNSPs have the ability to determine the most appropriate solution which may be based on a number of factors, for example, land title, land zoning, future development potential, remoteness, seasonal issues, and support services in the area.

Energy Queensland considers that the AER should be provided direction and guidance in the NER on matters to take into account when determining the classification of SAPS services. This would provide value to DNSPs in knowing that the policy intent is reflected

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<sup>1</sup> <https://www.aemc.gov.au/sites/default/files/2018-10/Energy%20Queensland%20-%2020181012.PDF>, pp 8 and 9.

in the framework, that is, the provision of SAPS by DNSPs is a regulated service. However such guidance needs to be balanced, ensuring the level of prescription allows flexible consideration of SAPS. This is particularly important given that diverse scenarios and technical solutions may apply and an integrated service maybe appropriate for some individual customers. Notwithstanding this view, we think it would also allow the market to develop through the engagement process under the efficiency pre-condition requirements and therefore a reclassification of a SAPS service could occur if certain market conditions exist in subsequent regulatory control periods.

It is important to note that the service classification of SAPS will have an impact on other policies, for example, DNSPs' connection policies. We recommend that in the next stage of the review, changes to other instruments such as DNSPs' approved connection policies<sup>2</sup>, that are required to implement a national SAPS framework, are included in the review. Energy Queensland's DNSPs, Ergon Energy and Energex have recently lodged their Regulatory Proposals to the AER on 31 January 2019, including their respective Connection Policy, which will apply for the 2020-2025 regulatory control period. The commencement of a national SAPS framework will have the potential to significantly impact these and other DNSP's connection policies.

## **2.7 SAPS service delivery model**

Energy Queensland understands that the purpose of developing a SAPS regulatory framework is to reduce the cost of supply to high cost to serve customers. If DNSPs are able to reduce these costs, the financial benefits will eventually flow through to other customers connected to the DNSP's network. Noting this purpose, we support the integrated service delivery model on the basis that it provides DNSPs with the most flexibility in delivering a SAPS solution and will support a framework that is adaptable to future market developments. For example, in New Zealand under one model for SAPS provision, there is no requirement for a retailer and customers pay only a network charge. As part of the engagement process, impacted customers and stakeholders are given the opportunity to provide comments to the DNSP where they are proposing to remove customers' off-grid. We note that the AEMC's preference is to retain retail services to ensure consumer protections for SAPS services. Energy Queensland considers that with future developments in technology, changes in customer needs, choice and control, and willingness for alternative approaches to supply delivery, the New Zealand approach may

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<sup>2</sup> Ergon Energy's current AER approved Connection Policy does not apply to its isolated networks given the terms used on the NER. Additionally, the Terms of Reference has excluded existing legacy SAPS from this review.

be appropriate, particularly for some individual customers. This could be achieved under this model with the option to have a retailer if required.

Energy Queensland is concerned that if the National Electricity Market (NEM) consistency model is adopted, it has the greatest tendency to encourage customers to alter consumption patterns in order to respond to NEM price signals rather than match customer demand to the SAPS generation solution. We believe that this is counterintuitive to the intent of SAPS service provision, which is to provide an efficient alternative to a grid connection which will in the long term reduce network costs. We think that despite the potential increase in costs, it is important to set up a delivery model that allows DNSPs to provide innovative and dynamic SAPS solutions that allow the economic benefits to be fully realised. Additionally, allocating risks and costs to the parties best suited to manage the SAPS solution will reduce the costs of supply to these customers.

## **2.8 Consumer protections – price control, reliability and NECF protections**

Energy Queensland supports the AEMC's position that customers who move off-grid to a DNSP provided SAPS solution should continue to receive equivalent price, reliability, and general protections as grid-connected customers. This should have little impact on Energy Queensland, as:

- customers in regional Queensland currently have access to regulated retail prices and this is achieved through the Queensland Government's Uniform Tariff Policy;
- the National Energy Customer Framework applies with some modifications relevant to Ergon Energy's isolated legacy SAPS; and
- the Guaranteed Service Levels and Minimum Service Standards frameworks apply to both Ergon Energy and Energex.

## **2.9 Decision-making framework – third party SAPS**

We note the AEMC has made a couple of comments in the Draft Report on the frameworks for third party SAPS as part of this consultation round. We consider that the issues raised in the Draft Report as they relate to transitioning customers from DNSPs to third party SAPS, and the concurrent review on embedded networks, is highly complex and requires more detailed analysis to ensure there are no adverse customer impacts. SAPS exhibit natural monopoly characteristics and as such, Energy Queensland is concerned that the AEMC considers that no efficiency pre-condition is required to support the transition of DNSP customers to third party SAPS. We are also concerned that, as set out in the Draft Report, DNSPs only have a limited role in the decision-making process, that is, via 'the asset transfer mechanism', especially as there is potential for broader

network impacts. Similarly concerning is that regulatory oversight is being recommended only in specific circumstances. As such, we believe that the recommended approach to transitioning customers could result in a high degree of customer vulnerability, despite the proposed consent requirements. Therefore, we would strongly recommend that this be considered in more detail during priority 2.

We reiterate our views which were expressed in our response to the AEMC's Issues Paper, that an efficiency pre-condition test should be required to ensure that a transition to a third party SAPS meets the NEO. Clause 7 of the National Electricity Law provides that the NEO *is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to—*

- (a) price, quality, safety, reliability and security of supply of electricity; and*
- (b) the reliability, safety and security of the national electricity system.*

The NEO has many components, including price, safety, reliability and security of supply of the electricity system. We believe that not requiring a third party to undertake an efficiency pre-condition test ignores these elements of the NEO, especially given that SAPS solutions exhibits natural monopoly characteristics. Third parties have very different drivers for providing a SAPS service, and because of this, there is an increased risk for broader network impacts, both upstream and downstream. Essentially, if the service provision is the same, then the principles of conducting an open and transparent pre-efficiency test should be equally applied to the SAPS provider, be it a DNSP or third party. This will ensure that the NEO principles are met by promoting the efficient investment, efficient operation and use of electricity for the long-term interests of consumers.

## **2.10 Asset transfer and stranded assets**

Once a third party has met the pre-condition efficiency test, then it is appropriate to deal with the stranded assets. As stated in our response to the Issues Paper, stranded assets should be treated in a manner consistent with any other stranded assets (i.e. not optimised from the RAB). We also support the AEMC's draft position where the third party compensates the DNSP for costs related to the stranded assets. This is in recognition of the fact there may be a requirement for the third party SAPS owner to meet the cost of the stranded assets, particularly where the DNSP can directly attribute the stranded assets to the transitioning customers, that is, for 'dedicated' assets.

## 2.11 SAPS Design/Standards

A key consideration in delivering a SAPS solution is the approach to its design and the associated costs of implementing the system. So far, the Draft Report has not considered these design aspects, which we feel are integral to ensuring that the development of a SAPS framework appropriately balances the economic benefits, costs and risks in delivering a SAPS solution.

A SAPS is designed starting with the customer, which is different to grid design where the focus is primarily on the grid assets. Further, there are comprehensive rules<sup>3</sup> for grid design which provide protections to customers and the network more generally. The design of grid systems and connections is contingent on two key themes:

- Peak demand for the connection; and
- After diversity maximum demand assuming not all customers will use their total peak capacity at the same time.

In contrast, for SAPS, there are limited standards that apply, particularly in terms of design and specifically around new technologies.<sup>4</sup> For SAPS, the potential for diversity of load is either low or entirely eliminated. In addition, the SAPS design needs to be considerate of not only the power requirement for the site, but also the energy requirement of the site. Energy demand can substantially impact the cost of a SAPS solution. While a grid connection can provide power at any utilisation factor, for SAPS, energy capacity must be considered together with power capacity. If a “one size fits all” methodology is applied, then the potential for SAPS will be significantly reduced. If some of the aspects of the design are not appropriately considered, then there is likely to be considerable backlash on the SAPS industry and its acceptability as a grid alternative for DNSPs.

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<sup>3</sup> The development of grid connection principles have evolved over years and take advantage of the concept of diversity and rules of maximum demand calculations - AS3000:Wiring Rules.

<sup>4</sup> AS4509.2 Stand-alone Power Systems Part 2: Systems Design covers the design principles for SAPS. These were developed when the cost of solar and batteries were high, interval metering was not readily available and meteorological data was tabular data based on limited locational data sets. We understand that this standard is on the forward agenda of the EL42 Standards Committee, however, it will not likely to commence for 12-24 months.