

A few  
words.

**COAG Energy Council Secretariat**

**Department of Environment**

**By email: [EnergyCouncil@environment.gov.au](mailto:EnergyCouncil@environment.gov.au)**

**4 October 2016**



Dear Energy Market Transformation Team,

**Re Stand-alone energy systems in the Electricity Market**

AGL welcomes the opportunity to respond to the Energy Market Transformation Team's (EMTT) *Stand-alone energy systems in the Electricity Market: consultation on regulatory implications* (**Consultation Paper**) for the COAG Energy Council (**Energy Council**), August 2016.

AGL is one of Australia's leading integrated energy companies and the largest ASX listed owner, operator and developer of renewable generation. Our diverse power generation portfolio includes base, peaking and intermediate generation plants, spread across traditional thermal generation as well as renewable sources. AGL is also a significant retailer of energy, providing energy solutions to over 3.7 million customers throughout eastern Australia.

In 2015, AGL established a New Energy division, with a dedicated focus on distributed energy services and solutions. AGL New Energy works with customers of all sizes (residential, business and networks) to understand their energy requirements and design tailored solutions. We offer customers 'beyond the meter' energy solutions, new and emerging technologies including energy storage, electric vehicles, solar PV systems, digital meters through our ring-fenced subsidiary business Active Stream, and home energy management services delivered by digital applications. We are also working with customers to develop a network services capability involving load management solutions.

The Consultation Paper comprehensively sets out the range of issues associated with determining an appropriate regulatory framework for stand-alone energy systems. Electricity supply is an essential service, with detrimental impacts from prolonged service interruption. Choosing to transition from the interconnected electricity system to a stand-alone system is a very significant decision with long-term implications for the customer. Furthermore, maintaining price and service discipline on stand-alone energy system providers and operators presents significant challenges due to the fact that this is likely to be a fully, vertically integrated form of service provision.

Despite the existence of these challenges, the deployment of stand-alone systems in any application other than remote communities is in its infancy. Where this occurs on an elective basis – that is, in greenfield or brownfield conversions – then it may be that existing regulatory frameworks for consumer protection and safety are adequate. The Australian Consumer Law (ACL), for example, offers consumers protection against unconscionable conduct, unfair contract terms and misleading and deceptive conduct. A stand-alone system owner/operator seeking to make its services attractive to customers such as to persuade them to leave the interconnected electricity system would have an incentive to deal appropriately with key issues (such as cost, pricing, reliability and services levels). Thus AGL recommends that a gap-analysis be undertaken, and the evolution of the market be observed further, before it is determined to construct a framework specific to stand-alone systems.

If it is determined that a specific framework applying to stand-alone systems is required, then AGL considers it would be worthwhile establishing (through consultation) a set of

guiding principles or objectives to apply in the design of that framework. These might cover items such as:

- **Access to energy:** Ensuring the basis on which customers will have access to energy from the stand-alone system is made clear, including arrangements for life support customers and dispute resolution.
- **Choice:** Promoting free and informed customer choice, including ensuring sufficient information disclosure. Not constraining informed customer choice even where that results in a departure from the service levels and the full suite of protections that would apply when electricity is taken from the interconnected system.
- **Flexibility:** Ensuring the regulatory framework is flexible enough to accommodate the emergence of new deployment and ownership models for stand-alone systems.
- **Competition:** Ensuring the existence of some mechanism to maintain price and service discipline on stand-alone system providers and operators. To the extent feasible, this discipline should be driven by competition. As stand-alone energy systems are capable of competitive operation and provision, monopoly rights of distribution network service providers (**DNSPs**) should not extend to such systems.
- **Safety:** Ensuring the safe installation and operation of stand-alone systems.
- **Avoiding duplication:** Making effective use of existing consumer protection regimes (such as the ACL, jurisdictional fair trading laws and product and safety standards) and only supplementing these with additional regulation where a genuine gap is identified. This applies to all the preceding objectives and principles.
- **National consistency:** Promoting, as far as possible, a uniform regulatory framework to apply across jurisdictions so as to promote certainty and minimise regulatory overhead.

AGL agrees with the EMTT that the current inquiry should take an evidence-based approach to assessing the risk of harm to customers supplied by stand-alone energy systems and avoid duplicating existing consumer protection frameworks. Aspects of the stand-alone system will already be governed by general consumer law, product and safety standards, safety legislation and other regulatory frameworks. New regulation should only be introduced where a genuine gap is identified, and should be proportionate to the risk of harm occurring so as to avoid unnecessarily constraining market innovation and customer choice.

A principles based approach will facilitate the development of a flexible regulatory framework that does not unduly constrain the deployment of stand-alone energy systems, whether this is driven by economic efficiency or to satisfy other consumer preferences (such as greater autonomy, or the pursuit of environmental goals). It would potentially allow a spectrum of application – from a more 'light handed' approach to a more prescriptive one – depending on the deployment scenario. A principles based approach may also assist in determining the appropriate source of any response to identified gaps in the regulatory regime – for example, rules specific to stand-alone system might best be applied as modifications to general consumer law, safety law, or property law rather than a new energy-specific regime.

AGL's responses to the specific discussion points are set out in the Attachment.

Should you have any questions in relation to this submission, please contact Eleanor McCracken-Hewson, Policy and Regulatory Manager, New Energy, on 03 8633 7252 or myself on 03 8633 6836.

Yours sincerely,



**Stephanie Bashir**

Head of Policy & Regulation New Energy



## Attachment: responses to individual discussion points

### What objectives, beyond the Energy Council's general objective, should be held in mind in addressing regulatory arrangements for stand-alone systems?

AGL notes that the Energy Council must undertake this consultation with a view to its overarching objective – namely:

*The promotion of the long term interests of consumers with regard to the price, quality and reliability of electricity and gas services.*

In commencing the next stage of the EMTT's analysis, it would be worthwhile establishing (through consultation) a set of guiding principles or objectives to apply in the design of an appropriate regulatory framework for stand-alone systems. These might cover items such as:

- **Access to energy:** Ensuring the basis on which customers will have access to energy from the stand-alone system is made clear, including arrangements for life support customers and dispute resolution.
- **Choice:** Promoting free and informed customer choice, including ensuring sufficient information disclosure. Not constraining informed customer choice even where that results in a departure from the service levels and the full suite of protections that would apply when electricity is taken from the interconnected system.
- **Flexibility:** Ensuring the regulatory framework is flexible enough to accommodate the emergence of new deployment and ownership models for stand-alone systems.
- **Competition:** Ensuring the existence of some mechanism to maintain price and service discipline on stand-alone system providers and operators. To the extent feasible, this discipline should be driven by competition. As stand-alone energy systems are capable of competitive operation and provision, monopoly rights of DNSPs should not extend to such systems.
- **Safety:** Ensuring the safe installation and operation of stand-alone systems.
- **Avoiding duplication:** Making effective use of existing consumer protection regimes (such as the ACL, jurisdictional fair trading laws and product and safety standards) and only supplementing these with additional regulation where a genuine gap is identified. This applies to all the preceding objectives and principles.
- **National consistency:** Promoting, as far as possible, a uniform regulatory framework to apply across jurisdictions so as to promote certainty and minimise regulatory overhead.

AGL agrees with the EMTT that the current inquiry should take an evidenced-based approach to assessing the risk of harm to customers supplied by stand-alone energy systems and avoid duplicating existing consumer protection frameworks. New regulation should only be introduced where a genuine gap is identified, and should be proportionate to the risk of harm occurring so as to avoid unnecessarily constraining market innovation and customer choice.

### What is an appropriate definition of a stand-alone energy system for our purposes?

### What are the different regulatory issues arise from stand-alone systems that are connected to the grid versus those that are not?

In AGL's view, the current inquiry should consider both stand-alone systems with no connection to the broader interconnected electricity system, as well as those with a limited transfer capacity that operate autonomously most of the time. On the assumption that this latter kind of stand-alone system would not have sufficient transfer capacity to permit the demand from every connection point to be met from the interconnected electricity system, then these present distinct regulatory challenges to embedded networks (their closest relative).

There are different regulatory challenges arising from stand-alone systems that are connected to the interconnected electricity system versus those that are not. These include:

- the manner in which reliability levels are achieved;
- the impact on customer choice and the potential to access competition from service providers operating in the interconnected electricity system;
- DNSP obligations and network tariffs that would apply to the transfer connection; and
- the licensing and exemption framework, where even a limited connection to the distribution network may bring the system within the exemption framework for network operation (including safety obligations) and on-selling.



**Are there any other potential business models we should consider?**  
**What are the unique regulatory challenges presented by each ownership model?**  
**Are some ownership models more closely aligned with the National Electricity Objective than others?**

The paper canvasses a number of different scenarios in which stand-alone systems could be established, each of which may lend themselves to different ownership models. The unique regulatory challenges presented by each include:

- **Existing remote locations:**

Here connection to the interconnected electricity system is by nature completely impractical and so a stand-alone system is the only option. As there has been no explicit choice to disconnect from the grid then regulating on the basis that the customer or community has made an informed decision to trade-off reliability, cost and other factors would be inappropriate. Instead, a higher degree of prescription may be required in the regulation of such networks – for example, in relation to reliability standards and cost recovery.

If a national framework for stand-alone systems is agreed upon, then further analysis may be required to assess the costs and benefits of transitioning existing stand-alone systems that already service remote locations under long-standing jurisdictional arrangements. Even if these are not completely transitioned, there may be potential to adopt certain elements of the new framework where these would be in the long terms interests of consumers.

- **Greenfield developments (commercial or community led):**

This scenario can be distinguished from the one above on the basis that it involves customers making an active choice to buy into a development operated as a stand-alone electricity system. However the choice involved is one which will have material, long-term consequences for the customer. Accordingly the regulatory framework would need to ensure that adequate disclosure is made to customers before the decision to buy into the development is made.

Arguably, if information disclosure is adequate and a free and informed decision is made to join the development, then it may be appropriate to apply a 'lighter' regulatory framework to this form of stand-alone system. For example, the customers may be permitted to trade off factors such as cost, reliability, and the pursuit of environmental and sustainability goals.

However if we continue to operate under the principle that electricity supply remains an essential service even for those who have elected to defect from the interconnected electricity system, then there may be a core set of consumer protections that should apply within any stand-alone energy system. Further work would be required to determine what those core protections are in this context and the extent to which they are already offered under existing consumer protection frameworks of general application (such as the ACL).

Injecting competition into the provision of services within a stand-alone energy system is challenging. What may initially present as a compelling alternative to grid-supplied energy may, over time, become less so if costs and other factors diverge. Whether or not there is a profit incentive for the stand-alone system owner/operator, customers will be legitimately concerned that the stand-alone system be operated and maintained efficiently with a view to minimising costs.

Even though a price cap or other form of price regulation may not be appropriate in this context, the regulatory framework is likely to require that the customer contract or governing agreement for the stand-alone system explicitly address cost and pricing issues. As with any other core consumer protections that are deemed necessary in the context of stand-alone systems, an analysis would need to be undertaken to determine the extent to which this protection is already provided under existing regulatory frameworks (such as the ACL).



- **Brownfield conversions (community led or municipality wide):**

As above, the community in this case is making an active decision to transition from the interconnected electricity system to a stand-alone system. Provided this decision is made on a fully informed basis, then it may be appropriate to apply a 'lighter' regulatory framework to this form of stand-alone system. For example, the community may be permitted to trade off factors such as cost, reliability, and the pursuit of environmental and sustainability goals.

However there are unique issues related to the exercise of customer choice in these situations. A stand-alone system is defined by natural / physical electrical boundaries. There may be a community in which a large proportion of customers are keen to transition to a stand-alone electricity system, but where the only practical means to achieve this transition would require the inclusion of customers who would prefer to remain connected to the interconnected electricity system. Should the regulatory regime require unanimous consent for the making of such decisions? If so, existing regulatory frameworks should be reviewed to ensure they offer individual customers sufficient protection from being pressured or coerced into consenting.

The same considerations outlined above regarding the potential need for core consumer protections applying within stand-alone systems, and the further analysis required to determine these and whether they are already provided through existing regulatory frameworks, also apply in this scenario.

- **Fringe-of-grid (DNSP led):**

Where it would be more economically efficient for an edge-of-grid community to be served by a standalone system, then regulatory barriers to this occurring should be removed provided that consumers remain appropriately protected. This kind of conversion bears many similarities to the first scenario (existing remote location), although it does not resemble it completely.

Here the decision to establish a stand-alone energy system is also made on economic efficiency grounds, rather than a desire to fulfil other customer preferences. This indicates that a higher degree of prescription would be required in the regulation of such networks – for example, in relation to reliability standards and cost recovery.

Since 'postage stamp' pricing means that customer in fringe-of-grid locations may not be bearing the full costs associated with providing them network services, then some form of price regulation would need to continue in these cases. If customers in these locations were instead required to bear the full costs of network service provision upon conversion to a stand-alone system, they might experience significant bill shock despite the stand-alone system actually lowering the overall costs of servicing customers in this location compared with a grid extension or upgrade.

**How would the discipline of price and service competition be maintained on stand-alone power infrastructure providers, given customers would not be able to switch retailers in the event they became dissatisfied with energy prices and/or customer service?**

**What contractual relationships should exist, and to what extent should they be regulated, between parties involved in the supply of the services of stand-alone systems?**

**How can the incentives of the procurers of stand-alone systems be aligned with the end use customers they will serve?**

**How would we ensure that the public is protected against unreasonable rates, bad service, and negligence that results in safety or human health risks? For**

**instance, would the ACL protections be sufficient for customers on stand-alone systems?**

**What would become the equivalent of a “retailer of last resort” in the event that an energy services company, delivering stand-alone power solutions, became insolvent? For example, should an insurance scheme or similar be considered for stand-alone system providers/operators in the event of insolvency?**

**What dispute resolution arrangements should be put in place for customers and should they be energy only dispute resolution or connected to broader tenancy/ownership arrangements?**

**What hardship and financial support provisions should apply to stand-alone energy customers?**



Maintaining price and service discipline on stand-alone energy system providers and operators would be very challenging. This is not only because of the lack of retail competition, but also lack of generation competition (and network competition) – after all, this is likely to be a fully, vertically integrated form of service provision.

There are various potential mechanisms to stimulate this kind of discipline, although all have their drawbacks and none are likely to be as effective as real competition. These include:

- Service and performance standards;
- Economic regulation or benchmarking, or threat thereof;
- Requiring the customer contract or governing agreement for the stand-alone system to explicitly address cost and pricing issues;
- Requiring contestable markets to be tested whenever procuring (including expanding or replacing) a stand-alone energy system or a component of that system;
- Treating the stand-alone system as a franchise agreement with a distinct operating term. The operator must participate in a competitive tender at the conclusion of the operating term to retain operating rights (and remuneration);
- Permitting customers in stand-alone systems to connect their own distributed generation as a form of competition to energy provided through the stand-alone system.

Whether any or all of these mechanisms will be appropriate may depend on the scale and scope of the stand-alone system, the circumstances in which it was established and the ownership model. There are likely to be other options not set out above.

In AGL’s view, what contracts should exist and the extent to which they should be regulated also depends on the deployment scenario. In remote and fringe-of-grid locations where deployment is primarily a case of economic efficiency rather than the satisfaction of customer preferences, there should be some form of standard contract between customers within that system and the provider and/or operator of that system.

There may be more latitude in the case of greenfield and brownfield developments, with the ACL (including the unfair contract terms regime) being relied on to protect customers to a large degree. However, as discussed earlier in this submission, further work would be required to determine whether there are certain core protections that should apply within all stand-alone systems and the extent to which they are already offered under existing consumer protection frameworks of general application (such as the ACL).

Australian product and installation standards would go some way to addressing safety concerns. However there would likely need to be additional obligations imposed on the owners and or operators of stand-alone systems to ensure their safe operation and maintenance. This might occur through a form of licencing framework administered by the AER (or jurisdictional regulator) or fall under the authority of jurisdictional safety regulators. Ideally this would be harmonised to promote national consistency.

There would likely need to be some kind of step-in rights or insurance scheme to protect against the risk of a stand-alone system operator becoming insolvent. Unlike in the interconnected electricity system, customers are unable to simply transfer their supply arrangements to a new retailer. However, any such scheme would add costs to the arrangement and there may be an argument that in a brownfield or greenfield scenario

(where customers have elected to transition to a stand-alone system) it be incumbent on those customers to assess and make provision for this risk.



**How should the service standards that apply to each stand-alone energy system be decided?**

**How will we ensure that customers are making fully informed decisions about the reliability standards and service quality of the energy services provided through a stand-alone energy system?**

**Under what governance framework will decisions about reliability versus cost trade-offs be made?**

**How and by whom should standards be enforced?**

**Should some obligation to supply apply in an area where a stand-alone system is in place?**

**Who should be the responsible party if an obligation to supply is put in place in a stand-alone system area?**

As discussed above, in remote and fringe-of-grid locations where deployment is primarily a case of economic efficiency rather than the satisfaction of customer preferences, service standards within a stand-alone energy system should be regulated and largely resemble those applying in the interconnected electricity system (where practical). Standards should be enforced against the owner/operator of the stand-alone system. There should certainly be a generalised obligation to supply in these circumstances.

It may be sufficient to leave customer service standards in greenfield and brownfield developments to be regulated under the ACL (including the unfair contract terms regime). The exception would be any minimum safety standards and any core consumer protections deemed necessary to apply in all stand-alone systems and that are not already provided under existing regulatory frameworks. Standards should be enforced against the owner/operator of the stand-alone system.

AGL would expect decisions about reliability versus cost trade-offs to be made at the time the stand-alone system is established, before customers have made a final decision to join or convert to the stand-alone system. Given the complexity of this decision, its long-lived nature and the potentially material impacts of insufficient levels of reliability, it would be important that customers making this decision are provided detailed information disclosure about the implications, and are possibly even advised to seek independent advice.

In general, AGL considers that fully informed customers should be permitted to accept levels of reliability that depart from the standard prescribed for the interconnected electricity system if they see other benefits in doing so. Despite this, it may be appropriate to impose some basic reliability standard in all stand-alone systems.

Any opportunities for, and governance arrangements applying to, any further modifications of reliability and other factors would need to be set out clearly in the customer contract and/or cooperative agreement. To uphold the principle of customer choice, there is a strong case for such decisions requiring unanimous (or at least a special majority) agreement. As discussed above, such trade-off decisions are unlikely to be appropriate in remote and fringe-of-grid deployment scenarios.

Whether or not there is a generalised obligation to supply in brownfield and greenfield stand-alone energy systems, the basis on which customers will have access to energy from the stand-alone system should certainly be made clear up front, including arrangements for life support customers and dispute resolution.

**What regulatory barriers exist to third parties supplying stand-alone energy solutions?**

**How should the regulatory framework ensure that a stand-alone power system is considered as an option where this is the most efficient way to provide energy services?**

**What elements of the national framework are potentially applicable to stand-alone energy systems?**

**Are the existing connection frameworks adequate for stand-alone energy systems?**

AGL agrees that the regulatory framework should encourage the competitive provision of stand-alone systems where this would be the most efficient means to provide energy

services. Frameworks such as the RIT-D should be leveraged to explore competitive stand-alone system options at fringe-of-grid locations. We note that the AER has recently lodged a rule change request to expand the RIT-D so that it also applies to replacement expenditure decisions, and that the AEMC has recently recommended that DNSPs be required to publish 'system limitation reports' to provide better information to the contestable market on emerging system constraints.



AGL agrees that there are real tensions that need to be resolved to ensure that DNSPs are not dissuaded from procuring a stand-alone system to service edge-of-grid communities where that would be the most economically efficient option, even if that resulted in a reduction to its regulated asset base. Given that stand-alone energy systems are capable of competitive operation and provision, monopoly rights of DNSPs should not extend to the provision of all stand-alone systems within their service territory.

AGL considers that some form of network connection framework would need to apply in stand-alone systems. This might take the form of a much 'lighter' version of chapters 5 and 5A of the NER and, as suggested, set out general principles and guidelines applying to network connections.

**In what circumstances should or could a stand-alone system become subject to economic regulation?**

**How should a regime for economic regulation – if any – be structured to address stand-alone systems?**

**Should price regulation extend to the entire cost of energy services for customers of stand-alone systems?**

**Should stand-alone systems that have a grid connection be treated as embedded networks for metering and settlement purposes?**

**In what circumstances should a decision to establish a stand-alone system be regulated? Who by? And what justification should be provided to the regulator?**

As discussed above, maintaining price and service discipline on stand-alone energy system providers and operators would be very challenging. This is not only because of the lack of retail competition, but also lack of generation competition (and network competition) – after all, this is likely to be a fully, vertically integrated form of service provision. What may initially present as a compelling alternative to grid-supplied energy may, over time, become less so if costs and other factors diverge. Customers will be legitimately concerned that the stand-alone system be operated and maintained efficiently with a view to minimising costs.

There are various potential mechanisms to stimulate this kind of discipline, although all have their drawbacks and none are likely to be as effective as real competition. These are outlined earlier in this submission. Whether any or all of these mechanisms will be appropriate may depend on the scale and scope of the stand-alone system, the circumstances in which it was established and the ownership model.

As discussed in other parts of this submission, there appears to be justification for regulating remote and fringe-of-grid stand-alone systems differently (more prescriptively) to greenfield and brownfield conversions due to the different motivations for, and degree of choice exercised in, the establishment of each.

**What principles should be adopted in determining the need for and nature of any new regulatory arrangements that will apply to stand-alone energy systems?**

**What would be the appropriate balance between a strong reporting and compliance regime and a flexible regulatory framework?**

In commencing the next stage of the EMTT's analysis, it would be worthwhile establishing (through consultation) a set of guiding principles or objectives to apply in the design of an appropriate regulatory framework for stand-alone systems. A suite of potential principles have been suggested earlier in this submission that might offer a useful starting point.

AGL agrees that the principles set out in the Consultation Paper (and taken from the Australian Productivity Commission Draft Report on Business Set-up, Transfer and Closure) are all useful principles.

**Of the various issues raised in this paper, which areas and potential market failures have the highest risks and should be prioritized in terms of regulatory interventions and reforms?**

Choosing to transition from the interconnected electricity system to a stand-alone system is a very significant decision with long-term implications for the customer. However the deployment of stand-alone systems in any application other than remote communities is in its infancy. Where this occurs on an elective basis – that is, in greenfield or brownfield conversions – then it may be that existing regulatory frameworks for consumer protection and safety are adequate. The Australian Consumer Law, for example, offer consumers protection against unconscionable conduct, unfair contract terms and misleading and deceptive conduct.

Thus AGL recommends that analysis be undertaken to determine whether there is a core set of consumer protections that should apply in all stand-alone energy systems and the extent to which they are already offered under existing consumer protection frameworks of general application (such as the ACL). Another key priority is ensuring that safety frameworks appropriately extend to the provision and operation of stand-alone systems.

