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COAG Energy Council Secretariat
GPO Box 9839
Canberra ACT 2601
Lodged Electronically

Dear COAG Energy Council Secretariat,

RE: Stand-alone energy systems in the Electricity Market

The Clean Energy Council (CEC) is the peak body for the clean energy industry in Australia. We represent and work with hundreds of leading businesses operating in solar, wind, energy efficiency, hydro, bioenergy, energy storage, geothermal and marine technologies, along with more than 4,000 solar installers. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

The CEC welcomes the opportunity to make a submission to the COAG Energy Council Energy Stand-alone energy systems in the Electricity Market Consultation on regulatory implications paper. We expect stand-alone energy systems to become more common in future as the economics of these systems continues to improve. It is important to have an appropriate regulatory framework in place before stand-alone systems become commonplace.

A key recommendation from our submission is that there is a need to develop a licensing system for stand-alone systems and either a licensing or industry accreditation scheme for managers of stand-alone systems.

We would welcome the opportunity to discuss this further. I can be contacted on (03) 9929 4136 or email dgladman@cleanenergycouncil.org.au.

Sincerely,

Darren Gladman
Policy Manager

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

The Energy Council’s overarching objective (The promotion of the long term interests of consumers with regard to the price, quality and reliability of electricity and gas services) seems an appropriate objective to bear in mind for this consultation, noting that the stand-alone systems under consideration are for provision of electricity, not gas.

What is an appropriate definition for our purposes?

The regulatory and consumer protection issues arising from stand-alone grids (i.e. those that are not connected to the interconnected national electricity system) differ markedly from embedded networks that are connected to the interconnected national electricity system. It will therefore be important to use terms and definitions that distinguish clearly between these two situations. It is also important to be clear that the systems under consideration are those that supply multiple households or businesses. Remote area power systems that supply a single residence or business need not be captured by a regulatory framework intended for multi-user, stand-alone systems. For the purposes of this consultation we support the definition of a stand-alone energy system as follows:

“A stand-alone energy system is an energy system that supplies multiple customers and is not connected to the interconnected national electricity system as defined under the National Electricity Law”.

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

When embedded networks are connected to the interconnected national electricity system there is the discipline provided by competition or at least the potential for competition. Customers who are dissatisfied with the service provided by their embedded network service provider have the option of switching to a retailer that supplies electricity from the grid. While we understand that in some situations it may be difficult for customers to exit their embedded network and connect directly to the grid (due to the embedded network configuration and metering arrangements) we also note that there have recently been moves by regulators (e.g. through the review of the Victorian General Exemption Order) to ensure that in future embedded networks are constructed and metered in ways that will provide greater choice and access to retail competition by customers on the network.

Customers on stand-alone systems (ie. energy systems that are not connected to the national electricity system) will not have access to retail competition. There will therefore be a greater need for regulation for consumer protection.

Are there any other potential business models we should consider?

The ownership models under consideration cover the range we would expect. There could, however, be variations of these models where ownership and management are the responsibility of different bodies. For example, a stand-alone grid could be owned under a cooperative arrangement with the

day-to-day management contracted to an energy services company. Similarly a district model could involve ownership and management by two separate companies.

What are the unique regulatory challenges presented by each ownership model?

Each ownership model presents unique regulatory challenges.

A landlord model could require a greater degree of consumer protection because of the greater power the landlord has over tenants by virtue of the landlord-tenant relationship. Price regulation could be complicated if the real cost to consumers is made opaque by including energy costs within the rental agreement.

A co-op model might need to operate within the state-based legislative frameworks that govern cooperative structures. A nationally consistent approach might be more difficult to achieve. Individuals might be constrained in the degree to which they could opt out of a cooperative ownership model.

The district model raises issues regarding the response by regulators when the owner or operator becomes bankrupt. While some stand-alone networks and the contracts to manage them might be saleable assets, difficult issues would arise if a new owner/manager could not be found.

Municipal models could be governed by municipal acts and regulations, which would vary from place to place. There might be a heightened risk of conflicts of interest if elected officials have a financial interest in new developments that are seeking municipal investment, approval or other support for a municipal stand-alone grid.

A DNSP model raises regulatory issues alluded to in the discussion paper. For example, should stand-alone systems be included in the DNSP's Regulatory Asset Base (RAB)? Would stand-alone systems under a DNSP model be subject to regulation by the Australian Energy Regulator (AER)?

Are some ownership models more closely aligned with the National Electricity Objective than others?

There are already some examples of the various ownership models for stand-alone grids in existence. The DNSP model already exists in parts of Queensland, where Ergon Energy operates a number of stand-alone grids. The landlord model is already commonly used in shopping centres and caravan parks, although usually in the context of a grid-connected embedded network, rather than a stand-alone grid. Rio Tinto owns and operates a district model stand-alone grid in the township of Weipa. If these examples are aligned with the National Electricity Objective (NEO) then other examples based on these models would, presumably, also be aligned with the NEO.

The municipal and co-op models would be new approaches. We have no reason to assume that these approaches could not be undertaken in ways that would align with the NEO, but without concrete example already in existence it is not immediately apparent what complications might arise under these models.

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?

Stand-alone systems are likely to have a single network manager, a single energy retailer and one or several generators that might all be owned and operated by the same entity. As such, it cannot be assumed that competition will provide discipline. In the absence of effective competition, some form of regulation will be required. The regulatory framework could take the form of licensing, standards and benchmarks, an authority responsible for monitoring compliance or responding to complaints, and with the power to impose fines or some other means of ensuring compliance with rules and minimum standards.

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?

Ideally, operators of stand-alone systems would derive their revenue through an ongoing supply and service agreement such as a power purchase agreement (PPA) or lease. This would ensure there is an ongoing incentive to maintain reliable supply. However, it is conceivable that a community might wish to purchase its energy system outright and operate it and this should not be prevented. It would be unduly heavy-handed for governments to regulate the kind of business model allowed for stand-alone systems. At the same time, there is a need to ensure that communities do not take on responsibilities that are well beyond their capabilities, which would ultimately lead to failure. This suggests there is a need for a licensing system for operators of stand-alone energy systems.

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

It has already been noted that incentives will be better aligned if the management of a stand-alone system is based on a business model such as a lease or PPA, rather than outright sale of system. However, we are not advocating for regulation through restricting or mandating certain types of business models.

A requirement for procurers to enter into long-term service agreements would be a way of ensuring better alignment with the needs of end customers.

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?

ACL protections would not be sufficient and would not remove the need for compliance with electrical safety regulations, for example. In the absence of effective competition, there is likely to be a need for some degree of government oversight and regulation. A government licensing or industry accreditation scheme for operators of stand-alone systems would seem to be a minimum requirement. There will need to be a way of penalising or excluding operators of stand-alone systems who have an established track record of malfeasance or unacceptably poor performance.

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?

If a company with a portfolio of contracts to manage a stand-alone system (either through a leasing or PPA arrangements) were to become bankrupt, that portfolio of contracts would have some residual value and could be sold to another stand-alone system operator. However, it cannot be assumed that this would always neatly resolve the problem, especially if the system is old or of dubious quality. Some form of insurance or prudential requirements might be warranted. This will depend on the ownership model, and would be of greatest concern under a district model where the company responsible for managing the stand-alone system becomes bankrupt.

The ultimate ‘retailer of last resort’ could involve customers leaving the stand-alone grid and utilising their own individual solar and battery system.

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?

Consideration should be given to placing stand-alone energy systems under the supervision of state-based energy ombudsmen. It would be preferable to separate consideration of energy disputes from broader disputes between tenants and landlords. There are already mechanisms to deal with tenant-landlord disputes and it would complicate matters unnecessarily to shift responsibility for tenant-landlord dispute resolution. Where there is a dispute between tenants and landlord regarding energy and broader tenancy issues, they should be resolved within existing forums for tenant-landlord dispute resolution.

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

Hardship and financial support provisions will likely vary between ownership models. For example, under a co-op model there might be other arrangements between members of the co-operative that would need to be taken into account. It is difficult to generalise a priori, and consideration of case studies based of experience would be useful to inform this question.

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

Customers of a stand-alone system should have some influence in determining the trade-off between cost and reliability that they are willing to accept. We should not assume that all customers of stand-alone systems expect or require the same level of reliability available from the interconnected national electricity system. If a degree of ‘tailoring’ of reliability standards is to be accommodated, that would tend to support a licensing approach. A licensing approach would enable reliability standards to be set prior to approval.

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?

Transparency and prior informed consent are two key principles in this regard. The reliability standard a stand-alone system is required to meet should be transparent and available to customers and potential customers. Information about the extent to which that standard is being met should also be available.

This confirms the need for some form of licensing, reporting and compliance framework for stand-alone system operators.

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

Trade-offs between cost and reliability should be allowed, provided the reliability standards is transparent, enforced and understood by customers.

How and by whom should standards be enforced?

Standards should be enforced through a licensing regime, with a regulatory authority given the power to levy fines or suspend licenses. We remains open-minded as to whether the licensing regime should be administered by a national regulator (such as the Australian Energy Regulator) or state-based regulators (such as the Essential Services Commission of South Australia, for example). A state-based licensing system could have the advantage of better understanding of local conditions and greater responsiveness to local concerns. However, a national regime would have the benefit of consistency and might reduce the red tape burden for companies operating across multiple jurisdictions.

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

Where there is a stand-alone system in place it would be uneconomic and unreasonable to oblige a DNSP to supply electricity from the interconnected national electricity system.

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

This question depends on the ownership model. For example, if a DNSP model were used and if the DNSP were allowed to include the stand-alone system in its RAB, then it might be plausible to place an obligation to supply upon the DNSP. Under a landlord model the obligation to supply would, presumably, rest with the landlord. Similarly, under a municipal model the obligation would be placed upon the municipality. It is more difficult to see how an obligation to supply could be implemented under either a co-op or district model.

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

The single largest barrier to third parties supplying stand-alone systems is that cross-subsidies, 'postage stamp' pricing and Community Service Obligation payments make supply from the grid seem cheaper to the customer. If either the subsidies to grid-based supply were removed or if the same level

of subsidies were available to stand-alone systems then stand-alone systems could compete on a level playing field and this would reduce energy costs to all consumers.

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?

If either the subsidies to grid-based supply were removed or if the same level of subsidies were available to stand-alone systems then stand-alone systems could compete on a level playing field and this would reduce energy costs to all consumers.

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

The National Energy Customer Framework (NECF) provides a retailer exemption scheme for providers of solar PPAs and this has proven to be an effective, light-handed approach to regulating this business model. Consideration could be given to extending this approach to include managers of stand-alone energy systems.

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

It is unclear to what extent the existing connection framework would apply to stand-alone systems. There ought to be a connection framework, possibly as a condition of a license issued by a state-based regulator or as a condition of an exemption provided by AER as part of an extension to the NECF.

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

Stand-alone systems should be subject to the same subsidy regime as cross-subsidised grid-connected supply in remote areas. Either the cross-subsidies should be removed from grid-connected supply or the same Community Service Obligation payments should be available for stand-alone energy systems.

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?

Some degree of pricing oversight and regulation might be required to prevent gouging by unscrupulous managers of stand-alone energy systems. This could be implemented through a licensing system, whether the system is administered by the AER or state-based regulators.

The definition assumed for the purposes of this submission is that stand-alone systems do not have a grid connection and the grid-connected networks are ‘embedded networks’ and would be regulated within the existing frameworks for embedded networks.

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?

If there is no reasonable expectation that competition can provide customer protection through choice and if ACL is considered insufficient, then there will be a need for some degree of regulation of stand-alone energy systems.

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

There is a need to distinguish between flexibility in setting standards for reliability and compliance with those standards. Customers should be able to choose the trade-off between reliability and price that suits them. Standards should be transparent and enforced. There should be flexibility in choice of standards and rigor in enforcement of the standards chosen.

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?

The biggest immediate risk is that stand-alone energy systems will be poorly managed. A licensing regime for stand-alone systems and either a licensing or industry accreditation scheme for managers of stand-alone systems should be a priority for policy makers.