



**Regulation of the energy wild west:
Stand-alone systems in the electricity market**

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Energy + Water Consumers' Advocacy Program

The Public Interest Advocacy Centre

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit law and policy organisation that works for a fair, just and democratic society, empowering citizens, consumers and communities by taking strategic action on public interest issues.

PIAC identifies public interest issues and, where possible and appropriate, works cooperatively with other organisations to advocate for individuals and groups affected. PIAC seeks to:

- expose and redress unjust or unsafe practices, deficient laws or policies;
- promote accountable, transparent and responsive government;
- encourage, influence and inform public debate on issues affecting legal and democratic rights;
- promote the development of law that reflects the public interest;
- develop and assist community organisations with a public interest focus to pursue the interests of the communities they represent;
- develop models to respond to unmet legal need; and
- maintain an effective and sustainable organisation.

Established in July 1982 as an initiative of the (then) Law Foundation of New South Wales, with support from the NSW Legal Aid Commission, PIAC was the first, and remains the only broadly based public interest legal centre in Australia. Financial support for PIAC comes primarily from the NSW Public Purpose Fund and the Commonwealth and State Community Legal Services Program. PIAC also receives funding from NSW Trade and Investment for its work on energy and water, and from Allens for its Indigenous Justice Program. PIAC also generates income from project and case grants, seminars, consultancy fees, donations and recovery of costs in legal actions.

Energy + Water Consumers' Advocacy Program

This Program was established at PIAC as the Utilities Consumer's Advocacy Program in 1998 with NSW Government funding. The aim of the program is to develop policy and advocate in the interests of low-income and other residential consumers in the NSW energy and water markets. PIAC receives policy input to the program from a community-based reference group whose members include:

- Council of Social Service of NSW (NCOSS);
- Combined Pensioners and Superannuants Association of NSW;
- Tenants Union of NSW;
- Ethnic Communities Council of NSW;
- Physical Disability Council of NSW;
- St Vincent de Paul Society of NSW; and
- Good Shepherd Microfinance.
- Affiliated Residential Park Residents Association
- Financial Rights Legal Centre
- The Salvation Army

Introduction

The Public Interest Advocacy Centre (PIAC) welcomes the opportunity to comment on the Council of Australian Government Energy Council (COAG EC) consultation paper on stand-alone energy systems in the electricity market.¹

There are three key questions arising out of this consultation:

- Should stand-alone systems be regulated under a national framework?
- What principles should be adopted in determining the need for, and nature of, any new regulator arrangements that will apply to stand-alone energy systems?
- What protections are necessary for customers serviced by stand-alone systems?²

PIAC considers it important to design a regulatory system that appropriately addresses consumer protections and reliability in situations where stand-alone systems are the sole energy supply for customers. Customers whose energy needs are wholly served by a stand-alone system will require greater protections, regulation and reliability and service standards than those using the services of local battery or solar PV, while remaining connected to the grid.

From PIAC's perspective, the key consideration is the impact that disconnection of energy services would have on a customer, so if the stand-alone system is the sole supply of energy, that necessitates greater protections. It is appropriate that energy providers have additional requirements, given their unique role in being a sole supply of electricity. It follows that in cases where a stand-alone system will be the customer's only energy supply, without the option of reconnecting to the NEM, it is reasonable to require that customers be offered protections and reliability standards that mirror, as closely as possible, the protections offered to customers that are grid-connected.

PIAC considers that this is the case, regardless of the ownership model for a particular project, but acknowledges that there may be a need to accommodate incremental deviations from the standard to reflect the varying degrees of risk associated with different ownership models. Generally speaking, the less choice that a customer has, the greater the risk involved in a transaction.

While this issue may be in its infancy, the relatively rapid developments in stand-alone systems could soon see hundreds of thousands of consumers served by these systems, which may range from schemes that involve small numbers of customers through to neighborhood developments and communities that involve thousands of households.³

¹ COAG Energy Council. Stand-alone energy systems in the Electricity Market. Consultation on regulatory implications. Energy Market Transformation Project Team. 19 August 2016, 4.

² COAG Energy Council Consultation, notes from workshop

³ ARENA making the case for energy independent suburbs

Should stand-alone systems be regulated under a national framework?

PIAC is of the view that stand-alone systems should be regulated under a national framework to provide consistency across jurisdictions. This will ensure consumers are equitably protected and will reduce administrative costs associated with working across jurisdictions for third parties and system managers. A national approach has practical benefits that are recognized in the move towards harmonization, such as the development of a national ring-fencing guideline that is to supersede the jurisdictional guidelines, as well as the development of the National Energy Customer Framework. As the second reading speeches introducing the NECF explained, a national approach is expected to help reduce the regulatory burden on energy providers, open the market to greater competition and provide a stronger range of energy-specific consumer protections.⁴ In this context, PIAC supports the principle that a national approach should reduce barriers to competition and in turn contribute to lower costs.

More generally, the development of stand-alone systems can benefit consumers by facilitating a shift to demand management and other non-network solutions to address system peak demand. Customers who are serviced by stand-alone systems should be able to explicitly benefit from the use of these systems through benefit sharing schemes. PIAC notes that there is a risk that a community may be taken off-grid on the basis that it is the most cost-effective solution for the network, but, due to the cost of their local supply, may end up paying more than grid-connected customers who have benefited from the positive effect of these systems on the management of the grid. For this reason, PIAC advocates for a price cap in this submission.

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

In terms of the definition of stand-alone systems, PIAC supports the inclusion of systems that remain connected to the NEM but can be isolated or islanded from the main network. We recognise that systems that are islanded but keep a physical connection to the grid have a form of back up that can be drawn upon when required, and so risk is lower. However, PIAC believes that the variable level of risk can be accommodated under any framework that is developed to regulate stand-alone systems. While these communities may have some access to a physical connection to the grid, they are still being served by a system that can be cut off completely and PIAC believes they should be governed under stand-alone system regulation, particularly with regard to customer protections, which are discussed further below.

PIAC recommends that the owner or operator of a stand-alone system should be required to list the system on a public register, similar to the public register of network service provider exemptions as approved by the Australian Energy Regulator (AER).⁵ Registration would ensure that, as these systems become more common, the sector is able to track and understand associated issues such as how many customers are served by these systems. This is particularly important in developing accurate modeling and improving system security and reliability as a

⁴ Commonwealth, *Parliamentary Debate*, Senate, 19 September 2011 6329-6333 (Senator Nick Sherry).

⁵ AER *Network exemptions* 25 October 2016, Australian Energy Regulator, <http://www.aer.gov.au/networks-pipelines/network-exemptions/public-register-of-network-exemptions>.

whole.⁶ For example, there is currently very little available information about the number of embedded networks and this creates barriers to ensuring that protections are sufficient.⁷

The recent review of the Victorian General Exemption Order has recommended that exempt sellers who operate multiple schemes should be licensed, as they are operating at a scale that warrants this requirement.⁸ Stand-alone systems are analogous, and so if an operator owns multiple systems it may be appropriate that they be required to have a license. For those operators who only own one system, but serve a population of a certain size, this may also be a trigger for licensing. PIAC supports these recommendations.

PIAC has also supported Dr Penny Crossley's submission to the COAG Energy Council's Storage Registration Consultation Paper⁹ and endorses her call for a national registration of storage devices.¹⁰ While a national registration scheme for stand-alone systems would capture any storage device used in a stand-alone system, PIAC recommends any storage device be cross referenced with the storage register.

Existing forms of regulation for exempt sellers and for authorised retailers may be appropriate for some stand-alone systems, but when these systems provide the sole energy supply, especially in remote locations, stricter conditions and regulations are required to protect their customers. PIAC recommends the AER be provided with the resources to be able to assess each stand-alone system against a set of criteria to tailor regulation to each case. This will ensure that there is consistency against a set of principles and guidelines, with flexibility where justified.

Authorised retailers, at the time of their application, have to demonstrate how they will meet their customer obligations and abide by the National Energy Retail Law and PIAC recommends this requirement be extended to those providing power through a stand-alone system.

Recommendation 1

PIAC recommends that stand-alone systems be regulated under a national framework that is based on the level of risk to consumers for whom stand-alone systems are sole supplier of energy.

Recommendation 2

PIAC recommends that stand-alone systems be registered and that operators be required to have a license to sell electricity.

Reliability and service standards

PIAC is of the view that where a stand-alone systems is providing the sole power supply for residents, the level of reliability and service standards should be assessed at a comparable level

⁶ Dr Penelope Crossley, *Submission on the Energy Storage Registration Consultation Paper*, 20 September 2016, 5.

⁷ Benvenuti, J. and Whiteman, C. A report to Energy and Water Ombudsman (Victoria) Energy & Water Ombudsman NSW, Energy and Water Ombudsman (SA). Consumer access to external dispute resolution in a changing energy market. June 2016.

⁸ D'Souza J., *General Exemption Order* Draft Positions Paper, Department of Environment, Land, Water and Planning (VIC), 2016, 5 & 9-10.

⁹ COAG Energy Council, *Energy Storage Registration Consultation Paper*, Energy Market Transformation Team, 19 August 2016.

¹⁰ Crossley see above n 6, 3.

as a traditional utility supplying energy. This is particularly the case when a community is taken off grid by the network because it is the least cost solution. These communities are not making a choice to go 'off grid' and as such should not be forced to make choices about what level of reliability they will accept.

Where customers and communities make the choice to adopt a stand-alone system, either through a third party or a municipal/co-operative ownership model, it is difficult for consumers to determine the level of reliability and service they are prepared to accept unless they receive sufficient information. Where customers are not supplied at a comparable reliability level to the network, that needs to be made clear in line with the standard of explicit informed consent. PIAC appreciates that providing a level of reliability at or near to grid level comes with costs to both grid-connected and stand-alone system customers.¹¹ However, PIAC considers that these costs need to be assessed on the basis that this is the sole supply of an essential service for these customers.

At this stage of the consultation process, it is difficult to accurately comment on how to make trade-offs with respect to price and reliability, as there may be cases where a stand-alone system offers greater reliability for customers, such as those on the edge of the grid who currently have lower reliability levels. There may also be situations where it could be argued the network has too much redundancy and reliability and accepting a somewhat lower level may be low risk for customers. It is difficult to assess this without specific examples of stand-alone systems and their costs. The guiding principle should be that, if customers are to make a choice, then they should do so on the basis of clear, accessible information that enables explicit informed consent.

Should customers of stand-alone systems be required to accept a lower level of reliability, rigorous explicit and informed consent must be obtained. They need to be given the tools and information they require to make that choice. PIAC has discussed explicit informed consent in greater detail in its submission to the Energy Council's paper on Consumer Protections for Behind the Meter Electricity Supply.¹²

PIAC recommends that the Energy Council ask the AER to develop a national licensing and exemption framework for stand-alone systems, as national consistency provides certainty to both operators and customers.

Finally, another issue that needs to be considered in reliability and service standards, as well as for pricing and regulation, is the potential for growth in demand within a stand-alone scheme and how that will affect performance of the scheme. The Energy Council should consider growth scenarios in the next issues paper, as they affect decisions around augmentation, maintenance and operation and thus the pricing of these schemes.

Recommendation 3

Recommendation recommends that the Energy Council work with AER to develop a national licensing and exemption framework for stand-alone services.

¹¹ COAG EC see above no 1, 10.

¹² PIAC. *Beauty and the beast: consumer protections in a complex world behind the meter systems*, Submission to COAG Energy Council Consumer Protections for Behind the Meter electricity supply Consultation on regulatory implications, Consultation Paper, 2016.

Recommendation 4

PIAC recommends that COAG consider the impact of growth in demand within communities served by stand-alone systems to ensure that the pricing and regulatory regime is able to adapt to increased demand.

Regulator challenges interacting with the existing network

The AER is in the early stages of developing a guideline and framework for implementing the recent rule change to strengthen the Demand Management Incentive Scheme (DMIS) and Demand Management Incentive Allowance (DMIA). There are a number of overlapping issues between demand management and stand-alone systems. In the case of distribution owned and led stand-alone projects, it is likely that incentives will be required along with changes to existing connection and planning frameworks. It is important to ensure that any incentive framework developed for stand-alone systems does not allow networks to collect benefits from multiple incentive programs and that customers receive a share in benefits in a clear and defined manner.

The current network connection framework is not adequate to encourage competition in this space. Outside of NSW, jurisdictional frameworks prohibit competition. Even in NSW the framework limits innovation and the connection of stand-alone systems. PIAC understands that the developers of the Huntlee project in NSW decided not to connect to the grid, as current procedures would require that once the system was operational they would have to hand over the infrastructure to the distribution network. Going off-grid may be the most sensible solution, however, in cases where connection to the grid does not occur because of current regulations, there may be missed opportunities from remaining connected. There is also greater risk to customers from being off-grid rather than having a grid connection as a backup.

The financial benefits from competition in this space are significant, as the recent Energy Network Association (ENA) commissioned research from Energeia demonstrates. Savings generated by the 'orchestrated' management of the network with both stand-alone systems and individual households with distributed energy technology could result in savings of 16.2 billion across the NEM, or reduction of customers bills by 30% by 2050.¹³ There are estimates that several hundred million has been lost in the last 5 years, just from restricted competition in connecting to the distribution network. PIAC recommends that the Energy Council review current connection and planning frameworks in light of new technology options and if necessary propose a rule change to address the issue of limited competition. PIAC also recommends that the Energy Council review Ofgem's approach to managing competition in connection and ensuring flexibility, as the UK has progressed further along in promoting competition and alternative energy systems for the benefit of consumers.

Recommendation 5

PIAC recommends that the Energy Council review network connection and planning to ensure that it facilitates competition.

¹³ Energeia, *Unlocking Value for Customers: Enabling New Services, Better Incentives, Fairer Rewards*. Report for ENA and CSIRO, Electricity Network Transformation Roadmap, October 2016, 3.

Recommendation 6

PIAC recommends that the Energy Council review Ofgem's approach to network connection to promote flexibility and competition, to determine lessons that might be adopted here.

Pricing

The first principle to be applied to pricing should be that customers of stand-alone systems are able to access affordable energy. The benefits of introducing stand-alone systems include reductions in costs to the grid as a whole, and since this benefit flows to all customers, the customers of stand-alone systems should not be paying more than grid-connected customers. Given that the price cap for customers of exempt sellers is the standard contract for that area, which in some cases is 20-40% higher than a market contract,¹⁴ there is some risk that if a similar price cap is applied to stand-alone systems consumers will not see the benefits of the distributed system. PIAC recommends that the Energy Council asks AER to re-examine if this is the best form of price cap for embedded networks and stand-alone systems.

PIAC would support the requirement for annual reporting of prices from stand-alone systems and possibly the development of a benchmarking system to ensure that pricing for this essential service is equitable. PIAC understands that the AER, in the latest review of the exempt sellers framework, did not agree to require exempt sellers to annually report their prices, explaining that authorised retailers are not required to do this.¹⁵ However, authorised retailers are required to provide accurate pricing to the Energy Made Easy website, which allows customers to compare with other retailers. Given that residents of embedded networks and stand-alone systems are not able to shop around using comparator websites like Energy Made Easy, price reporting would enable those customers to compare the prices they are charged with similar systems.

Customers of stand-alone systems who rely on the system as their sole energy supply should be able to access concessions, rebates and hardship programs just like anyone connected to the grid. There should be a minimum of two payment options, with one option being a non-internet based option. The Energy Council should investigate if it is feasible to offer customers of these systems access to Centrepay.

Recommendation 7

PIAC recommends that the Energy Council ask AER to re-examine the price cap applied in embedded networks and a possible price cap for stand-alone systems to ensure that customers of these systems are not paying more than the applicable market contract.

Recommendation 8

PIAC recommends that customers of stand-alone systems be able to access concessions, rebates, hardship programs and multiple payment options.

Provision of information

Customers who are served by a stand-alone system should be given enough information to understand pricing, their rights, and how to manage their energy use under a stand alone system, which may have different requirements from a grid connected home.

¹⁴ AER, *Notice of Final Instrument: AER (Retail) Exempt Selling Guideline Version 4.0*, March 2016, 34.

¹⁵ *Ibid*, 13-14.

Customers of stand-alone systems should still be issued bills outlining their energy use, tariff and price, and payment options. There have been issues with customers of exempt sellers not being issued bills, and this problem should not be repeated for stand-alone systems.

Recommendation 9

PIAC recommends that the AER be responsible for monitoring the standard information provided to customers of stand-alone systems to ensure that it is appropriate to facilitate effective decision-making and obtaining explicit and informed consent.

Competition

PIAC has recommended that stand-alone systems be registered. This will lead to greater transparency of data and facilitate competition by reducing the burden on third parties entering the space.¹⁶ If networks adopt a stand-alone system as the least cost solution, they should be required to undertake an open tender process to ensure transparency and provide an opportunity for third parties to enter the space. However, it is important to ensure that the national ring-fencing guidelines are robust to ensure that the networks are not able to use their market power to stifle competition. As the guidelines are currently in development, PIAC recommends that the Energy Council work with the AER to ensure ring-fencing will appropriately extend into this space.

Recommendation 10

PIAC recommends that the Energy Council work closely with AER to ensure the national ring-fencing guidelines currently in development are robust and will work in this space.

What protections are necessary for customers serviced by stand-alone systems?

Access to retailer of choice

PIAC considers that customers of stand-alone systems should have access to the benefits of a competitive market or to regulation that mimics competition, where it is not practical to have a competitive market or where competition would not be effective, such as in remote and regional areas. In some circumstances it may be appropriate to provide customers with access to a retailer of choice, particularly if the stand-alone system is a network driven project. However, understandably, there are real challenges in providing that to all customers, especially in cases where the scheme is on a small scale or in remote location where competition does not exist. PIAC recommends that COAG provide more information on this issue during the next stage of consultation.

Consumer protections

PIAC has made a submission in response to the Energy Council's discussion paper on consumer protections,¹⁷ which outlined our position on aspects of this issue. There are some specific issues that differ between behind the meter and stand-alone systems, as stand-alone systems provide all energy services rather than just add-on services. When a stand-alone system constitutes the

¹⁶ Crossley see above no 6, 6.

¹⁷ PIAC see above no 12.

sole supply of an essential service, it should be regulated in the same manner as grid connected services, to the greatest extent possible.

Particular issues arise for tenants of rental properties within a stand-alone system, and for the transfer of ownership of a house that is within a micro grid. It will be vital to ensure that those residents have access to full information disclosure to enable explicit informed consent. There are unresolved questions about who is responsible for providing this information, which will vary with the ownership model in question. However, it should not be left to the individual who is buying or renting the property to seek this information.

As with the current exempt sellers guideline,¹⁸ retrofitting a community or building to a stand-alone system should require additional levels of information and consultation to demonstrate how the scheme owner consulted with property owners and tenants, to ensure all residents are able to participate in the decision-making and give explicit informed consent.

PIAC recommends that disconnection and reconnection procedures should be the same as those for authorised retailers because, as outlined above, these systems are providing the sole energy supply for households. This means that reconnection should occur within two days as specified in the Electricity Supply (General) Regulation 2014.¹⁹ Customers with medical conditions should be able to register that with the scheme operator to ensure that in the event of an emergency or routine maintenance they are alerted first and offered assistance.

Customers of stand-alone schemes will also require access to some form of retailer or supplier of last resort in the instance that the operator/owner of the scheme becomes insolvent. This will depend on the ownership model; if it is a network owned scheme then there is low risk of insolvency. However, for customers of schemes owned by third parties or community cooperative schemes, there will need to be provision to manage this risk. This will possibly require a form of insurance and a framework for identifying a supplier to step in and continue to supply electricity. If the scheme is a stand-alone system that has some form of connection with the grid, the supplier of last resort could be the network, however for those completely separate from the grid it might not be possible for the network to provide this service.

Recommendation 11

PIAC recommends that consumer protections for customers of stand-alone system should be at or as close as possible to the National Energy Consumer Framework protections.

Recommendation 12

PIAC recommends that tenants and new residents in a community served by a stand-alone system should have access to additional levels of information provision to ensure they are able to give explicit informed consent and make effective decisions.

Recommendations 13

PIAC recommends that disconnection and reconnection procedures should be the same as those for an authorised retailer.

¹⁸ AER see above no 14, 12.

¹⁹ Electricity Supply (General) Regulation 2014 under the Electricity Supply Act 1995 (NSW), 8.

Access to external dispute resolution

Access to external dispute resolution has increasingly become an issue of concern for customers with behind the meter products, embedded networks and for stand-alone systems. A recent report commissioned by the ombudsman schemes of Victoria, New South Wales and South Australia outlined the key issues and potential solutions for ensuring access to external dispute resolution in a changing market.²⁰ PIAC reiterates its support for the jurisdictional energy ombudsman schemes as the most appropriate method for delivering dispute resolution in this area. There is support for this for the exempt sellers and this would be an extension of those developments.

PIAC recommends that the Energy Council work closely with the state energy ombudsmen to determine the most appropriate funding mechanism to enable them to provide dispute resolution services to customers of stand-alone systems. PIAC understands that the Energy and Water Ombudsman (VIC) is developing a scalable membership fee and different membership categories to ensure that exempt sellers are able to become members.²¹ This may be an appropriate model to adopt for stand-alone systems that are non-network owned. The obligation to become a member could be a condition of the license that scheme operators or owners are required to have.

Recommendation 14

PIAC recommends that the Energy Council works with state energy ombudsman to determine an appropriate funding framework to enable them to provide dispute resolution services in stand-alone systems.

Conclusion

PIAC welcomes the opportunity to be involved in this timely conversation about the future of the grid and ensuring consumers benefit from all forms of energy supply. PIAC believes the complexity of these schemes requires a more in depth consultation process, including working groups, forums and a further issues paper. We recommend that the discussion paper include case studies that demonstrate the current regulatory and legal constraints and possible solutions. Finally, we note that, in order for the consultation to be meaningful, it will be necessary for consumer advocates to be given reasonable time to participate in this process and to bring in external consultants where necessary. PIAC looks forward to working further with the Energy Council in this important area.

²⁰ Benvenuti, and Whiteman see above no 7.

²¹ D'Souza see above no 8, 25.