

Submission in response to the NSW Dept of Planning & Environment Discussion Paper on Consumer Protections

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About CEEM

The UNSW Centre for Energy and Environmental Markets (CEEM) undertakes interdisciplinary research in the design, analysis and performance monitoring of energy and environmental markets and their associated policy frameworks. CEEM brings together UNSW researchers from the Australian School of Business, the Faculty of Engineering, the Institute of Environmental Studies, the Faculty of Arts and Social Sciences and the Faculty of Law, working alongside a number of Australian and International partners.

CEEM's research focuses on the challenges and opportunities of clean energy transition within market oriented electricity industries. Key aspects of this transition are the integration of large-scale renewable technologies and distributed energy technologies – generation, storage and 'smart' loads – into the electricity industry. Facilitating this integration requires appropriate spot, ancillary and forward wholesale electricity markets, retail markets, monopoly network regulation and broader energy and climate policies.

CEEM has been undertaking research into these challenges for more than a decade, with a focus on the design of markets and regulatory frameworks within the Australian National Electricity Market, and State and Federal energy and climate policy. More details of this work can be found at the Centre website – www.ceem.unsw.edu.au. We welcome comments, suggestions and corrections on this submission, and all our work in the area. Please contact Associate Professor Iain MacGill, Joint Director of the Centre at i.macgill@unsw.edu.au. We would of course be delighted to provide further information should that be of interest to the NSW State Government.

www.ceem.unsw.edu.au

About APVI

The Australian Photovoltaic Institute (APVI) comprises companies, agencies, individuals and academics with an interest in solar energy research, technology, manufacturing, systems, policies, programs and projects.

Our objective is to ***Support the increased development and use of PV via research, analysis and information.***

The APVI prepares Australia's Annual PV in Australia Report and contributes PV related statistics to the International Energy Agency and provides analysis to industry, regulators and government on a range of technical and policy related issues.

A detailed summary of our projects can be sourced at our website www.apvi.org.au some relevant projects and reports include:

- Australian PV System Monitoring Guide;
- Best Practice Guidelines for Local Government Approval of (Solar) PV;
- Interactive Australian PV solar Mapping Resource including PV capacity at a Local Government Area level;
- PV Fault Reporting Website;
- Impacts of PV, AC and other Technologies and Tariffs on Consumer Costs;
- High Penetration of Photovoltaic Systems in Electricity Grids;
- Magnetic Island High Penetration Case Study;
- Carnarvon High Penetration PV Study Report;
- Alice Springs High Penetration PV Study Report
- PV Integration on Australian Distribution Networks: Literature Review

Introduction

We commend the Department of Planning and Environment for its timely consideration of electricity consumer protection, and are grateful for the opportunity to respond to the NSW Department of Planning and Environment Discussion Paper on Consumer Protections.

The energy sector is certainly going through significant changes and the Australian National Electricity Market's (NEM) current regulatory and market arrangements are looking increasingly out of date. In our view, the challenges are not just a result of new consumer-oriented technologies and service-oriented business models. Changes in electricity sector structure, in particular the vertical and horizontal integration of market participants towards what might now best be described as a 'gentailer' oligopoly, are also raising issues for customer protection. As is the debacle in domestic gas provision with a tripling of local wholesale gas prices since LNG exports commenced from Queensland.

Indeed, it might be argued that consumers need protection from existing retail market arrangements that have seen Australian electricity prices for small consumers rise to amongst the world's highest. This raises questions regarding how well the existing regulatory and rule change processes shaping these retail market arrangements are working to protect the long term interests of consumers. The Australian Energy Market Commission (AEMC) has the leading responsibility here and its annual reviews of competition present a rather positive view on this matter. Its 2016 Review found that "*competition remains effective for retail electricity and gas markets in New South Wales, Victoria and South Australia, and for the electricity market in South East Queensland*", while its 2017 Review finds 'stable' or 'improving' trends across all its measures of electricity competition, other than 'varied' for retailer margins.

We have a different view on present retail arrangements which we see to be failing energy consumers with conventional retail offerings, while providing only limited engagement opportunities for those energy users who are seeking new approaches to meet their energy service needs. The recent ACCC Retail Electricity Pricing Inquiry Preliminary Report would seem to support our concerns, taking a rather different view on the present effectiveness of retail competition to that of the AEMC. The ACCC notes that "*retail electricity markets in the NEM remain very concentrated*" and that "*one sign that competition has so far failed to meaningfully challenge the large retailers is limited erosion of their markets shares in the past five years.*" Meanwhile, "*the move to dispersed pricing has not corresponded with different products or services or significant product innovation to date*" while "*retail costs increased around 50% in real terms between 2007-8 and 2015-16 and gross retail margins accounted for 24% of the residential bill on average.*"

There is clearly a need, as well as an opportunity, for NEM regulatory, market and policy processes to better support new technologies and business models for energy service provision. Furthermore, while there are complex issues of jurisdictional accountability under current NEM arrangements, State Governments have a key role to play in protecting energy consumers in their State. The public and stakeholder response to the South Australian Blackout in 2016 highlighted that the community sees State Governments as the key protector of energy users when things go wrong, regardless of the specific roles of different governments and agencies under National Electricity Law. As such, we see this timely NSW Government Consultation as just one part of a necessary wider engagement.

At a time of rapid change and given the multiplicity of intersecting regulatory frameworks in this field, we strongly support a principals-based approach, while the five *Guiding Considerations* set out on pp11-12 of the discussion document are a sound basis for this, subject to some relatively minor provisos outlined below. We note and approve of the addition of 'sustainability' into the Draft Report's discussion of National Electricity Objectives – we believe, like many other stakeholders, that the NEO should include this formally in its definition.

The examples given in the discussion document appear to support the assumption that alternative supply arrangements are only relevant to large groups of customers. However, it is worth noting that there are potential benefits from aggregating residential loads and sharing distributed energy resources, as well as opportunities for co-ordinated engagement in the retail market, at all levels. So, for example, while

residential embedded networks are currently more common in apartment buildings and housing estates with large numbers of customers, the right regulatory environment could open up opportunities in smaller buildings and residential developments to utilise embedded networks for the distribution of on-site PV generation to residents. However, current and proposed regulation is making it increasingly difficult for small groups of consumers, or independent or community-focussed organisations acting as aggregators, to engage in this space, thereby leaving the ground free for the large retailers to further increase their dominance of the retail electricity market.

We would therefore recommend the addition of a sixth consideration relating to proportionality that allows for adjustment of the regulatory constraints and responsibilities according to the alignment of aims between the network operator and customers. This could be stated as “Encouraging community participation” or “Supporting customer co-ordination at all levels” and could allow exemption from some administrative responsibilities for business models with alignment of aims and demonstrated customer benefit.

Ensuring safe and reliable supply for new energy models

1. What changes may be required to ensure that all electricity consumers continue to receive safe and reliable electricity supply irrespective of energy supply model?

Although the National Energy Objective includes provision of a safe and reliable supply, in the current market transformation it is very important to uncouple the right to a safe supply from the right to a reliable supply, in order to help facilitate consumer choice and support innovation.

Clearly, electrical safety must be maintained for all customers, regardless of the technical or business model of their supply, and this requires some degree of harmonisation of regulations as well as consistent enforcement of Australian Standards. These same Standards are used to ensure power quality (voltage, frequency, harmonics etc). Thus, it makes more sense to couple safety with power quality with reliability. Supply reliability relates to whether the electricity is available or not (where Australian Standards have the role of ensuring the power quality of the available electricity). Thus, the processes in place that currently ensure safe electricity supply (compliance to Australian Standards, training and accreditation etc.) should be sufficient to ensure safe supply irrespective of the energy supply model.

There is anecdotal evidence that some existing private networks are not properly maintained and do not meet acceptable levels of safety. Such issues should be addressed according to the appropriate safety standards, and not conflated with supply reliability.

Conversely, although reliability is important for all customers, there are circumstances where it is appropriate to allow consumers to choose supply arrangements that provide a lower level of reliability, in exchange for other benefits. As well as financial incentives (lower electricity costs), there are other benefits such as reduced carbon emissions, energy independence or long-term price stability that may compensate customers for reduced reliability.

Enhancing consumer choice and participation

Consumer choice, already responsible for over 370,000 rooftop solar generation systems in NSW, will continue to be a prime driver in the transformation of the energy market and it is therefore important to enhance opportunities for customers to access a broad range of choices. However, it is an oversimplification to equate increasing individual access to the retail energy market with increased consumer choice, as the current market favours large incumbent retailers at the expense of smaller or more innovative energy suppliers.

As we noted above, the ACCC state in their Retail Electricity Pricing Inquiry Preliminary Report that “*retail electricity markets in the NEM remain very concentrated*” and “*one sign that competition has so far failed to meaningfully challenge the large retailers is limited erosion of their market shares in the past five years.*” Meanwhile, “*the move to dispersed pricing has not corresponded with different products or services or significant product innovation to date*”.

In our view, it is useful to take a broader view of consumer choice, and to recognise the role to be played by customers co-ordinating their participation in the energy market. Such co-ordination, which may be facilitated through a range of options, including aggregation of customers throughout an existing network, in embedded networks or in stand-alone micro-grids, can enable customers to access, or make more efficient use of, distributed energy resources.

It benefits customers to have a choice of commercial and non-commercial partners to facilitate this co-ordination and it is therefore important to ensure that strengthening consumer protections does not inadvertently place an excessive administrative burden on small or community-based operators that could drive them from the market.

It is also reasonable for customers to give up access to specific choices in exchange for other benefits. For example, where the customer benefits of an embedded network or micro-grid depend on the participation of all customers within the geographical catchment area of the network, it may be reasonable (though is not currently allowed) to ask customers to give up their right of access to the retail market in exchange for assurances on competitive pricing and minimum service standards, provided these assurances are meaningful and enforced.

Supporting business innovation without picking winners

This is an important consideration, and technology and participant neutrality was a stated objective of the original NEM reform process. However, it is a very difficult concept to operationalise. In particular, our present NEM arrangements and industry structure represent, at least in part, an outcome of decades of technology, business model and policy favouritism. Hence, some measures of ‘affirmative action’ for new technologies will often be required to address the inherent advantages of incumbency.

Right to electricity supply as an essential service

3. Should individual customers (or groups of people in a local community) be able to go off-grid and if so, what are the implications for their (existing) rights to supply by the local distributor?

They should always be able to go off-grid, and should maintain their existing rights up to the point where they are disconnected. After that time, if they wish to access the services provided by the network operator, they should be allowed to do so, but would be charged the stated rate. Prior to going off-grid they should be made aware of the consequences of this, including the associated costs of reconnection. Importantly, customers who decide to disconnect from the grid should not receive any sort of charge for simply having the network ‘running past their door’.

4. How do we ensure there is adequate information provision for customers who are considering going off-grid?

A standardised process should be developed, much as it was for grid connection of solar PV systems around 15 years ago.

5. What if some individuals within a community do not wish to be disconnected from the national grid?

6. What consumer rights apply to both the supporters and opponents of an off-grid proposal?

Whether in the case of a community choosing to move off-grid or an apartment building installing an embedded network, it is important to balance the individual and collective choices, and in protecting the choices of individual customers it is important not to impose unreasonable costs on other customers. For example, if a large majority in a community is willing to accept reduced reliability in exchange for lower prices and chooses an off-grid microgrid, the cost of retaining a grid connection for a single customer opting out of the microgrid could reasonably fall on that customer. Similarly, it is not unreasonable to expect a single resident in an embedded network wishing to move on-market to pay their connection costs, provided they are offered fair pricing within the embedded network.

8. What reforms may be needed to ensure that electricity consumers within stand-alone microgrids or other emerging energy supply models pay a fair price for their electricity where there may be a lack of competitive tension?

Customers within private networks are currently subject to a minimum price equivalent to the standing offer tariff. It has been suggested that retailers are increasing their standing offer tariffs disproportionately in order to allow more 'headroom' for discounted tariffs, and there may therefore be a decoupling of standing offers from the market rates paid by the majority of customers. It would therefore be more appropriate to link maximum tariffs to market prices, e.g. to the median market offer. This would reduce the opportunity for price gouging in private networks, provided the AER has sufficient resources for effective enforcement.

Protecting small customers

Access to the current retail electricity market does not automatically deliver reduced prices, or improved services for customers. Indeed, as noted in the discussion document, *"The rationale for consumer protection frameworks more generally is to prevent problems for consumers dealing with large organisations where the power imbalance between the parties may cause unfairness for those consumers."*

It is necessary to distinguish not only between individual consumers and large organisations but also between small or community-based organisations and large organisations. An over-emphasis on increasing the protection of the individual in this relationship may inadvertently shift the balance away from smaller organisations towards larger commercial organisations – and thereby reduce the options available to the individual. In other words, the protection of small customers may be compromised where overly restrictive burdens are placed on options that allow them to move away from the large retailers and network operators. Examples include: requiring a higher level of supply reliability than customers need or want, and the AEMC proposal to require full retailer authorisation for all embedded network operators.