



Empowering the future

Appropriate regulation and consumer protections in emerging energy markets



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1.0 Executive summary

The energy market is becoming more complex for consumers. New products and services are emerging in response to changing technologies and growing concerns about the environmental impact of traditional centralised energy generation. When the National Energy Market (NEM) was designed battery storage, smart metering, and other emerging products and innovative business models were not contemplated. Now they are becoming commonplace, but energy market rules have not yet caught up.

The regulatory framework that governs the NEM was predicated on an outdated centralised model, where the end-user was seen only as a consumer of retail energy services. But households and small businesses are increasingly using new services, such as energy storage management or leasing a solar energy system, for some (or most) of their energy needs. However, such ‘behind the meter’ products and services are not regulated beyond the generic provisions of Australian Consumer Law (ACL), and these customers are not benefiting from the many ‘energy-specific’ customer protections that have developed over time – special rules such as supply guarantees and hardship provisions – that reflect the vital importance of an energy supply.

The approach of allowing emerging energy services and products to sit outside of existing regulatory frameworks has been appropriate until recently. This is because these novel energy services have been expensive niche products used by engaged ‘prosumers’ making informed choices and with the means to wear some financial risk. But as more of these products and services reach the mass market and appeal to consumers without sufficient energy-literacy or financial resilience, the lack of energy-specific protections risks leaving them vulnerable to poor market outcomes.

This paper is intended as a basis for advocacy by groups that represent consumer interests in the policy development process. In the ATA’s view, the National Energy Consumer Framework (and the Victorian customer framework) should be expanded to cover the provision of all current and future energy-related services for households – not only where there is an explicit sale of energy. As such, this paper proposes a re-visioning of the scope and application of energy market regulation to better suit the evolving market and ensure that consumers can participate in it with confidence, thanks to appropriate consumer protections. Significantly, it proposes that consumer protections should apply based on the impact of market failures on the consumer and their essential supply of energy, rather than on the particular business model used to deliver the energy product or service.

These proposals have been developed over 2015 and 2016 thanks to a grant from Energy Consumers Australia that resourced the ATA’s participation in a number of developmental and consultative processes on the implications for both industry and consumers of emerging technologies and business models in the energy market.¹ We have also benefited from collaborating with the Consumer Action Law Centre’s *Power Transformed* project,² and the contributions of people from a number of consumer advocacy, community services, and other organisations who were involved in elements of that project or other work in this area.³

¹ This paper was written by ATA Energy Advocate Dean Lombard but also incorporates material written by former ATA Energy Advocate Craig Memery.

² See <http://energy.consumeraction.org.au/powertransformed/>

³ Brotherhood of St. Laurence, Public Interest Advocacy Centre, Energy and Water Ombudsman Victoria, Energy and Water Ombudsman NSW, Energy Tailors, Consumer Utilities Advocacy Centre.

2.0 The evolving energy market

The energy market is changing and becoming more complex for consumers. New products and services are emerging as a result of smart metering, energy storage, smart appliances, and other technological advancements. These new products, services and innovative business models – such as solar power purchase agreements, solar leases, home energy storage systems, remote control of smart appliances, co-operative power sharing, and so on – were not contemplated at the time when the National Energy Market (NEM) was developed and implemented.

The rules governing the NEM only provide the Australian Energy Regulator (AER) with jurisdiction to regulate for the sale of energy: that is, where there is a financial transaction relating to the volume of energy consumed (usually, but not always, metered). Thus, the retail authorisations⁴, exempt selling arrangements (for small-scale retailing such as ‘embedded networks’ in caravan parks, retirement communities, and apartment blocks), and network authorisations that impose energy market regulation on energy businesses apply only to businesses that are involved in the sale of units of energy to customers using NEM-connected infrastructure – the conventional energy grid and the generators that feed into it.

Providers of many new and emerging energy products and services – any business model that sells *access to* rather than *units of* energy (such as solar leases), any service that changes customers’ energy purchase needs by managing their usage (such as direct appliance control or battery management), and any direct or indirect sale of energy that is not connected to the physical grid (such as off-grid power systems or microgrids) – fall outside this regulatory framework because they are not selling units of energy through the conventional grid. So, while the end product for the consumer is similar – they pay money to access the energy they need in their household or business – they are not backed up by the special consumer protections that, as a society, we have deemed necessary to limit the impact of market failures on such an essential service. These market relationships are still regulated by the generic provisions under Australian Consumer Law (ACL); but as we discuss in this paper, ACL does not cover some of the specific issues that arise when the product or service delivers a significant portion of the customer’s essential energy supply.

The status-quo approach has been appropriate for energy-literate ‘prosumers’ who until recently have been the main group engaged with novel energy services and niche products, and have generally made informed choices. But as more of these energy products and services reach the mass market and appeal to typical consumers who are not highly energy literate, the lack of energy specific consumer protections risks leaving them vulnerable to poor market outcomes.

Figure 1 illustrates 20 possible future relationships arising from potential new services in the energy market, more than a half of which involve consumers directly. All of the new services and relationships currently sit outside of current National Energy Consumer Framework⁵ (NECF) – and the equivalent Victorian Framework, primarily delivered by the Energy Retail Code – and therefore outside energy-specific consumer protections.

⁴ Where term ‘retail authorisations’ is used in this paper it also includes Victorian retail licenses.

⁵ s39 National Energy Retail Law

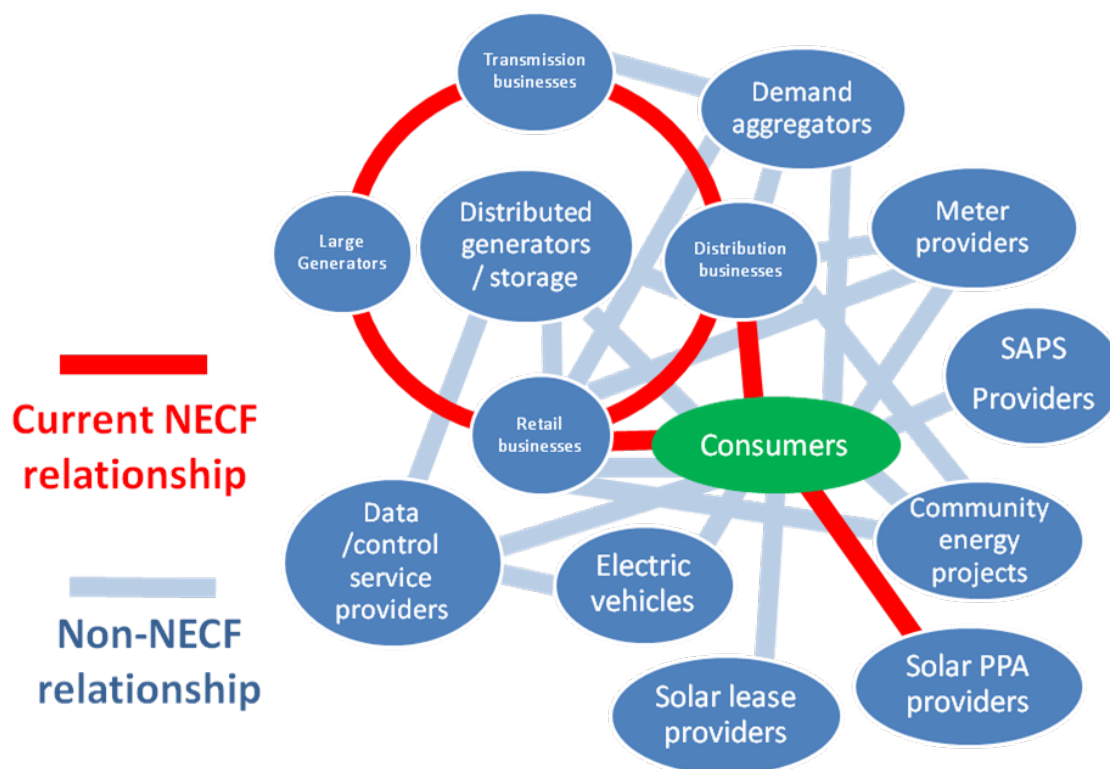


Figure 1. The connecting bars represent current and potential future energy relationships. Those in red are covered by National Energy Consumer Framework (NECF) today; those in blue are not.

To drive good consumer outcomes in the changing energy market, appropriate energy specific consumer protections should not be limited to situations where volumes of energy are purchased and delivered through the conventional grid. Rather they should be applied based on:

- the extent to which the service or product in question is being relied on by the consumer to deliver the essential service of a continuous supply of electricity; and
- the impact on the consumer of experiencing payment difficulties and hardship.

The absence of basic protections for products and services that aren't currently under NECF will lead to a perverse outcome where, for example, a consumer with a product or service provided by a retailer or network business has a higher standard of customer protection than one with the same product obtained from another provider.

Further, the current approach of limiting the reach of regulation to where energy is metered and traded runs the risk of creating loopholes. For example, the provider of a product or service could avoid complying with some consumer protections and other requirements simply by not selling energy on a per-unit basis – thus avoiding the need for an exemption.

These are not merely a theoretical risk: it is happening today. Solar lease providers are not subject to energy regulation, yet solar power purchase agreement (SPPA) providers are (see Figure 1). As a result, two different providers of identical products and similar services have different consumer protection obligations.⁶

To remedy these anomalies, the NECF (and the Victorian customer framework) should be expanded to cover the provision of all current and future energy-related services for households – not only where there is an explicit sale of energy.

⁶ It should be noted that at present, SPPA providers have minimal obligations under their exemption category. Nevertheless they are still subject to meeting certain conditions; and if (as is likely) additional obligations are deemed necessary, the framework exists to impose them.

This is not to suggest that all energy services providers should be required to carry full retail authorisations or licences – this would be excessive, inefficient, and create a compliance burden that would both increase barriers to entry for innovative services, and restrict offerings to consumers. Rather, a smart and flexible authorisations and exemptions framework should be established that demands different levels of accountability and obligations to customers as appropriate to the type of product or service provided, and the scale of the business. The existing exemptions framework is probably the most appropriate vehicle to begin with. Specific categories could be added for the more prominent new energy products and services (such as has already been done for SPPAs – though the lack of conditions applying to SPPA exemptions needs to be remedied) with a ‘catch-all’ general registrable category for others. By requiring registration, the regulator will be able to recognise when growth in particular types of product or service warrants a dedicated category. Ultimately – as the energy market continues to diversify – a small-scale authorisations regime will become necessary to cover the most significant (in terms of both scale of market presence and potential impact on customers of problems) behind-the-meter and off-grid products or services.

By extending appropriate regulation to all energy products and services, the evolving energy market will better embrace the growing diversity and pace of innovation, while promoting:

- horizontal equity with regard to consumer access to a sufficient supply of energy;
- innovation and competition in provision of energy services; and
- consumer confidence in the energy market.

Examples of emerging energy services that should be encompassed by the energy customer framework

The services below may be provided by any of the entities noted in Figure 1, and may involve the operation, leasing and/or outright sale of household-scale energy generation, consumption, and management. These services don’t all require *the same* consumer protections; but they all require *some* consumer protections, depending on the severity of impact on the consumer of market failure or financial hardship:

- residential demand response
- energy generation systems
- energy storage systems
- electric vehicles
- operation of smart appliances
- direct load control
- optimisation services across multiple loads and energy sources
- load shedding
- community owned de-centralised renewable energy
- energy sold between consumers on the same distribution network (wheeling arrangements, or micro grids)
- solar energy sold in land sharing community arrangements between strata owners, strata corporations and tenants
- energy sold through urban-regional council partnerships
- energy sold via smart meters (which will offer possibilities for third parties to be involved in providing a range of smart meter services)
- off-grid energy sales

3.0 Consumer protection fundamentals

Effective competition requires confident consumers; and consumers require good consumer protections to confidently participate in markets.

Consumer protections in the energy market are premised on the understanding that energy is an essential service that is necessary for basic wellbeing. Energy is needed for lighting, space and water heating, cooking, refrigeration, health care, personal hygiene, communication and entertainment. This is why residential consumers in the traditional energy market have protections enshrined in industry regulation to ensure, as much as possible, that they have a safe and reliable supply of energy to meet their needs, even if they live remotely or are in financial hardship. These protections have been retained as the energy market has transitioned from a government owned and operated monopoly to a fully privatised, disaggregated, and contestable marketplace.

Currently, new energy technologies and services – some provided by the same industry bodies that trade in the traditional market, others by third parties that do not – are being used by greater numbers of households, to the extent that they will probably be considered mainstream in the near future. When that happens, the choice between having household energy supplied by an energy retailer that routes it from a generator via a network, or by an energy services company that leases the household a solar panel array and domestic wind turbine with a backup generator, may be as everyday as choosing between a supermarket or a local shopping strip for household groceries. In both cases, there are pros and cons, different risks and opportunities for each choice; but an equal need for consistent basic consumer protections.

For the most part, customers of traditional energy retail businesses enjoy the same types of consumer protections wherever they are. Among other things, customers can be confident that:

- they will be able to connect to an energy supply;
- their energy supply will meet minimum reliability, quality, and safety standards, and they will be compensated if it doesn't;
- sufficient notice will be given for any planned interruptions to supply, and special consideration given to people reliant on life-support systems;
- they will be given clear information about the service they are purchasing, a cooling-off period for any contract they sign, and in some circumstances (for more novel supply arrangements) a limited right to exit a contract and revert to their previous contract;
- the basis of all energy supply charges is clear and subject to regulatory oversight;
- they have access to historical billing data;
- they have access to discounts on their energy costs if they are eligible for concessions;
- if they come into payment difficulties, they will be given support and flexibility and only disconnected as a last resort and according to a regulated process;
- they have access to an external dispute resolution service if they are unable to resolve a dispute with their energy supplier;
- during billing disputes they can stay on supply and not have to pay the disputed amount; and
- if their supplier ceases trading, their supply is uninterrupted.

Application of consumer protections to various energy products and services should vary according to the type of product or service involved, and should include consideration of the ownership model and the role of the product or service with regard to the consumer's energy supply and exposure to financial risk.

Below are some examples for where and how consumer protections could be applied to services which currently fall outside of existing frameworks.

1. Solar PV installations where the customer has an ongoing financial relationship with a provider that retains ownership of the system (leading to uncertainty if the customer were to fall into financial hardship), require more comprehensive energy-specific regulation than systems purchased upfront by the customer.
2. Batteries with management systems controlled by a third party to buy and sell on the energy market according to dynamic price movements (potentially exposing the customer to significant financial losses if managed poorly), require more comprehensive energy-specific regulation than batteries controlled by the consumer to store unused solar generation.
3. Solar PV with battery systems provided as complete energy supply systems for off-grid customers require more comprehensive energy-specific regulation than systems installed to supplement a grid connection.

4.0 Applying consumer protections: balancing appropriateness with consistency

Consistent protections are necessary when the market comprises a range of quite different products that can provide for customer needs in different combinations. But consumer protections also need to be appropriate – in scale and reach – for different types of products. Some customer protections should apply across the board; others will only be applicable to certain types of products or service, and certain situations.

To implement these, appropriate accreditation, licensing obligations or exemption conditions must apply to all providers of energy products and services. This can be introduced with minimal disruption to current regulatory arrangements (and with minimal overhead to businesses) by extending the AER's retail exemption framework (and reflecting it in the Victorian exemptions framework). This approach can encompass all energy service providers, with new classes for emerging products and services added when required, and exemption conditions applying as appropriate for the specific services and situations. Over time it will probably be more efficient to adopt a more nuanced approach, with a flexible small-scale authorisations framework to cover the more significant energy products and services and the exemptions framework for smaller entities and niche products. An accreditation scheme covering certain services (such as advice services) and product suppliers may also be appropriate.

4.1 General provisions

We propose the following areas as generic provisions across all energy products and services for residential and small business consumers. Some of these are discussed in more detail in the *Specific provisions* section of this paper.

4.1.1 Explicit informed consent

Explicit informed consent ensures that customers are given sufficient information whenever they enter into an agreement with the energy business to understand their rights, obligations and the terms of their energy or energy management services contract. Before they sign up to the product or service customers should be provided with accurate, standardised, suitably detailed and easy to understand information about the product or service that is on offer – and the anticipated risks and benefits that may arise.

Some innovative products and services inherently require a longer term contractual commitment, as significant up-front investment is made in providing and installing equipment. In these cases, a service provider must be able to demonstrate explicit informed consent such that the consumer is made aware wherever they may be:

- foregoing access to competition for some or all of their energy needs for some period of time; and
- subject to some sort of additional charge to recoup some of a provider's cost outlay if their circumstances change – for example, if they move house and equipment has to be removed or relocated.

4.1.2 Concessions and the hardship framework

Hardship frameworks and concessions programs are premised on the principle that low income households should be assisted with meeting the cost of their energy supply and given support and flexibility if they encounter payment difficulties, with disconnection of supply for non-payment a last resort. Access to concessions for customers of new energy products and services should be given by the states and territories, with obligations on relevant energy service providers to facilitate that access.

- The requirement that providers deliver elements of the hardship framework to customers should be contingent on the existence of recurrent charges (whether fixed or variable) and be reflective of the impact non-payment could have on a customer's wellbeing, financial situation and energy supply. Protections against – and remediation for – wrongful disconnections should be included.
- All eligible consumers should have access to state concessions for their energy costs, and hardship grants schemes for reducing accumulated debt. These should be available for eligible customers for all costs that are, in effect, a payment for energy supply.

Naturally, the extension of concessions to residential customers of new energy products and services is a matter for jurisdictions – nevertheless, it is consistent with the recognised national policy priority of addressing hardship issues in the evolving energy market. Significantly, some jurisdictions already give energy concessions to customers of some forms of non-metered energy – for example, Victoria's *Non-Mains Energy Concession* for concession cardholders who rely on LPG or firewood for heating, cooking or hot water, or who depend on electricity from an embedded network or generator. The AER *Retail Exempt Selling Guideline* requires that providers do not hinder customers applying for a concession or rebate to which they are eligible, and apply on the customers' behalf if this is necessary: so if concession eligibility is extended to customers of new products and services by the states, this same requirement should be placed on providers.

4.1.3 Marketing rules and restrictions

Common, accurate and consistent language, presented in simple English, must be used in the marketing of novel services. Even when referring to technical concepts or functions that have specific industry terms, simple and consistent language should be used where necessary – when the concepts or functions are integral to customers' interactions with or outcomes from using a product. For example, to describe the basic functions of direct load control products, information such as the nature, timing and frequency of control needs to be clearly communicated to consumers. Without common definitions on the technical aspects of such a product, consumers are unlikely to be able to provide informed consent.

Marketing activities and materials should also be required to contain clear and comprehensible information about pricing. This entails not only expressing prices and costs in ways that enable consumers to compare them with other providers; but also, where applicable, to understand prices and costs over time. Many energy products and services comprise a large up-front cost that offsets future costs. Marketing that is based on cost savings over considerable time must be clear about estimated payback periods and based on defensible estimates of future energy prices.

Strong measures must be in place to ensure that certain consumers are not offered products and services that would potentially cause or exacerbate any detriment to their health, wellbeing, or safety. For example, those who are on life support, or have medical cooling and heating needs,

should not be offered load control services that may restrict supply of energy for appliances required to sustain life and health.

4.1.4 Dispute resolution

Businesses providing energy products and services must have internal dispute resolution processes that meet a minimum standard. This can be scaled by business size, such that businesses with relatively low customer numbers meet a basic minimum standard, while larger ones have more comprehensive requirements for dispute resolution procedures and documenting (and reporting) of complaints and systemic issues.

Access to free, independent and an impartial external dispute resolution is a hallmark of the conventional energy market and is clearly much more effective than reliance on state-based consumer regulators.⁷ Extending coverage of energy ombudsman schemes to cover providers of other energy products and services requires a number of changes including developing new membership categories and fee structures within ombudsmen. But this is already being explored in a number of states and by a number of ombudsmen, so is a solvable problem.

4.1.5 Harmful products

Restrictions should be placed on products and services that are punitive and involuntary in nature: for example, the forced use of Supply Capacity Control as a credit management tool. In Victoria, energy retailers are prohibited from offering a Supply Capacity Control product (which turns off supply when a customer reaches a certain limit) to customers for any credit management purposes.

4.2 Specific provisions

Some provisions need only apply to specific types of product or service. For example, any product or service that uses its own meter should be required to comply with minimum standards pertaining to:

- accuracy;
- frequency of readings;
- rules for use of estimated or substituted data; and
- consumer access to meter data.

Some types of energy services are defined more by the customer's use-case than the product hardware. These need protections that are appropriate for the extent to which they are relied on by the customer for the essential service or energy supply.

4.2.1 Solar Power Purchase Agreements

A Solar Power Purchase Agreement (SPPA) is a financing arrangement to provide solar energy to a home or business at no (or minimal) upfront cost. The provider installs and maintains a solar generation system on the roof of the property, and the customer purchases the electricity generated by the system at a significantly lower per-kWh price than typical retail tariffs. The contract may last anything between five or 20 years, and the per-kWh price may be fixed or it may periodically increase by a predetermined amount. The solar system remains the property of the provider for the length of the contract, after which (depending on the contract) ownership may pass over to the customer or it may remain with the provider – who may sell it to the customer or remove it.

Sale of energy via SPPAs is a growing industry that, in particular, is opening up the benefits of home generation to lower income households. In fact, some energy retailers are offering SPPAs to customers experiencing ongoing hardship in order to reduce their energy bills. Some market analysts

⁷ Jo Benvenuti & Caitlin Whiteman (2016) *Consumer access to external dispute resolution in a changing energy market*, EWON/EWON/EWOSA.

expect that in the near future a growing number of households will source the majority of their essential energy supply via an SPPA.⁸

These two factors – the growing use of SPPAs by vulnerable households, and the potential for SPPAs to provide a household's primary source of energy – represent a strong rationale for appropriate and effective consumer protections. Because an ongoing financial relationship is involved, this should include some hardship provisions and access to concessions, where available.

There is another much more specific issue with SPPAs that needs to be addressed with appropriate regulation. If a solar PV system generates more energy than the household uses, the excess energy is sold into the grid for a feed-in tariff. However, SPPA customers may still be charged the agreed price for generated energy, even if they don't use it themselves. A household could find itself significantly out of pocket if it has to regularly pay more for excess generation at, say, 15¢ per kWh and sells it for a FiT of just 5¢ or 6¢ per kWh. Ideally, an SPPA provider would discount the cost of excess generation to the level of the FiT⁹; however, this is not required. When SPPAs are being used as a tool to help households in hardship, this is a particularly perverse outcome.

This issue is best addressed by requiring that SPPA providers:

1. assess household energy needs and usage patterns prior to installation in order to appropriately scale the system;
2. give detailed information to new customers explaining how household energy use varies over the day and evening, and that generation not used immediately is sold to the grid at the FiT rate; and
3. discount the cost of unused kWh to the level of the FiT so that, in effect, the provider (as the owner of the system) earns the FiT, and the household (as the purchaser of energy generated by the provider's system) pays for their usage.

4.2.2 Emergency backup

Where emergency backup is required for customers with life support systems that require an ongoing energy supply or with health conditions that require heavy usage of heating or air-conditioning to maintain room temperature within a narrow range, an assurance that the backup system will perform as required is critical. Systems installed as emergency backup for these customers should include clear specifications for performance and maintenance requirements, and a performance guarantee, to enable consumers to make informed choices. Providers of energy products and services that include emergency backup for these types of critical consumer needs should be required to ascertain the specifics of the customer's backup energy need and provide appropriate advice to the customer or – if they are providing the backup supply as part of their service – ensure that it is fit-for-purpose.

4.2.3 Off-grid systems

Appropriate consumer protections should be in place for consumers who go 'off-grid'. Today, consumers are free to replace their mains grid energy supply with a Stand Alone Power Supply (SAPS), and the protections for consumers replacing a mains grid connection and retail contract should reflect the greater risks that are particular to their situation. In some respects, protections for consumers seeking to disconnect from the grid should be similar to those that exist today under retail and distribution frameworks.

Strong protections are required:

- wherever the provider of the product or service has the ability to entirely restrict a consumer's access to continuous energy supply for non-payment; or

⁸ DELWP (2016) *General Exemption Order: draft position paper*, Department of Environment, Land, Water and Planning, Victoria.

⁹ Some SPPA providers already do this – for example, Express Power (see <http://www.expressolar.com.au/power-purchase-agreement>).

- when the consequence of failure of the business, product, or service compromises a consumer's access to the essential service of the continuous supply of energy, such that a consumer is unable to access energy from another cost effective and immediately available source.

Protections are equally important when a consumer is purchasing an off-grid system outright with no intention of a continuing relationship with the provider. Providers of systems and services to take consumers permanently (or long-term) off-grid need to be subject to stronger regulation than they are today. Specific protections that might apply include:

- providing a performance guarantee with respect to frequency and duration of system outages;
- educating customers about the difference between a grid connection and living with an off-grid system;
- clearly demonstrating that they have the explicit informed consent of the consumer, with particular emphasis on the customer understanding the above matters;
- contract terms that are clear and fair;
- a cooling off period;
- full disclosure of detailed product information to allow for straightforward repairs and identification of correct replacement parts;
- recording and reporting disputes to the AER; and
- a prudential fund or insurance against failure of the system and insolvency of the provider.

Currently, there is no requirement in the ACL, NECF, or the Clean Energy Council's voluntary SAPS installer accreditation for the any of above conditions to apply when a consumer goes off-grid. Due to the nature of electricity being an essential service, and the fact that these customers are foregoing a highly regulated grid supply, it is appropriate for more robust regulation of off-grid system providers in the interest of consumer protection.

4.2.4 Other products and services with specific needs

Many other products and services expose users to specific risks. These can be addressed by specific customer protections.

4.2.4.1 Residential demand response

Contracts for these services should clearly specify any penalties applied if customers do not provide a demand response that they have undertaken to provide. Such penalties should be fair and reasonable.

4.2.4.2 Energy storage systems

In order for customers to be able to make an informed choice, vendors should provide:

- clear and accurate information with regard to usable capacity and lifespan of storage systems, including changes of capacity over the life of the system;
- access to information and modelling tools to enable customers to determine the effective cost per kWh over the expected lifespan of the system and indicative bill reductions associated with the storage system specifically; and
- clear labelling on the system showing product identification (for example, model number), capacity, date of installation and battery chemistry, to facilitate safe operation, maintenance and repair.

4.2.4.3 Energy storage management systems

Energy storage management systems, that strategically charge and discharge batteries to take advantage of time-variant pricing, are expected to be an emerging market. These services could manage electric vehicle batteries as well as batteries installed as part of a home energy generation system. Relying as they do on dynamic tariffs offered by other market participants, there is a risk of significant financial impact on customers if there is an error with regard to how the management system responds to time-variant or demand-based pricing – for example, time periods for time-of-use or flexible tariffs, or demand measurement periods for demand tariffs – which causes the battery to charge (or not discharge as expected) during a peak period. These errors could arise from incorrect alignment with or changes to the tariffs in question, or timing errors due to inadvertent clock resets or lack of adjustment to daylight savings time changes. Providers of these services should be required to take liability for these errors.

4.2.4.4 Direct load control

Direct load control services – which cycle or delay operation of high-usage appliances to minimise use during peak price periods and take advantage of low off-peak rates – might rely on smart appliances, but could also be used with ‘dumb’ appliances via a smart connector. In addition to the clock error issue shared with energy storage management systems, there is also a risk to health and safety if used with life support equipment (unlikely but not impossible) or heating and cooling appliances of customers with chronic illnesses that affect their body’s thermo-regulatory function (necessitating maintenance of room temperature within a narrow range). In addition to the liability issues for clock errors (discussed above), direct load control providers should be:

- required to determine whether customers or their co-habitants require life support systems or have a thermo-regulatory conditions;
- prohibited from connecting direct load control equipment to life support equipment; and
- prohibited from providing direct load control to heaters and coolers in dwellings with residents with thermo-regulatory conditions unless maintenance of required temperature can be guaranteed.

5.0 Critical issues

Some of the issues canvassed above warrant further discussion. These are all fundamental to any consideration of industry regulation designed to meet the needs of consumers and both support them in fully engaging with the market, and protect them from harmful impacts of market failures or loss (or lack) of financial security.

5.1 Vulnerable consumers

There are two types of vulnerable customers: customers who are vulnerable now, and customers who become vulnerable in the future. Because anyone can become vulnerable at any point in their life, protections for vulnerable customers cannot be carved off and applied to some products and services and not others. The belief that hardship protections are not required in the emerging new energy market because ‘vulnerable consumers’ can’t afford to buy, say, solar panels or off-grid systems is misguided: people who *can* afford to participate in these markets *now* may fall into financial hardship in the future due to accident, ill-health, relationship breakdown, job loss, and so on.

At the same time, there are some classes of consumer who can be identified as ‘vulnerable’ now and can be expected to remain vulnerable into the foreseeable future. Classes include people:

- reliant on life support systems that require a continuous supply of energy

- with chronic health conditions that preclude regular employment, or lead to very high energy usage (such as conditions causing thermoregulatory dysfunction, requiring constant use of heating or air-conditioning to maintain room temperature within a narrow range)
- caring full time for someone with chronic health problems or a disability
- on very low incomes with few prospects of improvement – in particular, people with low levels of education and employment skills

Some new energy products and services could be beneficial to consumers in ongoing financial hardship. For example, solar PV systems – whether owned outright or via SPPAs – can reduce household energy costs enough to make unaffordable consumption affordable for many households. Direct load control or other energy management services used in conjunction with time-variant or demand tariffs could similarly reduce a vulnerable household's energy costs significantly. But there are also some risks. A household experiencing difficulties meeting repayments on a loan used to purchase an energy system could risk other assets, such as their home. A low-income household using an SPPA to lower their energy costs (and we note that some energy retailers are giving SPPAs to customers in ongoing hardship) could end up paying more rather than less if their system generates much more than they can use and they end up reselling a significant portion of their generation at a feed-in-tariff (FiT) rate that is much lower than their purchase rate.

As there are efforts in some jurisdictions to facilitate access to emerging energy products and services for vulnerable consumers, it is imperative that energy-specific hardship protections are delivered based on the principles we have already espoused in relation to all consumer protections:

- the extent to which the service or product in question is being relied on by the consumer to deliver the essential service of the continuous supply of electricity; and
- the impact on the consumer of experiencing payment difficulties and hardship.

As a general guide for protecting the interests of vulnerable consumers there are six main considerations.

1. Products or services that require ongoing payment should have some requirement for giving some flexibility and support to customers with payment difficulties. This should be more extensive for products or services that provide the bulk of a customer's essential supply, especially where there are no readily available alternatives (for example, where a customer is off-grid).
2. Products that are purchased via finance facilitated by the vendor should have a requirement that the type of finance used is subject to the National Credit Code (which contains hardship provisions).
3. Providers of energy products and services that entail ongoing payments should not hinder customers applying for a concession or rebate to which they are eligible, and apply on the customers' behalf if this is necessary. (This will be necessary in any jurisdictions that extend eligibility for energy concessions to customers of new energy products or services.)
4. For any energy products or services that provide the bulk of a customer's essential supply, especially where there are no readily available alternatives (for example, where a customer is off-grid), should be required to ascertain whether customers require life support systems or energy-intensive temperature control and:
 - a. Ensure these customers are fully cognisant of their energy needs and the risk they may face if supply is not available
 - b. Provide information to assist these customers to secure an appropriate backup supply
 - c. Where and ongoing service relationship will exist, maintain a record of these customers to ensure prompt response to supply problems.
5. Where a power purchase agreement is in place (such as an SPPA), it should be established and structured in such a way as to minimise the financial risk of excessive unused generation to vulnerable customers – for example, scaling system size to match household energy needs, and discounting the cost of unused generation to the FiT rate for concession-eligible customers.
6. There must be restrictions on products and services that are punitive and involuntary in nature; for example, the forced use of Supply Capacity Control as a credit management tool. In Victoria, energy retailers are prohibited from offering a Supply Capacity Control product to customers for any credit

5.2 Asymmetric information and explicit informed consent¹⁰

Around Australia, consumers lack confidence that they have sufficient information to make good decisions when engaging with the conventional energy market, and have low levels of trust in the information they do find.¹¹ That there is an undesirable level of information asymmetry in the conventional market suggests that it is likely to be even more of an issue for consumers making choices for novel energy products and services in the emerging market.

Consumer information is not a silver bullet for good market outcomes. As the Consumer Action Law Centre's *Power Transformed* report notes:

As the number of choices or the amount of information increases, decision-making deteriorates. That is, people's decisions become less likely to be in their own interests. Heavy reliance on disclosure alone to underpin informed decision-making in a rapidly changing and diversifying market is therefore unlikely to support effective choice and effective competition.¹²

Nevertheless, consumers cannot reliably make good decisions without understanding what the product does and how it will meet their needs. Transparent product and service disclosure presented in a comprehensible way is a necessary element of this.

The NECF (and the Victorian Energy Retail Code) require explicit informed consent for a number of customer decisions. Extending the requirement for explicit informed consent to contracts for other energy products and services would help ensure that customers are given sufficient information and understand their rights, obligations and the terms of their energy or energy management services contract, whenever they enter into an agreement with the energy business.

Customers should be provided with detailed, accurate, standardised and easy to understand information about the product or service that is on offer, and the anticipated risks and benefits that may arise from their use, before they sign up to the product/service. The NECF however does not address the need to disclose information in plain English and to ensure that consent is provided by someone who is competent to do so. This is a concern in view of the poor practices that are often employed in marketing to vulnerable consumers from non-English speaking backgrounds and those with poor literacy.

In a recent judgement against retailer Energy Australia, Justice Gordon said explicit informed consent:

... goes to the very core of the stability and transparency of the energy markets, when considered from the perspective of consumer confidence. All participants in the industry must not only understand the central importance of the need to obtain the explicit informed consent of consumers but ensure that they have procedures in place which ensure that this is achieved.¹³

This applies equally to emerging energy services.

It is not necessarily in a business' interest for consumers to fully understand exactly what products or services deliver or how they are priced, because businesses can benefit from the 'confusopoly' that leads to consumers making sub-optimal choices. Some of the new products and services have the potential to be more confusing than existing retail and energy service products due to added complexity.

It is therefore incumbent on government and regulators to ensure that, in addition to robust consumer protections, consumers have basic information tools to help them fully understand the new product and service. All contract terms and conditions and product information sheets must be easy to understand and accurate. In addition, full disclosure of information about product or service attributes and use is important.

¹⁰ This section includes material written by Deanna Foong, former Policy Advocate at the Consumer Utilities Advocacy Centre.

¹¹ ECA, *Energy Consumer Sentiment Survey Findings: July 2016*, Energy Consumers Australia, 2016.

¹² Consumer Action Law Centre (2016) *Power transformed: Unlocking effective competition and trust in the transforming energy market*, Consumer Action Law Centre: p. 25.

¹³ Federal Court of Australia, *Australian Competition and Consumer Commission v EnergyAustralia Pty Ltd* [2015] FCA 274

5.3 Dispute resolution

Businesses providing energy products and services should have internal dispute resolution processes that meet a minimum standard. This can be scaled by business size, such that businesses with relatively low customer numbers meet a basic minimum standard, while larger ones have more comprehensive requirements for dispute resolution procedures and documenting (and reporting) of complaints and systemic issues.

Access to free, independent and an impartial external dispute resolution is a hallmark of the conventional energy market and is demonstrably much more effective than reliance (under Australian Consumer Law) on state-based consumer regulators, which have limited (and varied) capacity to actually resolve disputes (focusing more on information provision and advice) and complaint processes that can be complex and, if complaints need to be taken to tribunals, costly.¹⁴ Apart from in NSW, the jurisdiction of state-based energy ombudsmen doesn't extend even to embedded networks, let alone to other energy products and services outside the conventional retail market. The Victorian government is currently exploring the practicalities of extending the reach of the Energy and Water Ombudsman Victoria to exempt retailers and network operators in embedded networks;¹⁵ and the Energy and Water Ombudsmen in Victoria, NSW and South Australia are currently exploring the feasibility of extending their membership to alternative energy providers.¹⁶ Implementing this change would require, among other things, developing new fee structures and membership categories for ombudsmen that are appropriate for smaller-scale businesses without needing unjustifiable cross-subsidies from other ombudsman members. This is not simple, but it's a solvable problem; and it's already been done in other sectors (such as telecommunications). Once it's figured out, then extending membership and jurisdiction of ombudsman schemes to providers of non-conventional energy products and services will be rudimentary.

It is important to recognise that external dispute resolution does more than actively resolve disputes. The existence of accessible ombudsman schemes and the financial cost to members of having ombudsman cases encourages them to seek to resolve disputes internally. Ombudsman resolutions also serve as soft precedents, indicating to other members how their obligations to customers should be delivered. In this way, the ombudsman is effectively part of the compliance framework.

5.4 Transaction costs

The availability of government-backed independent energy price comparators has improved the ability of consumers to make informed decisions when choosing an energy retailer. This has been necessary for two reasons:

- the complexity of energy tariffs (with the interplay between the fixed and variable components making cost calculations difficult); and
- the failure of commercial price comparators to actually compare all available products, and to actually show the user the best available price.

The costs (to government and to industry) of implementing an independent price comparator make it an 'if necessary' rather than 'by default' option. If price structures of specific products and services are complex and vendors do not present prices in such a way as to make them calculable and comparable, then some form of price comparator is necessary. If independent comparators for such products do not arise in the market, then one will be necessary. This could be provided by government funding to a suitable body (perhaps a not-for-profit) for an independent comparator, or direct provision of a regulated service.

¹⁴ Benvenuti & Whiteman (2016) *op. cit.*

¹⁵ Department of Environment, Land, Water and Planning, *General Exemption Order: Draft Position Paper*, DELWP, 2016

¹⁶ Benvenuti & Whiteman (2016) *op. cit.*

If all energy products and services are subjected to an appropriate level of energy-specific regulation (as ATA is suggesting), requirements can be included to standardise information about prices, to enable customers to more readily make comparisons. An example of this kind of approach, albeit for conventional energy retail products, is the *Tariff Information Label*¹⁷ used in the UK, which shows key information about tariff rates, other fees, and key contract conditions in a standardised format. It also uses a standardised *Tariff Comparison Rate*¹⁸ to enable comparison of price outcomes across different offers. A similar approach tailored for specific types of energy products and services that become relatively common in the marketplace would help minimise customer transaction costs and facilitate informed choice without requiring regulated comparison services.

Nevertheless, as already noted, if specific product types become established in the emerging energy market but pricing information continues to be obfuscated or overly complex, some form of regulated comparator may become necessary. Ongoing monitoring of the market will be required, and an appropriate regulatory framework necessary to enable action when necessary.

6.0 Conclusion

This paper has outlined a rationale for extending energy-specific regulation and customer protections to all residential energy products and services and how that could be implemented. It has also explored some broader underlying issues. We hope it stimulates further discussion and policy development and advocacy.

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¹⁷ See https://www.ukpower.co.uk/home_energy/tariff-information-labels

¹⁸ See https://www.ukpower.co.uk/home_energy/tariff-comparison-rate