Sustainable Electricity
Association New Zealand

27th February 2018

Electricity Authority
Via email
submissions@ea.govt.nz

Re: *Multiple Trading Relationships*

Please find herewith the **SEANZ submission** addressing key questions that impact the self-generation and self-consumption management technology suppliers and users/prosumers.

SEANZ supports any move via policy, its implementation and any and all discussion that enables further development of a market that works to benefit all consumers with the provision of more and greater choice of sourcing electricity – whether it be by consumers implementing their own generation and use of in-building management technologies through their own means/funding, or a peer to peer entity/supplier or a retailer, to enable greater competition and market effective efficiencies in both the residential and commercial markets.

The key succinct point here is the enactment of consumer self-consumption that facilitates peak load shifting, with downstream results impacting distributors and stakeholders in the industry – a point yet to be fully analysed and understood in New Zealand.

Access to ICP data is key; enabling multiple trading relationships is key;
Both provide an important part of the environment required to help the on-site, self-generation, self-consumption model as well as enabling consumers over time, to define, construct and manage their own choices, as well as enabling other supporting business models to grow.

Should you have any points requiring clarification, please address them to the undersigned.

Yours sincerely,

Brendan Winitana
Executive Chairman
SEANZ

Multiple Trading Relationships Consultation
SEANZ Submission

Q3: What do you consider to be the benefits of multiple trading relationships?

The solar PV and other self-generated electricity technologies (including storage/batteries) perspective, where the prosumer as a generator wants to sell any excess electricity generated into the market, that prosumer is limited in selling their exported excess, in the fact that;

- Prosumers have no choice but to sell to the retailer they use for their energy supply (for a single ICP)
- Not all retailers will purchase a prosumers exported electricity

Prosumers are thus limited in choice to retailers that will both supply and purchase their energy only.

A multiple trading relationship would allow the prosumer to participate in the electricity supply side independently of their incoming buy off the grid, electricity supply arrangement, allowing greater consumer choice - freedom to choose.

This in turn provides the opportunity to foster a far more competitively priced exported electricity market, which in turn builds an aggregated exported energy system that can provide the business opportunity of grid related support services.

Note that the current focus of many prosumers is to consume as much of the electricity they generate as possible to reduce their costs of purchasing electricity off the grid, given the payments rates currently being paid for exported electricity at distribution level. An exported electricity ecosystem built around solar PV and storage/batteries can provide a service that rewards the prosumer not only for their exported electricity, but at pricing that reflects market value at any point in time, or rewards them for having that electricity available and accessible to a third party aggregator – a peer to peer provider, a distributor, a retailer, a gentailer or a third party grid services business/entity. An excellent example of this is the Sonnen battery system in play in Germany with 60,000 households and is currently being developed in Australia.

This system type, with the processes in place allows the current incumbent players to participate in the niche opportunities while facilitating the many benefits for the prosumer, the consumer, the infrastructure providers and NZ Inc. An analysis of these opportunities, as has occurred in other jurisdictions will qualify and quantify the opportunities and benefits, for all stakeholders.

Q4. What other services could be enabled by reducing or removing the barriers to multiple trading relationships?

In addition to the above, the advent of mobile energy storage e.g. EV's, means that there is the potential for "plug-In" consumption and export at multiple locations (possibly anywhere in the country, which the potential for that consumer to want to link back to their main energy account for the consumption and export of their "mobile" energy.

An example of this is the project in the UK where 135 Vehicle to Grid (V2G) chargers in a cluster delivery model, that will facilitate research into the impact of widespread EV rollout on the UK's energy grid. This project will demonstrate the benefits of using domestic EV batteries to provide grid flexibility, cheaper transport and energy to homeowners, and faster decarbonization of the UK's power and transport sectors.

Q11. How much value is there in making it easier for appropriately authorised firms to access information such as a consumer's tariff structure, the smart meter functionality that is used by the consumer's MEP, a consumer's controllable appliances?

We believe it is very difficult to define value absolutely, when no benchmark exists. The existing rules mean that possible business models cannot currently operate.

Now that NZ has good penetration of smart metering, to restrict access to the data available at / from the meter, and to have market rules where access is "owned" by a retailer and information is available in retrospect and delayed by days (or maybe weeks) we consider to be a market failure in the current situation. The retailer owned data provides the retailer with a competitive advantage that they can act and move on – an advantage that no-one else in the wider industry has. The ironic point is the data would not exist without the demand being used by the consumer and or prosumer. We ask the question about the fairness of this position – as it restricts other business models from developing, where the downstream impact and realizable value, is both financial and environmental with NZ Inc benefits.

Several examples of a business models that cannot develop because of this include;

- third party energy management companies, or energy traders, both of which can provide the consumer opportunities to achieve and deliver the best electricity deals and the best use of the electricity they consume and / or export together
- Neighborhood residential and business solar PV prosumers and mini and micro grid operators working with new aggregators to deliver excess electricity to other parts of a city, town or area to both aid the resilience required in the current electricity system (which other consumers benefit from with added security of supply) and allowing non-current retailers to expand their service offerings by adding an aggregation model to their current services

- The Virtual Power Plant (VPP) model can currently operate efficiently and successfully, only if a retailer is involved given they have access to ICP data – individual or grouped, residential or commercial.

  The VPP model, of which a project has been implemented in South Australia, contributes significantly to building resilience to the current electricity system using the excess and or available electricity from multiple solar PV and or batteries in place behind the meter. Third party and secondary players in the market can construct VPP models more efficiently if they have access to the ICP data.

  How could New Zealand benefit from this, should it be faced with further natural disasters and the impacts of such that may leave communities, towns and cities with either no electricity or limited access to such?

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