

Energy Transformation Taskforce

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Submission: DER Roadmap: DER Orchestration Role and Responsibilities

1. Introduction

Tersum Energy is pleased to provide this submission to Energy Policy WA regarding *DER Orchestration Roles and Responsibilities* (the Paper).

Distributed Energy Resources (DER) will play a significant role in future energy supply arrangements; Tersum supports the policy initiatives underway to reform and modernise the WEM.

1.1 About Tersum Energy

Tersum Energy is a sustainable energy company that specialises in using innovative technologies to provide energy security, affordable power, and economic growth, particularly in regional WA. We have significant experience working with edge-of-grid communities and are currently partnering with several regional communities to deploy DER and enabling technologies, which forms the backbone of our business model.

We believe a move away from the centrally owned meshed network model to a more dynamic locally controlled and/or owned series of autonomous networks will result in an affordable, secure, reliable, and sustainable energy supply in both metropolitan and regional WA.

Perhaps more importantly, we believe (and are actively pursuing opportunities to demonstrate that) DER and associated technologies can provide economic and employment opportunities for Western Australians, particularly in regional areas. Regional communities are looking for ways to attract industry and grow and diversify population – greater control over their energy supply and the resources they can offer potential investors is an important step in realising these aspirations.

2. Areas of Comment

Rather than address all questions raised in the Paper, Tersum will focus on several key areas in this submission. Further, Tersum recommends that Energy Policy WA review and consider the recommendations of the final report from the Economic and Industry Standing Committee *TAKING CHARGE: WESTERN AUSTRALIA'S TRANSITION TO A DISTRIBUTED ENERGY FUTURE* (the Report).

2.1 Business Model

More of an observation, rather than a comment – the Paper captures the current state of the market, with large-scale generators through to customers and offers some definition in relation to the concept of an 'aggregator' as we progress into greater deployment of DER. Throughout the Paper there appears to be an assumption that the owners of DER will be customers.

Tersum is a market participant, through its wholly owned electricity retailer license holder Clear Energy Pty Ltd. In the Tersum model, the DER is owned by Tersum and, through Clear Energy, electricity is sold to customers, both in-front and behind the meter.

It is from this perspective, we Tersum as a licensed electricity retailer, make the following comments.

2.2 Consumer Protections

In developing our business model, Tersum has engaged with regulators, policy initiators, government, and customers.

In all cases the common question asked is *'how are customers going to be protected?'*

If, in the DER future there are going to be new classes of participants, such as aggregators, it is essential that a level playing field, between existing market participants (retailers) and new market participants (e.g. aggregators) is clearly established from the outset to ensure that consumers, particularly residential and small business customers, receive the same levels of protection they currently enjoy.

The current regime of

- licensing retailers,
- subjecting retailers to an ongoing audit process and
- when selling electricity to small business customers, having retailers become members of the energy and water ombudsman scheme,

has served consumers well since the inception to the WEM and in Tersum's opinion should be the base case for new classes of market participants, be they aggregators or solar PPA exemption holders.

The extra regulatory burdens and costs deliver the correct behaviours and protect consumers.

2.3 Barriers to DER Aggregation

There are some perceived barriers and improvements which could be made to regulatory arrangements that would make DER and the aggregation of DER more commercially viable (and attractive), but Tersum does not believe there are any regulatory barriers for licensed electricity retailers to provide DER solutions to contestable regional customers right now.

More significantly, subject to a relatively minor change to the *Electricity Corporations (Prescribed Customers) Order 2007 of the Electricity Corporations Act 2005*, licensed retailers would also be able to trade with regional non-contestable customers (residents and small businesses) and offer them affordable energy via DER solutions.

Where the regulatory barriers come into effect is when the electricity must pass through the Western Power Network.

2.4 Metering and Settlement Arrangements

The Western Power Network is subject to a range of economic and technical regulations. For the most part these regulations help keep people safe and protect consumers' rights, however, in some instances they result in a barrier to competition and innovation.

To connect to the Western Power Network, every customer needs a meter. Each meter is given a National Metering Identifier (NMI). A NMI is a unique number that identifies each customer and allows the user (the retailer) to identify how much electricity is being consumed or exported by each customer.

All connections to the Western Power Network are subject to Western Power's Applications and Queuing Policy (AQP). Under the current AQP only one user is allowed per NMI. This means Western Power (who owns and reads the meters) is only allowed to provide the metering data to one party – and that party is typically the retailer who is selling electricity to the customer.

This presents a barrier.

If a licensed DER provider wants to buy electricity from or sell electricity to a customer via the Western Power Network, it needs direct access to the NMI data. However, unless the licensed DER provider

becomes the sole user associated with the NMI, it cannot access the data it needs to be able to purchase or supply electricity. Users are not allowed to share metering data with third parties without express permission from the customer.

For contestable customers – typically large industrial businesses or commercial customers using more than 50MWh (around \$15,000) of electricity per year, there is some opportunity for the licensed DER providers to become the NMI user, as these customers can choose their retailer.

However, for the million-plus non-contestable customers in the SWIN – typically residents and small businesses, they are required to purchase electricity from Synergy. Under current arrangements there is no scope to replace Synergy as the sole NMI user and therefore no access to the NMI data required to make the DER solution work with a single NMI.

There is, however, a fairly simple solution to overcoming this barrier. More importantly, it is a solution that does not require the introduction of full retail contestability nor immediate tariff reform.

A solution

A legislative change, with the addition of a clause in the *Electricity Networks Access Code 2004* to the following effect:

An Access Arrangement must not impose a limit on the number of persons who can have an access contract at a connection point.

This would enable Western Power to amend its AQP to allow multiple parties per NMI.

This change does not of itself introduce any change to retail contestability, it merely allows for multiple parties to access the NMI data.

It is worth noting that Western Power has previously proposed the change to allow multiple users per NMI in an access arrangement review, but the ERA rejected the AQP change due to opposition from Synergy. We note it is in Synergy's interest to maintain the one user per NMI position, as it gives Synergy a significant competitive advantage.

2.5 Retail contestability

Another perceived barrier is retail contestability. As discussed above, Synergy is the incumbent retailer for all residential and small business customers connected to the SWIN. As a result, the perception is that until full retail contestability is introduced, no party other than Synergy can retail electricity to non-contestable customers in regional areas, which also happens to be the customer base that stands to benefit the most from DER solutions.

Understandably, this is a considerable disincentive for parties other than Synergy to pursue DER solutions, as the contestable customer pool is only around 37,000 customers, with even fewer concentrated in regional WA.

However, we submit that there is a solution to this barrier that does not involve introducing full retail contestability.

A solution

A legislative change to the definition of a Prescribed Customer under Section 54(4) of the *Electricity Corporations Act 2005* (WA), which would enable electricity retailers to provide electricity to regional residential and small business customers, via DER solutions.

Section 54(2) of the *Electricity Corporations Act* says,

A distribution licence does not authorise the Electricity Networks Corporation, or a subsidiary of that corporation, to supply services for the purpose of the supply of electricity to a prescribed customer by a person other than the Electricity Generation and Retail Corporation or a subsidiary of the Electricity Generation and Retail Corporation.

The Minister has the power to amend the definition of a Prescribed Customer under Section 54(4) and 54(5) of *the Act*, which says:

The Minister may, by order published in the Gazette -

(a) declare a class of customers to be prescribed customers for the purposes of subsection (2) or (3); and

(b) amend or revoke an order made under paragraph (a).

Without limiting subsection (4)(a), a class of customers may be declared by reference to —

(a) the amount of electricity that has been consumed by a customer within a specified period.

or

(b) an estimate made by a specified person or a person of a specified class of the amount of electricity that will be consumed by a customer within a specified period.

The current definition of a Prescribed Customer is provided in the *Electricity Corporation (Prescribed Customers) Order 2007*, which declares a Prescribed Customer to be a *customer who consumes, or could reasonably be expected to consume, not more than 50MWh of electricity per annum at each exit point through which electricity is supplied to that customer.*

Our understanding is that the above clauses work to restrict Western Power to only transmit and distribute electricity to non-contestable customers (residents and small businesses) via Synergy.

The cost of servicing regional customers is high. Regional customers are typically located a considerable distance from generation sources, meaning the network costs of transmitting and distributing the electricity to these customers (which form 40-50% of the retail tariff) is prohibitive. Given regional residential customers are relatively low electricity consumers, and Synergy residential tariffs are not cost reflective, we expect Synergy are supplying these customers at a loss.

Electricity retailers that sell DER generated electricity to local customers could certainly service these regional customers at a lower cost than centrally generated energy.

Opening the local residential market to electricity retailers and licensed aggregators (deploying DER), would allow regional customers to benefit from lower cost of service and ultimately lower tariffs, while reducing the impost on Synergy. This would in-turn also reduce the average cost of service to Synergy's overall customer-base by reducing the average cost to serve.

To enable this to happen, the Minister would only need to specify an exemption in the Prescribed Customer Order.

Note, this **is not tantamount to full retail contestability**. This change **would not** open the entire SWIN residential market to competition from major energy sector participants and would not severely impact Synergy. All this amendment would do is introduce sufficient contestability in regional areas to make it attractive enough for retailers and licensed aggregators to pursue DER solutions in the very regions and for the very customers that stand to benefit from them the most.

We recommend any amendment makes it clear that retailers and licensed aggregators who supply residential and small business customers within regional communities are required to partner with the communities to ensure a portion of the revenue generated in each region would remain in the region and be re-invested for the benefit of the community.

Tersum Energy is happy to continue to work with Energy Policy WA as the reforms necessary to deliver the DER Roadmap are tested ahead of the planned 'go live' dates.

Yours sincerely

Rodney Littlejohn

Rod Littlejohn

Chief Executive Officer - Tersum Energy

About Tersum

Tersum Energy is a sustainable energy company. Our vision is to deploy innovative proven technologies, working with communities to generate economic development and deliver secure clean energy.

We are committed to delivering specifically tailored solutions to our clients in the power generation industries to make the switch to cleaner fossil fuels, such as natural gas, through an array of sustainable solutions including energy from waste, solar or wind.