AEMC Consultation
DER Integration- Updating Regulatory Arrangements

Please note that this submission in no way reflects the position or opinion of my employer.

I mainly agree with the document supplied by TEC & ACOSS as it is a more complete description of many DER issues and does not seek to impose a strict export cost on all DER.
I will mainly refer to this proposal document.

Tariff Reform

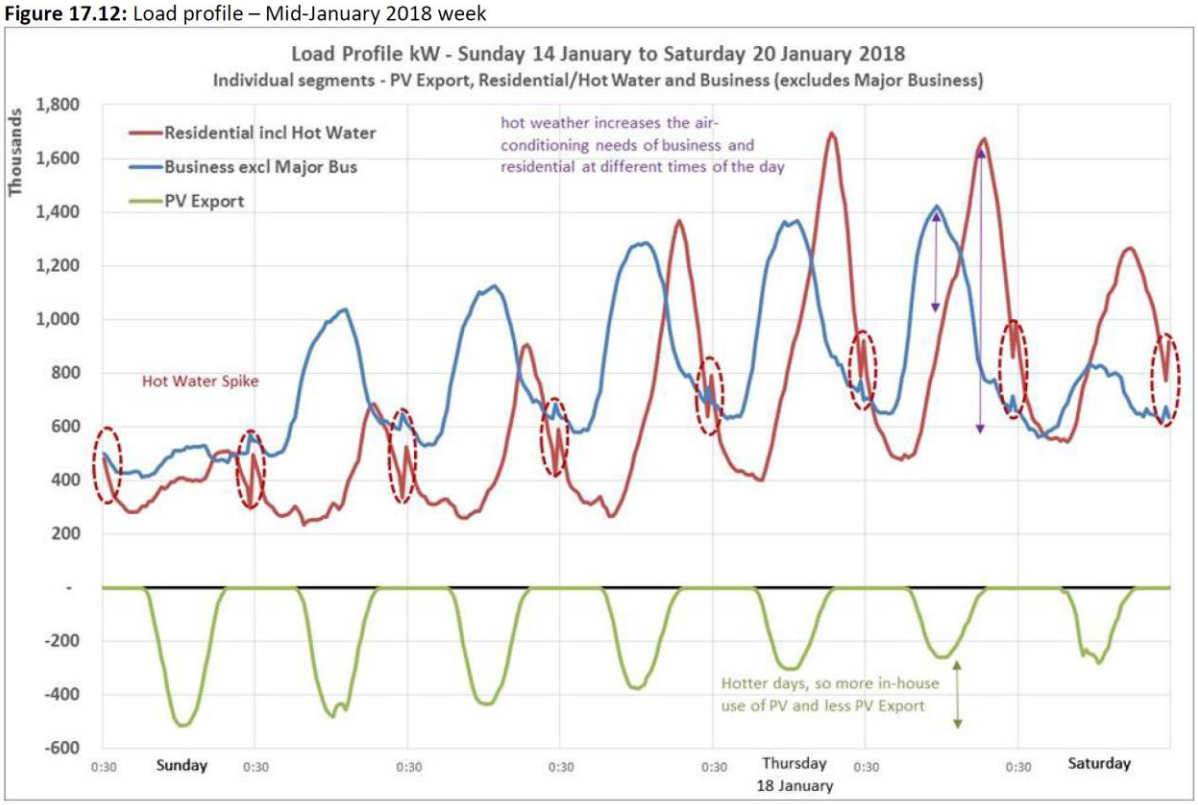
Legacy tariff structures are creating inequity.

They were originally formed because digital metrology was not available, DER did not exist and they were a useful proxy to actual consumption patterns. They served us well and now need to be updated.

These legacy structures create the illusion that DER is substantially more efficient than other infrastructure because it rewards DER generation **as if it unwound the original construction of network assets**.

The legacy tariff structures incentivise DER uptake in concert with more direct subsidies (STCs). This creates a wealth transfer to middle class households from renters, apartment dwellers, and businesses. I agree with TEC & ACOSS that volumetric tariffs for NUOS are no longer appropriate.

Figure 17.12: Load profile – Mid-January 2018 week



Source: SA Power Networks Analysis

As seen in the graph above, DER solar has a poor correlation to residential peak demand. Commercial demand is better aligned. Peak demand is the major driver of distribution network capacity. A residential solar system would avoid NUOS for any self-consumption during the day, without substantial impact on local peak demand. These avoided payments are recovered from all other consumers who receive no direct benefit from the residential solar system.
Commercial rooftop solar systems are much better aligned with the local peak demand, and commercial tariffs are already weighted toward demand charges and fixed charges (not volumetric).

The first step for the AEMC should be to collect data from the NSPs on how much network expenditure has been avoided by DER, as well as the avoided payments by DER owners. This will help frame the allocation of costs.

Removing volumetric network tariffs would create a disaggregation of network and energy tariffs such that DER simply becomes a generator rather than a NUOS avoidance scheme.

When moving to a cost reflective tariff structure it should be mandatory for DER consumers so that they cannot simply select a tariff structure that suits them better.

FCAS Recovery

Another cost avoided by rooftop solar is FCAS costs. As a generator, small solar does not pay a share of Raise Contingency services like a normal generator does, while also increasing the need for these services.
Small solar also does not pay for Regulation services although it materially increases the need for these services.

Small solar self-consumption also avoids payment of Lower Contingency services.
The impact of these avoided payments is in particular felt by industrial consumers as they become an increasingly larger portion of the remaining recovery pool.

The removal of volumetric network tariffs also removes the capability to avoid payment of Lower Contingency services.
Raise Contingency and Regulation services could be allocated to DER according to total generation, not exports.

Generator Rights & Responsibilities

The NEM philosophy for network access is that generators have a right to connect, but **no right to generate**. This access regime is not exhibited for DER.
TEC & ACOSS highlight varying levels of inherited rights by early adopters to generate regardless of the wider market conditions.

DER also avoids a major responsibility by not providing supervisory control. It becomes increasingly difficult to manage a network when a large source of supply is not visible nor controllable.

These two items are linked – DER needs to align rights and responsibilities with the rest of the generation fleet. This means being able to be controlled and as such losing the right to produce under all conditions.

Another right of generators is not to be charged for network access. This means lower costs to consumers because generators would pass on network costs with their various margins.
As such the proposals suggesting to charge for exported energy are not in keeping with the philosophy of network cost recovery. The recovery of costs associated with DER should be directly measured and charged.
TEC & ACOSS suggest an optional charge for increased export rights which is acceptable. In this case a volumetric charge is appropriate because if the right is eroded by later connections the initial DER participant would not be charged as much.

Customer Types

The avoided payments from DER customers are distributed to the customers types we should least burden with additional costs.

Businesses are a unique customer class because they do not vote, they employ people, and they pay taxes. The inefficient allocation of costs to these customers creates wider issues for the Australian economy. These customers are heavily impacted by increased allocation of FCAS and TUOS charges.

Renters and apartment dwellers are least able to make decisions about their home energy equipment. The arbitrary allocation of costs to these customers further widens inequity in Australia. These customers are mainly impacted by the increased allocation of DUOS.

Middle class house owners are highly representative of the voting population and as such it remains politically expedient to pander to these consumers. The electricity industry must endeavour to allocate costs fairly and efficiently even though it will create complaints from a large and vocal segment of the population.

Please feel free to contact me for further clarification via email: tom.geiser@neoen.com

Kind regards,

Tom Geiser

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