SAPN
Draft Plan
Submission

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Total Environment Centre's National Electricity Market advocacy

Established in 1972 by pioneers of the Australian environmental movement, Total Environment Centre (TEC) is a veteran of more than 100 successful campaigns. For nearly 40 years, we have been working to protect this country's natural and urban environments: flagging the issues, driving debate, supporting community activism and pushing for better environmental policy and practice.

TEC has been involved in National Electricity Market (NEM) advocacy for 14 years, arguing above all for greater utilisation of demand side participation — energy conservation and efficiency, demand management and decentralised generation, storage and trading — to meet Australia's electricity needs. By reforming the NEM we are working to contribute to climate change mitigation and improve other environmental outcomes of Australia's energy sector, while also constraining retail prices and improving the economic efficiency of the NEM — all in the long term interest of consumers, pursuant to the National Electricity Objective (NEO).

Introduction

TEC is funded by Energy Consumers Australia to advocate for the role of distributed energy resources (DER—solar, batteries, EVs, smart meters, etc) in the equitable decarbonisation of the NEM. By 'equitable decarbonisation' we mean in particular that consumers (or prosumers) with DER are on the one hand treated fairly (not discriminated against and receive appropriate payments for the services they provide); and on the other, that non-DER consumers do not pay a disproportionate amount of ongoing network revenues and for new infrastructure investments required as a result of high bidirectional flows.

TEC welcomes the opportunity to provide feedback on SAPN's draft plan for 2020-2025. Due to limited resources, our submission focuses on three specific areas: DER integration, demand management and the tariff structure statement (TSS). However, we would like to compliment SAPN initially on the stakeholder engagement process, which has been exemplary—comprehensive, professional and genuinely interactive.

We also note that the draft plan is complemented by SAPN's internal Future Network Strategy, of which TEC has a copy. This is the most future-focused plan we have seen from any Australian network, taking into account a range of challenges and opportunities offer by the transition to a high DER, low carbon energy system including even higher PV penetration, EVs, batteries and offgrid supply. Some aspects of the FNS actionable by 2025 (such as "SWER retirement opportunities" and "Address constraints via direct subsidy of new customer DER") do not appear in the draft plan. We understand the apparent disconnect relates to a combination of the materiality of related capex and opex costs and the timing of projects, but it would be good to clarify how and where the FNS has been incorporated into, or omitted from, the draft plan.

Demand management

Demand management (DM) is a potentially powerful tool to reduce capex investment to meet peak demand. Demand tariffs are one example of a potential DM tool, but there are many others. The draft plan mentions both the AER's demand management incentive scheme (DMIS) and the demand management innovation allowance (DMIA), although it confuses the terminology. Reference is made to a number of projects which are intended to be funded from the DMIA, but the draft plan does not make it clear how SAPN intends to take advantage of the much more significant DMIS to reduce its augmentation plans.

DER integration

The draft plan refers to three projects related to the need to respond to the solar trough caused by high PV exports: an operational model of the LV network; a DER database; and dynamic export limits. TEC considers each of these to be reasonable expenses, and thus supports SAPN's request for $37 million of capex and $10 million of opex "to ensure customers can continue to connect and export energy from their solar and batteries". In particular, we note that dynamic export limits are a simpler, cheaper and fairer option than charging DER owners to export to the grid, which is an option that some networks have favoured.

We understand that SAPN is engaged in a modelling project which shows that this expenditure is more than compensated for by the net benefit to the whole system and consumers from a high DER system. Given the likelihood that concerns will be raised as to why non-DER consumers should have to pay to integrate DER into the network, we look forward to seeing this modelling.

TSS

TEC works across jurisdictions on tariff structure statements (TSSs) to further the rollout and uptake of more cost reflective network tariffs (CRNT). TEC's overall approach to this issue is detailed in the attached appendix. TEC is a strong supporter of the move to more CRNT in general, and well designed demand or capacity tariffs in particular. Please note:

- As most DER consumers are currently households rather than businesses, our submission is confined to residential tariffs.
- We are more interested in long term progress towards fully cost reflective demand tariffs than in transitional tariffs.
- This submission focuses on where improvements can be made rather than commenting on every aspect of the TSS.

In short, equitable decarbonisation suggests the following principles:

1. CRNT should be introduced as soon as possible in order to more equitably apportion the cost of new infrastructure investment to cater for peak demand. This may disadvantage some solar customers without batteries or the ability to shift load, but would still be equitable.
2. Demand tariffs should be designed to facilitate load shifting (eg, by signalling peak events in real time and by having relatively short peak windows).
3. New DER (and other new) consumers with smart meters should be mandatorily assigned to demand tariffs (since the latter would allow them to shift the burden of future costs back onto non-DER consumers). Other DER and non-DER consumers with smart meters should be transitioned to demand tariffs by the end of TSS2 (2025).
4. Networks should avoid steep increases in fixed charges, as these distort the LRMC price signal, and high fixed charges discourage energy conservation.
5. Networks should explore innovative tariffs to facilitate the transition to a high DER, low carbon energy system, including daytime solar trough tariffs as a form of controlled load where bidirectional flows are high, and positive tariffs (ie, payments) for battery exports as a demand management or network support tool in constrained areas of the grid.
6. Networks should consider the potential of DER as demand management tools (eg, by offering incentives to face new solar panels west).

Applying these principles to the SAPN draft TSS suggests the following responses:

- *Residential – Single rate tariff*: We would prefer that this be based on an inclining block tariff (IBT) rather than a flat rate, as the former encourages energy conservation and represents a modest step towards cost reflectivity, since discretionary load is most likely to occur during peak periods.
- *Residential – Time-of-use tariff:* This appears to be a two part tariff with no shoulder period. This effectively means that consumers are unable to shift their load, since the peak period runs from 3 PM to 1 AM. This reduces the effectiveness of this tariff, as it reduces consumers' control.
- *Residential – prosumer tariff*:
    - The proposal for this tariff to be opt-in means it will be unlikely to be taken up in large numbers, given that retailers are unlikely to offer it as an option. As above, transitioning to cost reflectivity on an equitable basis requires mandatory assignment.
    - While we are critical of the limitations of maximum monthly demand (MMD) tariffs, the charging parameters appear to be reasonable. We accept SAPN's explanation for the decision to base the demand charge on the average consumption over 4 hours rather than on the highest peak during this

period. But if peak summer demand is from 5.30-9.30 PM, why is the peak charging period 3 PM to1 AM?

- However, the underlying tariff is potentially problematic. From both a cost reflectivity and a simplicity perspective, it would be appropriate for the demand tariff to constitute the time of use tariff with a summer demand charge added on, reflecting the LRMC of augmentation to meet critical peak demand. Instead, the proposal for the peak usage price to be "much lower than time-of-use tariff, around 50% of the single-rate" means that the underlying tariff functions more like a flat tariff for most of the year, undermining the objective of this tariff. If this tariff cannot be simply the same as the TOU tariff with the addition of a summer demand charge (because the LRMC is already included in the peak TOU charge), then a similar peak to offpeak ratio should still be maintained.
- We disagree with the view that a Critical Peak Pricing (CPP) option is too complex. CPP or peak time rebate (PTR) can be designed to be simple, real-time price signals on top of underlying flat or time of use tariffs, thereby being more transparent and offering greater consumer control than a MMD tariff.

- *Off-peak controlled load tariff*: We congratulate SAPN on introducing a daytime solar sponge tariff to help reduce the solar trough.

Further, the planned increase in fixed or supply charges by $84 pa by 2025 is unacceptable, as it penalises low income and low consumption households. There is nothing in the rules requiring networks to recover residual costs through fixed charges alone.

We would also encourage SAPN to trial more innovative (CCP, PTR or capacity) tariffs before 2025, when the AER and consumer advocates are likely to push for more substantial progress towards cost reflectivity. The mooted "Potential combination tariff" may be a step in the right direction. Energy Queensland's Lifestyle Package is one example of more of a telco-like tariff, although it it still too complex for most households.

Finally, TEC supports any move towards more dynamic (time- and location-specific) feed-in tariffs for solar exports. However, moving more rapidly to introduce demand and capacity tariffs could achieve a similar outcome, since it would incentivise load shifting and battery charging during peak insolation periods. Thus we reiterate our preference for the mandatory assignment of all new smart meter connections to the demand tariff, with opt-out being the next best option.

For more information please contact Mark Byrne, Energy Market Advocate, markb@tec.org.au.

Yours sincerely,

Jeff Angel

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