NNSW TARIFF STRUCTURE STATEMENT
ISSUES PAPER
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1. Introduction

This is a combined submission from Total Environment Centre (TEC) and Solar Citizens (SC). TEC has been working on reform of the National Electricity Market since 2004 to improve its environmental outcomes through advocacy for more demand management, energy efficiency and decentralised energy. Solar Citizens is is an independent community based organisation bringing together over 1.4 million solar owners and 80,000 direct supporters to protect and grow solar in Australia.

Our submission is in relation to residential consumers only, and solar households in particular. It is relatively short in view of the short timeframe over which NNSW has engaged in consumer consultation and the absence of detail around consumer impacts of the proposed declining block tariffs (DBTs). In case NNSW assumes that TEC and SC are inclined to be critical of networks per se, we would be happy to forward our submissions from other TSS processes. In all other cases we have found the relevant networks to responding seriously to the requirements of the new rule, the need to engage consumers and the need to conduct detailed modelling of consumer impacts. This is despite TEC and SC being concerned that the demands tariffs being proposed by all other networks will, on the whole, negatively impact on the majority of solar households without behavioural change. We recognise the need for change and are prepared to work with networks to effect it in a constructive, equitable and transparent manner.

2. Consultation process

We disagree with the characterisation of the current consultation process as "Phase 2". The single event to which TEC was invited before September 2015 involved a presentation from Vince Graham followed by a brief Q&A. This does not constitute genuine consultation and should not be promoted as such.

TEC and PIAC made clear their concerns about the extremely late commencement to the consultation process in a letter to NNSW in August. While there have been several opportunities since then to hear from NNSW staff, who have been courteous, helpful and constructive, at no point has this involved more than NNSW informing consumer advocates about the rationale for its approach to the draft TSS and then listening to our responses. Genuine consumer consultation, as outlined by the AER in its relevant guideline, includes opportunities to influence outcomes. This potential has been rendered all the more difficult by the absence of data around potential consumer impacts of DBTs, especially in relation to solar households.

Finally, the content of the section on what customers say about cost reflective pricing appears to be selective. While we agree that customers generally do not favour flexible tariffs, some certainly do in the context of careful design, education, engagement tools and attractive price signals. We regard the demand tariffs proposed by other networks as potentially problematic in this respect, but a step in the right direction towards more cost reflective tariffs in the long term, such as critical peak pricing with rebates for demand response. We cannot assess the validity of the consumers' comments quoted on page 19 without seeing the context, in particular the IPSOS report referred to. Asking consumers questions such as "Would you be prepared to suffer spontaneous blackouts to save a few dollars a year?" would elicit a very different response to an alternative such as "Would you like to save $100 per year by turning appliances off for up to 2 hours on up to 10 days per year?"

3. Declining block tariffs

NNSW's preference for DBTs appears to be based on six factors:

1. The status quo (ie, current DBTs).
2. Low current and projected demand, and thus low LRMC values for future demand.
3. The low number of smart or interval meters in NSW.
4. Low uptake of existing time of use tariffs.
5. The short time period for the first TSS, with the period between 2017 and 2019 giving more time to explore alternative tariff options.
6. "A demand tariff may not lead to less money being invested to maintain the NSW electricity distribution network" (page 22).

We reject each of these arguments in turn for the following reasons:

1. Whatever the rationale for the current DBTs, they have been introduced and approved by the AER prior to the new pricing principles, which place a much greater emphasis on the need for cost reflectivity, being included in the Rules to take effect from July 2017.
2. When each network's LRMC figures were finally disclosed on 15 October, it turned out that one could not be calculated (Ausgrid), one was low (Endeavour), and the third was high (Essential), yet a one-size-fits-all solution is to be applied across the three networks. Further:
    - Even if the LRMC were consistently low across NSW, DBTs are not the only logical response. A low LRMC could be signalled via a low peak demand charge with the residuals recovered by time of use or inclining block tariffs. A raft of reports by energy economists (including for the ENA and AEMC) has consistently found flat or declining block tariffs to be less cost reflective than inclining blocks, time of use, demand and critical peak pricing tariffs - generally in that order.
    - DBTs cannot reflect the cost of future infrastructure investment to meet peak demand since they apply at any time of the day or night, bearing no relationship to peak demand and sending no appropriate time-based price signal to consumers.
    - DTBs also fail the test of cost reflectivity because, if they are successful, the incentive to use more energy during peak periods will lead to higher demand during peaks, eventually leading in turn to higher future augex and repex requirements.
    - The NSW networks' LRMC calculations were based on a 4 year time horizon, which is hardly "long term" and is well below the 10 year plus forecasting horizon used by other networks.
3. NSW has 890,000 type 4 and 5 meters, both of which allow half hourly readings or better. Given that no network in the NEM is considering compulsory demand tariffs in the short term (they are instead all opt-in), we see no reason why metering should be a barrier to their introduction in NSW.
4. In the case of Endeavour's ToU tariff, low takeup could be due to poor tariff design, promotion or retailer pass-through, and should not be a barrier to doing better next time. The much higher takeup of the ToU tariff in Essential's area shows that this tariff type is not inherently problematic.
5. This applies to other states as well, and it is hard to see how the NSW networks could trial and learn about alternatives to DBTs if it does not actually introduce them into the market. Indeed, a 2 year timeframe might represent the perfect opportunity for a low cost, short term trial.
6. The point of demand tariffs is to send a price signal to consumers that makes future capex augmentation - not replacement capex - less likely. With estimates of the cost of augmentation capex to meet projected increases in peak demand averaging around $15 billion across the NEM over the past regulatory period, and the tariff reform process having as one of its aims the potential reduction in such expenditure in future revenue determinations, it is disingenuous to focus on replacement capex.

NNSW also tries to make the case that the current market environment is unique in NSW. In our experience of other TSS processes, this is not accurate. In particular, the Queensland and South Australian networks are in a similar position of having few currently constrained substations (thanks to extensive network gold-plating in recent years) and relatively few smart or interval meters (indeed, there are far fewer in Queensland). Yet Ergon, Energex and SAPN are still all proposing to introduce demand tariffs.

Impacts on solar households

In the absence of any data on the impacts of the move to demand tariffs on different consumer cohorts, we are unable to discuss this issue in any detail. The lack of any such data at this very late stage in the process is disappointing and frustrating.

In principle, assuming that *ipso facto* some consumers will be better off and others worse off by any changes to tariffs, because solar households have lower than average consumption they are likely to be among the losers. This is in spite of considerable evidence that solar generation and onsite consumption and export to the grid reduces and delays network-wide demand peaks, and should therefore be rewarded for its cost reflectivity.

For future reference, we would like to see modelling of the impact of the DBTs or other tariffs on four cohorts of solar customers: stay at homes with a relatively flat load profile versus working families with peaky load profiles; and both of these with or without air conditioning or other loads leading to high consumption during evening peaks.

Solar tariff

Section 3.1.2 canvasses the possibility of a tariff which would effectively discriminate against solar households, supposedly "to reflect the costs imposed on the network." No evidence is provided to support the assertion of a net cost of solar on the network. On the contrary, there is considerable evidence that solar reduces and delays the network-wide peak, thereby potentially reducing the need for peak demand-related capex.

If NNSW wants to remove a cross-subsidy, it would do well to look at households with air conditioners, which repeated studies (eg, HoustonKemp for the AEMC) have found to be much higher than that arguably accruing to PV households. Yet the issues paper makes no reference to this problem. Any cross-subsidies to solar and aircon owners would be largely nullified by demand tariffs, since they would encourage lower consumption or greater cost recovery during the late afternoon and evening peaks.

We are told informally that NNSW does not intend to include a solar tariff in its draft TSS. This would be a good thing, especially in view of the fact that the AER recently rejected SAPN's proposed solar tariff on the grounds that the load profile of solar customers is not "sufficiently different" to non-solar customers.

In the long run, the NSW networks should do more to recognise the value as well as the cost of solar to the network. For instance, the NSW networks could (like SAPN and Energex) look at including a "solar sponge" tariff which would encourage households with electric hot water to heat their tanks during the time when solar output at its maximum. The flip side is that is should therefore pay solar customers for their export to the grid during this period. Ausnet pays a ~4c/kWh summer generation tariff to solar customers, which reflects the value of exports in reducing total demand on hot summer afternoons. ActewAGL pays a 0.5c/kWh tariff to solar customers to reflect avoided transmission use of system (TUoS) charges.

More broadly, there is currently a rule change request before the AEMC to implement local generation network credits (LGNC) across the NEM in networks' annual tariff pricing proposals to the AER. Essential is participating in a trial project to understand how this credit might be calculated and paid to generators and potentially also netted off to related consumers (such as councils moving energy between adjacent or nearby sites). We therefore recommend that the NSW networks recognise this pending reform in its TSS and supports the rule change as a reform that is complementary to cost reflective consumption tariffs.

Conclusion

Given the fact that DBTs do not reflect *long run* costs and thus contravene the new tariff rules, the only reason we can think of for NNSW to propose them is that it is seeking to incentivise consumption in order to not only recover sunk costs but stimulate higher future demand. We assume NNSW has a deal with the NSW Government to override the AER's likely determination rejecting DBTs by virtue of the jurisdictional obligation in the Rules. This may increase the sale value of Endeavour and Ausgrid as it would incentivise higher future infrastructure investment. In the absence of any guarantee that this is not the case, it gives us another reason to be sceptical about this process. We would, however, be pleased if this assumption were to be proven wrong.

Finally, with nearly 15% of households in NSW already having solar, with the potential for this figure to more than double over the next decade, and with many of the combined number also likely to install batteries, it is incumbent on the NSW networks to find ways to incentivise solar and battery owners to continue to utilise the grid in order to prevent legacy grid-dependent consumers bearing more of the burden of revenue guarantees from AER determinations. Given the relatively low consumption and high environmental awareness of the majority of solar households, sending them a signal that high consumption at any time of the day is a good thing (because it is relatively cheap to consume more) will have the opposite effect.

Yours sincerely,

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