ERGON TARIFF STRUCTURE STATEMENT
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## 1. About TEC and SC

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.

## 2. Background

Many solar customers have received substantial subsidies to install and run their systems in the form of the national Solar Credit Scheme and Queensland Government Solar Bonus Scheme. These subsidies are now being wound back, and solar customers may be discriminated against, particularly in relation to increasing fixed charges. We recognise that some of this discrimination occurs as a result of solar-specific retail tariffs rather than network tariffs.

Many solar customers consider they are not receiving the full benefit of their exports to the grid - not only in relation to export prices paid by retailers, but also in relation to the value of solar to networks in exporting energy to the grid close to where it is generated,. This reduces the need for upstream infrastructure and related line losses and pushes out and in many cases reduces peak demand, thereby reducing the need for future network augmentation.

The declining cost of solar and now batteries means most customers (other than tenants and those in buildings with poor solar access) are in a position of increasing market power. Networks cannot assume solar customers will remain connected to the grid if it is uneconomic for them to do so relative to going offgrid.

*As a general principle, solar customers are willing to pay their fair share of network costs as long as they also receive their fair share of network benefits and are not discriminated against relative to non-solar customers.*

## 3. Cost reflective tariffs

We recognise the need to move to more cost reflective network tariffs in order to send consumers a price signal about the cost of augmenting network capacity to meet peak demand (although it is unclear the extent to which retailers will pass through cost reflective network tariffs). We acknowledge that Ergon is required under recent changes to the National Electricity Rules to prepare a Tariff Structure Statement and that each network tariff must now be based on the long run marginal cost of providing the service, rather than being largely focused on recovery of sunk costs as is currently the case. If properly applied, this shift will be in the long term interest of consumers as it will reduce the need for investment needed for only short periods of the year, which should flow through to consumers in the form of lower bills.

However, on average solar customers have a more 'peaky' load profile than non-solar customers, so are more likely to suffer higher network charges as a result of the move to cost reflective tariffs. We note that as well as being cost reflective, new tariffs are required to conform to the new consumer impact principle that requires network businesses to consider the impact on consumers of changes in network prices and to develop price structures that are able to be understood by consumers.

We also recognise that the move to cost reflective tariffs will not increase Ergon's total revenue but is rather about how revenues are recovered between various customer classes. It is important that in this move solar customers do not in effect subsidise non-solar customers - especially those with a large aircon load which is likely to make them unresponsive to voluntary demand tariffs. It is therefore critical that Ergon engages with solar customers to help them understand new tariff structures and affords them ample opportunities to adapt.

**4. Ergon's planned demand tariff**

In common with other network tariffs proposed in draft tariff structure statements, Ergon's seasonal time of use demand (STOUD) tariff is more cost reflective than existing tariffs. However, no information has been made available to date on the percentage of revenue that will be recovered from peak demand charges alone, and the percentages of residuals that will be recovered through fixed and volumetric charges. Without these figures, we cannot tell how cost reflective the new tariff will actually be.

Ergon should also consider developing other, more directly cost reflective tariffs, such as critical peak pricing with rebates, which offer greater flexibility for some consumers to respond (especially where they have batteries or automated appliances).

In principle, the proposed STOUD tariff appears reasonable in respect of its seasonality. However, in other respects it is problematic:

- The peak period of 3-9.30 pm is too wide to allow customers to effectively load shift.
- The proposed non-summer minimum demand charge of 3 kW or $39 per month is higher than some other networks and may represent an increase on the current daily fixed charge.
- The imposition of a non-summer minimum demand charge as well as a fixed charge means that consumers would effectively pay two fixed charges.
- In regard to basing the summer demand charge on average usage on 4 days in summer months, this tariff design would be extremely difficult for most consumers to understand. On first sight it gives the impression that consumers will be charged $81.52 for every kW of demand during the peak period on 4 days per month over summer (rather than the average demand in each of these peak periods and days). Also, it only makes sense if consumers are on monthly billing cycles and can respond to their previous month's demand charge from one month to the next; otherwise the key outcome of reducing peak demand will not be fulfilled. To our knowledge Ergon is the only network planning to calculate its peak demand charge in this way.

It is difficult for us to judge the impacts on solar customers specifically because, based on the consultation paper and consumer stakeholder session, Ergon does not appear to have a very good understanding of either the load profiles of its 110,000 solar customers and the likely impacts of the STOUD tariff on them. (For instance, a search for 'solar' in the consultation paper yields only 4 hits and 'storage' only one.) This appears to be largely due to the (in retrospect) unfortunate decision not to install remotely readable interval meters with new solar installations. We understand that load profile data is currently being manually collected from type 5 meters, but that data is not available to us at this time.

By our initial estimates most existing and new solar customers will be worse off under the proposed STOUD tariff, but the Energeia STOUD Customer Calculator doesn't specifically consider impacts on solar customers.

We need to know more about the likely impact on different cohorts of solar customers without and with behavioural change in response to the new tariff. At the bare minimum, we suggest modelling the impact of the STOUD tariff on four cohorts of solar customers: stay at homes with a relatively flat load profile versus working families with peaky profiles; and both with or without the 44 cent FiT, which increases peakiness by incentivising them to export energy during the day and import it in the evening. *Until that information is made available we would not recommend that solar customers switch to this tariff.*

**5. Implementation**

We agree that moving to the STOUD tariff should be voluntary for the foreseeable future - even though we recognise that this will likely result in consumers who are likely to benefit from it making the switch, while those that are unlikely to benefit remain on existing tariffs. This may lead to a revenue shortfall that results in Ergon seeking to increase fixed and/or volumetric charges on existing tariffs. This may mean that solar customers who stay on the current tariff are not better off for not moving onto the STOUD tariff. We would appreciate a response from Ergon in relation to whether it agrees that this problem is likely to arise, and how it intends to respond to it.

We consider that Ergon will need to engage directly on an ongoing basis with solar customers to understand and respond to their concerns and to provide practical and financial incentives to make the switch to the new demand tariff. Ergon could, for instance, subside the shift to smart meters where there are network constraints and there is a quantifiable financial benefit to Ergon from solar and other local consumers reducing their peak demand.

We also need more clarity around the modifications needed to solar customers' meters in order for them to participate in demand tariffs, and how Ergon intends to charge for these modifications.

**6. Adapting**

Ergon needs to consider how solar customers can adapt to the new tariff to ensure their network charges will not increase (assuming the demand signals are passed through by retailers). This could occur by:

- Load shedding - for instance, via appliances with direct load control (DLC).
- Load shifting to offpeak times.
- Installing realtime monitoring and alerts so consumers feel in control.
- Installing batteries to store energy during the day and consume it during the evening peaks.
- New customers installing solar panels to face north-west or west to produce more energy in the late afternoon.

We would also like to know how Ergon intends to incentivise reductions in peak demand by non-tariff means of demand management - eg, like Energex, by offering rebates for appliances with direct load control (DLC) in constrained areas of the grid.

**7. The future**

Ergon needs to consider how solar and storage will again reduce network revenue and how it will respond. In other words, if solar customers adapt to the new tariff by reducing their peak as well as their daytime demand, this will reduce total revenue. Does Ergon intend to further increase fixed charges to recover the same total revenue?

We would also like to know what Ergon intends to do about its restrictions on the export of solar to the grid with the implementation of peak demand tariffs. Assuming it is successful and many solar customers install peak shaving batteries, we regard this as obviating the need for such restrictions.

**8. Value of solar exported to network**

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. Ergon does not appear to be planning any similar tariffs to recognise the value of solar exports. Why not?

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. Ergon 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 Ergon recognises this pending reform in its TSS and supports the rule change as a reform that is complementary to cost reflective consumption tariffs.

Yours sincerely,

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