



Smarter Homes Consultation
Government of South Australia
Department of Energy & Mining

By email: ETRConsultations@sa.gov.au

9 July 2020

Subject: Smarter Homes Consultation, July 2020

Thank you for the opportunity to provide input into your consultation.

Rheem is the largest local manufacturer of domestic and commercial water heaters in Australia. As our products are reliant on a reliable energy source for their operation, we have a significant interest in the outcome of your consultation. As our expertise lays in the many and varied technologies associated with water heating, and to a lesser extent, photo-voltaic (PV) and batteries, we have limited our comments to those issues that will most directly impact our products and our customers.

Over the years we have ensured that our product development has kept pace with changes in the energy markets in which we operate. As a result we have launched a range of products that have helped our customers leverage these changes, from the large electric “off peak” electric water heaters that we launched back in the 1970’s, through to our 2018 PowerStore product that acts as a thermal battery for those customers producing excess PV. Most of the products that we sell can be expected to be in service for over a decade, so it is important that rules governing the energy market in which they operate remain relatively consistent over time.

We therefore believe that any significant change to the way that energy networks function, and the rules that govern them, should be well considered, future proof, have a long term horizon, and signalled well in advance. To operate the energy market any differently will result in potentially thousands of products in people’s homes that no longer operate as intended, nor deliver the benefits promised at the time of purchase.

This is particularly the case for our PowerStore product and its grid connected variants. A rollout of these products under a joint South Australian Government/ARENA /Rheem /SAPN initiative is about to commence, however their benefit is reliant on consumers being able to use their excess PV. One of the recommendations of this consultation, that PV inverters can be remotely switched off, would if implemented stop the products from operating as their owners may expect, and would add significantly to household energy costs.

We do, however, understand that the rules surrounding the operation of an electricity grid cannot be driven by the operation of a few thousand water heaters. We acknowledge that the risk of major energy disruption to South Australian customers is real, and that it is important that sensible solutions are identified to address the risk. We have therefore sought the expert counsel of both SA Power Networks (SAPN) and Energy Consumers Australia (ECA) in helping formulate our response to your consultation.

Based on our discussions with them, we generally support the positions taken by both SAPN and ECA. Whilst we will not attempt to replicate their detailed response to the issues raised in the papers, we would like to emphasise some key points that we believe are important:

- Both organisations make the point that the Department is proposing fundamental changes to the regulatory framework without adequate time for consultation.
- The ECA believes that the Consultation should be extended to include consumers, given that technical changes that directly interfere with the operation of a consumer's solar installation are being proposed.
- Both organisations have concerns that the proposed solutions will not be effective at mitigating the imminent risks, and may not be as effective as other solutions.
- It would appear that unless additional time is set aside for both consultation on and implementation of the proposed requirements, there is a strong risk of a poor quality implementation.
- Poor implementation could significantly increase costs to customers and further compromise system security.

With regards to the proposed remote disconnection and reconnection requirements for distributed solar generating plants in South Australia, we support the following SAPN positions:

- Further consultation is required on the best technical approach, and because of this the proposed timeframe is unlikely to be achievable.
- An integrated approach based on an IEEE2030.5 Australian Implementation guide, rather than an alternative short-term technical solution that may be stranded.
- A staged implementation of any change to enable the testing of both products and industry capability to meet new requirements.

With regards to the proposed export limit requirements for distributed solar generating systems in South Australia, we support the following SAPN positions:

- Flexible export limits will deliver much better customer outcomes than fixed limits.
- That the SA Government review the Californian implementation of the IEEE2030.5 standard as a basis for their own smart DER.

If you have any queries regarding this response or our market, please don't hesitate to contact me on the numbers below.

Yours Sincerely



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