

There is value in ‘prices for devices’ offers

Network tariffs are applied to and collected by retailers and it is up to them to decide how they package network tariffs into their retail offers. The impact on customers from changes to network tariff structures will depend on the retail offer they have chosen. But it is important for the AER to consider the ways in which network tariffs can reach customers when deciding whether or not to approve a proposed network tariff structure statement (TSS).

We consider the potential approaches available to retailers to respond to cost reflective network tariffs can be grouped into three main categories:

- Insurance style – Eg. the retailer manages network price volatility on the customer’s behalf and simply charges a fixed charge and flat kWh energy charge
- Pass through offers – Eg. the retailer passes the price signals and associated volatility directly through to the customer for a lower margin without changing the lived experience
- Prices for devices – Eg. the retailer (or third party) manages the customers’ smart devices to respond to price signals and charges a simple, discounted retail structure

Insurance and pass through offers are currently the norm but we are starting to see innovation emerge. To better understand the ‘prices for devices’ model, the AER commissioned Baringa to estimate the potential savings that retailers or third parties (energy service providers) could create and share with households with different devices and provide commentary on the emergence of these products.

Retail markets determine the impact on customers

The pricing principles used to assess distributors’ proposal include the ‘customer impact principles’ ([NER cl. 6.18.5\(h\) and \(i\)](#)). These principles require the distributor and the AER to moderate the pace of reform in line with the ability of retail customers to choose their tariffs, manage the potential impact, and understand the proposed tariffs and assignment policies. This is in addition to the general requirement to ensure electricity distribution networks operate in the long term interest of consumers.

In recent determinations, distributors have consulted directly with customers and estimated the range of potential bill impacts to evidence compliance with the customer impact principles. But this understanding is complicated by the fact that the impact depends on which approach the retailer takes to packaging the network tariff. To address this the AER explores the relevant retail and network characteristics in our draft decisions to inform our assessment of compliance with the customer impact principle. See [Attachment A](#) in the draft decision on SA Power Network’s proposed TSS. Baringa’s analysis will inform our consideration of the Victorian distributors’ proposals and offers insights for other states.

Prices for devices can help orchestrate DER

Distributed Energy Resources (DER) are rapidly emerging with Australia facing world leading penetration and growth of these technologies. These technologies, such as solar PV, batteries, and demand management, offer many potential benefits to customers as well as the system as a whole. But without orchestration they can create challenges in the efficient and safe operation of distribution networks. This is particularly true for the nascent electric vehicle market. Prices for devices allow the network to send more complex and potentially locational signals through their tariffs to inform the operation of the customer’s device without

requiring the customer to actively engage. The service provider can also help the customer's device respond to wholesale and ancillary market prices to make the most of their asset.

We commissioned Baringa to assess potential opportunities under the proposed network tariffs and current and forecast market circumstances

As prices for devices is a relatively nascent product, the AER asked Baringa explore what is currently possible. So Baringa used actual residential customer demand data provided by the Victorian distributors and assumed the customer lived experience would be unchanged. The Victorian distributors' proposed network tariff structures with a state-wide peak period but price levels set by the distributors' were also used.

Some factors such as the services provider's ability to accurately predict prices and the availability of the customers' assets may reduce the savings the service provider and customer can achieve. However where customers are willing to change their usage patterns, or networks can introduce more targeted, sharper price signals, the value of these services would increase further. It is also worth noting that how much of these savings is passed through to the customer will depend on the arrangement with their service provider and requires the customer to be comfortable with providing them with some control of their DER.

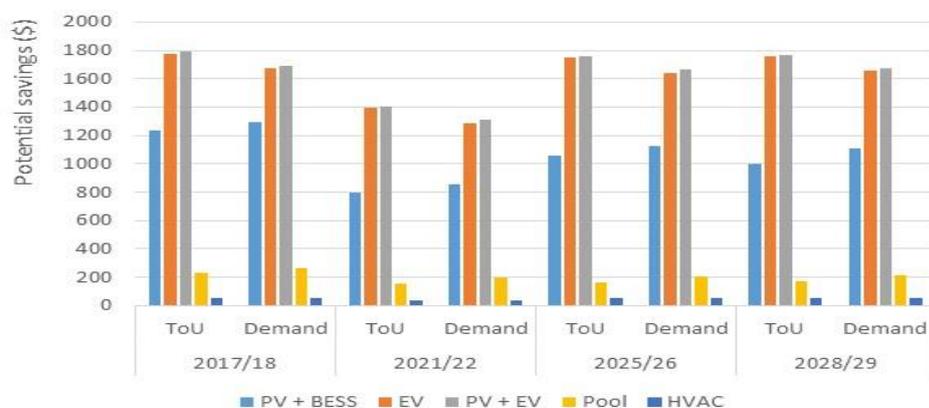
Prices for devices offers savings for all DER

Baringa looked at the wholesale and network costs in a household's annual electricity bill and potential revenue from using their existing DER to engage with the frequency control ancillary services (FCAS) market. We did not consider the cost of buying DER in this analysis. The DER modelled was:

- solar PV and battery storage (PV + BESS)
- electric vehicle (EV)
- solar PV and EV (PV + EV)
- demand response through pool pumps (pool) or heating and cooling (HVAC).

The results below show there are savings to be achieved for all households with existing DER ranging from \$39 for HVAC in 2021/22 to \$1788 for PV + EV in 2017/18. Higher savings are achieved through using less electricity from the grid, rather than changing when the household draws from the grid. This is enabled by households increasingly installing PV and battery systems that more than cover their use and leave spare energy to sell at peak.

Average value of managed DER



While this work is not definitive, it suggests there is value for energy service providers to create and share with customers who are willing to allow some control of their DER. We hope this sparks a conversation regarding the choices that can be offered to customers.