Submission by

Alternative Technology Association

on

Demand Side Participation Review: Stage 3
Power of Choice - Draft Recommendations

Supplementary Paper One

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For further information or enquiries contact:

Craig Memery / Damien Moyse
ATA – Alternative Technology Association

Introduction

Founded over 30 years ago, the ATA is a National, not-for-profit organisation whose 5,500 plus members are mostly residential energy consumers with an interest in sustainable energy and resource use.

Through the application of our in-house expertise and experience in the energy market to our continuing advocacy and research, and close collaboration with fellow members of the National Energy Consumer Roundtable, the ATA is an important voice for energy consumers Australia wide and in each of the NEM jurisdictions.

ATA presents a uniquely two-fold perspective in the DSP policy debate: as well as directly representing all Australian energy consumers through our support of improving energy affordability through improvements to the energy market that have net benefits to all consumers, we speak with authority on behalf of the growing portion of the consumer base who have an active interest in DSP.

While ATA's membership is diverse, many members are of above average energy literacy and keenly await opportunities for DSP. Many ATA members play an important role in the development of DSP as the 'early adopters' of new and emerging technology, which in the context of DSP is vital to bring about the uptake and maturation of any new technology.

As a leading consumer organisation in the energy policy space, ATA plays an equally important advocacy role working with energy market participants and institutions, other energy businesses and state and Commonwealth governments to ensure that new opportunities for DSP are introduced in such a way that, by achieving the aspirations of the National Electricity Objective, DSP becomes part of the solution to the problem of increasing energy prices caused by unrealised potential efficiencies in the NEM.

ATA applauds the AEMC for their draft recommendations, and thanks the commissioners and staff for providing opportunities to contribute to this review through submissions, bilateral meetings, public forums and participation in the stakeholder reference group.

Chapter 6: Efficient and flexible pricing options

21. We seek stakeholder comments on appropriate pricing principles for distribution businesses and the appropriate time period for stakeholder consultation on distribution network pricing proposals.

The design of tariffs should be based on considered principles that reflect the needs and interests of consumers by balancing the risks and the opportunities of energy pricing for all consumers.

ATA proposes ten principles for basic or 'vanilla' tariff offerings.

1. Single rate tariffs will be available for all consumers.

More cost reflective pricing across the NEM will result in significant market-wide efficiency benefits for consumers, but of course this creates winners and losers and the availability of single rate (or non-time-variant) tariffs will help protect those who would be placed at risk by ToU tariffs.

2. A two rate tariff will be available when replacing extant controlled load tariffs

At least as a transitional measure when moving to ToU tariffs. Consumers legacy controlled load tariffs need to be accounted for also.

3. Three part time of use pricing will be available to all consumers.

Three part Time of Use tariffs are an example of time-variant (or, in Victoria, 'flexible') tariff, which is anything whereby the rate varies according to when a unit is consumed. All consumers should have the opportunity to reduce their energy bills though access to ToU pricing, should they choose to do so.

Principles of three part ToU tariffs.

In considering the design of time of use tariffs, it is important that as well as being broadly cost reflective, they allow consumers to benefit from shifting loads from times of higher price to times of lower price. To this end, we feel that the principles that guide the setting of ToU tariffs should include the following features

4. Retail ToU tariff rates should be broadly cost reflective both of energy generation and network costs structures.

While network peaks are a large contributor to household energy bills, so is the wholesale cost of energy, particularly during times of high prices on the national energy market. While sometimes these peaks coincide, they often don't.

Importantly, the pattern of costs and cost triggers of networks are very different to those of generation.

- The bulk of networks costs are based on the capex of building parts of the networks to the highest level of forecast demand (power) in a number of years. The costs are incurred in large chunks, such that the portion relevant to an individual consumer's supply may, effectively, be zero for a number of months or years at a time, then many hundreds or thousands of dollars on a given week or month.
- Generation costs, however, are based on energy consumption (not peak power) and supply constraints/contingencies in a given region (jurisdiction), and range from minus $1,000/MWh to plus $12,900/MWh at any given time.
    - Much of that time they are under $100/MWh (10c/kWh)
    - for a few hours on many days of the year they reach into the $hundreds/MWh, and
    - for a few hours of a few days per year they reach into the $thousands.

So, just aligning ToU tariff design with only network peaks and ignoring market prices, or with only generation costs and ignoring network cost triggers, is not necessarily cost reflective and so may not send the right sort of price signal, running the risk of not addressing 'the problem'. At best, this could restrict an individual's ability to monetise a market or network cost saving brought about by managing their energy use, and at worst it can send a perverse signal to use more energy at a time that places more load on the network or drives up the wholesale cost.

Many stakeholders are of the view that ToU implementation should occur at the network tariff level, The resulting discussion around peak time so far is largely focussed on network peaks alone, and often the retail component is left 'to the market'.

5. The shape of tariffs for homes should be based on network and energy market load profiles for that customer class.

Across the NEM, only 25% of energy is used by households[1].

Household load profiles are different to commercial and industrial load profiles. In parts of the network where less of the total load is domestic, the load profiles, and particularly the peaks, of the networks may not resemble the domestic load shape.

For these reasons, ToU tariffs (and flat tariffs for that matter) for households should be based on household load profiles[2].

The problem with this principle is that, where the network load profile does not match the residential load profile[3], basing the tariff shape on a residential profile runs the risk of sending a perverse signal to households to use

- less energy at a time where doing so provides little or no benefit to the network or market, and/or
- more energy at actual network / market peak times,

which may accidentally

- reward a consumer for adding to the peak, and/or

[1] The portion across distribution networks would be higher due to some larger energy users being transmission connected. Some parts of networks are entirely residential and some solely commercial

[2] It is appropriate to also sub-divide the residential class into significant sub-classes of residential consumer, as noted in ATA's submission to the Power of Choice draft recommendations.

[3] Such as where the network load is predominantly commercial, or where a mix of dual and single fuel households results in a net load profile that does not match that of each customer class

- penalise a consumers for using more energy at a time when demand is not high

This risk of problem becoming material in a given part of the network is appropriately dealt with through targeted, location specific measures such as incentives for businesses and households to reduce or shift load from peak times.

6. Off-peak periods must be sufficient for households to be able to access cheaper energy

Feedback from ATA members suggests that a weeknight off-peak period;

- of a **minimum** 8 hours duration per night (which is consistent with current network practice), and
- starting (e.g. 9pm) or ending (e.g. 8am) at a time that is accessible to most consumers,

is the required **minimum** to allow most households access to lower cost energy for;

- traditional off-peak loads such as water heaters,
- household appliances such as dishwashers, and
- emerging technology like electric vehicles.

Having a broad window for the off-peak period is also important for network stability, as if it is too restricted there is a higher risk of simply shifting the peak to night time, rather than reducing peak, in areas with a lot of controlled loads[4].

7. Peak periods must be of a duration that allows households move some loads to avoid higher energy costs

Feedback from ATA members suggests the weekday peak period should be a **maximum** 4 hours duration per week day (eg, 2pm to 6pm, or 4pm to 8pm), thus allowing more households to avoid using high consumption appliances such as washing machines, dishwashers, and clothes driers during times of higher demand and prices.

Some consumers have expressed concern at longer peak periods that do not allow them to effectively shift loads. For example, 6 hour peak periods in NSW with tariffs of up to 58.85c/kWh from 2pm to 8pm each weekday reduce the ability for consumers to respond to ToU pricing when compared to a peak period of four hours or less.

There is of course a trade-off between the length of the peak and the ability for that period to apply cost reflectively to all areas. With regard to section 5 (above), if ToUs are aligned with customer types of 'single fuel' and 'dual fuel' (see 10 below) and there is no seasonal change (see 8 below) then a two hour peak window, during which the majority of 'peaks' fit, will be suitable for each of these classes while capturing that residential classes actual contribution to actual peak demand.

8. A basic (standard or non-market) ToU pricing product may not include a seasonal variation greater in magnitude than the legacy standing offer at that residence already has, and all tariffs will be based on local time to account for daylight savings.

[4] As has happened in parts of SA where time switches for off peak hot water services have had to be adjusted to remove night time peaks.

A seasonal ToU is where, for example, an area of the network that is winter peaking has higher tariff charges in the winter months. Seasonal pricing is already done on in gas and electricity, but could vary more (and hence be more confusing for consumers) when incorporated into ToU pricing.

Generally consumer advocates are of the view that seasonal variations should be allowed as long as the seasonal differences are not so great or confusing that it places consumers at unacceptable risk.

9. A basic (standard or non-market) ToU pricing offer may not include critical peak pricing

Critical peak pricing is where cheaper energy is provided at a cheaper rate all year round, except for a few hours on a few critical peak days where it effectively costs a lot more to supply. On critical peak days, the price for energy is considerably higher, and consumers are notified the day before to allow them to take action to reduce their load on these days if they so choose. The general idea is that the average consumer has lower bills and greater opportunity to save more through load curtailment on peak days, but they carry higher risk.

The strongly held view by ATA and other consumer advocates is that critical peak pricing should not be allowed as part of any standard offer long as the risks to some consumers are not acceptable.

10. Consumers should be provided with the option of a common ToU tariff based on their fuel mix

In Victoria as part of the staged introduction of 'flexible' pricing, stakeholders considered what a common ToU shape (eg. with 'the same' peak, off-peak and shoulder periods across the state) would look like, on the basis that a common standard ToU would help consumers make informed decisions about which energy retail products to choose and how best to use energy.

In most locations, there are two distinctly different average household load profiles at a network level: Dual fuel (where gas, or in some cases wood, is used for some or all heating and cooking loads) and single fuel (electricity only, with or without solar hot water)[5].

Dual fuel and single fuel households' load profiles are so different that a ToU tariff that is common to both household types can not meet all of principles 5, 7 and 8 above at the same time: the peak duration having to be longer than four hours, and many single fuel houses in Vic are winter peaking while some dual fuel houses are summer peaking.

According to industry it is not practicable to offer electricity tariffs to specific households based on whether or not they also use gas, so the logical way to distinguish between the two household types is to generalise between city (largely dual fuel) and rural (mainly single fuel), or by postcode.

[5] There are also differing profiles for different classes of customers within those broad categories as previously noted