Submission to the Productivity Commission Draft Report on Electricity Network Regulatory Frameworks

BACKGROUND

The Australian Government's Productivity Commission has called for submissions from interested parties to its Draft Report.

This document is submitted by a member of the public, an electricity consumer, and is not designed to address the broader issues of network reliability or benchmarking, but merely to highlight the issues facing the consumer, and suggest issues that could be incorporated or addressed within the overall regulatory framework.

It is noted that this particular consumer has worked in the energy efficiency field as it relates specifically to domestic and small business power consumption and has a government-subsidised, grid-connected solar PV array installed.

Although at first glance some of the comments may not be seen to relate directly to the current issue of network benchmarking, it is essential that the reality of the 'consumer experience' of the impacts of regulatory change are taken into consideration.

ISSUES FACING THE CONSUMER

The principle issues facing the retail consumer are:

- Unit cost (the cost per kilowatt/hour)
- Access cost (the cost to access the network, usually a per diem rate)
- Reliability of supply
- Availability of sufficient power during peak periods
- Willingness to allow restrictions to peak demand
- Ability to make real or effective reductions in consumption via efficiency measures

1. Unit Cost

Despite industry and government rhetoric to the contrary, the reality of the so-called 'competitive retail energy market' is that, while transmission costs average out much the same for all retailers, there is little to no *significant* difference between retailers pricing.

The 'reality' for most consumers is changing retailers might save them a few dollars per quarter, but that isn't much on a bill that might exceed $500 in any case, never mind the large numbers whose bills now exceed $1000/quarter. What people want is *significant* reductions in their bills, not 'fiddling with the margins'.

Electricity costs are reported in the Draft Report as having risen approximately 50% in 'real terms' in the past five years.

The public, generally, does not understand the term 'real terms' as it is generally used by government and the industry. To the consumer, "real terms" means "what has actually been reflected in the cost of my power bill over time".

While government and industry use the term more accurately, reflecting the CPI and other costs, the public do not see this. What they see is an attempt to disingenuously deflate the "real" increase in their "actual" billing costs.

The “reality” for most consumers is that power pricing has increased by more than 100% over the past several years, from 13.265c/kWh in 2005 to 31.290c/kwh today [Peak rate] and from 4.806c/kwh to 12.290c/kwh [Off Peak rate] in 2012 [these are actual figures charged by Country Energy/Origin taken from my own bills].

In this case, the increase in ‘actual cost’ to the consumer is 135.884% (Peak) and 155.722% (Off Peak)

What the public *actually sees* is that their bills have, effectively, more than doubled. Not gone up by ‘half’..!! [“50% in real terms”].

Government and industry should accept this reality and refer to the “actual” increase rather than the ‘real terms’ increase in order to prevent the widely held public perception that the government and industry are attempting to deceive them, or are, at best, merely deluding themselves!

They don’t listen to what you say; they only look at what is on the bill: the bottom line.

2. Access cost

Since the retailers were allowed to separate the ‘cost of access’ from the usage charges on consumers’ accounts, and probably reflecting their investment in ‘gold-plated’ capital works, the amount charged to access the grid has also increased exponentially over the past few years.

Most retailers charge a split access fee, reflecting the relative cost of ‘peak’ and ‘off-peak’ power from the network.

In 2005 Country Energy (now Origin) charged 34.594c/day for Peak rate service access, and 6.519c/day for the Off Peak service access rate.

In 2012 those rates are now 125.480c/day Peak rate and 11.400c/day Off Peak rate.

This is an increase in the Peak rate of 262.722% and in the Off Peak rate of 74.873%.

Even in ‘real terms’ as opposed to “actual terms”, these increases should still be seen as significant and arguably excessive.

Furthermore, there is an aspect to the manner in which these charges are billed that sees them impact more heavily on those less able to afford the increases. This means that age pensioners, disability pensioners, the unemployed, the working poor – and perhaps more importantly, those who are actively reducing their consumption through the adoption of technologies and methodologies to make their consumption more efficient – are all effectively cross-subsidising those consumers whose power consumption is profligate.

Proportionally, the access fee component of the bill is far greater for those who consume less – whether simply to reduce their bills, or as an efficiency measure designed to reduce their greenhouse gas footprint.

The service access component of the bill of a typical pensioner is 32.598%.

The access component of the bill for a typical family of five is only 7.47%.

Therefore the ‘access cost per kilowatt/hour’ is far higher for those who can afford it least.

It’s time for a reality check. Those profligate consumers whose excessive consumption is the cause of the dramatic increase in ‘peak’ demand are the ones for whom the massive investment in new ‘peak demand specific’ infrastructure’ is required. Yet it is not they who are paying for it!

The only way this inequitability can be rectified adequately is to return to an ‘all in’ usage charge, in which the ‘access fee’ forms part of the ‘unit cost’.

Once this is undertaken, any efficiency measures can be instantly seen to have an effect in reducing the "actual cost" of the power bill.

Having the unit cost and access fee rolled into a single charge would provide a real incentive for consumers to reduce their power consumption, and provide them with an immediate reward in savings off the 'bottom line'.

3. Reliability of supply

Consumers generally accept that adverse weather conditions can cause shutdowns in the grid, and that these can take time to rectify.

However, consumers generally are not aware of the notion of 'peak demand' causing reliability of supply issues, nor how this relates to the cost of their electricity supply.

Sadly, from my own experience talking face to face with actual consumers, most will demand as a 'right' that the power they want to use be available whenever they want it, especially during peak demand periods on hot summer days and cold winter nights.

Hence they are resistant to any measures to reduce their power consumption during peak periods, especially when it might impact negatively on their perception of comfort or on their 'lifestyle' more generally.

People have a tendency to be self-interested, and this needs to be accepted and factored into government and industries' plans.

4. Availability of sufficient supply during peak demand periods

While several experiments with demand side management have been attempted, such as remote phasing of air-conditioners and pool pumps, the general public tend to see such measures as an invasion of their privacy and a further attempt by government to 'tell them how to live their lives' – effectively such measures are seen by many as an infringement on their personal freedom.

This is not my personal view, but it is what most people will tell you if you ask them quietly and privately. Most have an understanding of what they are 'expected to say' to someone official, so data collected by authorities tends to be skewed as a result.

People are, generally speaking, unwilling to give up any aspect of their 'lifestyle' or to expend any capital of their own to reduce their consumption at any time, much less at peak times.

As the capital investment necessary to make any significant inroads into consumption can be considerable, most people simply can't afford to do so, and only do so when govt incentives bolster the baseline of any such measure making it especially attractive, not simply affordable.

For example, the NSW government solar PV tariff saw a massive spike in adoption of this technology but, once the tariff was withdrawn for new installations, demand disappeared. It was no longer 'attractive enough' and the long term sums simply didn't add up for consumers.

Yet decentralised small generation requires almost no investment in grid infrastructure and, in the case of grid-tied PV, tends to provide maximum input during peak demand periods (like hot summer days), thus reducing the need for 'maximum peak capable' infrastructure.

It seems logical then to look more closely at encouraging greater penetration of decentralised small power generation into the broader domestic consumption market in order to increasingly reduce the localised peak demand.

Note that this is counter-intuitive for most 'experts' within the industry as the current grid network is focused on 'distributed' generation with its high cost long-distance transmission.

5. Willingness to allow restrictions to peak demand

As stated previously, people are generally self-interested and deep down in their heart of hearts don't want to be told they have to reduce consumption during peak demand periods, especially if it has any impact on their personal comfort levels or 'lifestyle'.

For this reason, Smart Meters and Time Of Use charging will not make a huge amount of difference to peak demand, as this is most commonly related directly to people's comfort perception – and their use of Reverse-Cycle Air-Conditioning (HVAC) to achieve this.

In other words, there is no sense pointing out that people 'should' be using their HVAC systems less during peak demand periods, as the reason FOR the peak is that everyone is using the power to keep cool or warm, and are unwilling to be either hot or cold during these times, simply to ease the demand on the grid.

Therefore, the real world effect of enforced introduction of ToU metering will be that consumers' bills will increase (again) and this will simply increase resentment toward government and the industry, especially as ToU is most often touted as being a way to *reduce* power bill costs.

Pool pumps are one area that could be *much* better controlled, but for this to be effective nationally any regulatory measure must include common control measures, not a different measure in every retail supply or government jurisdiction.

Let's not re-invent the railway gauge problem in the energy sector!

It's quite clear from observation of what actually happens in peoples' homes that attempting to regulate the initial installation of HVAC into new-built homes will not work.

Regardless of the agreements in place between developers and consent authorities, it only takes one hot summer or cold winter for the actual home owners to circumvent the initial restriction – and planned lower peak demand for that development – by installing HVAC systems. I have witnessed this myself in such a development in north-western Sydney.

Ultimately, the consumer is self-focused and their actual comfort is a higher priority for each of them than the overall cost of the grid, never mind reduction of greenhouse gas emissions through (expensive) efficiency measures.

Forcing manufacturers to continue to drive up the efficiency of new units does not greatly impact on the peak demand. Only requiring older units to be replaced, and providing an incentive to do so, is likely to have any real impact on peak demand from HVAC in the short to medium term.

Like replacing off-peak HWS with solar HWS, replacing inefficient, older HVAC units with modern, inverter type units that can demonstrably achieve the same outcome for much less consumption, is probably the quickest way to achieve real reductions in peak demand in the short term.

Coupled with demand-side management of pool pumps, such measures could demonstrably impact peak demand periods, especially on hot summer days.

If government can provide a financial incentive like a tax break to the manufacturer to firstly produce a significantly more efficient unit, and then to target it into the market place, then such a measure would inevitably be successful.

But retailers of appliances should also be regulated such that they are unable to sell inefficient units onto the market. A minimum standard of 4-star efficiency should be *mandated* such that any new installs, or replacement of older systems, *must* be replaced with a minimum standard system. It should, at the very least, be regulated that any replacement install be demonstrably more efficient than the unit it replaces, and require such installations by suitably qualified tradespeople, trained to ensure this occurs.

6. Ability to make real or effective reductions in consumption via efficiency measures

Most consumers falsely believe that changing their light globes will have a substantial or at least meaningful impact on their power bills. When it doesn't, they almost invariably become disheartened.

It is the experience of this writer from active involvement in the energy-efficiency sector that face to face counselling by knowledgeable, trained experts can have a far greater impact in both the short and long term on efficiency gains than any other program.

Therefore it seems sensible to require by regulatory or contractual means that retailers provide such one-to one, in-home counselling at a level that would enable the whole sector to reduce consumption – and especially peak demand.

Currently, most retailers have one or two staff – for their entire market area – with suitable skills in this area. Generally they are only utilised to provide those customers unable to pay with ideas to reduce their consumption and thus their bills. Laudable but ultimately useless, as any consumer struggling to pay their bill demonstrably does not have the capital necessary to replace inefficient appliances or undertake other capital-intensive efficiency measures such as the installation of solar HWS or solar PV.

Clearly provision of such a service – that might actually reduce demand for the product they sell – is not in the financial interest of retailers, so such provision must be mandated as part of the regulatory framework, with reporting procedures that require the retailer to demonstrate the number of homes visited and educated, commitment agreements entered into, and the network efficiency gains measurable as a result of the changes in behaviours of those customers.

Such a service might best be provided by government directly, via a subsidy provided to contractors, however, it would not then be as easy to actually *measure* the efficiencies gained as a result, unless the subcontractor was 'partnered' with a retailer.

As an example of what can be achieved by educated consumers, my own household's consumption has been reduced from 14kwh/day in 2005 to less than 5kwh/day in 2012. With the solar PV system exporting an average of 8kW/day, my home is a net exporter, unlike most homes with rooftop solar who still import power.

While this is at the extreme level of what is achievable, it is not unfeasible that an average household could effect efficiency measures that would reduce their overall consumption by at least 25% and by as much as 50% with some capital investment.

Should such efficiency measures be rolled out nationally, the immediate reduction in consumption would reduce the strain on the grid and provide for an extended timetable for the introduction of peak-demand-critical new infrastructure.

This in turn would provide an opportunity to reduce the impact of the introduction of such infrastructure on power bills.

Conclusion

It is essential for governments, regulators and industry to be aware of the 'reality' of the consumer environment.

Most 'experts' within the electricity distribution sector are well-paid, even highly paid, and therefore tend not to have had the life experiences necessary to inform them of the impact of their decisions on 'ordinary consumers', and especially the impact on the poorest in the community.

These are the people paying around $3-4/day for their power, of which $1.25 is 'service access' cost. Roughly 30% of the daily cost of powering their homes.

These people also tend to be least able to effect any capital-intensive efficiency measures (like appliance replacement) to reduce their consumption, yet when they do so they are disproportionately affected by the separate unit cost and access charge fee structure currently operating within the NEM.

Despite well-intentioned efforts by the States to offer 'rebates' to recipients of Centrelink benefits, not only are such rebates grossly inadequate, they only go to answering half of the equation – no provision is made for the 'working poor' nor is there any real provision to 'reward' those who are actually able to significantly reduce their power consumption.

The most generous State rebate is NSW with 60c/day ($54.78/qtr) which barely covers half of the service access fee, let alone any of the actual power usage cost.

As an example of the inequitability of the current fee structure, my own bill demonstrates this very clearly. In my most recent account, the actual amount charged for 'usage' was *less* than the amount charged for 'access'. It now costs me *more* to simply connect to the grid than it does to *actually* power my home.

In order to provide an incentive to consumers to reduce their consumption it is essential that the 'access fee' component of consumer accounts forms part of the overall usage charge, so that any reduction in usage sees an immediate and significant reduction in the overall bill.

Those who use more should pay more – rather than the current system which sees the higher consumers subsidised by the lower consumers, an inherently unfair and inequitable system.

To put the current charging regime into perspective, it is as though consumers were being charged a 'toll' simply to gain 'access' to a petrol station – in order to pay for the suppliers' 'infrastructure costs' – as well as having to pay a unit cost per litre for the actual fuel.

As the other major source of energy in our community is demonstrably able to bundle its infrastructure cost and supply cost into a single unit charge, why cannot the electricity sector provide the same fee structure?

Signed:

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