

## **Comments on:- AEMC - The pricing review - Electricity pricing for a consumer-driven future.**

Thanks for opportunity to comment on draft report.

In general I found the 140 pages a bit lengthy, repetitive, and abstracted. A confused voyage of discovery to identify what is really meant.

### **What's an Energy Services Provider? What is a Network?**

My first thought was “what’s an energy services provider”. I note in para 31:- “We use the terms ‘energy service providers’ and ‘networks’ throughout, though we recognise that these are present-day terms and the evolution of the system may likewise evolve these roles.”. But I couldn’t find the glossary present-day definitions. To add to my confusion the terms ‘consumer’ and ‘customer’ seem to be used interchangeably.

From my systems perspective “network” extends from electricity generation to consumption. In some future world (see below) it may well extend to the products of flexible electricity demand.

### **Network Evolution**

Historically supply instantaneously matched demand. The network managed power. As noted in the report, energy flowed in one direction.

Recently, energy storage has been added. Inventory in any supply chain. This decouples generators and loads. It serves to increase utilisation of upstream and downstream assets. The industry has yet to evolve management of inventory, management of energy.

‘Demand Response’ was initially targeted at reducing demand during peaks. At some stage in the future it will morph into adding demand to fill troughs.

This will happen when the proportion of renewables in the network reaches a new threshold.

### **Behind The Meter**

The first manifestation of “behind the meter” I learned of was the first grid scale battery in South Australia. Deliberately behind the meter, situated alongside a solar farm, to escape the then connection regulations and market mechanisms. A disruptive approach, which led to positive change. We now also think of “hybrid” solar and battery farms.

Interesting was how Victorian fossil fuel generators paid for the South Australian big battery through the effects of arbitrage.

At the other end of the network rooftop solar, and now household level batteries, are proving even more disruptive. Hybrid households.

In both cases regulators have tended to ignore “behind the meter” activities until forced to do so by the scale of change.

Instead of embracing the extremes of the network regulations tend to consider the meters as a boundary. Industry behaviour, particularly with respect to downstream, household level, activities has been driven by a desire to control rather than embrace.

Thus, the current report considers only a small portion of what I consider to be the network. To review pricing mechanisms for that part in isolation.

It appears to seek a guaranteed return on investment for part of the network at the expense of other parts.

### **Effect of Inventory**

The return on investment for storage (inventory is what is stored) seems to be perceived as arbitrage between off-peak and peak demand.

It is already evident that as inventory increases relative to renewables supply the arbitrage decreases. Observed particularly in AEMO Quarterly Report Q3 2025 – section 2.2.2, figure 11. Inventory is part of market price discovery.

The effect is to reduce gas consumption. Renewables are not yet the marginal generator, prices remain set by fossil generators. A hybrid market. I look forward to when zero marginal cost renewables compete with zero marginal cost renewables.

The difference between fossil and renewables is that renewables are zero marginal cost, use or lose, more tomorrow. There is a greater imperative to generate. Thus, batteries installed to reduce curtailment. It is unlikely that a renewables grid will accept the poor average 60% utilisation of generation that was historically the norm with fossil.

The return on investment for batteries lies in increased utilisation of upstream and downstream assets.

While that currently applies to renewables generation it will also apply to transmission and distribution.

### **Time of Day Metering and Smart Meters**

It follows from the presence of inventory that time of day charges become redundant. The smart meters, which are of no value to householders for energy management, at best provide remote reading. Adding a line item for the meter a bit cynical.

I can't imagine the ridiculous prospect of the price of cornflakes changing with time of day. Despite it being a seasonal crop converted to retail boxes, and seemingly always present on the supermarket shelves.

Though I suspect there are some in the world who would welcome it.

## **Virtual Power Plants**

In the beginning my rooftop solar return on investment was through feed in tariff for excess solar. Now, with battery, the return is through maximising self consumption.

While there may be a brief window of opportunity for participation in a virtual power plant the reduction in arbitrage renders the return marginal at best. Opportunity limited to the occasional failure of a fossil generator.

Apart from that, there is no earthly reason a virtual power plant is actually required. If pricing were publicly available at the household level the logic could be written into the home inverter – simplistically don't export when price is less than zero. Instead we have gatekeepers and rent seekers providing a service that adds no value.

I do hope the result of the pricing review isn't that those who are currently installing oversize household batteries don't mount a move to disconnect from the grid.

It occurs to me that an ill thought out aim of having efficient pricing for a part of the network would result in making the overall network situation worse. In lots of respects human behaviour is predictable. It seems that behavioural economics hasn't yet fully understood human behaviour.

## **Retail Default Offers**

The default offers provided for retail customers are part of ignoring rooftop solar and household batteries, of ignoring behind the meter.

They also tend to obfuscate. Rather than an annual \$ figure for the non existent average consumer, just provide a calculator with \$/day, \$/kWh, \$/kWh feed-in.

Regulation has become part of the trend to obfuscate and confuse which seems to be part of modern marketing.

## **Utilisation**

Behind the review conclusions about efficient pricing for a part of the network is the concept of utilisation, which is strangely not mentioned.

I believe a suggestion has been made that utilisation data be made public by AEMO. I would extend that to making public energy in storage.

Well understood in all other capital intensive process industries with limited product is the most effective way to reduce unit cost is to increase throughput. That is, reduce \$/kWh by increasing kWh.

Its usual to invest a little in a bottleneck and increase utilisation throughout the process.

I suspect a part of the electricity supply industry, distribution, is suffering from the effects of reduced utilisation. I see an effort to recover costs rather than address the underlying issues.

If that is what AEMC intend in the pricing review it wrecks of looking backwards rather than forwards. It wrecks of regulatory capture.

I would expect AEMC, and AEMO, to focus on increased utilisation as a mechanism for reducing prices.

Start by reporting utilisation.

### **Capacity Charges**

In the last couple of years capacity charges have become fashionable. It took three months of emails to ascertain from my retailer that the “maximum power consumption in any half hour between 4pm and 9pm would be applied to all days of the billing period” could not be directly measured by the smart meter and was in fact an energy consumption converted to a pretend maximum power.

As a mechanism for changing consumer behaviour it fails at the first step.

To overstate, I’m sure that consumers buying kettles with smaller elements in a futile attempt to reduce maximum power was not part of the intent of the capacity charge.

Similarly capacity charges for feed in. Which gets us back to the effect of inventory.

### **Retail Invoices**

My retail bill is a masterpiece of confusion. I need a spreadsheet to make sense of it.

Fortunately my retailer hides the capacity charge somewhere in daily or unit prices.

Let’s start transparency by itemising each of the charges that accrue through the value chain.

### **Apologies for the Rant**

My apologies for this written in a hurry submission.



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