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Submission, by Molly Melhuish 4 August 2016
I have no objection to this submission being made public.

**Commentary on letters from Electricity Authority to Commerce Commission dated 30 May 2016 (form of control)https://www.ea.govt.nz/dmsdocument/20784 and 1 June 2016 (on treatment of cash flows, emerging technology) https://www.comcom.govt.nz/dmsdocument/14337**

The two letters reveal the effects of the differing purposes of the two regulators.

Firstly, the Authority expects monopoly profits to be kept by supply companies. In the form-of-control letter:

> As noted above, privately owned distributors are obliged to carry out a profit-maximising strategy

In contrast, the Commission requires benefits of efficiency gains to be shared with consumers, including through lower prices.

Secondly, for both regulators, "efficient" generally means economically efficient. But the Commerce Act Section 54Q also requires the Commission to promote incentives, and avoid imposing disincentives, for lines companies to invest in energy efficiency and demand side management, and to reduce energy losses.

The present form of control, based on capping prices, gives the correct incentive according to the EA because:

> the prospect of declining energy volumes due to increasing penetration of emerging technologies (such as solar panels) may provide a stimulus to distributors to change their pricing structures. Under a revenue cap, however....revenue would not depend on energy volumes.

It's not that distribution prices are correct today: the EA says prices must change. It's only that revenue cap control would remove the link between "energy volumes" and profit, so:

> a shift to a revenue cap could reduce intra-regulatory period incentives for distributors to **change** their pricing structures to a more efficient structure, … and encourage distributors to **continue** to rely on consumption-based pricing [my emphases].

"Consumption based pricing" refers to the two-part distribution tariffs with a fixed daily charge and a variable "consumption" charge per kilowatt-hour. It is used today by all lines companies except The Lines Company (centred in Te Kuiti) with 20,000 customers (about 1% of New Zealand's customer base).

The letter goes on:

> As you are aware, the Authority is concerned about the effects of inefficient distribution pricing on the long-term benefit of consumers, including potential distortions to consumers' investment in evolving technologies.

What's "inefficient" about the present two-part tariff is that the per-kWh charge is too high, making it cost-effective for consumers to invest (the EA says) in solar panels. Or (they don't say), invest in home insulation, or wood burners, or efficient appliances or light bulbs, or heat pumps to replace plug-in heaters.

The second part of the EA's letter is even more complex and reliant on the EA's extreme economic philosophy. It refers to the incentive for an electricity consumer to respond to high prices by reducing their demand:

> …under a revenue cap, a business may have an incentive to set prices above the unrestricted monopoly level for price-responsive services in an effort to drive down costs.2 This is because under a revenue cap any cost reduction flows directly through to profit. [And the business] could actively manage demand across a network circuit to inefficiently defer a network investment…the distributor's incentive would be to continue to set peak charges at a level high enough to defer the investment **beyond the efficient point (**my emphasis**).**

Of course, that's exactly why revenue-cap regulation was devised, to remove the incentive of network companies to suppress energy-efficiency investments and/or behaviour. By encouraging reduction of demand at peak times, network companies could defer new network investment – such deferral being considered a good thing in the U.S. in the 80s when I observed revenue-cap regulation being introduced. (Also considered a good thing by the Value-Price Technical Group when I was a member of it in about 2008.)

The EA's reasoning becomes even more bizarre:

> It seems unlikely that a regulator could readily identify the point when the pricing strategy described above becomes inefficient. So a distributor implementing this strategy **might be able to present its actions as efficient**—even if the resulting costs to consumers, including opportunity costs (such as the value of using the circuit foregone by consumers), exceed the cost of the upgrade (my emphasis).

Here the cost to consumers of reducing demand at peak times (e.g. by insulating the house) is portrayed by the EA as incurring an "opportunity cost" of foregoing use of the circuit. The consumer's rationale for investing in the insulation, namely to reduce their power bills (and increase comfort levels) is of course not mentioned.

The letter's footnote 2 states in simple terms the EA's view of economic efficiency:

> The distributor's incentive may be to increase the price of services with the highest price elasticity of demand and decrease the price of services with the lowest price elasticity of demand. This is the opposite of the Inverse elasticity rule (Ramsey pricing), which is generally considered an efficient way to recover common costs from final consumers.

I consider the Authority's defence of Ramsey pricing, as being "generally considered an efficient way to recover common costs" to be pernicious and utterly against consumer interests.

As noted above, even with today's price cap regulation, only a single distributor to date has moved fully to a more "efficient" pricing structure, leaving many of its consumers very unhappy indeed. And the EA notes that the Australian Energy Regulator (AER) observes the same reluctance in New South Wales, and said that efficient pricing was unlikely to emerge in practice.

But according to the EA, New Zealand might be a better place to change to efficient pricing focussed on shareholder value:

> … the NSW distributors are state owned. In New Zealand, some of the largest distributors are privately owned, well resourced and obliged to preserve shareholder value and seek higher returns for shareholders.… Indeed, the Authority Board undertakes a schedule of meetings with stakeholder boards and it has not seen anything during these meetings to support the view that the boards of distribution companies are unaware of their responsiblities as company directors.

Furthermore, today's Low Fixed Charge Regulations have been interpreted to date as requiring a maximum daily charge of 15c/day, with all the rest of the revenue to be made up by a per-kilowatt-hour charge. But unlike New South Wales, New Zealand's pricing regulator is well underway on plans to reinterpret that:

> The Authority is the enforcement body for the LFC Regulations. We think that publicising and further explaining our interpretation of the LFC Regulations may assist in removing a major perceived impediment to distributors' changing to more efficient pricing structures.

Efforts to remove the Low Fixed Charge regulations have gone on for quite a few years – high fixed charges give a guaranteed return on distributors' assets even as demand falls – and residential demand has fallen every year since at least 2010. But it's not only the last half-decade of falling-away of demand that's driven companies to consider pricing changes, it's their fear of the future:

> Residential penetration of solar panels is now growing rapidly, and the level of consumer and distributor interest in batteries and electric vehicles has increased greatly in the last twelve months. As a result, it appears that distributors are beginning to reassess and to consider making changes to their pricing in response to emerging technologies.
>
> More efficient pricing structures are likely to involve recovering some common costs through charges for capacity and / or peak demand, and significantly lower consumption charges.

And there other barriers to the change to the EA's "more efficient" tariffs:

> 'The current Weighted average Price Cap regime, in combination with the tariff restructuring rules for the Default Price Path for distributors, may create a disincentive for distributors to restructure their tariffs.

This first letter addresses price cap vs revenue cap regulation. A second letter addresses the role consumer-owned demand response might play in electricity markets. Their main issue is that distributors that invest in batteries are able to add them to their regulated asset base – making it difficult for competitive suppliers of batteries, or of companies offering demand response services using batteries, to compete with the distribution companies.

> The Authority's view is that, "where a demand-side response programme is paid for in whole or in part by regulated funds, the organisation running the programme should: (a) have processes to ensure that the demand response is used in a way that produces economic value (b) clearly explain to stakeholders how, when, where and why the demand response will be used, and how this will produce economic value

This focus on clearly explaining to stakeholders "how, when, where and why demand response "will produce economic value" is fascinating. Which stakeholders, and economic value to whom? I agree with the Authority's concern that where distribution companies include battery back-up in their regulated asset base, it may compete unfairly with other companies (or consumers) investing in batteries for the same purpose.

The letter goes on:

> We are aware that the Commission must carry out its work on the cost allocation input methodology within legislative constraints. As a result, the issues identified in this letter may need to be addressed through other avenues.

Other avenues? I suppose, changing provisions in the Electricity Industry Act that set out the Low Fixed Charge regime – most definitely requiring "other avenues" (political) to deal with the "issues".

The Input methodologies review draft decisions Summary paper
also references "policy makers" rather than regulators as having to deal with some of the issues raised:

> 28. We note that matters of industry structure raised by some stakeholders and the Electricity Authority (**EA**) may be more appropriately handled by policy makers than through adjustments to the IMs.

In conclusion, the letters by the Authority to the Commerce Commission set out conditions on pricing of network services and demand response which the Authority says will "produce economic value". By "publicising and further explaining our interpretation of the LFC Regulations" the Authority is prepared to promote its view of "efficient pricing" regardless of what consumers themselves prefer. In the case of the two letters, the promotion and explanation is wordy and difficult to understand. In the related consultation documents, as in the Authority's own Interpretation of the Statutory Objective, the "further explaining" is far, far more wordy and difficult.

In contrast, a short piece by Dr Geoff Bertram sums up his view of electricity pricing in the face of evolving technologies such as rooftop solar:

> The Electricity Authority's firm view is that stopping consumers from saving themselves money is "for the long-term benefit of consumers".
>
> Which bring us to the final irony. Suddenly the Electricity Authority has woken up to the existence of low-income households that have been driven into fuel poverty by 20 years of price-gouging.
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> Alas, they now might have to pay even more if (i) rooftop solar is installed by the rich, (ii) lines companies refuse to accept lower revenues and asset write-downs, and (iii) no regulator steps in to prevent exploitation of the poorest and weakest players in the market. How different the story could be if New Zealand had a real regulator, and if the words "long-term benefit of consumers" meant anything.
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> https://www.victoria.ac.nz/news/2015/11/the-problem-with-our-electricity-industry

I agree with that view, and intend to work henceforth with consumers instead of regulators, for the present and future benefit of the former.