

TITLE: Electricity industry shockers

AUTHOR: Dr Richard Denniss

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Higher costs and worsening inefficiency have been problems since privatisation began in the 1990s and no end is in sight.

'Who's using the hot water?!' You can often hear that shout from someone trying to have a shower while someone else in the house is trying to do the dishes. The reason is simple; most houses don't install multiple hot water systems to ensure that everyone in the house can simultaneously use as much hot water as they want.

It is of course possible to design a house's plumbing to ensure ever-present hot water, it's just that it would be quite expensive. Most families, conscious as they claim to be about the cost of living, seem happy to suffer the odd inconvenience in exchange for cheaper homes and cheaper electricity bills.

But the exact opposite is, we are told, the case when it comes to designing our electricity grid. Indeed, we learnt this week that we spent \$11 billion installing electricity poles and wires that are only used 100 hours a year. That's less than two hours per week.

The "problem" is that on really hot days everyone with an air conditioner wants to use it at the same time. Similarly, those who can afford a swimming pool are probably lounging in it, with the pool filter running.

While we don't build public hospitals that can cope with peak demand in winter and we don't build public transport systems that can cope with peak loads in the morning it seems unchallengeable that we must build an electricity distribution grid that can cope with peak demand.

Why the difference in approach? The owners of the poles and wires would argue it is because nobody likes blackouts, and that is indeed the case. But what they don't like to talk about is all of the money they make by overinvesting in excess distribution capacity. That is, the more wires they string up the more money they make, whether we need them or not.

To explain this absurd situation a little bit of history is required.

While we talk a lot about "competition" in the electricity sector in reality the whole "market" was invented by government when publicly built and owned electricity assets were variously broken up, privatised and corporatised in the mid-1990s. The first-year economics textbooks on which the "restructuring" was based confidently predicted that the result of "increased competition" would be lower prices and better service. Whoops.

What has actually happened ever since "competition" was introduced is that prices have risen rapidly, the privatised competitors started to buy each other up, and the ability to efficiently plan the electricity industry has been significantly reduced.

The clearest evidence that something is deeply wrong with the industry is that just as we are about to introduce a carbon price to help reduce the demand for electricity there are plans to spend billions on new poles and wires to cope with surging demand. How can this be?

The problem is that while the amount of energy used in homes has been falling, the "peak demand", particularly on hot days, has been rising rapidly as more homes install air conditioning and homes with air conditioning install more of it and use it to cool more of their house. Building an electricity grid that is big enough to deal with this "peak load" is a very expensive exercise, but it's also a very profitable exercise for all segments of the electricity industry.

The most recognisable segment of the electricity industry comprises the "retailers". They are the companies that individual households deal with. They are the ones who send us a bill, and like all retailers they like it when we buy lots of their product. Indeed, most electricity retailers do helpful things like sell air conditioners and even offer to install them for you.

The next most recognisable segment of the electricity industry is made up of the generators that burn the coal to make the vast majority of Australia's electricity. They like people installing air conditioners too. It boosts demand for their product but also, thanks to the way governments designed the electricity market, they make huge profits on the peak demand days when the price of the electricity they sell goes through the roof. Just as umbrellas get more expensive on rainy days, so too does electricity on a hot day. These peak hours are incredibly profitable. It has been estimated that about one-quarter of the electricity sector's revenues come from just 36 hours of peak production a year.

And finally, the most visible but least recognisable part of the electricity industry consists of the distributors. We see the poles and wires everywhere but we never get a bill from them and probably don't think too much about who pays for them. It's simple: we do. The electricity distributors who own the poles and wires are effectively running a tollway for electrons. The more energy that passes through the wires, the more money they make. Not surprisingly, they like people buying lots of air conditioners as well. It gets worse, though. Because it would be silly to have competing poles and wires running down every street the distribution sector is run as a regulated monopoly. What that means is that they are guaranteed a fixed level of profit on every pole they install. The result of the 1990s experiment in creating competition in the Australian electricity industry is a complete mess. We have created incentives for all of the industry sectors to behave in ways that are inconsistent with the goals of providing low-cost energy and energy efficiency.

The worst part about it is that, despite all the concern about the potential impact of the carbon price on electricity prices, the inefficiency of the industry is a far bigger problem.

And the lowest-income earners who are the least likely to have air conditioners or pool pumps are picking up far more than their fair share of the cost.

Dr Richard Denniss is the Executive Director of The Australia Institute, a Canberra based think tank. www.tai.org.au