Deborah Hart's speech at the Reducing Energy Hardship conference

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What would you rather...

Thank you to Ara Ake, the Community Energy Network and Wise Charitable Trust.

I have three boys and when they hit their teens they were enamoured by this game, what would you rather? Would you rather have a knife when you need a spoon or a spoon when you need a knife? Most of the choices were pretty ghastly, like what would you rather, eat a sparrow's poo every day or a plate-load of cow turd once? Some they had no problem answering like "What would you rather? Give up showering for a year or give up the internet for a day?"

Many in the electricity sector have invited us to play this game. What would consumers rather, affordable electricity for all or reliable electricity most of the time? What would consumers rather, electricity created from coal and gas or the lights going out regularly? I think we should all have something better to do than play this game because whatever answer you give, whatever the trade-off you say is ok, it's the set-up piece for consumers to get less than they deserve.

The essential nature of electricity

The questions inherently deny that electricity is an essential service. The vast majority of people need it to be delivered to them by the electricity sector – most consumers are not yet making their own electricity or quantities to be self-sufficient.

There's a lot of talk that electricity is a human right. As someone who sits on the Human Rights Review Tribunal, I am interested in this thought. But electricity is not specifically mentioned in our Human Rights Act, the NZ BORAct or indeed the Universal Declaration of Human Rights.

Article 25.1 of the Universal Declaration states: "Everyone has the right to a standard of living adequate for health and well-being."

The right includes food, clothing, housing and medical care and necessary social services, and the right to security in the event of lack of livelihood in circumstances beyond our control, like sickness.

While the Universal Declaration doesn't explicitly mention the right to electricity, one could argue that access to electricity is implicitly covered under the right to a standard of living adequate for health and well-being.

In today's world, access to electricity is essential for various aspects of daily life, including cooking, heating, lighting, communication, and accessing information (such as through the internet, which as my boys knew was more necessary than showering).

Lack of access to electricity can severely impede an individual's ability to fulfil basic needs and participate fully in society. Today, economic success is impossible without electricity. Therefore, ensuring access to electricity could be seen as a means to realise the broader goals outlined in Article 25.1.

What then if we interpreted human rights law to encompass electricity as a basic human right and not just an essential service? Would it be much like water, and mean that providers could not simply turn electricity off if the consumer couldn't pay? Or would it look more like the pitiful state of our housing stock when shelter clearly is a human right?

Affordability

Electricity must be affordable. For absolutely everyone.

The Consumer Advocacy Council's sentiment survey late last year told us 65% of domestic consumers are feeling the pressure of electricity bills, a marked increase from the year prior.

MBIE analysis from 2022 found that 110,000 households were unable to afford to heat their homes. That is every home from here in Wellington through to and including the Hutt Valley. That's at least 1/4M people affected.

Some 40,000 New Zealand households had their power cut due to unpaid bills in 2023.

Affordability is most important for eight out of ten households and almost nine out of ten small businesses. A similar number rate resilience as important. Replacing coal and gas plants with more efficient technology is lower – six out of ten for households and small businesses.

With electrification, there are mounting costs coming into the electricity system.

Take for instance the proposed increase in Transpower's spending for the period 2025-2030 – a rise of 32% in capital expenditure and 20% in operating expenditure.

The Commerce Commission anticipates inflationary pressures that will see consumers bills "increase significantly".

ERANZ Chair Simon Watt speaking on April 30 said, "Sector-wide we'll see more than $130 billion spent on electrification by 2050."

Mercury, Genesis and Contact Energy have announced price rises.

The consistent message to consumers is that prices will rise. Consumers have little say in the system that charges these costs. So it's up to consumer groups to do that for them.

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Energy efficiency obligations

So here's another what would you rather: What would you rather? Adding infrastructure that will cost consumers or adding efficiency and innovation to lessen the need for infrastructure?

It is undeniable that the building of infrastructure and maintenance of existing infrastructure is required. But we have the capacity to lessen it significantly.

Before adding cost to the system, costs which consumers will have to meet, costs that will almost certainly make electricity less affordable, all those in the electricity sector should have to apply this test: Is it cheaper for consumers to increase efficiency and innovation than build capacity?

I want to take you to the Commerce Act: Section 54Q says "the Commerce Commission must promote incentives, and must avoid imposing disincentives, for suppliers of electricity lines services to invest in energy efficiency and demand side management, and to reduce energy losses, when applying this Part in relation to electricity lines services."

In truly competitive markets, providers can't simply build infrastructure and pass on the costs to consumers that can ill-afford to bear the cost. They would risk being undercut by their competitor.

What then are the incentives that the Commerce Commission "must impose"? Should there be a requirement for networks to invest first in non-network alternatives?

Strong incentives are appropriate to help ensure Electricity Distribution Business' keep consumers' costs to a minimum.

If the long-term interest of consumers are to be met, we think demand management and re-shaping the demand side of the electricity system must be given at least the same importance as investment in network infrastructure.

Appetite for innovation

So what is the consumer appetite for innovation and efficiency, which underpins much of the demand-side of the electricity system?

Our 2023 Behavioural Survey found significant interest from both households and small businesses in new technology:

- Over 70% of domestic and small businesses consumers were interested in new technology to help manage power bills
- 70% of domestic and small business consumers were interested in learning about new ways of generating, storing and distributing electricity
- Over 40% of both considered themselves "early adopters" of new tech.

But they were anxious about losing control. What that tells us is that to make the most out of the consumer interest and implementation is as important as the invention.

This is reinforced by some of the findings in the 2024 Acumen Edelman Trust Barometer. It found:

- 47% of Kiwis embrace green energy – less than the global average
- 56% of Kiwis think government lacks competence to regulate emerging innovations
- Only 45% of us trusted business to integrate innovation into society ensuring they were safe, understood, beneficial and accessible
- 42% trusted government
- 40% trusted NGOs
- 28% trusted the media – less than global averages
- 53% of us say that technology is changing too quickly in ways that are not good for people like us.

That's some bad news, but there is light…

There is strong connection between innovation and affordability. 84% of us said they wanted business to ensure innovations were affordable. Over 80% wanted robust communication about innovation so they could understand what was on offer. Mismanagement of innovation leaves people feeling left behind. Explaining it, the pluses and minuses and keeping innovations affordable are crucial.

With all that in mind…

Let's optimise innovation and efficiency.

We need to optimise solar and wind – sufficient battery storage is essential to making the most out of both.

Efficiency and innovation have the ability to lower power consumption (and therefore power bills), reduce peak loads (and therefore reduce the need for network investment), mitigate winter evening shortages, reduce volumes (keeping lakes fuller, and lowering carbon emissions).

There are some pretty easy wins:

Retailers have access to metering data. Networks, generators and consumers are prevented from having this data in real time. But if we could have it, network companies and generators could utilise it and be more efficient.

Data explains much of what consumers pay for electricity. Consumers should have access to their own data, in ways they can understand it, so they can better utilise switching sites. Consumers could provide an authorisation for their data to PowerSwitch which would super-charge the site – it would make the predictions of which retailer and which package easier and more accurate. It could save consumers millions. It could drive behaviours that lessen electricity usage at peak times, lessening the need for more infrastructure.

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Our statutory voltage is 230 volts (/- 6%). If we just changed that to /- 10% it would allow more solar to connect to residential sections of the network without causing congestion. This has been done successfully in Australia.

If we could get 1.5 million homes using LEDs, that would deliver:

1. $1.0 billion annual consumer power bill savings
2. A peak load reduction of 340 megawatts (equal to a Hamilton city-worth of peak load reduction)
3. 3.4 million tonnes of carbon emission reductions through to 2040.

2.9% of us have an EV sitting in our driveway and there are more in our commercial fleet. Our increasing EV fleet could be thought of as battery storage facility on wheels. We could incentivise charging the fleet when electricity is available and also incentivise EVs discharging electricity into the grid when needed.

We could require all EV chargers to be smart. To give you an idea of the possible savings on networks, in 2021 Wellington Electricity found that it could save their network $1B for network reinforcement. EECA modelling shows widespread use of “smart” and energy efficient EV chargers could save the country $4B by 2050.

Rewiring Aotearoa has said that we are now at the stage that it makes financial sense to install solar in your home financed by a 10-year loan. Nearly 3% of us now have solar on our roof. We should incentivise more to do this and a shout out to Ara Ake and its pilot with Kainga Ora and to the EA that made it possible.

And there’s more efficiency and innovation that are good for affordability, resilience and reliability.

Design of the electricity system

What would you rather? Pretending that the electricity market is as good as it gets whilst increasing numbers of people who cannot afford electricity or reforming the market?

Our electricity market should deliver the electricity consumers need at a price they can afford. Warnings of power cuts and actual cuts show that the market is not working as well as it should. Increasing lack of affordability of electricity is another marker.

Our market incentivises shortages in electricity availability, not the building of new generation or storage. On that cold day two weeks ago when electricity was scarce, the wholesale price of electricity jumped by up to thirteen times compared to the normal trading period price.

We all know that scarcity drives prices higher. And that’s what we have – scarcity and prices higher than we should have when our power is generated by around 87% renewables. That’s good for generator profits but provides disincentives to build new clean generation.

We need to urgently consider alternative market settings.

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The principles for a well-functioning market should be that it:

- Fosters competition and incentivises the allocation of resources towards more renewable generation.
- Has sufficient supply or demand control to meet the increased demand for renewable electricity at any time, including periods of peak demand and dry years
- The price of electricity must be fair and reasonable such that it is affordable for everyone
- Must encourage New Zealand to move toward decarbonisation.

Another question: What would you rather? Condemn our children to an uncertain future, burdened by unattainable electricity costs for increasing numbers of them, or choose to embrace ambition, opting for electricity that is not only affordable for all but also sustainable and resilient?

No matter who you are, please stop playing what would you rather with affordability, reliability and resilience. There are far better “what would you rather” questions to be asked.

Ngā mihi nui. Thank you.