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Dear Electricity Authority,

I am writing to express my concerns with the electricity distribution pricing changes that are now being recommended by the Electricity Authority. Let me start with some background - I am a retired Associate Professor of organisational psychology from the University of Waikato, and while overseas for the past 12 years, I was a director and board president of a small electric utility in the Pacific Northwest – a region of the USA with a similar electricity generation mix as New Zealand, primarily hydro-electric with some additional support from fossil-fuel generation and a growing use of other renewable energy sources.

My concerns are primarily with the Authority's recommendation that networks increase substantially their fixed customer charges. Such a change will adversely impact low users and discourage energy conservation.

Over the past decade, many utilities in the USA – particularly those located in states with little or no commitment to addressing climate change – have attempted to recover more of their distribution costs through fixed charges. Similar to New Zealand's Electricity Authority, these utilities have voiced concerns that residential customers who install rooftop solar systems and who may conserve electricity in other ways, will end up contributing less to covering the utility's (largely) fixed costs, which would require raising rates that will increase other customers' electricity bills. Taken to the extreme, some utilities have argued that this could lead to a 'death spiral' for utilities – a feedback loop in which electricity prices rise, more customers install solar and/or conserve, driving electricity prices higher still. New Zealand's Electricity Authority makes essentially the same argument, claiming that the current price structure is 'unsustainable' and, citing a paper produced for the Authority in 2015 by the NZIER, suggesting that "distribution charges for non-solar customers could increase by 30% in 10 years".

But, these fears have not eventuated so far. Utility distribution costs in the US have not ballooned, despite the fact that the proposed increases to fixed charges made by some utilities have either been denied by their state utility regulators or substantially reduced, and average fixed charges of US utilities remains relatively low, at approximately \$10 per month.

In New Zealand, Transpower reports that electricity demand is now decreasing by only an average of 0.2% per year. Looking to the future, decreases in New Zealand's electricity demand through customer energy conservation can be mitigated by the gradual shift from fossil fuels to electricity with more electric vehicles and electricity used for heat in manufacturing process, such as Fonterra's recent change from coal to electricity for producing milk powder at one of its plants.

More importantly, a change from largely volumetric to largely fixed network charges in New Zealand would adversely impact many customers and work against the country achieving its climate change goals. The Electricity Authority is recommending that networks move to an 80/20 split between generating revenue from fixed charges and per-kWh charges, which would mean that each residential customer would pay roughly \$40 per month in fixed charges¹, no matter how much power they use. Lower income households and the elderly, on average, use less electricity, and will face needlessly larger electricity bills. Households will have less incentives to invest in more energy-saving appliances, such as LED light bulbs and heat pumps, if a substantially larger portion of their electricity bills are fixed charges.

In their Consultation Document, the New Zealand Electricity Authority suggests that there is a broad consensus in support of recovering distribution costs primarily through fixed charges. But in the USA, this has clearly not been the case. Many US electric utilities – particularly those in areas where

there is support for addressing climate change - have continued to maintain very low fixed charges. Concerns about the effect such changes on lower-income households and reduced incentives for energy conservation have led to a consumer-driven backlash against increases in utilities' fixed charges. For example, the American Association of Retired Persons (AARP) – similar to Grey Power in New Zealand – has successfully fought many utilities' efforts to raise their fixed charges. Similarly, the National Association of State Utility Consumer Advocates adopted a resolution unequivocally opposing increases in electric and natural gas utility fixed charges. State utility regulators, which must approve rate changes for most utilities in the US, have denied more than half of utilities' proposed fixed charge increases, and substantially reduced the size of others that they have approved.

For example, the table below summarizes the most recently available quarterly results of the USA state regulatory authority decisions on electric utilities' proposed increases to their fixed charges². Note that proposed increases to fixed charges are far smaller than the roughly \$40 fixed charge proposal by New Zealand's Electric Authority, and that, of the six utilities that proposed fixed charge increases, only three were granted, and all three that were granted were substantially reduced in size. These results are indicative of regulatory decisions in the US over the past decade when faced with utilities' proposals to raise their fixed charges.

Proposed vs. Approved Residential Fixed Charge Rate Cases Decided in Q3 2018 (Electric Utilities)			
Utility	Existing	Proposed	% Increase Sought
PG&E (CA)	\$10.00	\$10.00	
Delmarva Power (DE)	\$11.70	\$13.51	15%
National Grid (RI)	\$6.59	\$10.10	53%
Pepco (DC)	\$15.09	\$15.09	
Westar Energy (KS)	\$14.50	\$18.50	28%

Thus, in the interest of both low electricity users and energy conservation, I urge you to take a more balanced approach, reducing substantially the proportion of network costs that are to be recovered through fixed charges. Needless to say, I am happy to talk or correspond further about these concerns, and about alternative strategies that have been used by distribution utilities in the US to address changes in the electricity market that do not adversely impact low electricity users and incentives for conservation.

Sincerely,

Paul Taylor, PhD

Notes:

¹Estimate calculated on the following basis: average residential electricity bill = \$2,200/year (\$185/month); distribution network costs represent approximately 27% of total monthly bill (i.e., \$50); therefore, a fixed charge representing 80% of distribution network costs would be roughly \$40/month.

²Source: EQ Research LLC (<https://eq-research.com/blog/eq-research-q3-2018-grc-update/>)