

Kia Ora

Please find attached a submission for the Decentralisation green paper made by Michelle Renton, the principal investigator of *Distributed generation: provisioning electricity and market systems* on behalf of the project team, based at the Wellington School of Business and Government, Te Herenga Waka, Victoria University of Wellington.

We are very pleased to make this submission which is based on findings from qualitative interview data collected during 2023-4 in New Zealand, Australia and the United Kingdom. While the project isn't directly concerned with energy communities or questions related to energy hardship, we have some findings that we see as being useful. In particular these relate to governance, (Question one), structural flexibility (Question two) and consumer literacy (Question three). We have kept our submission's focus to these three areas for which we have collected evidence.

Please feel free to contact me if you have any questions or concerns, or would like to discuss this further.

Ngā mihi

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Question 1

I whole heartedly support the emergence of energy communities in New Zealand. We lag both Australia and the UK in incorporating “community” into the electricity provisioning system. However, the idea of democratisation within the green paper needs unpacking. In the UK, RESP governance proposes regional stakeholder partnerships which enable the co-creation of solutions to meet local energy need, but it also ensures that responsibilities and accountabilities for outcomes, particularly those of the DNOs, are maintained. At the time of our data collection there had been no definitive outcomes evident, and we were unaware of any relationships being robustly tested, but there were multiple, varying perspectives expressed. In this context, democratisation, accountability, and governance, are intertwined within a broad, complex electricity system, and more in-depth discussion of what democratisation looks like, in a system-wide context is needed.

Question 2

- a. There is no doubt that in both the UK and Australia, funded and incentivised energy communities have enabled consumers, otherwise locked out, access to the benefits of affordable DER and battery storage. However, the funding and incentivisation made available creates federal, state and national contextualities that differ to New Zealand’s experiences. My own viewpoint is that more targeted priorities around equity, hardship and resilience are needed.
- b. There is a need for structural flexibility for organisations coming to market with innovative flexibility service business models. The emergence of multi trader relationships appears as a key enabler of consumer benefits. Giving consumers and energy communities the ability to split export/ import for solar, small-scale wind, and battery output, or for EV owners to carve out their EV energy requirements from their household needs, are examples whereby MTR can provide greater choice for consumers. Retailers competing in these consumer markets should be able to define competitive tariffs and fine-tune rates. Currently, the lack of multi trader relationships limits scalability of many community and individually based business models.

Question 3.

Broadly I agree with the challenges outlined here. I will pick up on point 4.14 and the question of consumer literacy, because the project has evidence relating to this.

- a. Issues relating to consumer's energy literacy are not unique to New Zealand. The academic energy literacy literature shows that in many jurisdictions, consumers lack the necessary numeric skills to understand the energy efficiency of appliances. Consumers (in general) lack both engagement and interest and have insufficient awareness of how their energy consumption maps to their bills. Interestingly, in recent small studies in California, consumers correctly recognised their peak daily usage, both in normal times, and as well, when Covid19 shelter in place orders came into effect. These consumers obtained a practical level of energy literacy that spanned changing

contexts, which may well have useful implications for energy campaigns (all references available on request).

- b. Consumer literacy and knowledge of energy usage will likely remain very low. How to increase engagement and understanding sufficiently so that consumers gain the most benefit from decentralisation is a key question. In the UK, the belief that inaction due to lack of consumer interest, risks the success of the energy transition was articulated by more than one interviewee. This sentiment corresponds with Sovacool and Blythe (2015), that a given energy transition will only work if it doesn't impede upon individual attitudes or behaviour.
- c. Without strong consumer literacy, trust comes to the fore. Consumer trust in the electricity system is exhibited every time appliances, lighting, heating etc are switched on, and safe, continuous electricity is received. However, a lack of literacy means that many consumers remain unaware of who their network company is, think poorly (if at all) of profit-making retailers, and due to industry complexity and their own disinterest, remain disengaged from considering the impact of electricity on their daily lives. This is of course unless they are forced to actively reduce their unaffordable electricity bills or are suffering from very real energy hardship. The question then becomes, is it realistic to create high levels of consumer understanding and trust? Important because, where real understanding is low, consumer exploitation becomes a possibility, so if neither high literacy nor high trust exists, transparency of information is required.
- d. Ensuring consumers can easily access information to compare between localised retailer tariffs and rates, bundled and non-bundled offers, or the quid-pro-quo of energy deals, is necessary. As well, understanding whether value captured by their owned DER accrues to themselves or a third-party, is important and will inform future questions of consumer wellbeing during the transition. Consumers need access to information that shows the value to themselves and allows for easy comparison of offers across the retail sector. For consumers to make the best decisions for themselves (and the country's transition) they need both free access to information, and to be supported in navigating the complexity of offers available. During our research it was apparent that no country had really cracked this nut, but questions related to literacy, trust and transparency of information, remain at the heart of consumer outcomes.
- e. As electricity provisioning is fundamental to modern life, ensuring that decentralisation does not risk reliability and sustainability, and that affordability issues can be addressed is the beginning of a far more consumer-centric electricity system.