

Graham Eagles and Maryanne Smyth

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## **Submission to the Electricity Authority on the proposal of maximising benefits from local electricity generation.**

Our names are Graham Eagles and Maryanne Smyth, and we live in Havelock North. We, like many others, are excited by the potential of empowering consumers who are fundamentally reshaping our energy future through investment in distributed generation like rooftop solar, and battery storage.

We both strongly believe that New Zealand's electricity generation and delivery systems are outdated and in need of major change if we are going to lower our country's emission profile and maximise the use of locally generated renewable electricity. The proposal of maximising benefits from local electricity generation goes a long way towards creating a smarter more agile system, that will better suit future electricity demands and usage.

We also agree with the Electricity Authority Te Mana Hiko (Authority) aim to remove unnecessary barriers to more efficient investment in distributed generation and maximise the benefits it brings for all New Zealanders.

Currently, there are arbitrary restrictions on the amount of power those with rooftop solar and batteries connected to distribution networks can export to the grid. Higher export limits should speed up distributed generation (e.g. roof top solar) and battery adoption rates because the payback period will be reduced and incentivise bigger systems to be installed. This will increase savings for homeowners while also helping to bring down the price of electricity for everyone on the network.

We support the Electricity Authority proposals to improve export limits for small-scale distributed generation (DG) by:

- setting a default 10kW export limit (with allowance to set lower limits where appropriate based on an industry-developed assessment methodology) for small scale distributed generation connections (up to 10kW capacity),
- setting default voltage response settings for inverters (using Australian setting) and allowing for distributors to set different settings where appropriate.

We support the Electricity Authority proposals to improve export limits for large-scale distributed generation (DG) by:

- mandating distributors to use an industry-developed bespoke export limits assessment method to set export limits for larger DG
- Mandating the use of the latest inverter performance standard for low voltage DG

Making sure the way bespoke export limits are set for many small businesses, community groups, farms and households who want to install more than 10kW of solar is really important to get right, so that unnecessary limits are not placed on the scale of their solar and battery installations. This critical group of customers installing mid-size solar are typically not

resourced to engage in the connection process with distributors in the same way that the large utility scale distributed solar and battery firms are. Therefore, it's important that the proposed assessment method that distributors use is transparent, fair and its use is monitored by the Electricity Authority to ensure it is not used to unnecessarily limit distributed generation.

Allowing for distributors to set lower default limits than 10kW where appropriate using an industry-developed export limits assessment methodology, might be needed in specific situations but it should not be used as a way for EDBs to avoid improving network management approaches to support more customer solar investment and continuing to impose arbitrary unnecessary export limits. Electricity Authority scrutiny should be applied here, to monitor use.

Higher export limits will have widespread benefits for all New Zealanders and strengthen the resilience of the electricity supply. For example, distributed generation can increase the energy resilience of local communities by reducing reliance on electricity generated from centralised, grid-scale generation. Additionally solar and battery systems can provide essential back up if there is a power outage, providing power for essential communications, EV charging and basic needs.

The country is screaming out for more generation, and we know there is currently spare solar energy being curtailed by the networks that could be helping, especially in a dry year. We want to encourage the biggest possible solar systems because it reduces the costs for the homeowner and for everyone else on the network and higher export limits will help do that.

Our own story involves the installation earlier this year of 23 solar panels and a battery system through Eco-efficient in Hawke's Bay. We love the system installed for us which currently supplies all our household electricity needs, along with supplying enough electricity to run 2 electric vehicles which we use for going to work in Napier each day.

So how does the 5kw export limit affect us? We try and make the most of our electricity production however at times the export limit cuts our production to the grid, this is plainly illustrated in the image below. We feel frustrated about this and about knowing that somewhere in the country gas is being burnt to produce electricity that could be offset by our generation and many other small generators throughout the country. It seems like a lost opportunity by not making the most of available generation!!

Thank you for the opportunity to present our submission, we greatly appreciate it.

Graham Eagles and Maryanne Smyth.

