



February 2025

Energy Competition Taskforce

Electricity Authority

PO Box 10041

Wellington 6143

## **Submission on Requiring distributors to pay a rebate when consumers supply electricity at peak times - Initiative 2A**

This submission supports the Taskforce's proposal to require distributors to pay a rebate when consumers supply electricity at peak times. However, it suggests the proposal should be extended to cover all forms of demand flexibility which help reduce distributors' need to invest in distribution investment.

### **Initiative 2A is Important - Potential for Billions in Dynamic Efficiency Gains**

I completely support the assertion in the paper that allowing alternatives to distribution investment could save billions over the next few decades (paras 4.9 and 4.10). In fact I think the cost benefit provided with the paper materially understates the potential net benefit because it doesn't look at the dynamic efficiency gains in the longer term of these more efficient price signals. I am not suggesting the taskforce needs to redo the analysis but that they should more explicitly acknowledge the extent to which it understates the potential net benefits.

### **My Proposed Extension Materially Increases the Benefits - By Increasing Uptake Opportunities**

The taskforce has correctly identified the potential for the proposed change to have net benefits in the order of several billion dollars due to the potential dynamic efficiency benefits of distribution price signals ensuring efficient investment in distribution networks or alternatives. However, as currently scoped, as applying only to those who invest in solar and batteries, the proposal may only capture a small part of the potential benefit of allowing alternatives to distribution investment. A relatively minor change in scope has potential to capture much wider benefits. Because the lowest cost options for alternatives to distribution investment lie in demand flexibility options, which are now much lower cost, than solar or batteries.

The rationale for my proposed extension of scope is because:

- There are currently many much lower cost options for demand flexibility than batteries or solar.

[REDACTED]

- It would be a lost opportunity to not include these now:
  - Because their much lower cost is likely to lead to more rapid and widespread adoption than if it is limited to batteries and solar;
  - Accelerating their early adoption and the associated benefits has a strong net positive benefit; and
  - Gaining experience in implementing locational and time specific distribution price signals will help later work on distribution pricing.

### **Low Cost Demand Flexibility Available Today**

I submit as a developer of a demand flexibility service which I hope to launch before the start date for the proposed rule change. My key point is that such a demand flexibility service is several orders of magnitude lower cost than a solar and batteries service, and therefore likely to have potential for a more widespread uptake. My service is based on a \$20 smart plug, which I then make price responsive with some proprietary cloud based software. This cost compares to a typical solar and battery installation that could cost up to \$20,000. My target market is home EV charging but as it is based on a simple 3 pin plug it could be adopted more widely, with increased options for consumer level demand flexibility.

### **Widespread Uptake of EV's Will Materially (and Rapidly) Increase Demand Flexibility Options**

I agree with the taskforce's analysis that the uptake of demand flexibility has been slow to date in NZ. However, I suggest that is likely to change very soon because:

- EV penetration in NZ is only just starting to take off now;
- Home EV charging is a really easy load to make flexible as it has almost no impact on the user, e.g. most users can very easily manage charging for one hour longer or have a few kWh less charge when they head off the next morning;
- Very low cost options now exist for making EV charging more flexible, e.g. my service or many others also looking at the same opportunity.

### **Small Change to Current Proposal**

I believe my suggested extension of the proposed code change should have relatively minor impact on the time or cost for distributors to implement the change. This is because they will already need to utilise consumer time of use metering information to identify the time and quantity of injection at constrained locations. That is they will need to identify the change in net consumption quantity before and after the relevant period and location. There is no material difference, from a

network point of view, in a reduction in peak load due to an injection and a reduction in peak load due to flexible demand.

No part of this submission is confidential and I am happy for my submission in its entirety to be released publicly.

Regards

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## Response to specific consultation questions

Q1	Do you agree with the problem definition above? Why or why not.	I largely agree with the problem definition but think it should be extended to any response which helps reduce distribution investment, not just solar and batteries.
Q2	Do you agree with these principles? Why or why not?	Broadly agree but suggest they could be extended to cover injection or demand reduction.
Q3	Do you agree the principles should only apply to mass-market consumers, or should they apply to larger consumers and generators also? Why or why not.	Agree they should only apply to mass market as larger consumers and generators already have arrangements or ability to capture their contribution to avoided distribution investment.
Q4	Do you agree the principles should apply to all mass-market consumers, including inflexible generation (noting that the amount of rebate provided will still be based on the benefit the DG provides)?	Agree but suggest the same logic applies to consumers with flexible demand. Again the rebate should only be based on the benefit provided.
Q5	Do you agree with the direction of the guidance that would likely accompany the principles? Why or why not?	Agree but note that because DF options are now much lower cost they are not subject to the same problem of repayment time.
Q6	Are there additional issues with the principles where guidance would be particularly helpful?	It may be helpful to be more explicit on how the quantity of the benefit provided is measured. My suggestion is that this should be based on metered quantities.
Q7	Do you agree the principles should be incorporated in the Code, rather than being voluntary principles outside the Code? Why or why not?	I agree the principles should be in the Code. I think having the enforcement options available under the Code will be helpful for encouraging rapid uptake.
Q8	Do you agree with the proposed implementation timeline for this proposal? If not, please set out your preferred timeline and explain why that is preferable.	I agree with the proposed implementation timeline. I support this ambitious time frame because of the importance of the change. However, I do acknowledge this timeline is likely to be a challenge for distributors.
Q9	Do you agree the proposal strikes the right balance between encouraging price based flexibility and contracted flexibility? Why or why not?	Agree it strikes the right balance. An over dependence on contracted flexibility is likely to lead to lower uptake.
Q10	Do you agree the proposal will lead to relatively minor wealth transfers in the short term and will lead to cost savings for all consumers in the longer term?	I agree but I have a concern that the relatively minor short term wealth transfers mask just how significant the longer term consumer benefits are. I suggest the task force should be more explicit in acknowledging the scale of these material benefits.
Q11	Do you agree that more prescriptive requirements to provide rebates will be less workable than a principles-based approach and therefore should not be implemented? Why or why not?	Yes, I strongly support a principles based approach. It is much more likely to lead to better outcomes than a prescriptive approach, where inevitably some aspect of the prescription will be wrong. Also the flexibility provided by principles-based approach is likely to reduce the risk of excessive implementation times or costs arising from a prescriptive approach.

Q12	Do you agree that a consumption linked injection tariff would not be sufficiently targeted and therefore should not be preferred? Why or why not?	I agree that a non-targeted consumption linked tariff is not preferred. But it seems circular logic to compare a non-targeted consumption linked tariff with a targeted injection tariff. Surely the more valid comparison is a targeted consumption or injection tariff?
Q13	If this approach was progressed do you think: ..	As above I don't think that particular approach should be implemented, as it is not sufficiently targeted. But a targeted consumption and injection linked tariff would be a good option.
Q14	Do you agree with the objective of the proposed amendment? If not, why not?	I agree with the objective, but suggest my alternative approach would achieve the objective better.
Q15	Do you agree the benefits of the proposed amendment outweigh the costs?	I agree the benefits far outweigh the costs, but suggest the approach to quantifying the benefits materially understates the potential benefits. And I suggest this should be more explicitly acknowledged.
Q16	Do you agree the proposed amendment is preferable to the other options? If you disagree, please explain your preferred option in terms consistent with the Authority's statutory objectives in section 15 of the Electricity Industry Act 2010.	I agree the proposal is better than the identified alternatives. However, I suggest another option, as outlined in my submission above, to allow flexible demand to also receive a rebate, would be materially better again. That is it would lead to a materially greater benefit to consumers due to even better dynamic efficiency gains, and would be minimal extra cost to implement. The reasons for this view are outlined in my submission above.
Q17	Do you have any comments on the drafting of the proposed amendment?	I suggest it should be widened to allow payment for injection or demand reduction.