

Private & Confidential

10 November 2025

By Email (star@eeca.govt.nz)

EECA Level 8
44 The Terrace
Wellington,

Dear Sir / Madam,

Green Paper Unlocking the potential of demand flexibility a residential product perspective November 2025

I am writing on behalf of Rheem New Zealand Ltd (**Rheem**).

Thank you for the opportunity to provide feedback in relation to the above Green Paper.

Rheem has a proud history of developing & manufacturing water heaters locally in, Aotearoa New Zealand since 1958 and has been trusted by generations of New Zealanders for the quality, reliability and innovation of our products. As the market leader in water heating, our products span the full range of technologies and are used in both domestic and commercial settings.

In this submission, we provide Rheem's responses to the questions on Appendix One.

Key end-use products and approach to commercial and industrial

Q1. The main uses cases for demand flexibility presented in this paper are: managing peak demand (generation and line capacity) constraints, optimising renewable energy use, and optimising home energy use.

- Do you think these are the main use cases?
 - YES this covers the main cases.
- What other use cases are there?
 - The main reasons are covered.

Note: "Optimising renewable energy use" is quite generic but to be clear it needs to cover grid renewable generation, local renewable generation (either commercial or domestic) as well as self-generated renewable (typically solar). These three scenarios have differing control strategy needs.

Q2. In the residential sector, the following products have been identified as key end use products for demand flexibility: EV chargers, heat pumps, electric hot water systems which use a storage tank, fridges/freezer, clothes washers, dishwashers, clothes dryers, inverters for solar and battery systems, and HEMS.

- Do you think these are the key demand flexible end-use products in the residential sector?



- Yes with some clarification.
 - Heat pump water heaters are not separately listed but are assumed to be covered under heat pumps and or electric water heaters.
- If not, what are the key products and why?
 - Electric space heating (non heatpump) should also be considered (underfloor heating etc).
 - Pool and spa pumps and heaters would be worth considering as easily loads which can be easily moved with minimal user impact.

Q3. Do you think a standardised end-use product/application-based approach is relevant for the commercial sector, or is a bespoke/customised approach needed?

- We are unsure exactly what this question is referring to.

Q4. What do you think the key end-use products/applications are in the commercial sector?

- Space heating/cooling and water heating would be the main areas

Q5. Do you think a standardised end-use product/application-based approach is relevant for the industrial sector, or is a bespoke/customised approach needed?

- We are unsure what a standardised end use product would be.
- In industry bespoke solutions are likely to be more suitable targeting specific applications.

Q6. What do you think the key end-use products/applications are in the industrial sector?

- Process heating and cooling would be the main applications, but each industry will have their specific applications.

Q7. What are the barriers to the uptake of demand flexible technology?

- There is a range of end use requirements which need to be considered to make sure end users aren't negatively impacted.
- There is a lack of clarity around the value stack and revenue stream from introducing flexibility. For the end user there aren't clear economic drivers. Time of use power plans do not offer significant savings. Policies and pricing needs to be attractive to users to incentivise the change.
- End users are unlikely to invest time to manage multiple appliances even if they are smart and connected because it rapidly becomes too complicated and the financial benefit becomes less clear.

End-use product level components for demand flexible capability

Q8. The paper describes the three main end-use product components for demand flexible capability as: communication protocol, product response, and operational information.



- Do you agree that these are the main components for demand flexible end-use products?
 - Yes, noting that the communication must be two way to be effective.
- What other components or considerations are important for end-use products?
 - Type of connectivity, LAN, Wifi, cellular etc
 - There should be the ability for the end user to opt out for an event or permanently.
 - Consideration of what features allow for easy consumer control of the appliance to ensure maximum uptake.
 - Smooth experience and maximum value.
 - Payback periods e.g if a HEMS units costing \$800; the payback period is very unclear to homeowners (non existent) and uptake will be minimal.

Q9. Do you think to support the development and uptake of demand flexibility there is a need to create a minimum level of standardisation at an end-use product level (covering communication protocol, product response, and operational information)?

- We support the philosophy of everything being able to talk to each other (open communication protocol) however it is too early to be regulating this. The reason for this is development costs for single appliance manufacturers could be exorbitant and stifle innovation, in particular for NZ based businesses.
- Utilising third party HEMS systems as a conduit connection for open communications puts control of peak load management in the hands of the HEMS supplier and therefore is unlikely to be supported by multiple appliances and could stifle the uptake.
- Control of appliances by third party HEMS systems could add complications around product warranty if the control reduces expected product life.
- Previous examples of mandated energy control systems have limited effectiveness in the market while adding costs (examples being AS4777 in Australia and CTA2045 ecoport in Oregon and Washington).

Development of demand flexible end-use products

Q10. Would you support EECA creating a voluntary approved list of residential demand flexible end-use products, similar to [EV Smart Charger Approved List](#)

- Yes, but not till 24 mths after requirements are defined.

Q11. Would you participate in working groups on the key end-use products to develop voluntary demand flexibility requirements (covering communication protocol, product response, and operational information)?

- Yes, we would value the opportunity to be part of this.
- If so, what product based working groups would you like to be part of?
 - Commercial and residential Water heating, HEMS and solar PV systems



Q12. If you are an end-use product supplier, would you manufacture /import/supply end-use products that meet the voluntary specification?

- Yes, if it is financially viable.

Thank you again for the opportunity to provide feedback and comments on these important issues. We look forward to working with EECA as this project progresses.

Please do not hesitate to contact me at 027 469 9653 or ian.horsburgh@rheem.co.nz if you would like to discuss these issues further.

Yours faithfully,



Ian Horsburgh
R&D Manager
Rheem New Zealand Limited

