

Resi-Flex

Consumer Drivers



JUNE 2023

Bringing the consumer on the flexibility journey
EEA Pre-Conference – The Future is Flexibility

Orion + we*
wellington electricity

Households helping out

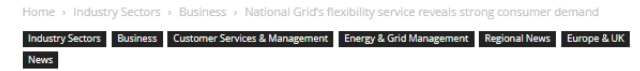
Globally, household consumers are supporting electricity systems



The screenshot shows the RNZ News website. The top navigation bar includes 'Home', 'News', 'Radio', 'Podcasts & Series', 'Topics', and 'Pacific'. Below this is a secondary navigation bar with 'New Zealand', 'World', 'Politics', 'Pacific', 'Te Ao Māori', 'Sport', 'Business', and 'Country'. The main content area features a red header for 'NEW ZEALAND / WEATHER' and a large headline: 'Cuts avoided after South Island asked to conserve power immediately'. Below the headline is the publication time '6:52 pm on 28 March 2023' and social sharing icons for Twitter, Facebook, Email, YouTube, and LinkedIn. At the bottom of the page, there is a 'THE WALL STREET JOURNAL' logo and a 'SUBSCRIBE' button.



The snippet shows a section of a Wall Street Journal article. It starts with 'U.S.' and a headline: 'California's Last-Ditch Effort to Avoid Blackouts: Texting Consumers'. The text below reads: 'State implored businesses and households to cut power—and paid some of them—in successful last-minute bid to head off controlled power outages'. The author is listed as 'By Jennifer Hiller' with a 'Follow' button. The update time is 'Updated Sept. 8, 2022 1:30 pm ET'.



The navigation bar for the National Grid article includes 'Home', 'Industry Sectors', 'Business', and 'National Grid's flexibility service reveals strong consumer demand'. Below this is a secondary navigation bar with 'Industry Sectors', 'Business', 'Customer Services & Management', 'Energy & Grid Management', 'Regional News', and 'Europe & UK'. A 'News' button is also present.

National Grid's flexibility service reveals strong consumer demand

By Jonathan Spencer Jones - Dec 16, 2022

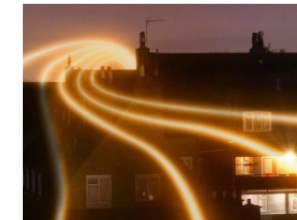


Image courtesy National Grid ESO.

National Grid Electricity System Operator's (ESO) demand flexibility service has delivered over 780MWh of demand reduction in five test events.

More than 1 million households and businesses have now signed up to participate in the service, which was launched to manage peak demand during the current winter months.



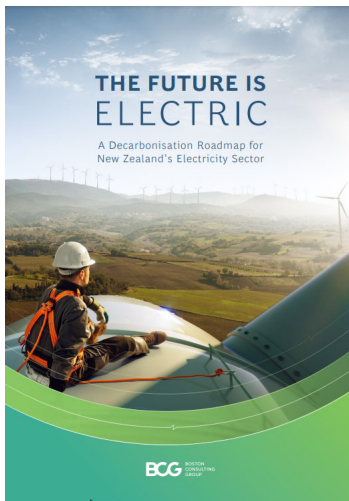
The navigation bar for the ABC News article includes the ABC logo, a search icon, and a 'Log in' button.

How you can reduce your electricity usage while the network is under strain

ABC Everyday / By Patrick Wright

Unlocking the value of flexibility

We must increase the opportunities for consumers to provide flexibility



Enhanced peak price signals



Smart managed tariffs



Flexibility contracts



Mandated default off peak electric vehicle charging

Phase 1.

Discover the menu of flexibility options available given my preferences, circumstances, budget and equipment options

Phase 2.

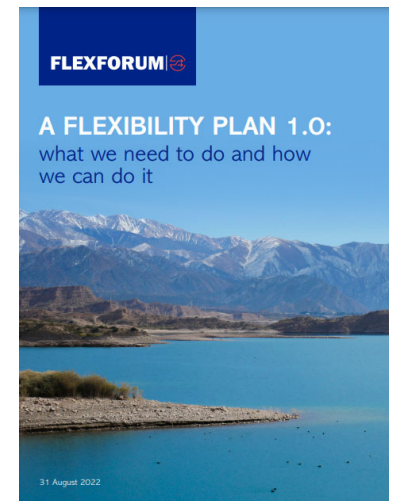
Assess the flexibility options and decide which suit the consumer

Phase 3.

Enable the chosen options working through the investment and commissioning process(es)

Phase 4.

Day-to-day operation



OUR PURPOSE

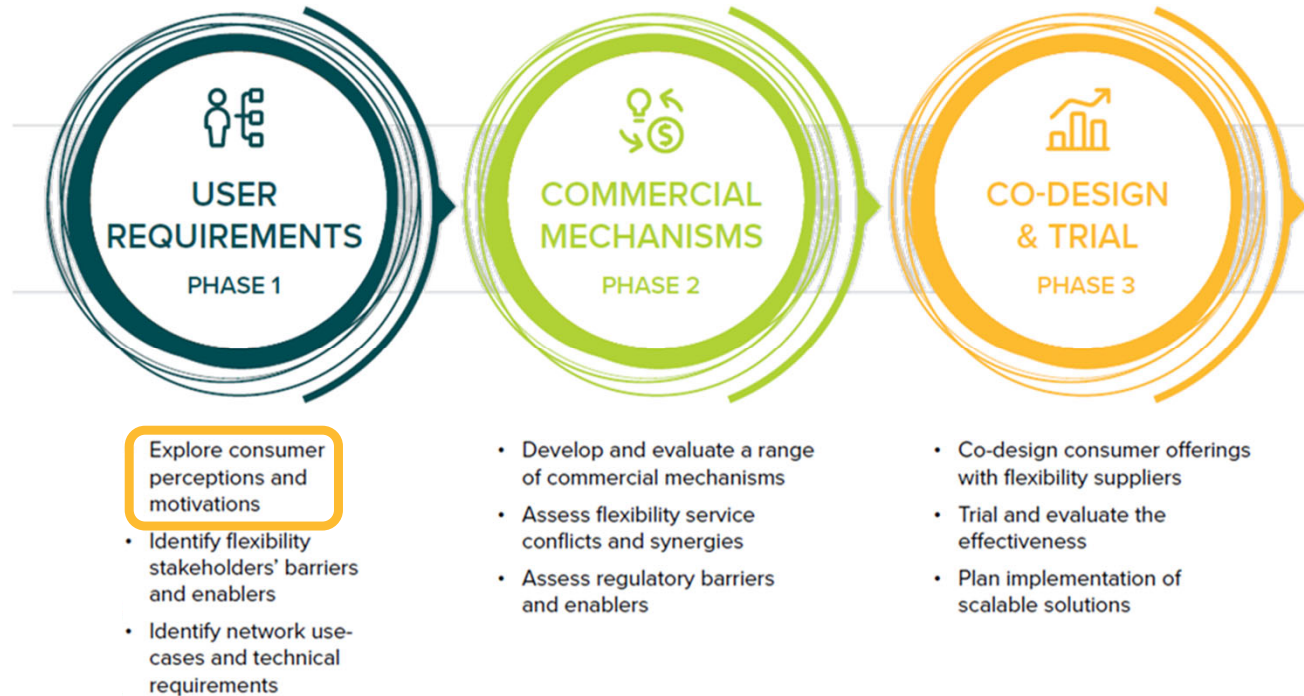
To incentivise flexibility from residential consumers by exploring commercial mechanisms in collaboration with flexibility stakeholders.



Project Phases

Resi-Flex takes a learning-by-doing and exploratory approach.

The project is live, so all findings shared are preliminary.



Frameworks Used

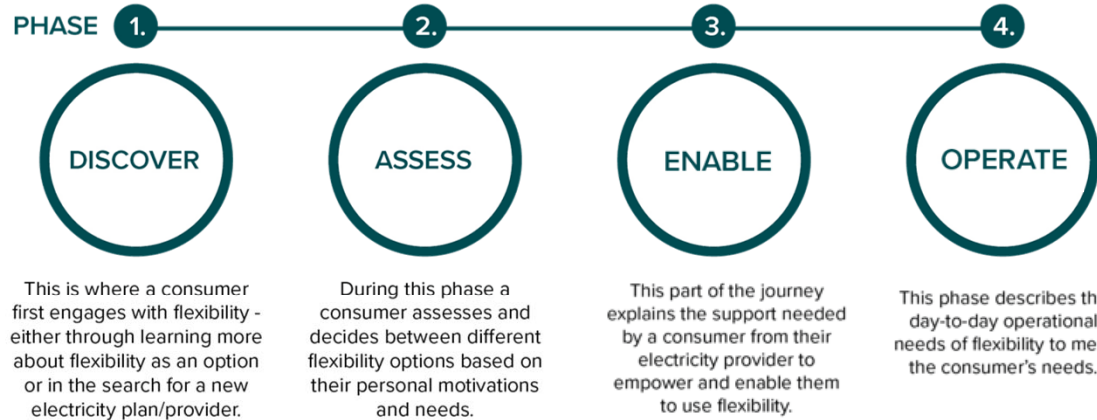
THE COM-B MODEL



FLEXFORUM JOURNEY MODEL

JOURNEY STAGES

To describe each consumer persona's journey to flexibility, we then used the 'Discover, Assess, Operate and Enable' journey developed by Flexforum¹⁵.



Personas

It's most important for me to be able to access electricity when I need it, but if it's easy and I can feel good about myself while saving a bit of money, then I'll do it.



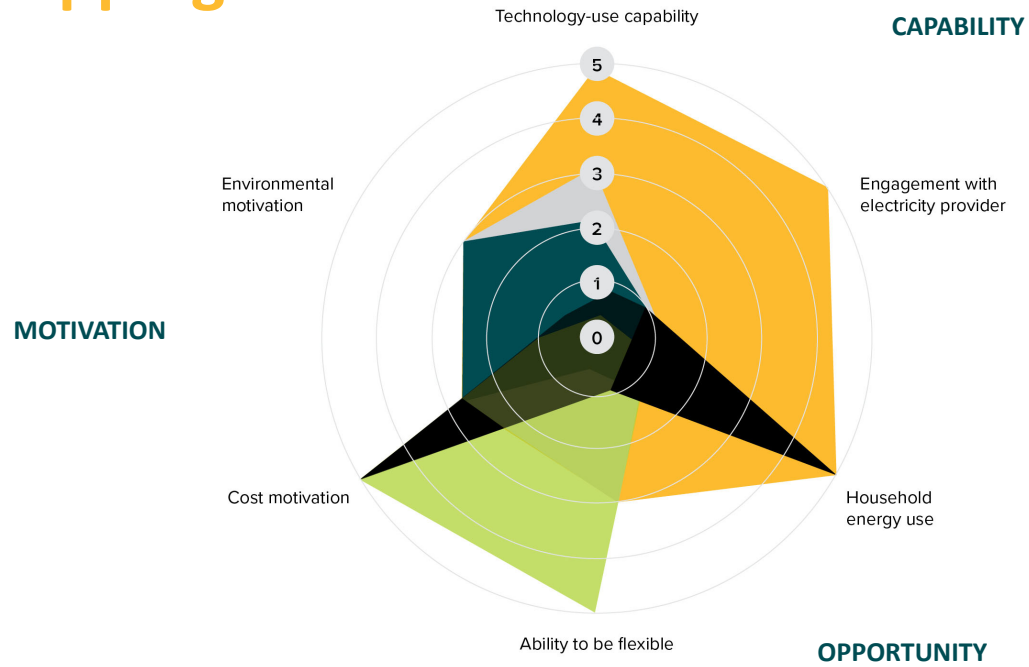
I'm happy to trust the automation to maximise my savings, but I want an interactive, transparent experience so I feel in charge and in control.

I want to save as much as possible, but I need a lot of support to do so.

I want to spend as little time as possible engaging with my electricity plan.

I want to save as much as possible, but I need to have peace of mind that I can still provide for my family.

Personas' mapping



- FUTURE THINKERS
- PLUG IN & SWITCH OFF
- FAMILY VALUE SEEKERS
- BASELINE BUDGETERS
- CONVENIENCE OVER EVERYTHING

Motivations, Barriers and Solutions

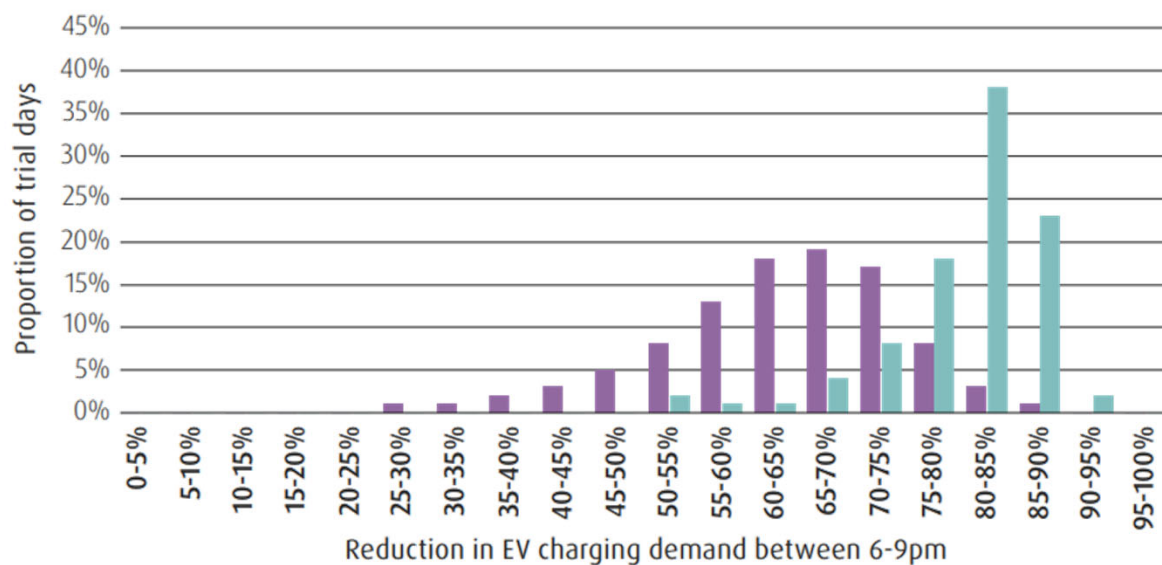
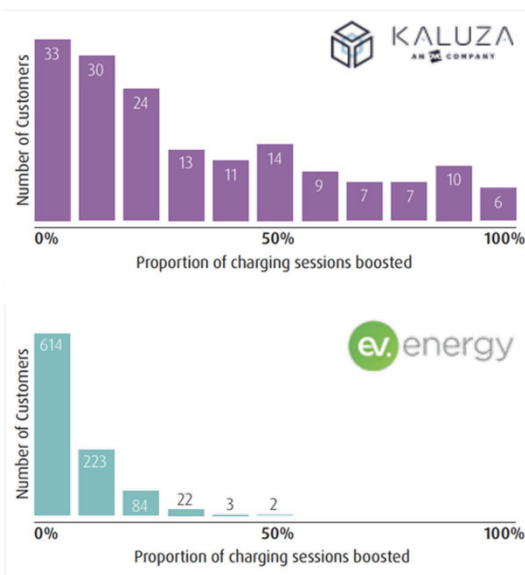
An International view



Consumer offerings impact network load

Electric vehicle drivers with incentives were less likely to override a smart charging session and provided more flexibility

Source: UK Power Networks Shift Project



Summary Journey Experience - The Opportunities



PHASE

1.

2.

3.

4.

DISCOVER

ASSESS

ENABLE

OPERATE

- Build education around flexibility
- Communicate that flexibility can reduce costs
- Use relevant channels and message framing to engage consumers

- Show how flexible customer offerings can help consumers reach their goals
- Make it easy to compare customer offerings

- Provide support with any technology required for flexible customer offerings
- Simplicity and clarity in how flexible customer offerings work
- Work alongside existing habits and routines

- Enable customers the ability to manage their energy usage (e.g. 'set and forget', 'override' options)
- Support in operating any flexible customer offerings
- Ongoing motivation and encouragement to engage

What we learnt

NZ has limited consumer insight on flexibility in the public domain

Consumers engage with many stakeholders along the journey

There are many factors that influence real-world consumer behaviour

What we are doing

Creating a shared resource of household personas and consumer journeys for the sector to build on

Support coordinated action to streamline the consumer journey through groups including the FlexForum and ENA

We are preparing to partner with flexibility stakeholders to co-design consumer offerings and trial these with households

Questions?



THANK YOU.

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