

Powering New Zealand sustainably.



The challenge

Despite New Zealand's electricity generation being highly renewable, Simply Energy would like to reduce the fossil-fuel generation that is needed to meet periods of high demand.

The solution

Our Demand Flexibility technology enables energy customers to automatically reduce power consumption from certain equipment when demand is high. Moana's cold storage facility was a perfect fit for our programme.

The results

The financial and environmental benefits for Moana encouraged their participation, and the flexibility required from their electrical load has no impact on their seafood processing operations.

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New Zealand's electricity grid may have an enviable level of renewable generation, but at times of peak demand there is still a requirement to use fossil-fuel plants.

To counter this, Demand Flexibility provides a more sustainable option than ramping up thermal electricity generation to meet shortfalls in renewable generation. The new technology enables commercial and industrial customers to be more flexible with the electricity they consume. Essentially giving the electricity grid a 'helping hand'.

To put this technology into practice, we looked for clients in the lower North Island that were willing to be flexible with power consumption in order to support the sustainability of New Zealand's electricity grid whilst at the same time be financially rewarded for their involvement.

**“At Moana
New Zealand
our sustainability
journey is
designed to
ensure we go
above and
beyond what is
required of us.”**



Power and pāua.

Moana's pāua refrigeration facility was the perfect partner. We worked alongside their electricians and refrigeration engineers, to scope out which electrical equipment at their Palmerston North site could be flexible in terms of when it operated. Our control hub was installed, load reduction testing was undertaken and then once the Demand Flexibility system was fully commissioned, Moana began supporting the national grid and generating revenue.

As Moana was one of the first clients we approached we needed to prove that our product was reliable. We were also initially concerned that some customers might see reducing carbon from electricity as 'Contact's problem to solve' but we soon realised that customers were keen to support us on our journey.

Moana was outstanding to deal with. They quickly understood the concept and saw it as an effective way for them to support a more sustainable New Zealand, an inherent and deeply embedded value within their iwi shareholders and their communities.

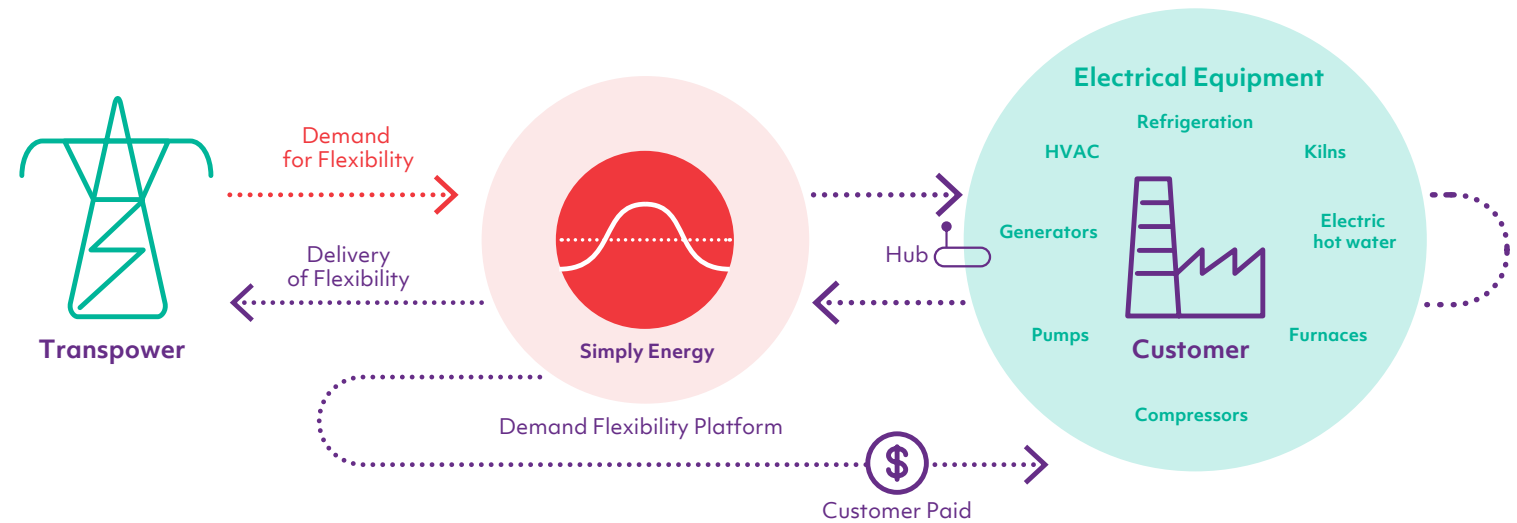
Moana has also asked us for reporting information that shows them how their participation has contributed towards a greener grid and we are currently reviewing how best to provide this to them.

So how exactly does it work?

Transpower is the owner of the national grid in New Zealand and is responsible for ensuring that we have enough power at all times to keep the lights on. They have a 'Reserves Programme' that financially rewards customers for reducing, or switching off, load (for as little as one minute) to manage the stability of the grid and a 'Demand Response Programme' that rewards customers for switching off for longer periods (up to two hours).

After signing a Demand Response agreement with us, we scoped out Moana's site, identified equipment suitable to participate in the programme and installed our Demand Flex hub which automatically turns equipment off and on and tested the system to make sure it was working as it should. We agreed a price, and as we do with all customers, gave them the ability to 'opt-out' of participating in events at any time.

Demand Flexibility.



For Demand Response events, Transpower sends a signal to us, we then signal Moana to let them know that a power off is available at a certain time. Simply Energy remotely monitors both down-time and the reboot period. Customers can also see what's going on by logging in to our handy dashboard. These types of events generally happen around 10-20 times a year.

Everyone wins.

While supporting the decarbonisation of the New Zealand electricity grid, participating in the programme provides Moana with an additional revenue stream.

Even though the revenue some smaller customers earn can be modest, customers are pleased to be able to play their part in having a positive impact on the environment.

We've now got to a point where we can call it a 'virtual power plant' in a national context that we can now call on instead of having to ramp up expensive fossil fuel generation.

And that's a change that matters.

#change matters

If you're ready to start your #changematters journey get in touch with James Carberry, Head of Sustainable Opportunities: james.carberry@contactenergy.co.nz M: +64 27 304 7720