



Home electrification and our network

Northpower



We invest in renewable energy generation to decarbonise Aotearoa's energy system, improve energy security and grow Northland's economy – by Northland, for Northland.

Generating more electricity locally reduces reliance on external energy sources and strengthens our energy security. We build, own, and operate local renewable projects to create long-term opportunities.

Generate your own energy

Alternative energy – also known as distributed generation – refers to a variety of technologies that generate electricity, such as solar, wind, hydro, gas or biomass energy.

Your location or conditions may suit generating your own energy, if your house gets lots of sun or wind, or has a running stream of water.

Staying connected to the grid

Connection to our network lets you use power from your energy retailer, enabled by Northpower, when your alternative energy system isn't operating or producing enough energy for your electricity needs.

You may generate more electricity than you use, which you can store in a battery or sell back to an energy retailer through the grid.

Storing energy in a battery or setting appliance timers helps you use your own power first, reducing reliance on the grid and easing regional network demand.

Before you begin

If you intend to connect to the grid, you need to let us know. We look at new distributed generation connections on a case-by-case basis to make sure there is enough capacity in your area.

Get in touch with us once you have:

- Your design outlining electricity capacity, energy production and electrical system specifications
- Contacted your energy retailer and completed any commercial arrangements they require





Going Solar



Solar panels are becoming a popular option to generate some, or all of your own electricity needs.

Do your research

Before you invest in solar, we recommend you make sure you get the right system for you. You need to consider:

- Your roof type, age, shape, size, and direction, and if there is any shading over it
- How you use electricity and if this could change (i.e., do you mostly use power during the day, or at night)
- The types of panels and smart, grid-compliant inverters that will work best for your home
- How big your system should be to meet your load demand
- Which solar installer to use and if they can provide any follow-up service or warranties



Learn more
northpower.nz/going-solar



EVs

Are you considering purchasing an electric vehicle (EV)? According to New Zealand's Energy Efficiency and Conservation Authority (EECA), driving an electric car produces 80% fewer carbon dioxide emissions than a petrol car, which is great for our environment.

You can fuel up conveniently and cost-effectively at home, and there's a growing number of places to charge around Northland and Aotearoa New Zealand, or plug into any power point.

Charging an EV

There are several types of chargers, charging ports, and charging methods, and EVs come in a variety of charging capacities and battery sizes.





Smart EV charging

By installing a charger that can be programmed or controlled by an app, you can charge your electric vehicle at home smartly.

By charging at off-peak times, you can make better use of off-peak (cheaper) pricing rates from your energy retailer. This also helps ease demand on our network during peak times.

If you have solar panels at home, you can integrate the systems to make the most of the electricity you generate to charge your car for free.

Vehicle-to-Grid Technology

Vehicle-to-Grid (V2G) technology allows electric vehicles not only to charge from the grid, but also to export electricity back into it when needed. This means EVs can help balance local energy demand, support renewable generation, and provide backup power during peak times.



Learn more
northpower.nz/electric-vehicles



Home appliances

You can electrify your home by replacing fossil fuel-burning appliances like water heating, cooking, and space heaters with their more efficient electric equivalents. These changes significantly reduce emissions and are cheaper long term.



Space Heating & Cooling

Space heating and cooling account for around 30% of an average New Zealand home's energy use!

Heat pumps are 3 to 4 times more efficient than gas heaters, and 2 to 3 times more efficient than standard electric resistance heaters, such as oil column heaters, fan heaters and radiant electric heaters.



Cooking

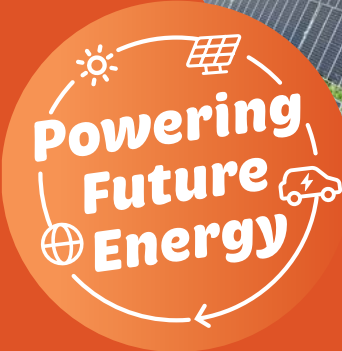
Cooking accounts for a relatively small use of energy in homes (5%), and most cooking is already electric in New Zealand. Electric induction cooktops are more efficient, safer, easier to clean, and faster than cooking with gas or an electric resistance cooktop.

Water heating

Water heating makes up around 30% of an average New Zealand home's energy load, making it one of the key appliances to electrify. Electric hot water heat pumps use a technology that transfers heat from the surrounding air to heat the water, making it incredibly efficient.

Learn more
northpower.nz/home-appliances





Powering Future Energy

Building a cleaner energy future
while delivering safe, reliable
power for homes throughout
Whangārei and Kaipara.



Learn more
northpower.nz/renewable

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