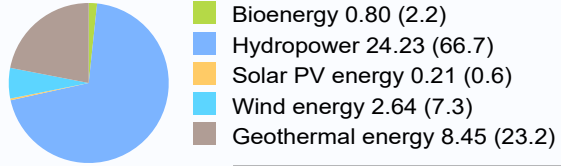


New Zealand • Renewable energy

Gross electricity generation from renewable sources by 2021, TWh (%)



Total: 36.33 (100)

Source: Renewable Energy Statistics 2023 © IRENA

Key landfill gas-to-energy plants:

- 1 Redvale Energy Park
- 2 Hampton Downs
- 3 Greenmount
- 4 Whitford Energy Park
- 5 Kate Valley
- 6 Rosedale
- 7 Silverstream
- 8 Awapuni, Palmerston North
- 9 Southern (Wellington)
- 10 Oamaru

Binary type geothermal power plants over 1.0 MWe, MWe:

- 1 Ngatamariki, 82.0
- 2 Ngawha, 25.0
- 3 Te Huka (Tauhara One), 23.0

Fast pyrolysis plants:

- 1 Pukekohe, AES Demo
- 2 Rotorua, Scion Pilot

Double and three flash type geothermal power plants over 1.0 MWe, MWe:

- 1 Te Mihi, 166.0
- 2 Nga Awa Purua, 140.0
- 3 Ohaaki, 65.0

Key biomass power plants over 1.0 MWe, MWe:

- 1 Kinleith, 40.0
- 2 Tasman, 27.0
- 3 Napier, Pan Pac, 12.8

Combinated type geothermal power plants over 1.0 MWe, MWe:

- 1 Wairakei, 132.0
- 2 Kawerau, 121.0
- 3 Mokai, 111.0
- 4 Rotokawa, 35.0

Key wood pellet plants:

- 1 Taupo, Nature's Flame
- 2 Rolleston, Nature's Flame
- 3 Rotorua, Nature's Flame
- 4 Nelson, Azwood Energy

Dry steam type geothermal power plants over 1.0 MWe, MWe:

- 1 Poihipi Road, 50.0

Bioethanol plants:

- 1 Edgecumbe, Fonterra
- 2 Reporoa, Fonterra
- 3 Tirau, Fonterra

Key biogas plants:

- 1 Finegand, Silver Fern Farms
- 2 Bromley WWTP
- 3 Lepperton, Lepper Trust Piggery
- 4 Palmerston North WWTP
- 5 Tirau, Fonterra

Key wind farms over 10.0 MW, MW:

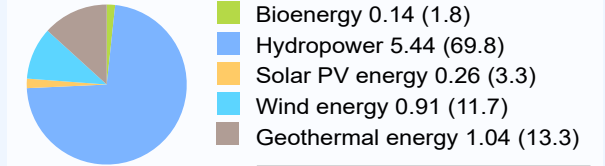
- 1 Turitea, 222.0*
- 2 Tararua, 161.0
- 3 West Wind, 142.6
- 4 Waipipi (Waverley), 133.0*
- 5 Te Apiti, 90.8
- 6 Te Uku, 64.4
- 7 Mill Creek, 59.8
- 8 White Hill, 58.0
- 9 Te Rere Hau, 48.5
- 10 Mahinerangi, 36.0

* under construction

Key biodiesel plants:

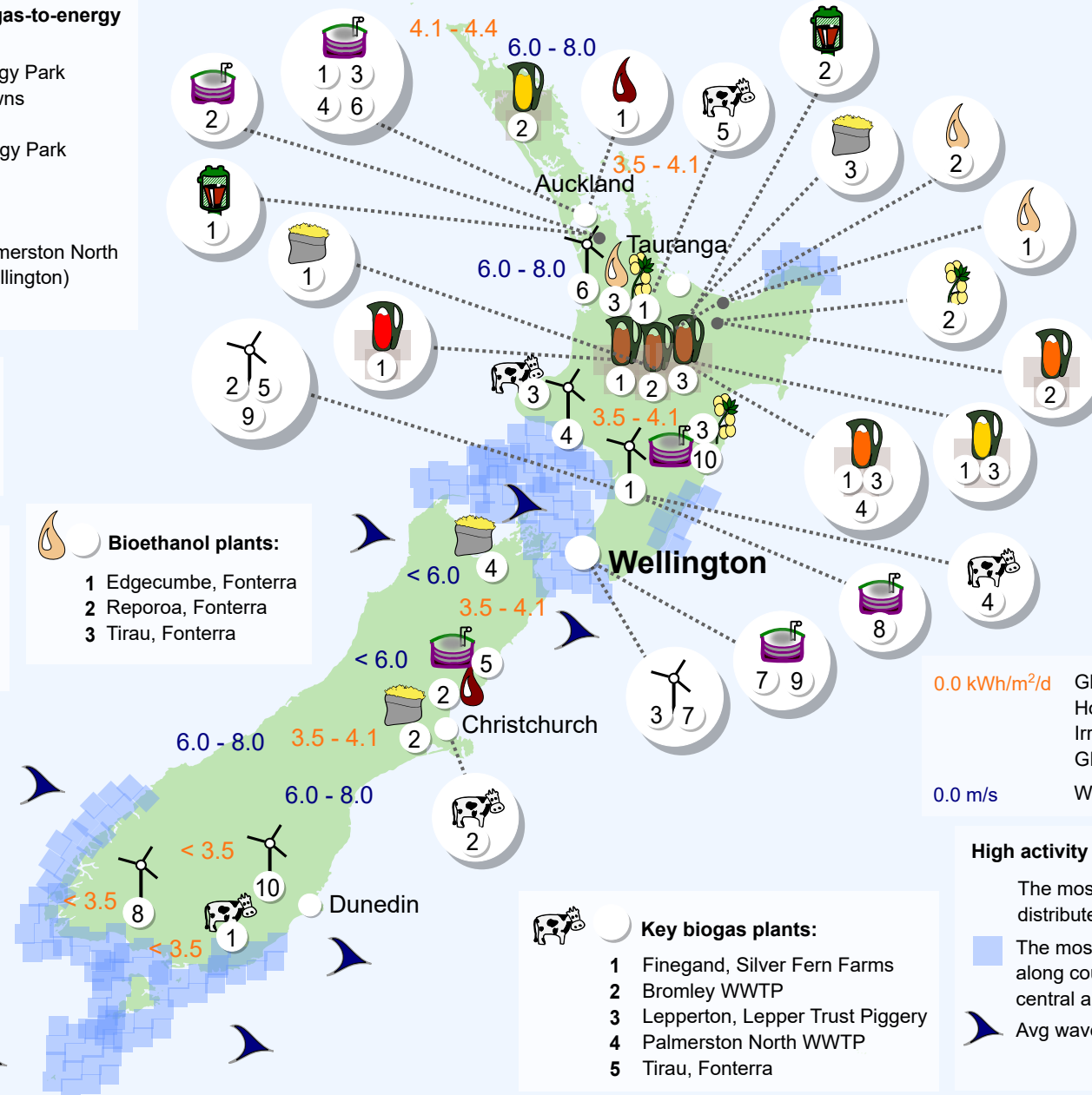
- 1 Te Kora Hou (Manukau City), Z Bio D
- 2 Christchurch, Green Fuels

Total installed renewable energy power capacity by 2022, GW (%)



Total: 7.80 (100)

Source: Renewable Energy Statistics 2023 © IRENA



0.0 kWh/m²/d Global Horizontal Irradiation GHI)
0.0 m/s Wind speed

High activity areas:

- The most common solar GHI intensity is 4.1 - 4.4 kWh/m² per day, distributed in the northern part of country, in Northland region.
- The most common wind speed is over 8.0 m/s at 50 m are distributed along country coastline with the South Pacific Ocean in south, central and east.
- Avg wave power potential is over 60 kW/m per year.

Sources: Energydata.info; Wikipedia.