

# Microsoft datacenters in New Zealand

As more people and businesses rely upon technology to stay connected, informed, and productive, digital needs in New Zealand and around the globe are growing. And that means the need for hyperscale datacenters is growing too.

*Hyperscale brings hyper efficiency.* Microsoft cloud services offer customers an energy efficient and carbon neutral alternative to running their own private datacenters. [Research](#) shows that Microsoft cloud services are up to 93 percent more energy efficient than traditional enterprise datacenters.

Microsoft strives to empower the communities where our employees live, work, and operate our datacenters. With that, it's important we share information to ensure you understand why datacenters are needed, Microsoft's approach for responsible operations, and the benefits of hosting a datacenter in your community.

[Why datacenters >](#)

[Microsoft commitments >](#)

[Community benefits >](#)

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## The cloud powers our digital world

Cloud computing is the delivery of computing services over the internet. Common daily activities are made possible through cloud computing, such as:



Email



Online banking



File storage



Streaming videos



Collaboration



Online shopping



Mobile apps

Cloud computing can provide consumers and businesses with the benefits of enhanced security, privacy, compliance protection, lower costs, easier access, higher reliability, and a lower carbon footprint.

## The Microsoft Cloud is for everyone

The Microsoft Cloud serves over 1 billion customers and 20 million companies worldwide.

Organizations in New Zealand relying on the Microsoft Cloud are made up of a variety of sectors, such as large enterprises, startups, governments, hospitals, banks, schools, or other organizations that contribute to a modern society.



**Te Tari Taiwhenua**  
Internal Affairs



# When Microsoft joins a community, we bring our commitments for a better world

Support inclusive economic opportunity

Commit to a sustainable future

Earn trust



## Microsoft datacenters are key to our sustainability goals

### Carbon negative by 2030

For our datacenters in this Australia/New Zealand region, Microsoft is procuring 34 percent renewable energy from wind, solar, and hydro resources. And locally in New Zealand, Microsoft has signed an agreement with Ecotricity to ensure the New Zealand datacenter region is powered by 100 percent carbon free energy from its opening.

[Power usage effectiveness \(PUE\)](#) measures cloud energy efficiency. The calculation is total power consumption divided by IT power consumption. A lower PUE score indicates more energy-efficient datacenters, with a PUE of 1.0 being the best score. Our New Zealand datacenters are under construction and not in operation. They will have a **design average PUE of 1.12**.

Globally, Microsoft datacenters use fossil fuel generators for backup power and account for **less than 1 percent of our overall emissions**. In specific regions, Microsoft is **piloting running backup generators with renewable blend, cleaner-burning fuels**, and is also **piloting the replacement of datacenter generators with long-duration batteries**.

[Leadership in Energy and Environmental Design \(LEED\)](#) is the world's largest green building certification program. LEED provides the framework for healthy, highly efficient, and cost-saving green buildings with lower carbon emissions. LEED

certification is a globally recognized symbol of sustainability achievement and leadership. **New Microsoft datacenters being built are designed to earn LEED Gold certification.**

Microsoft operations in New Zealand **comply with applicable air quality requirements.**

### Water positive by 2030

[Water usage effectiveness \(WUE\)](#) is another key metric relating to the efficient and sustainable operations of our datacenters and is a crucial aspect as we work towards our commitment to be water positive by 2030. WUE is calculated by dividing the number of liters of water used for humidification and cooling by the total annual amount of power (measured in kWh) needed to operate our datacenter IT equipment.

The New Zealand datacenters will be cooled using outside air only, requiring zero water for cooling and zero water for humidification.

The new datacenter facilities will have a **WUE of 0.00 L/kWh.**

### Zero waste by 2030

Microsoft has a goal to achieve 90 percent diversion of datacenter operational waste by 2030. To reach this goal, we're working closely with our waste haulers to optimize waste

diversion programs across our global datacenter portfolio. We have achieved Zero Waste certifications for our San Antonio, Texas; Quincy, Washington; Boydton, Virginia; and Dublin, Ireland datacenter locations.

In 2020, we opened our **first Microsoft Circular Center in our North Holland datacenters**, which is designed to extend the life cycle of servers through reuse and to support a circular economy for the Microsoft Cloud. Because it takes five to six years from when a datacenter is operational to generate reusable assets, we are planning to use the closest available Circular Center once the new datacenters are in use and servers are ready to be decommissioned. Microsoft Circular Centers are able to process 3,000 servers per month for reuse.

Globally, Microsoft datacenters reuse **78 percent of our end-of-life assets and components; the remaining 22 percent of materials are recycled.** Additionally, Microsoft is conducting research and development to improve waste diversion by determining new recycling solutions for used air filters and fiber optic cables.

## Microsoft is building digital skills and connections in New Zealand



**The digital spark lighting the way to new opportunities for Māori and Pacific peoples:** To address the lack of diversity in the IT workforce in New Zealand, specifically for the Māori People, Microsoft is [partnering with TupuToa](#) to equip Māori and Pacific peoples with confidence and digital skills in a post-COVID world. The initiative, HikoHiko Te Uira, provides digital training in cloud computing, data analytics, and Microsoft programs such as the Microsoft 365 suite.



**Care in the computer: the evolution of Platforms for Good:** Using the power of the Microsoft Cloud, innovative app developer Platforms for Good [created a range of platforms](#) that are helping thousands of New Zealanders find just the help they want, when, where, and how they want it, connecting caregivers and Kiwis in a nationwide digital community. And global expansion is already underway. In just six years, more than 14,000 workers have signed up on the platform, bringing a huge network of caregivers to the people of New Zealand.

## Microsoft datacenters create operations and construction jobs as well as positive impacts to the local economy

Microsoft datacenters represent a capital-intensive investment and long-term commitment to the community.

When construction begins for the new facilities, we estimate it will require 196 construction roles and approximately **800,000 work hours** to complete construction of the new datacenters. We intend to fill **25 to 30 percent of positions with local contractors**. Once the new datacenters are fully operational, we anticipate **40** full-time employees will work at those facilities.



### Construction jobs

- Electricians
- Plumbers and pipefitters
- Carpenters
- Structural iron and steel workers
- Concrete workers
- Earth movers



### Datacenter operations

- Campus management
- People management
- Critical environment operations
- Learning and development
- IT operations
- Mechanical engineers
- Electrical engineers
- Security contractors
- Building maintenance