

Microsoft datacenters in Washington state

As more people and businesses rely upon technology to stay connected, informed, and productive, digital needs in the Grant County, Washington region 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.

As part of our commitment to building a sustainable future, 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 commitments to responsible operations, and the benefits of hosting a datacenter in your community.

Cloud computing 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



Collaboration



Online shopping



Mobile apps

Cloud computing can provide consumers and businesses with the benefits of data sovereignty and privacy, lower costs, easier access, higher reliability, and lower carbon footprint.

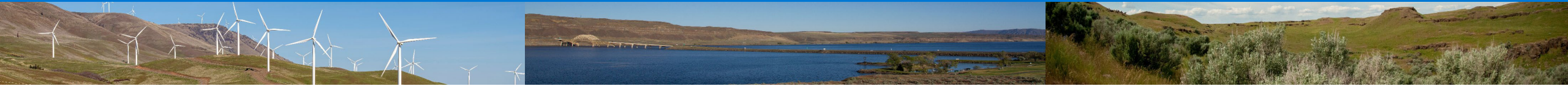
The Microsoft Cloud is for everyone

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

Washington state organizations relying on the Microsoft Cloud include large enterprises, startups, governments, hospitals, banks, schools, and other organizations that contribute to a modern society.



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



Microsoft datacenters are key to our sustainability goals

Carbon negative by 2030

The abundance of carbon-free hydropower in Washington state, delivered by Grant PUD, Microsoft's regional energy partner, helps reduce the carbon footprint of the Central Washington datacenters.

Leadership in Energy and Environmental Design (LEED) is the world's largest green building certification program. LEED provides the framework for healthy, highly efficient, lower carbon emissions and cost-saving green buildings. LEED certification is a globally recognized symbol of sustainability achievement and leadership. **New Microsoft datacenters are designed to be LEED Gold certified.**

Power usage effectiveness (PUE) measures **cloud energy efficiency**. Lower PUE indicates more energy-efficient

datacenters, with a PUE of 1.0 being the best score. The Microsoft Central Washington datacenters had a **12-month average PUE of 1.16 through February 2022.**

Water positive by 2030

Microsoft uses adiabatic cooling at several of our Washington datacenters. This method of cooling **uses outside air instead of water** for cooling when temperatures are below 85 degrees Fahrenheit, reducing water use to less than 5 percent of the year.

In Quincy, we helped the city build a water reuse utility. The facility processes and recycles cooling water for our datacenters, significantly reducing our reliance on the municipal water supply. In 2021, the Quincy datacenters **utilized 268 million gallons of water at an efficiency rate of 0.97 L/kWh.**

Zero waste by 2030

In 2020, we successfully opened our **first Microsoft Circular Center in our North Holland datacenters**, which is designed to extend the life cycle of servers through reuse and support a circular economy for the Microsoft Cloud.

By mid-2023, we will bring **the first Microsoft Circular Center to Washington state**. Microsoft Circular Centers are able to process **12,000 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**. We are continuing to research further methods to reduce waste by determining new recycling solutions for used air filters and fiber-optic cables.

Since 2017, Microsoft has donated more than \$1.45 million to projects supporting community-identified priorities



Working with the Better Block Foundation, Microsoft and the Quincy community created a portable community gathering space, complete with tables, chairs, street games, kiosks, and market booths. The portable space made its debut on B Street as part of a two-day street fair and farmers' market.



Microsoft partnered with the Columbia Basin Foundation on multiple projects, including Growing Quincy to plant trees in new neighborhoods, and creation of the Microsoft Technology Fund to support the digital transformation of area nonprofit organizations.



Microsoft helped Grant PUD design and fabricate a mobile technology van, the Illuminator, to expand broadband and technology awareness among the residents and students of Central Washington.

Microsoft datacenters create family-wage 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. More than 430 full-time employees and contractors work across Microsoft's datacenter campuses in Central Washington. Since 2014, more than 9.1 million hours have been worked on construction projects, with an average of 450 construction jobs per year.



Construction jobs

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



Datacenter operations

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

Microsoft datacenters are best in class in performance, reliability, safety, and sustainability

Globally, our datacenters use fossil fuel generators for backup power during the rare grid emergency, which accounts for **less than 1 percent of our overall emissions**.

In some regions, Microsoft is **piloting running backup generators with a renewable blend of cleaner-burning fuels**, and also piloting the replacement of datacenter generators with long-duration batteries.

Microsoft construction and operations in Washington state comply with applicable air quality requirements to support healthy regional air quality.