Microsoft

Microsoft datacenters in Southern Virginia

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

Microsoft strives to support 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.

Why datacenters> | Microsoft commitments> | Community benefits>

The cloud powers our digital world

Cloud computing is the delivery of computing services over the Internet. Common daily activities are made possible through the cloud:

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

Microsoft's cloud serves over 1 billion customers and 20 million+ companies worldwide

Organizations of all types rely on the Microsoft Cloud including large enterprises, startups, governments, hospitals, banks, non-profits, schools and other critical infrastructure organizations.

RVA 311

Hamilton Beach BRANDS

LIBERTY UNIVERSITY

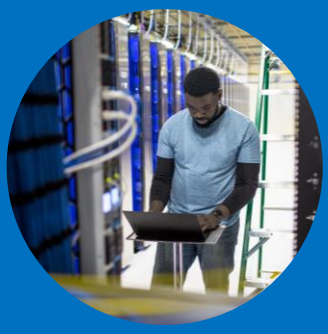
CIVIL AIR PATROL

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

Support inclusive economic opportunity

Protect fundamental rights

Commit to a sustainable future



Earn trust

Microsoft datacenters are key to our sustainability goals

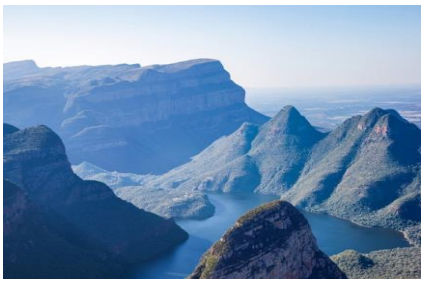
Carbon negative
by 2030

Microsoft signed a renewable energy agreement with AES to source energy from a **portfolio of 576MW of contracted renewable assets,** including wind, solar, and battery energy storage projects in the PJM interconnection.

Additionally, we purchased **315 megawatts** of energy from **Pleinmont I and II**, two solar projects in the Commonwealth of Virginia.

Power usage effectiveness (PUE) measures **cloud energy efficiency**. PUE. Lower PUE indicates more energy efficient datacenters, with PUE of 1.0 being the most efficient. Microsoft's Southern Virginia datacenters had a **12-month weighted average PUE of 1.147** through July 2021.

Water positive
by 2030



Microsoft uses adiabatic cooling at our Southern Virginia datacenters. This method of cooling **uses outside air instead of water** for cooling when temperatures are below 25 degrees
Celsius, reducing water use to less than five percent of the year.

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 lifecycle of servers through reuse and support a circular economy for the Microsoft cloud.

By early 2022, we will bring this innovative approach to waste reduction at our Southern Virginia datacenters.

Since 2017, Microsoft has donated more than $3.4 million across 80+ projects supporting community-identified priorities

Collaborating with Southern Virginia Higher Education Center and Southside Community College, Microsoft is facilitating workforce training to prepare students for careers in IT, including work in datacenters. Servers and other IT equipment were donated to build labs that emulate a working datacenter.

Microsoft and Mid-Atlantic Broadband Communities Corporate partnered to create the **SOVA Innovation Hub** in Southern Virginia. The Hub serves as a centralized location to encourage innovation, spur economic opportunity, and offer digital skills education and workforce training.

Microsoft and ChangeX collaborate to bring grassroots programs designed to mobilize local activities led by local residents and employees. In 2021, ChangeX empowered 111 volunteers to launch 11 grassroots projects in Southern Virginia. Projects can include planting events, food waste reduction, and water cleanup efforts.

Microsoft datacenters create family-wage operations jobs and various types of construction jobs

Microsoft datacenters represent a capital-intensive investment and long-term commitment to the community. More than 505 full-time employees and contractors work across Microsoft's Southern Virginia datacenter campuses. Since 2014, more than 9.6 million hours have been worked on construction projects, with an average of 500 construction jobs per year.

Datacenter construction

- 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

Datacenters use fossil fuel generators for backup power during the rare grid emergency and accounts for **less than 1 percent of our overall emissions.**

Compared to other industrial facilities, **datacenters do not create noise pollution or have a significant impact on traffic flow or congestion.**

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

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