

Microsoft datacenters in Singapore

Datacenters provide the physical infrastructure for the technology we depend on at work and in our personal lives

A datacenter building houses thousands of computer servers and data storage devices connected to the internet



These buildings are similar in size and appearance to a distribution warehouse.



Microsoft aims to build datacenters that are best in class in performance, reliability, safety, aesthetics, and sustainability.



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



Microsoft operates more than 300 datacenters in over 34 countries.

Datacenters are part of everyday life

Whenever you open an app on your phone, join a virtual classroom or meeting, snap and save photos, or play a game with your friends online, you are using a datacenter.



Email



Online shopping



Mobile apps



Online banking



File storage



Streaming videos

[Take a virtual tour of a datacenter](#)



Microsoft datacenters create local operations and construction jobs

Microsoft facilities in Singapore currently employ **108 people**.

Construction began on a second Singapore datacenter location in 2019 and more than **2.8 million hours** have been worked on construction projects, with an average of **725 construction jobs** per year.

Datacenter operations

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

Construction jobs

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

[Find Microsoft jobs in your community](#) >

Taxes from Microsoft datacenter operations represent important revenue for national, regional, and local governments

Microsoft datacenters represent a capital-intensive investment and long-term commitment to the community. This investment grows the commercial property tax base, increasing revenue for municipal services that benefit local citizens.

Examples of country, provincial, and local taxes that support cities, municipal services, schools, and colleges include:



Property taxes

Collected annually once land is purchased.



Indirect taxes

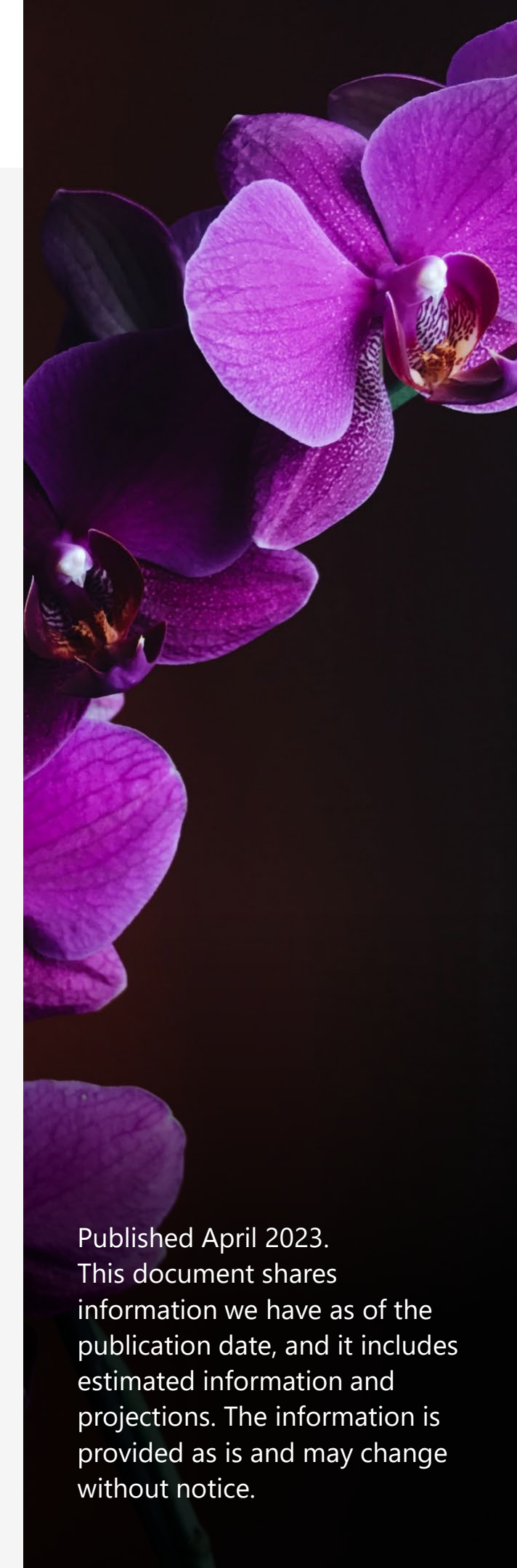
From construction and operation expenses. Examples include VAT, GST, and sales tax.



Income taxes

From construction and operations workers.

Published April 2023. This document shares information we have as of the publication date, and it includes estimated information and projections. The information is provided as is and may change without notice.



Microsoft has invested in local Singapore priorities since 2020

Investing in Singapore through local skill-building programs

Providing pathways for datacenter careers

In partnership with ITE Singapore, Microsoft launched its first Datacenter Academy (DCA) in Asia—the 18th globally—in Singapore. The Singapore DCA provides opportunities for mentorship, scholarships, and work experience in Microsoft Singapore datacenters. It'll also provide a hands-on learning lab with decommissioned equipment from the Singapore Circular Centre.

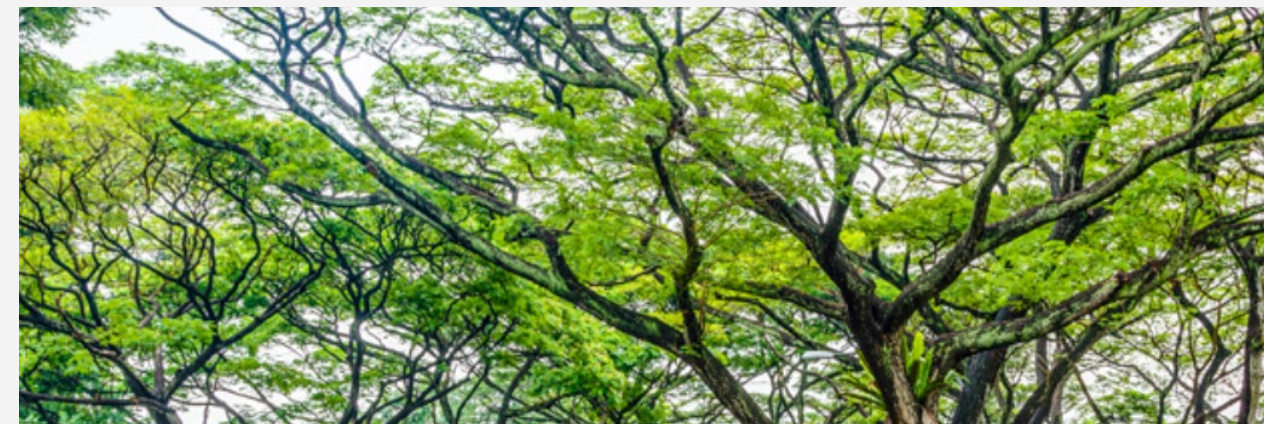
[Learn more about the Datacenter Academy >](#)



Partnering with environmental sustainability programs for local impact

Growing trees for a greener tomorrow

Microsoft will partner with the Singapore National Parks Board through the Garden City Fund on several municipal tree-planting and horticulture initiatives, with the goal of planting 1,700 trees and shrubs together over the next nine months. This project helps meet Singapore's goal of climate change resilience by planting 1 million more trees across Singapore in the coming decade.



[Learn more about restoring Singapore by planting 1 million more trees >](#)

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Microsoft global commitments

CARBON

Microsoft pledged to become carbon negative by 2030 and to remove historical carbon since its 1975 founding by 2050.

Microsoft will reduce Scope 1 and 2 emissions to near zero through energy efficiency work and by reaching **100 percent renewable energy coverage by 2025.**

Microsoft has also committed by 2030 to:

- Be free of diesel.
- Match 100 percent of electricity consumption, 100 percent of the time, with zero-carbon energy purchases.
- Reduce our Scope 3 emissions by more than half.

WATER

In 2020, Microsoft pledged to be water positive for our direct operations by 2030.

Through this commitment, we will replenish the water consumed by datacenter operations in water-stressed regions. We have also committed to **reduce water waste by 95 percent in our datacenter operations by 2024.**

WASTE

In 2020, Microsoft announced enhanced goals for waste reduction, circular supply chains, and zero-waste certification. We are working towards our goal of **90 percent reuse and recycle of servers and components by 2025** through our first-of-a-kind Microsoft Circular Centers.

Microsoft is using **circular economy** principles in our datacenters by implementing reuse and comprehensive recycling programs.

By 2030, Microsoft datacenters will be zero waste



ECOSYSTEMS

Microsoft has committed to **protecting more land than we use for direct operations by 2025.**

Microsoft is committed to community investment, pollution remediation, and fair economic inclusion initiatives, as well as investment in clean energy, broadband access, and water replenishment initiatives.

Singapore

Datacenter operations sustainability investments

We're committed to providing a sustainable Microsoft Cloud, so we wanted to share information about how we take responsibility for our datacenter operations.

For Microsoft datacenters located in Singapore we have included local sustainability investments and datapoints in support of meeting and exceeding our commitments around carbon, water, waste, and ecosystems.

CARBON

1.358

Power usage effectiveness (PUE)

January 2022–December 2022
Design PUE for new datacenters: 1.23

We've committed to have **100% renewable energy coverage globally by 2025**

Microsoft's new datacenter in Singapore is **LEED Gold certified**.

In 2018, Microsoft signed a renewable energy agreement with Sunseap Group marking the **largest-ever solar project in Singapore**.

[Learn about PUE](#) >

WATER

2.06 $\frac{\text{L}}{\text{kWh}}$

Water usage effectiveness (WUE)

January 2022–December 2022

The Microsoft datacenter uses **NEWater and mechanical cooling** to keep servers at the proper temperature for operation. **NEWater is a reclaimed water source produced from further purifying treatment water.**

A second datacenter, which is currently being constructed, will use **indirect evaporative and mechanical cooling**.

[Learn about WUE](#) >

WASTE

In June 2022, we **opened a Circular Center at the Singapore datacenter facilities**.

Microsoft Circular Centers can process up to

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.

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