Microsoft

Building a sustainable campus in Redmond

Microsoft's Redmond campus modernization project is helping to protect local habitats, reduce carbon, and eliminate waste.

Microsoft campuses are living labs that help us build in a way that benefits our community and the environment. Since we announced the Redmond campus modernization project, we have expanded our commitments to leading on sustainability in several ways:

Becoming carbon negative by 2030

Reducing embodied carbon

- Microsoft was the first large corporate user of the Embodied Carbon in Construction Calculator (EC3) tool used to identify lower-carbon building materials.
- We aim to reduce embodied carbon on campus by at least 30 percent using this tool, and large reductions have been found in ceiling tiles, carpet, concrete, and steel.
- The project also tracks energy and fuel for construction to help reduce fossil fuel use.
- Microsoft will remove the carbon dioxide equivalent of building the new campus by purchasing carbon credits.

Using clean power

- We're building an all-electric campus for powering, heating, and even cooking—induction cooktops reduce consumption by more than 500,000 kWh annually in serving more than 10,000 meals per day.
- We're powering our campus with only 100% carbon-free clean electricity during daily operations.
- Photovoltaic panels atop our new thermal energy center will generate clean electricity on-site.
- The new campus will pursue Zero Carbon certification through the International Living Future Institute.
- We have also committed to building a new wind or solar project in Washington state.

Tapping into geothermal energy

- Our new Thermal Energy Center will generate heating and cooling for the campus using geowells that access and use the deep earth's constant temperature.
- This is expected to reduce energy consumption by over 50 percent compared with a typical utility plant.
- Centralizing through the Thermal Energy Center rather than spreading energy production across multiple buildings reduces energy usage by 30 percent.
- We continue to expand our smart building work, which has already contributed to 20 percent less energy usage.

Encouraging clean transportation

- All Microsoft fleet vehicles and shuttles globally will be electric by 2030.
- The new East Campus includes 700 long-term bike parking spaces and 100 on-site showers for commuters.

Protecting Local Habitats

Preserving, reusing, and replanting trees

- Buildings on the new campus are positioned and designed to maximize tree preservation.
- For each tree removed, we will plant a new one. For any landmark trees removed, we will plant three.
- Removed trees are salvaged, dried, and milled for reuse as chairs, tables, and wood paneling.
- All landscaping uses plants that are native or adaptive to the region.

Protecting ecosystems and salmon habitat

- We consult with wildlife management organizations to ensure we respect local ecologies during clearing and construction.
- We've achieved Salmon-Safe certification, verifying that our building design and construction management practices protect water quality and the Puget Sound salmon watershed.
- The new campus includes nearly 68,000 square feet of green roof area.

Eliminating waste

Reducing water usage

- The campus will reduce water consumption by collecting rainwater from roofs and storing it in cisterns totaling over 200,000 gallons.
- In addition to low-flow systems for fresh water, office buildings will reuse harvested rainwater in flush fixtures.
- This is projected to save over 5.8 million gallons annually—enough for nearly nine Olympic-size swimming pools.

Recycling and reusing toward Zero Waste

- We earned our Zero Waste certification in 2016, which requires we divert at least 90 percent of our waste from landfills.
- For the campus modernization project, our goal is to divert 90 percent of waste.
- Materials from decommissioned buildings are reused. PCs and electronics are distributed to other campus buildings or become part of the PC recycling program. Loose assets such as desks, chairs, and whiteboards are donated mostly to local charities and nonprofits.
- We've recycled 289 tons of carpet, 157 tons of ceiling tiles, and 10,400 tons of steel and other metals—nearly the weight of the Space Needle.
- Over 48,000 tons of concrete from the old campus were either reused or sent to local nonprofits for things like community food gardens, retaining walls, and ADA accessible walkways.

Pursuing LEED Platinum certification

- The Campus Modernization is pursuing LEED Platinum v4.0 certification as a signal of Microsoft's commitment to sustainability in the built environment.