

# Leading the way to a carbon-free future

Since the beginning, sustainability has been a core value for Google. At every opportunity, we've taken steps to address climate change. We know that no company, no matter how ambitious, can solve a challenge like climate change alone. That's why we're committed to action far beyond our own operations—and why we share our [methodologies](#), [technologies](#), and [data](#) to help build a carbon-free future for everyone.

- 2030** ● **Google aims to operate on 24/7 carbon-free energy**, meaning Google will source carbon-free energy for every hour of Google's electricity use on every grid where we operate. Rather than offsetting or reducing our emissions, we are working to [completely decarbonize Google's operational electricity use](#).
- 2025** ● **20,000 clean energy jobs will have been supported** by Google's carbon-free energy contracts, clean technology partnerships, and other steps taken to achieve 24/7 carbon-free energy by 2030.
- 2024** ● **The first large-scale [corporate 24/7 deal](#) will enable Google's Virginia data centers** to run on 90% carbon-free energy. With similar carbon-free portfolios in locations around the world, Google is developing innovative ways for companies to buy and sell clean energy.
- 2021** ● **Google signs the world's first corporate agreement for next-generation geothermal energy** with [Fervo Energy](#), setting the stage for an "always-on" carbon-free resource that can help reduce reliance on fossil fuels.  
**Google releases the Google Cloud Region Picker app**, which allows Cloud [customers to choose](#) where they run applications based on Cloud regions' carbon-free energy use, price, and speed.
- 2020** ● **Google announces its target of 24/7 carbon-free energy by 2030**. Google is the first company of its size to aim to [completely decarbonize](#) its operational electricity use.  
**Google eliminates its entire carbon legacy** by purchasing enough high-quality carbon offsets to cover all operational emissions prior to 2007.  
**Google announces its carbon-aware computing platform**, which allows Google data centers to shift flexible compute tasks across both [time](#) and [location](#). This ultimately means we do more computing when and where there's cleaner energy.
- 2018** ● **Google first states its 24/7 Carbon-Free Energy aspiration** and becomes the first company of its size to release hourly carbon-free energy data.
- 2017** ● **Google is the first major corporation to reach a 100% renewable energy target**. We have continued to match our global, annual electricity use with purchases of renewable energy. This approach has added nearly 6 GW of renewable energy capacity to electricity grids around the world.
- 2012** ● **Google sets a target to match 100% of its electricity use with renewable energy**. Setting this target was the first step to truly decarbonizing our operations—and with each step forward, Google has published our processes and data to create a clear roadmap for others to follow. Since we set this target, hundreds of corporations have set similar goals.
- 2011** ● **Google becomes the world's largest annual corporate purchaser of renewable energy**, further increasing availability while driving down the price of renewable energy production. Google remains the world's largest annual corporate purchaser of renewable energy to this day.
- 2010** ● **Google signs its first power purchase agreement to bring 114 MW of wind power online in Iowa**. Google was an early pioneer of corporate [power purchase agreements](#)—contracts to purchase renewable energy at the wholesale level directly from developers on the same grids where we operate our data centers. This approach to renewable energy purchasing has since been adopted by companies around the world.
- 2007** ● **Google is the first company of its size to go carbon neutral** by purchasing high-quality carbon offsets that reduced greenhouse gas emissions that would not be reduced through other incentives. When we committed to carbon neutrality, we envisioned carbon offsets as an interim solution and the first step on the path to full decarbonization. Achieving this goal was an important moment that identified carbon neutrality as the first step for corporations on the path to decarbonization.