Amazon Sustainability

Renewable Energy Methodology

July 2026

amazon

Amazon supports our Climate Pledge commitment to reach net-zero carbon by 2040 through two renewable energy commitments:[1]

- Match 100% of the electricity consumed by our global operations with renewable energy by 2025— five years ahead of our original target of 2030.
- Invest in wind and solar capacity equal to the energy used by all active Echo, Fire TV, and Ring devices worldwide by 2025.

Our approach employs several strategies to meet our renewable energy goals, including the following:

Energy Efficiency: Innovate to continuously improve the energy efficiency of our operations and devices.

Off-Site Renewable Projects: Invest in new, utility-scale renewable energy projects.

On-Site Solar: Deploy rooftop solar systems on buildings we operate.

Site Energy Contracts: Participate in green tariff programs with utilities and pursue new renewable projects through competitive site energy contracts.

Policy Engagement: Support public policy that advances access to and the expansion of clean energy for Amazon and our customers.

Amazon's Renewable Energy Percentage

To calculate the percentage of electricity consumed by Amazon's global operations matched by renewable energy sources, we evaluate the amount of energy generated from renewable energy projects enabled by Amazon plus renewable energy in the grids where Amazon operates, and divide this value by the total energy consumed by Amazon business operations globally during the reporting year.

Amazon retires, or has retired on our behalf, environmental attributes, such as renewable energy certificates (RECs), for each megawatt-hour (MWh) of renewable energy claimed from the renewable projects that Amazon enables. Amazon's renewable energy percentage is calculated on an annual basis, from January 1 through December 31 of each year, and is assured by an independent third-party assurance provider. We publicly disclose the results of the assurance on our sustainability website.[2]

$$\text{Amazon's Renewable Energy \%} = \frac{\text{Amazon Renewable Energy Projects + Renewable Energy in the Grid}}{\text{Amazon Energy Consumption}}$$

Amazon Renewable Energy Projects

To support the development and construction of new renewable energy, Amazon procures renewable energy beyond the existing grid mix. This includes our investments in off-site renewable energy contracts for wind and solar farms, on-site rooftop solar systems, and site energy contracts and green tariffs with local utilities that result in new projects being added to the grid. Explore our full list of projects here.

1. Our definition of renewable energy is aligned with the U.S. Environmental Protection Agency (EPA)'s definition: "Renewable energy includes resources that rely on fuel sources that restore themselves over short periods of time and do not diminish. Such fuel sources include the sun, wind, moving water, organic plant and waste material (eligible biomass), and the earth's heat (geothermal)."
2. Amazon's 2025 Renewable Energy Assurance Statement

New Wind, Solar, and Energy Storage Projects: Amazon works with energy companies around the globe to develop new renewable projects. Amazon also supports development of grid-scale battery energy storage systems to send carbon-free energy to the grid throughout more hours of the day.

On-Site Solar: Amazon installs rooftop or ground-mounted solar photovoltaic (PV) systems and battery storage on some buildings across our operations.

Site Energy Contracts: Amazon may choose to partner with our electricity suppliers to source renewable energy through electricity contracts. These commitments result in adding new renewable energy to the grid, beyond business as usual for the utility or energy supplier.

Environmental Attributes: Amazon uses environmental attributes, such as RECs, to track and record the environmental benefits of our renewable energy projects.[3] Amazon retires, or has retired on our behalf, environmental attributes for Amazon renewable energy projects included in the renewable energy percentage calculation. We may choose to purchase additional environmental attributes to signal our support for renewable energy in the grids where we operate, in line with the expected generation of the projects we have contracted.[4] Amazon aims to procure renewable electricity in the same grids where we consume electricity. In certain cases, we may procure renewable energy in other locations.

Renewable Energy in the Grid

Renewable Energy in the Grid is the amount of renewable energy serving Amazon from the local electricity grid. Our calculations include supplier-provided grid mix data, or grid region-, state-, and country-level factors of reported fuel mix (i.e., percentage of electricity from hydro, gas, coal, wind, etc.) and carbon emissions rates, published by the International Energy Agency (IEA) or a similar government agency.[5]

Amazon Energy Consumption

Amazon Energy Consumption means electricity usage from Amazon's global facilities, consistent with our Scope 2 electricity usage calculation for carbon emissions. Our calculation includes data centers, fulfillment network facilities, retail stores, and corporate offices.

We use actual metered electricity figures and site utility invoices as our primary sources of data. Where this data is not available, we calculate usage based on electricity spend at the facility or estimate usage based on similar facilities in similar geographies, and scale estimated usage based on square footage or business activity.

3. Each attribute represents 1 megawatt-hour (MWh) of renewable energy generation. Environmental attributes have varying names throughout the world, such as Renewable Energy Certificates (RECs) in the U.S. and Guarantees of Origin (GoOs) in the European Union.
4. As of January 2025, Amazon has invested in more than 600 wind and solar projects globally, and once operational, they are expected to generate more than 91,000 gigawatt-hours (GWh) of clean energy each year. These projects have a lead time of 2–3 years from contracting to operating (producing renewable energy).
5. For example, when we do not use supplier-specific grid mix data, we use subnational data representing the grid mix aggregated across a specific region within a country (such as eGRID subregions in the U.S., provinces in Canada, and states in Australia) or national data representing the grid mix aggregated across the entire country.

Devices Renewable Energy Percentage

To calculate the percentage of electricity used by Amazon devices matched with renewable energy sources, we compare renewable energy from our contracted projects to the annual energy consumption of active devices per the equation below:

$$\text{Devices Renewable Energy \%} = \frac{\text{Devices Renewable Energy Projects}}{\text{Devices Energy Consumption}}$$

Devices renewable energy percentage is calculated on an annual basis, from January 1 through December 31 of each year, and assured by an independent third-party assurance provider. We publicly disclose the results of this assurance on our sustainability website.[6]

Devices Renewable Energy Projects

Amazon supports the development and construction of new renewable energy to match the electricity consumption of our customers' devices. This renewable energy comes from investments in off-site renewable energy wind and solar farms. Amazon may choose to purchase additional environmental attributes to signal our support for renewable energy in the grids where we operate in line with the expected generation of the projects we have contracted.

Devices Electricity Consumption

Devices Electricity Consumption includes the total annual customer electricity consumption for devices based on the number of monthly active devices at the end of the calendar year and the estimated average monthly energy consumption for each device.

6. Amazon's 2025 Devices Renewable Energy Assurance Statement