Environmental methodology

At Meta, our sustainability work helps us to operate efficiently and responsibly in our mission to build community and bring the world closer together. As a global company, we recognize the tech industry's environmental impact and role to play in addressing climate change. We embrace the responsibility to understand the full scope of our footprint and be transparent and accountable in our mission to reduce our emissions.

Identifying the source of our emissions on an annual basis enables us to prioritize emissions reduction where we can make the most meaningful progress on our path to net zero emissions across our value chain in 2030. Similarly, minimizing our water use, being transparent with our water data, and restoring water in the same watersheds where our data centers are located are vital to reach our commitment to restore more water than we use by 2030.

Meta's GHG emissions

Meta's GHG footprint includes the emissions associated with running our business and data centers, as well as the indirect emissions upstream and downstream of our operations. These emissions correspond to Scope 1, Scope 2 and Scope 3 emissions as defined by the World Resources Institute (WRI) Greenhouse Gas Protocol↗. Meta uses the operational control approach when calculating our GHG footprint, in which we account for 100% of the GHG emissions over which we have operational control.

OPERATIONAL EMISSIONS

Scope 1 and 2 emissions are considered our operational emissions. Scope 1 emissions come from our direct operations, such as combustion of natural gas to heat our offices and the fuel burned in our employee shuttles. Scope 2 includes indirect emissions from purchased energy, such as the electricity powering our data centers. We consider purchased electricity for construction and overhead electricity within leased data centers outside of our operational control and therefore report these in Scope 3.

SCOPE 1 EMISSIONS Direct emissions from our data centers, offices and transportation fleet	• Stationary combustion (e.g., natural gas consumed at our Menlo Park campus for heating) • Mobile combustion (e.g., diesel emissions from our intercampus shuttles) • Fugitive emissions (e.g., refrigerant losses)
SCOPE 2 EMISSIONS Indirect emissions from purchased energy for our data centers and offices	• Purchased electricity • District heating • Stationary combustion from leased sites

In 2020, Meta reduced our operational emissions by 94% from a 2017 baseline and addressed the residual emissions with high-quality carbon removal projects. As a result, Meta's operations have produced net zero emissions since then.

FULL VALUE CHAIN EMISSIONS

Scope 3 emissions come from sources within our full value chain beyond our operations and comprise the largest component of our footprint. Scope 3 includes:

1. Upstream emissions, such as the emissions from manufacturing our data center servers or emissions from employee commutes; and
2. Downstream emissions, such as the emissions associated with people using our Portal or Quest devices.

Environmental methodology

SCOPE 3 EMISSIONS Our value chain emissions upstream and downstream of our operations	**Upstream:** • Purchased goods and services (e.g., upstream emissions from purchased office supplies) • Capital goods (e.g., server hardware) • Fuel and energy-related activities • Upstream transportation and distribution (e.g., emissions associated with the transportation of AR/VR-related consumer hardware) • Waste generated from our operations • Business travel • Employee commuting (including telecommuting) • Upstream leased assets (Including leased data center overhead electricity use) **Downstream:** • Downstream transportation and distribution • Direct use of our AR/VR-related consumer hardware • End-of-life treatment of our AR/VR-related consumer hardware

How we calculate our GHG emissions

Meta is aligning our emissions reduction targets with the Science Based Targets initiative↗ and takes a scientific, standardized approach to calculating its GHG emissions in accordance with the GHG Protocol↗. Furthermore, Meta's GHG emissions data and methodologies undergo third party verification each year. This is completed annually to ensure that only the most accurate and up-to-date data is publicly reported.

We quantify our GHG emissions via activity data, LCAs and financial data. We prioritize calculating our emissions through activity data that directly measures an activity that results in GHG emissions, such as kilowatt hours (kWh) of electricity. Due to the complex nature of our business and value chain, we use other methods to help calculate our emissions when activity data is not available.

> We measure our emissions by metric tons of carbon dioxide equivalent, or CO_2e, units. CO_2e is used to standardize the emissions from different GHGs based on their global warming potentials.

ACTIVITY DATA

For activity data, we take the quantity of a specific measured activity and multiply it by an associated emissions factor to calculate the total emissions from that activity. For example, the kWh of electricity consumed at a Meta site is multiplied by the appropriate country-specific or regional-specific, publicly available emissions factor to calculate the total emissions from that site's electricity use. We use activity data to calculate:

- Scope 1 and 2 emissions
- Fuel and energy-related activities
- Waste generated in operations
- Upstream transportation and distribution where supplier specific data is available
- Business travel (including radiative forcing)
- Employee commuting
- Direct use of our AR/VR-related consumer hardware

Environmental methodology

Where activity data is incomplete or unavailable for an operation that results in GHG emissions, existing activity data is used as a proxy to estimate these emissions. This ensures we are reporting a complete GHG inventory across all of our operations. For example, the weight of waste at several Meta sites is used as a proxy to estimate waste at other sites in the same region that do not have final waste weight data.

LCAs

To understand cradle-to-gate emissions and/or upstream emissions that are released before certain assets are used (e.g., the emissions released from the production of concrete before it is poured), we conduct third-party LCA studies or utilize LCA tools to measure our impact. This is applicable in our 2022 inventory for the following emissions:

- Upstream emissions associated with the materials used in the construction of our data centers
- Upstream emissions of materials in office renovations and new construction
- Cradle-to-gate emissions of our augmented and virtual reality related consumer hardware, such as Portal and Quest devices
- Cradle-to-gate emissions in key data center hardware components, such as hard drives
- End-of-life treatment of our AR/VR-related consumer hardware

FINANCIAL

Our Environmentally Extended Input Output (EEIO) method utilizes financial spend data and applies industry-specific emission factors (e.g., kg CO_2e per dollar spent on electronic manufacturing) published by the U.S. Environmental Protection Agency (EPA)↗ to calculate "cradle-to-gate" emissions. We apply the EEIO method to the following:

- Purchased goods and services
- Capital goods not related to data center and office construction, AR/VR-related consumer hardware, and key data center hardware components
- Upstream transportation and distribution where supplier specific data is unavailable
- Upstream leased assets

MARKET-BASED INSTRUMENTS

We have publicly committed to supporting its global operations with 100% renewable energy. We procure and retire one Energy Attribute Certificate (EAC) for every MWh of electricity used to power our global operations. Meta also procures and retires one EAC for every MWh of electricity use in select Scope 3 categories.[A] Additionally, Meta procures Sustainable Aviation Fuel (SAF) and applies the associated emissions reductions from SAF allocated in the reporting year as a market-based instrument to Category 6: Business Travel.

A core focus of Meta's renewable energy program is adding new renewable energy projects to the electricity grids that support our data centers to drive the transition to renewable energy in our communities. In alignment with these principles, Meta adheres to the following EAC market boundaries:

1. Owned data centers[B]: EACs from the same grid region[C]
2. Leased data centers[D]: EACs from the same grid region or same geographic region[E]
3. Other Scope 2 loads (offices, points-of-presence): EACs from same grid region or same geographic region
4. Scope 3 loads: EACs from same grid region; once exhausted, EACs from same geographic region

Meta's methodology aligns with the market boundaries set forth by the GHG Protocol for over 95% of our Scope 2 emissions, including for all Scope 2 emissions from our owned data centers. A small portion of our Scope 2 emissions are not covered by EACs within the GHG Protocol's market boundaries set forth, but are instead covered by EACs from within the same geographic region.

A. This includes data center construction in Category 1: Purchased Goods & Services, transmission and distribution loss in Category 3: Fuel & Energy Related Activities, employee work from home in Category 7: Employee Commuting, leased data center overhead electricity use in Category 8: Upstream Leased Assets, and United States-based electricity consumption from our products in Category 11: Use of Sold Products.

B. Owned data centers include all completed data centers owned and operated by Meta. Data center loads while under construction are treated in line with leased data centers.

C. Grid Regions: WECC, ERCOT, MISO/SPP, PJM/NC, SERC, Nordpool (Europe), Singapore/Southeast Asia

D. For reporting year 2022, all leased data center load was in the United States and covered by EACs generated in-country.

E. Geographic Regions: Americas (AMER); Europe, Middle East, and Africa (EMEA); Asia Pacific (APAC)

Environmental methodology

Improving our GHG methodology

As Meta decarbonizes our value chain over the next decade, the data and methodology that drives our climate work will evolve and improve each year. We have disclosed our Scope 1 and 2 emissions for the last decade. We began reporting on some Scope 3 categories in 2015 and have reported on every relevant category defined by the GHG Protocol since 2019. As techniques to calculate our emissions improve, we will apply those methods to previous years to refine our GHG footprint. For example, in 2020 we used the EPA's updated EEIO emission factors for our Scope 3 calculations and updated our 2019 data accordingly.

Going forward, we will focus on increasing accuracy and granularity of our data. For example, we re-baselined our 2020 data based on updated LCA data for key data center hardware and our AR/VR-related consumer hardware. We will use activity data for more emissions categories as methods to do so become available. We will continue reporting and updating our emissions boundaries as our business grows on our path to net zero emissions.

PUE/WUE

Each year, we calculate the Power Usage Effectiveness (PUE) and Water Usage Effectiveness (WUE) of our data centers. PUE measures how efficiently our data centers consume the energy to operate our servers and network infrastructure. It is calculated by dividing the energy consumed at the data center by IT electricity load. The closer our annual PUE is to "1" indicates how efficient our data centers are designed to consume electricity.

Annual WUE is calculated by dividing our water withdrawal, in liters, by IT electricity load, in kWh. The closer WUE is to "0", the more efficient consumption of water to cool our IT-related infrastructure.

These metrics are calculated based on best available data, including internal meters, design estimates, and utility bills where applicable.

Meta's water withdrawal

The water that we use in our offices and at our data centers are withdrawn from our local water utilities or local aquifers. We report our water withdrawals based on data from our local water utilities or meter data, where available. We also report our water withdrawal during construction, based on reported data from our construction partners. Not included in Meta's 2022 operational water withdrawal numbers are an additional 1,780,000 cubic meters of water withdrawn for the construction of Meta data centers.

Meta's water consumption

For our data centers, we determine our water consumption via two methods:

1. Calculating the difference between water withdrawal and wastewater discharge
2. Calculating consumption based on cycles of concentration from our cooling systems

For our offices, we estimate our water consumption based on industry averages. All of our wastewater is discharged to local wastewater facilities.

Water risk

We use water stress metrics in the WRI's Aqueduct tool↗ to conduct initial assessments of our water risks. When appropriate, we increase the level of water risk based on additional local knowledge.