FACEBOOK
Sustainability

2020 GHG Accounting Methodology

Facebook's Greenhouse Gas Accounting Methodology

At Facebook, 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.

Facebook's Greenhouse Gas Emissions

Facebook's Greenhouse Gas (GHG) footprint includes the emissions associated with running our business and data centers, as well as the indirect emissions created upstream from our operations and downstream in our products. These emissions correspond to Scope 1, Scope 2, and Scope 3 emissions as defined by the Greenhouse Gas Protocol.

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.

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., refrigerants)
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, Facebook reduced our operational emissions by 94% from a 2017 baseline and addressed the residual emissions with high-quality carbon removal projects. As a result, Facebook's operations produce net zero emissions.

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 Oculus devices.

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 of purchased and sold products
- Waste generated from our operations
- Business travel
- Employee commuting (including telecommuting)
- Upstream leased assets

Downstream:

- Downstream transportation and distribution of sold products
- Direct use of our sold products
- End-of-life treatment of sold products

How We Calculate Our GHG Emissions

Facebook is committed to the Science Based Targets initiative and takes a scientific, standardized approach to calculating its GHG emissions in accordance with the GHG Protocol. Furthermore, Facebook's GHG data undergoes a third party review each year to verify our emissions and methodology. 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, life cycle assessments (LCAs), and financial data. We prioritize calculating our emissions through activity data which 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 carbon dioxide equivalent, or CO_2e, units. CO_2e is used to standardize the emissions from different greenhouse gases based on their global warming potential.

Activity Data

For activity data, we take the quantity of a specific measured activity and multiply it by an associated emission or life cycle factor to calculate the total emissions from that activity. For example, if we take the kWh of electricity consumed at a Facebook site and apply the appropriate International Energy Agency's country-specific emission factors, we could calculate the total emissions from that site's electricity use. We use activity data to calculate for:

- Scope 1 and Scope 2
- Fuel and energy-related activities
- Waste generated in operations
- Business travel (including radiative forcing)
- Employee commuting (including electricity and natural gas from telecommuting employees)
- Downstream transportation and distribution of sold products
- Direct use of sold products
- End-of-life treatment of sold products

Life Cycle Assessment (LCAs)

To understand cradle-to-gate emissions and/or upfront 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 2020 inventory for the following emissions:

- Upfront emissions associated with the materials used in construction of our data centers
- Upfront emissions of materials in office renovations and new construction
- Cradle-to-gate emissions from the packaging found in sold products, such as Portal and Oculus devices

Financial

Our Environmentally Extended Input Output (EEIO) method utilizes financial spend data and applies it to 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 get "cradle-to-gate" emissions. We apply the EEIO method to the following:

- Purchased goods and services
- Capital goods not related to construction
- Upstream transportation and distribution
- Upstream leased assets

Improving Our Methodology

As Facebook 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 10 years. 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 get a better sense of our 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. 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.

Thank you

We look forward to sharing more of our sustainability progress with you through future reports.

For more information, please visit:

sustainability.fb.com