July 2023

Our Path to Net Zero

Meta

How we will achieve net zero

Climate change impacts each of us. At Meta, our mission is to help people build community and bring the world closer together. The communities we are part of can only thrive in a safe and healthy world. Operating sustainably and addressing climate change through bold, meaningful action are paramount to our mission and essential to help the world avoid the worst effects of climate change.

In 2020, we achieved net zero emissions in our global operations. To get there, we reduced our emissions by 94% from a 2017 baseline, primarily by supporting our data centers and offices with 100% renewable energy. Our renewable energy commitments have reduced our greenhouse gas (GHG) emissions by more than 12.3 million metric tons of carbon dioxide equivalent (CO_2e) since 2018.

But reaching net zero emissions in our operations is not enough. Meta's responsibility to decarbonize our footprint must extend beyond our data centers and offices, including emissions from the server components our suppliers manufacture to our employees' commutes. To align with the Paris Agreement, we have set a goal to reach net zero emissions across our value chain in 2030.

Our challenge today is to transform our ambition into rapid decarbonization. We are setting a science-aligned emissions reduction target and outlined our strategy to decarbonize all aspects of our business.

We know that achieving net zero value chain emissions in 2030 is going to be difficult, and this challenge entails material shifts in how we build infrastructure and operate our business. Our approach to reach our goal will evolve over time as we transform our business and explore climate solutions that will scale with varying degrees of success. Early in this decade, we do not expect decarbonization and business growth to be in harmony. In fact, our emissions increased 46% in 2022 due to Meta employees returning to offices and because our business growth accelerated at a faster pace than we can scale decarbonization. This reality underscores the need for us to drive innovative solutions across our business and with our suppliers today, so that growth can happen sustainably.

OUR NET ZERO PROGRAM FOCUSES ON THREE PILLARS.

UNDERSTANDING OUR EMISSIONS

Data and tooling provide the fundamental building blocks that allow us to focus our sustainability program where we can have the most impact. Improving the granularity, accuracy and near real-time measurement of our GHG data goes beyond carbon accounting; the right data will help us apply actionable metrics to advance decarbonization across our business operations and with our suppliers.

REDUCING OUR EMISSIONS

Reducing our value chain emissions is our top priority to reach our science-aligned climate target. Our goal is to reduce our Scope 1 and 2 emissions by 42% in 2031 from a 2021 baseline and to not exceed our 2021 Scope 3 emissions by the end of 2031. We will achieve this by prioritizing efficiency and circularity in our business decisions and embracing low-carbon technology to operate with a lower emissions footprint. Through our supplier engagement program, we will work to decarbonize our supply chain and enable at least two-thirds of our suppliers set science-aligned reduction targets by 2026.

REMOVING REMAINING EMISSIONS

Some emissions from hard-to-abate sectors will remain difficult to reduce by the end of this decade. We will remove an equivalent amount of these emissions through carbon removal projects, including nature-based solutions that can be deployed now as well as emerging technologies that need our support to scale. We select projects with the highest standards and work to develop the voluntary carbon market to encourage projects that result in benefits for local communities and other conservation goals.

Understanding our emissions

Identifying the sources of our emissions enables us to prioritize reductions where we can make the most meaningful progress on our path to net zero. As Meta decarbonizes our value chain over the next decade, the data and methodology that drive our climate work will continue to evolve and improve. Since 2011, we have reported our Scope 1 and 2 GHG emissions. In 2017, we began reporting select Scope 3 emissions categories, and since 2019, we have reported on all relevant emissions defined by the GHG Protocol↗.

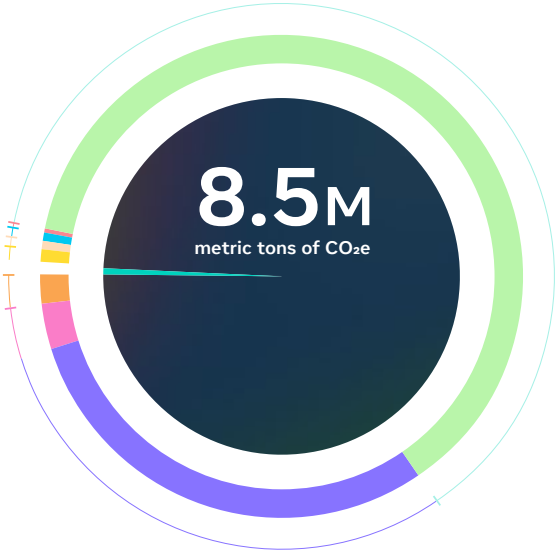
Each year, we assess the need to update our GHG inventory boundary. We embrace the responsibility to understand the full scope of our footprint and be transparent and accountable in our mission to reduce our emissions. As techniques to calculate emissions improve, we will apply those methods to previous years. For example, in 2020 we used updated Environmental Protection Agency emissions factors for our Scope 3 calculations and updated our 2019 data accordingly.

Going forward, we will continue to focus on increasing accuracy and granularity of our data. Last year, we re-baselined our 2020 data based on updated life cycle assessment data for key data center hardware and our augmented reality (AR) and virtual reality (VR) consumer hardware. We will continue to report our emissions and update our inventory boundary as our business grows.

In 2022, Meta's total emissions equaled 8.5 million metric tons of CO_2e, 1% of which were residual Scope 1 and 2 emissions — our operational emissions — offset through nature-based carbon removal projects. Scope 1 emissions come from our direct operations and include emissions such as natural gas from cooking in our cafés, refrigerant emissions, and fuels in our office shuttles and backup generators. Scope 2 emissions include purchased energy such as electricity and district heating.

OUR SCOPE 3 EMISSIONS COMPRISE OUR FULL VALUE CHAIN EMISSIONS, MOST OF WHICH COME FROM:

- Production of capital goods, such as server hardware and fiber optic infrastructure.
- Embodied carbon in concrete and other construction materials.
- Production, distribution and customer use of our consumer hardware, such as Quest 2.
- Purchased goods and services, including the emissions from consultants and business partners as well as food and office supplies.
- Meta employee business travel.



Meta's 2022 carbon footprint

		mt CO_2e
1%	Scope 1	66,934
<1%	Scope 2	273
99%	Scope 3	8,466,264
30%	Purchased Goods & Services	2,545,466
63%	Capital Goods	5,346,583
<1%	Fuel & Energy-Related Activities	12,658
2%	Upstream Transportation and Distribution	176,636
<1%	Waste Generated in Operations	18,519
3%	Business Travel	251,807
<1%	Employee Commuting	45,054
<1%	Upstream Leased Assets	3,444
<1%	Downstream Transportation and Distribution	16
<1%	Use of Sold Products	62,306
<1%	End-of-Life Treatment of Sold Products	3,775

We removed 80,000 tons of CO_2 through carbon removal projects to cover our Scope 1 and 2 emissions.

More information about our GHG reporting can be found in our Environmental Metrics Methodology↗ document. Annual environmental data is verified by a third party↗ and reported in our Sustainability Report↗ as well as disclosed through CDP↗.

Reducing our emissions

Reducing GHG emissions across our global operations and value chain is our top priority and the most effective strategy to reach net zero. Failure to reduce emissions today will lock in high-carbon intensity business tomorrow. Rapid decarbonization is our best chance to limit the worst impacts of climate change, which is critical to sustain healthy and equitable communities.

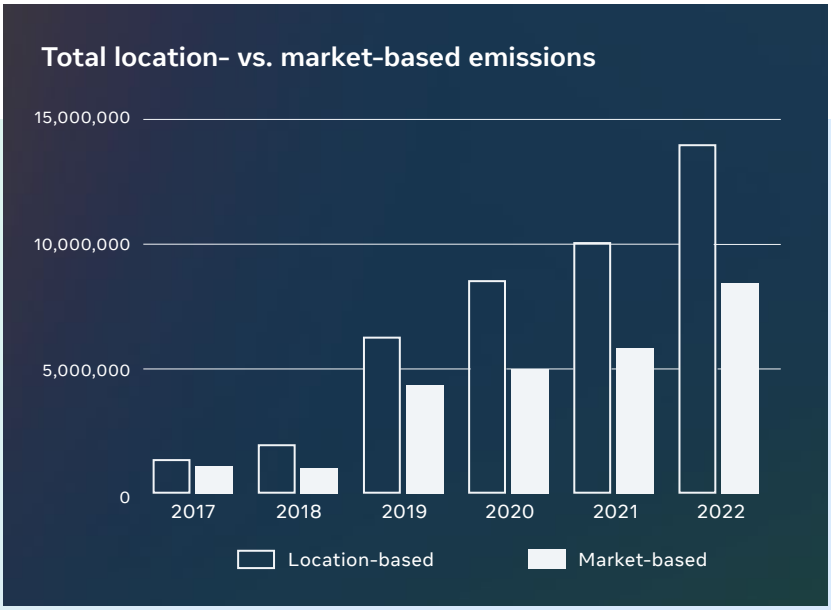
We are setting a science-aligned emissions reduction target in line with what is necessary to transition to a zero-carbon future, and we have roadmapped our strategy to systematically transform the way we do business.

We commit to:

- Reducing our Scope 1 and 2 emissions by 42% in 2031 from a 2021 baseline.
- Enabling at least two-thirds of our suppliers to set science-aligned GHG reduction targets by 2026.
- Not exceeding our 2021 baseline Scope 3 emissions by the end of 2031.

Our emissions reduction strategy entails three main approaches:

- Prioritizing decarbonization in our business decisions.
- Engaging with our suppliers to reduce their emissions.
- Investing in value chain emissions reduction projects.



Our 2022 market-based emissions were 39% less than our location-based emissions (14 M tons CO_2e). Our market-based emissions reflect emissions reductions from purchasing decisions we have made. This includes our contracting of over 10,000 megawatts (MW) of renewable energy and purchase of over 1 million gallons of sustainable aviation fuel for business travel, which has an up to 80% lower carbon footprint than traditional jet fuel.

PRIORITIZING DECARBONIZATION IN OUR BUSINESS DECISIONS

The core principles guiding our approach to emissions reduction include:

- **Designing with less** and reducing the volume of materials in construction and hardware, extending the life of hardware components and reducing waste.
- **Choosing better** and incorporating principles of circularity into our supply chain, construction and purchases.
- **Embracing low-carbon technology** and finding alternatives such as low-carbon fuels and innovative new materials.

Since 2011, Meta has focused on reducing its operational emissions through purchasing renewable energy. Starting in 2020, we have supported our global operations with 100% renewable energy. Our portfolio of more than 10,000 MW of renewable energy makes Meta one of the largest corporate buyers of renewable energy globally.

We have focused on adding renewable energy to the electricity grids where our data centers are located. This has enabled us to multiply the impact of our renewable energy in two major ways. We are partnering with many of the largest utilities in the U.S. to add renewable energy onto their systems in ways that work for both Meta and other similar customers. These partnerships, which enable Meta to achieve 100% renewable energy inside the utility territory where our facilities are located, often allow Meta to deploy renewable energy projects more quickly than other utility and state goals. Over 51% of Meta's renewable energy portfolio is through these utility partnerships that cover data centers in Virginia, Oregon, Utah, New Mexico, Tennessee, Alabama, Georgia and Arizona.

Historically, companies who set renewable energy goals have tried to match the volume of renewable energy purchased from solar and wind projects to the volume of electricity purchased at their facilities. This approach has driven hundreds of new renewable energy projects onto grids around the world. At the same time, we are increasingly focused on working to maximize emissions reductions across the electricity system, which means we need to better understand the emissions impacts of our facilities and the projects we work with.

Today, we are working with partners across the industry to increase the level of detailed data available about the actual emissions coming from electricity consumed at our facilities and the emissions avoided by electricity produced by the renewable energy projects supporting our operations. A key component of this work is partnering with standards-setting bodies to ensure other companies can access the tools needed to support their electricity emissions strategies. Meta has joined Akamai, Amazon, General Motors, Hannon Armstrong, Heineken, Intel, Rivian, Salesforce and Workday on the Emissions First partnership↗, a set of new objectives and principles to update electricity GHG emissions accounting systems and help ensure we have clear ways to measure emissions reductions to unlock decarbonization investments at scale. This strategy will help Meta and others assess the emissions impact of purchased wind and solar electricity and optimize new wind and solar purchases to maximize their emissions-reduction impacts. We are also looking for additional opportunities to drive other emissions-reducing projects and technologies in the energy system. We will refine and expand this approach through time to ensure that we are accelerating the transition to the zero-emissions, reliable grid of the future.

Our remaining operational emissions originate mostly from natural gas and mobile fuel use in our offices, diesel use in on-site emergency backup generators, and refrigerant use in cooling systems in our data centers. To reduce emissions from these sources, we are electrifying our buildings wherever possible. Engineers are streamlining the next-generation data center design to minimize the amount of emergency backup diesel generators and exploring low-carbon fuel alternatives and zero-carbon backup power technologies for future deployment. The vast majority of Meta's operational data centers already relies on direct evaporative cooling in data halls, which do not use refrigerants. For future builds where refrigerants are needed, we are transitioning to low-Global Warming Potential (GWP) options in the near term and pivoting to natural or zero-GWP refrigerants in our cooling systems over time.

Construction

REDUCING EMBODIED CARBON OF BUILDING MATERIALS

We're focused on reducing the embodied carbon — the CO_2e generated by the manufacturing and transporting of building materials and the construction process — of our real estate portfolio. We're targeting a 40% reduction in the embodied carbon of workplace construction in 2030 from a 2019 baseline. To help achieve this, our Healthy and Sustainable Materials Program limits the use of carbon-intensive construction materials, such as concrete, steel, drywall, carpet and furniture.

Similarly, we are designing and constructing new data centers with a goal to drive down our emissions while also allowing us to meet our future capacity needs. We are developing strategies to reduce emissions, ranging from transformational data center redesign (e.g., denser buildings with greater compute capacity) to the use of low-carbon materials and equipment in our buildings. We are also ramping up efforts to reduce material waste in our design via strategies like prefabrication.

To support efforts to scale the use of sustainable construction materials, such as low-carbon concrete, Meta became a sponsoring member of the American Concrete Institute's Center of Excellence for Carbon Neutral Concrete in 2022. This partnership will enable us to vet low-carbon concrete options based on standardized criteria and help us integrate these options into our data center design and construction program.

We have tested various forms of low-carbon concrete in our data centers. In 2021, we partnered with researchers from the University of Illinois at Urbana-Champaign's civil engineering and computer science departments to develop an artificial intelligence (AI) model to generate low-carbon mix designs that use high amounts of byproducts from other industries, like fly ash and slag, as a replacement for cement. This pilot, which was initially implemented at a small scale at our data center in DeKalb, Illinois, demonstrated an average emissions reduction of 40% compared to a regional industry baseline. The results from this pilot were used to further refine and scale up the use of low-carbon concrete in multiple building and site applications at the DeKalb site. We are incorporating lessons learned from the first pilot phase to train the model's AI to identify concrete mixes that optimize for early strength gain while lowering the carbon footprint.

We have also piloted the use of recycled ground glass as a substitute for cement in various small-scale concrete applications in our data center locations in northern Huntsville, Alabama, and Gallatin, Tennessee. These pilots explored the feasibility of substituting up to 20%-30% cement in concrete mixtures with powdered glass from waste products such as bottles or window panes that would otherwise end up in landfills. These have the potential to not only lower the carbon footprint of the concrete we use but also create a market demand for discarded glass products.

REDUCING CONSTRUCTION EMISSIONS THROUGH WASTE MANAGEMENT AND ALTERNATIVE FUELS AND EQUIPMENT

We are working to reduce emissions from on-site construction activities by exploring electrification of construction equipment, increasing electric vehicle charging stations, testing sustainable fuels, and reducing construction waste through increased recycling. In 2022, we recycled 91% of construction waste, saving 157,000 tons of waste from going to landfill or incineration.

In Altoona, Iowa, we are testing low-emission construction equipment, including solar hybrid lighting towers, temporary power generators with battery backup, and electric heaters. We are partnering with general contractors and equipment suppliers to thoroughly evaluate the performance of this equipment using a triple bottom-line approach with a goal to eventually scale the use of this equipment across our construction sites globally if it meets our performance criteria.

Data Center Hardware

REDUCING EMISSIONS THROUGH DESIGN FOR CIRCULARITY

Since our first server designs, Meta has been continuously focused on ensuring hardware is both efficient and easy to repair. We understand that one of our strongest opportunities to decarbonize and enable circularity is during the design stage. By prioritizing Design for Serviceability, technicians can quickly and safely identify and repair issues, extending the lifespan of our hardware. We are continuously building on this design philosophy and have developed an internal Design for Circularity guide for engineers, designers and supply chain teams. This guide integrates the principles of dematerialization, incorporation of circular materials, design for reuse, and design for end-of-life into the product development process.

EXTENDING THE LIFE OF KEY DATA CENTER HARDWARE AND COMPONENTS

Life extension and reuse are core components of our circularity strategy to reduce emissions from hardware. We have extended the life of certain servers and racks within our data centers and are working toward harvesting and redeploying components that continue to meet our reliability standards for both critical spares and for integration into new racks. We shared an example of this in 2020 with battery backup units and continue to drive toward our goal of enabling a circular supply chain. Since 2021, we focused on the opportunity to extend the lifetime use of memory, a carbon-intensive component within our infrastructure.

When hardware reaches its true end-of-life, we partner closely with our downstream partners to ensure residual materials are recycled or responsibly managed by finding a second life for parts outside of our data centers through secondary markets.

Food Service Emissions

Our culinary team serves our employees and visitors healthy, delicious snacks and meals, operating more than 60 cafés and 700 microkitchens globally. In 2021, to ensure alignment with our climate commitments, we launched our first Culinary Sustainability Program focused on embedding environmental and social responsibility into culinary procurement and operations, with a target to reduce the carbon intensity of food served in global cafés by 60% in 2030 from a 2019 baseline.

To reduce carbon emissions associated with our culinary offering, we aim to reduce:

- Food waste through innovative food preparation and serving practices, as well as waste tracking and sorting technology.
- Packaging waste by integrating circular economic practices and reducing single use, such as eliminating plastic water bottles for our facilities globally.
- The carbon intensity of our ingredients through creative plant-forward menus and supporting regenerative food systems and suppliers.
- The carbon impact of cooking by increasing our use of all-electric kitchens.

Consumer Products

We believe in the future of connection in the metaverse. The AR and VR products that we build are critical to this future, and we recognize that responsible innovation includes making sure these devices are built with sustainability in mind. In 2021, we began conducting life cycle assessments (LCAs) of our Reality Labs products, including Quest 2, to better understand the environmental impacts associated with each phase of the product life cycle — materials, manufacturing, transportation, use and end-of-life. These LCAs enable our teams to prioritize opportunities to incorporate circularity and reduce GHG emissions in our product development process.

To reduce the carbon footprint of our products, the Reality Labs team is focusing on:

CIRCULAR DESIGN AND MATERIAL SELECTION

- Dematerializing our products and packaging.
- Incorporating plastics and metals with recycled content into products as these materials are available.
- Educating product design teams on hardware circularity principles through release of our internal Design for Circularity guide, with the intent of continuing to reduce waste, enable disassembly and improve material recovery.

TRANSITIONING TO LOWER-CARBON TRANSPORTATION

- Transitioning segments of our logistics network to lower-carbon modes of transit, such as leveraging ocean freight instead of air freight.

REFURBISHING AND EXTENDING THE LIFE OF OUR PRODUCTS

- Extending the life of our products by enabling our customers to purchase refurbished products for our flagship devices, including Quest 1 and Quest 2.

Business Travel

Our sustainable travel program promotes sustainable practices for employees taking necessary business travel. This includes internal resources that help educate employees about how to plan trips with a reduced carbon footprint, such as banners within our travel booking tool that inform employees of more sustainable carriers or aircraft types.

As a founding member of the Sustainable Aviation Buyers Alliance (SABA)↗, we are supporting efforts to drive market demand for sustainable aviation fuel (SAF). Spearheaded by RMI↗ and Environmental Defense Fund↗ and supported by their founding companies, SABA aims to accelerate the path to net zero aviation by driving investment in and adoption of SAF, which could substantially reduce emissions from air travel. Since 2021, we have procured SAF directly from airline partners and participated in the SABA joint request for proposal process. The SAF we procure is certified by accredited third parties that provide independent verification of the carbon intensity reductions and ensure biofuel feedstocks are managed responsibly.

"As part of our commitment to reach net zero emissions across our value chain, we are proud to join SABA and contribute to a roadmap for sustainable aviation," said Blair Swedeen, Director of Global Sustainability, Meta. "Supporting efforts to drive market demand for SAF is important to our company because it's important to our employees — and it is a vital part of our goal to reach net zero emissions."

OUR NET ZERO SUPPLIER ENGAGEMENT PROGRAM

To help us reach net zero emissions across our value chain in 2030, we are partnering with our suppliers to commit to science-aligned GHG reduction targets and to use 100% renewable energy for Meta-related production and services.

In 2021, we began working with a pilot group of 39 key suppliers to calculate and report their GHG emissions and look for emissions reduction opportunities. In 2022, we scaled the program to engage a total of 114 suppliers. By the end of 2026, we intend to engage with at least two-thirds of our suppliers through:

Capacity Building
Deliver capacity-building content to enhance suppliers' sustainability maturity.

Accounting
Gather annual GHG emissions and help suppliers understand the material activities leading to those emissions.

Target Setting
Engage collaboratively with suppliers to set GHG reduction targets for 2025 and 2030 in alignment with the science and the context of our business together.

Execution
Work directly with suppliers to create accountability, partnerships and executable action plans in a supplier-specific, prioritized manner.

Through the review of supplier-provided data and detailed conversations, our suppliers' emissions reductions will focus on five main areas: energy efficiency, renewable energy, circularity, transportation and supplier engagement. To date, we have provided capacity-building training on key topics such as calculating emissions, setting science-aligned GHG targets, building and operationalizing a GHG roadmap, creating a renewable energy strategy, and understanding renewable energy markets in the United States and Asia.

In parallel, we are working with suppliers to identify tangible actions to meet reduction targets. For example, an energy-efficiency assessment for a data center hardware supplier identified nearly 9,000 megawatt hours (MWh) of potential annual energy savings within the supplier's mechanical and electrical facility-level equipment. Potential projects to support these savings include installing higher efficiency equipment, replacing valves and damaged insulation, and implementing automatic variable operation controls for chilled water pumps and air handling units. The facility will save not only energy (and related indirect emissions) but also energy costs, with payback periods ranging from less than one year to up to four years.

Beyond our capacity-building program, we have identified additional areas to further develop supplier partnerships such as regional energy policy advocacy, technical consultations, industry association engagement, and standards to help collectively achieve the ambitious supplier reduction targets.

INVESTING IN VALUE CHAIN EMISSIONS REDUCTION PROJECTS

We believe the urgency of the climate crisis requires us to work to address emission sources across our value chain, even where we are unable to attribute the reductions to a particular value chain partner and need alternative approaches to measuring and claiming the emissions reductions. These value chain reduction projects offer a significant opportunity to decarbonize our business at the pace and scale required to achieve our 2030 reduction target. They also have the potential to spur the development of early-stage decarbonization technologies, build markets, and transform the sectors in which we and our value chain partners operate. The voluntary renewable energy market has shown the power of market-based instruments and project-level investment to drive system-level decarbonization by enabling investors and purchasing companies to deploy clean technologies at scale. We see value in replicating these systems and markets for other decarbonization technologies that can scale investment across sectors and countries.

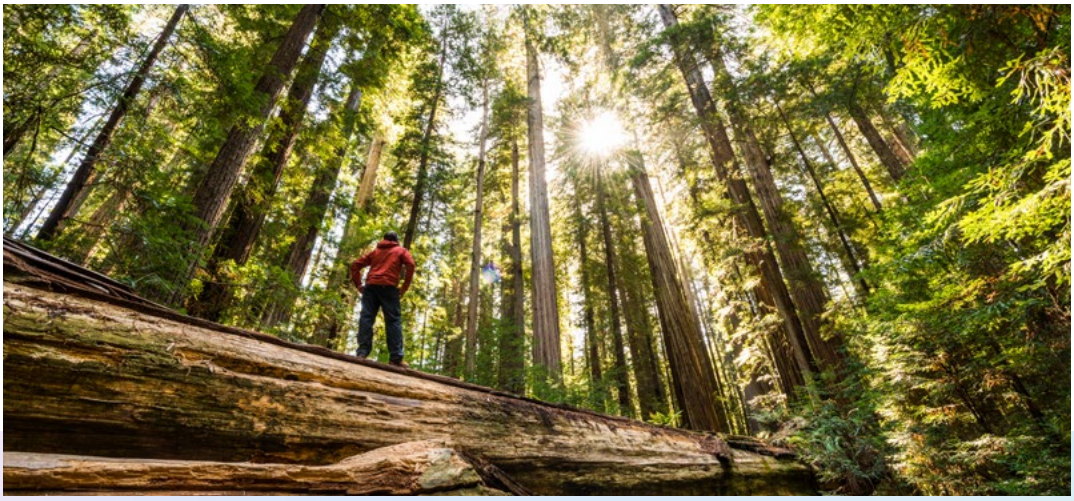
Our approach of investing in value chain emissions reduction projects also reflects the practical limitations of data traceability. Our LCAs and supplier-reported emissions data show that the majority of our emissions are created multiple tiers upstream in our supply chain and often from commodities where there is currently no viable approach to trace emissions through our supply chain partners. For example, copper is used in our data center hardware, mechanical electrical equipment and many other products used multiple tiers back in our supply chain. We endeavor to reduce the emissions associated with using materials such as copper in our hardware through our circularity strategy and choosing recycled materials. However, we do not have the visibility or control to drive this strategy to all products in our supply chain that use copper nor do we see a viable near-term solution to trace these emissions back to a specific copper smelter or mine. However, we know we need to act at all tiers of the value chain to meet our 2030 target and are committed to exploring a wide range of opportunities to decarbonize our value chain, such as reducing fuel emissions at a copper mine. Value chain emissions reduction projects offer the potential to address these emissions and contribute to decarbonizing key sectors of the economy.

Our best understanding of the root sources of emissions across all tiers of our supply chain is that they come from electricity and fuel use, and to a lesser degree, refrigerants and industrial gasses. For example, the electricity use from our consumer products could be addressed by procuring renewable energy or optimizing grid operations for decarbonization using battery storage. While we may not be able to pinpoint the exact supplier and source of emissions, or when we know the source but the solutions to decarbonize are not available in a region, investing in value chain emission reduction projects can drive near-term reductions at scale.

We are committed to ensuring that we credibly measure, account for and claim emission reductions from these projects. We recently joined the Advanced and Indirect Mitigation Platform↗, which serves as a hub for removing barriers to value chain mitigation and coordinating collective mitigation action in sectors that require extensive investment or technological change to reduce climate impact. Currently, there is limited external guidance in this area, and we are working with industry stakeholders to fill that gap. For example, our partnership with the Carbon Trust↗ will develop a standard for reducing emissions from internet-connected devices, such as our VR headsets. This product-level approach will provide an open, credible and united methodology on device data measurement to help drive down use-phase emissions across the sector. Meta continues to engage with standards-setting bodies to ensure that all companies have clear ways to measure their net zero emissions reductions to unlock decarbonization investments at scale.

Removing remaining emissions

While our climate strategy prioritizes achieving significant emissions reductions, some emissions from hard-to-abate sectors will remain difficult to eliminate by 2030. Any residual emissions we cannot eliminate will require carbon removal projects to reach our net zero goal.



We believe we have an important role to play in advancing the development and accessibility of both natural and technological carbon removal solutions.

Carbon removal includes a wide range of natural and technological approaches, some of which include restoring or planting new forests, enhancing the natural uptake of CO_2 by the ocean, capturing CO_2 through direct air capture, and substituting carbon-storing building materials such as sustainably sourced timber over emissions-intensive materials like traditional concrete.

Securing enough high-quality removal credits for our residual emissions will be a challenge. There are currently not enough removal projects to support the demand generated by corporate net zero commitments, while new approaches, methodologies and standards for carbon removal add to the complexity of this challenge.

Our strategy seeks to expand the voluntary carbon market toward the types of projects we value through forward contracts, support for new methodologies and other technological contributions that overcome barriers to scale, such as remote sensing↗ to aid in the monitoring and verification of carbon accumulation from early tree growth.

OUR APPROACH INCLUDES NATURAL AND TECHNOLOGICAL SOLUTIONS

We believe that supporting a diverse portfolio of natural and technological carbon removal projects is essential to maximize near-term climate impact while supporting necessary carbon removal solutions for the future. Supporting a wide range of projects today aligns with the urgency needed to address climate change.

Photo courtesy of TIST

Photo courtesy of The Northern Rangelands Trust/ Paul Wambugu

Photo courtesy of Western Rivers Conservancy

Carbon removal occurs naturally in soil, forests, mangroves and wetlands. Nature-based carbon removal projects are available now and begin sequestering carbon within the first years of implementation. These projects also address the multifaceted nature of climate change beyond carbon sequestration.

For example, a forest restoration project that generates carbon credits might improve the ecological health or biodiversity of a region. That same project might increase resilience by supplementing community members' income. Similarly, a soil carbon project might increase crop yields and food security, while also involving a local community in the project's design and implementation.

Emerging technologies like direct air capture will be a necessary complement to emissions reduction and nature-based removals for the world to reach a zero carbon future. These projects will require early demand signals to scale and are in various stages of research, development and deployment, but many have a high global climate mitigation potential. These technologies can offer durable carbon storage, especially geologic storage, which is less vulnerable to reversal.

PROJECT SELECTION

Carbon removal projects we select follow the highest environmental and social standards and reflect our responsibility to ensure positive local impacts. Our projects:

DEMONSTRATE ADDITIONALITY

Carbon removed from the atmosphere should be a direct result of our carbon financing. We choose projects with a clear additionality threshold to rule out instances where carbon sequestering would have occurred in the absence of carbon finance.

ARE DESIGNED AND MONITORED FOR DURABLE CARBON STORAGE

Any risk of reversal of carbon removed should be understood, communicated and managed appropriately. Nature-based projects should be designed to contribute to ecosystem resilience where events such as drought and wildfires are likely. Reversal risk should be managed via robust buffer pools and risk management protocols designed to reduce impacts of fires, pests or other drivers of carbon loss. The theoretical long-term carbon storage in many emerging technologies, such as via carbon mineralization, make these types of projects an important part of our carbon removal strategy.

SUPPORT LOCAL LIVELIHOODS TO ENABLE CLIMATE JUSTICE AND EQUITY

Projects we select reflect our broader climate goals and our mission to connect and support resilient communities. We prioritize projects that center local leadership and knowledge in their design, optimize long-term social and ecosystem benefits for communities most at risk from climate change, and create new sources of income. We encourage projects and methodologies to define robust stakeholder engagement and grievance redress processes that incorporate free, prior and informed consent of all relevant stakeholders throughout the life of a project.

BENEFIT THE ENVIRONMENT BY SUPPORTING BIODIVERSITY, HABITAT OR WATER RESOURCES

Carbon projects can address climate change by going beyond carbon removal. We prioritize projects that can support holistic ecosystem health during the contractual life of the project and beyond.

ARE QUANTIFIED USING EXISTING STANDARDS AND VERIFIED BY A THIRD PARTY

We only apply carbon credits that are verified and quantified using appropriate methodologies. Our internal due diligence process includes an assessment of both projects and methodologies to ensure that quantification uses reasonable estimates for assessment and measurement approaches.

DO NOT CREATE ADVERSE IMPACTS ELSEWHERE

All stages of the development of carbon projects must demonstrate how they are mitigating environmental and sociocultural risks. Projects must articulate how they are avoiding and conservatively adjusting for emissions leakage, such as logging operations being displaced elsewhere.

Carbon removal projects Meta has supported since 2021

PROJECT	TYPE	LOCATION	KEY PROJECT FEATURES
The International Small Group Tree Planting Program (TIST)	Afforestation/ Reforestation	Kenya, Uganda	Locally managed reforestation project that improves agricultural yields while supplementing community income through carbon credit sales
San Rafael Improved Forest Management	Improved Forest Management	Mexico	Increases forest carbon stock of community ejido forests in Oaxaca
San Bartolo Improved Forest Management	Improved Forest Management	Mexico	Increases forest carbon stock of community ejido forests in Oaxaca
Northern Kenya Rangelands	Soil Carbon	Kenya	Coordinated livestock rotation to improve grassland health and sequester carbon in the soils of conservancy rangelands
Yarra Yarra Biodiversity Corridor	Afforestation/ Reforestation	Australia	Ecological restoration of degraded landscape using native tree and shrub species
Blue Creek Forest Project	Improved Forest Management	California, United States	Increase of stored carbon via protection of forest in Klamath River watershed that provides habitat for migrating salmon and steelhead

SCALED REMOVAL

Our role in the voluntary carbon market goes beyond purchasing credits from projects that align with our principles for high quality. The market is currently limited by low supply, uncertainty about existing projects, and high costs for emerging technologies that require a long timescale to see returns on investment.

Our approach to scale the availability of high-quality carbon projects includes supporting new project development through financing and encouraging the evolution of standards that bring more certainty to the market. We will enter into multiyear contracts with project developers to support the approaches we wish to see reflected in the market. As we maintain a diverse portfolio of removal projects, we will pay premiums for high-quality and emerging project types that require early demand signals to become viable.

We intend to use our platforms and apply our expertise in data and technology to be catalytic with our carbon removal partners.

PARTNERSHIPS FOR IMPACT

We envision a just and equitable transition to a zero-carbon economy and seek partners who share the same vision. Among the ways we are driving development in the sector is collaborative action that will aggregate the resources of multiple companies to create rapid change at scale.

Because technological carbon removal includes many nascent technologies that are not yet available at a meaningful scale, forward-looking companies must invest now to ensure removals are viable and available in the future. In 2022, we announced a joint $925 million commitment↗ alongside Stripe, Shopify, McKinsey Sustainability and Alphabet to accelerate the development of carbon removal technologies by guaranteeing future demand. In partnership with Aspiration↗, we have also committed a pre-order of 6.75 million metric tons of carbon removal credits that come from all types of ecosystem restoration and natural carbon removal approaches, including native tree and mangrove reforestation, agroforestry, and the implementation of sustainable agricultural practices to maximize positive impacts to the communities in which these projects take place.

We collaborated with the World Resources Institute to develop a method to map forest canopy height↗ at individual tree-scale using a new Meta AI training model. We have mapped forest canopy in California and São Paulo, Brazil, and are making the data public and freely available.

We are exploring similar investment opportunities and other ways to maximize impact by participating in the Business Alliance to Scale Climate Solutions (BASCS)↗, which provides a platform for businesses and climate experts to meet, learn, discuss and act together to improve climate solutions.

We prioritize opportunities for new project development that particularly advance the United Nations Sustainable Development Goals↗ and create long-lasting and equitable benefits.

1t.org

National Indian Carbon Coalition

Through 1t.org, the National Indian Carbon Coalition and Meta are joining together in a pledge↗ to support and promote a model of carbon projects that centers on the leadership, traditional ecological knowledge, and vision of Indigenous Peoples for themselves and the land they caretake. Such an approach uses these elements as the compass to develop projects that not only protect and sequester carbon, reduce climate impacts and increase climate resilience but also honor and center the relationship between communities and land. Through this partnership, we pledge to develop no fewer than three carbon credit–generating projects that protect and restore forest lands through Indigenous/tribal and community leadership.

Enabling emissions reduction

Understanding our emissions footprint, radically decarbonizing our business, helping our suppliers reduce their emissions and supporting high-quality carbon removal projects will help us get close to net zero, but our climate strategy must also consider the enabling conditions to get us there.

BACKING COMPREHENSIVE POLICY

Comprehensive and well-designed climate and clean energy policy is central to transitioning to a future that avoids the worst impacts of climate change. Engaging with policymakers, regulatory agencies and related stakeholders is critical to effective climate action that allows us to realize our own net zero goals and moves us all closer to a zero-carbon future. We are committed to advancing sustainable policies and climate action, and we often engage with climate-focused organizations to help advance effective policies.

In the U.S., we are active in organizations that advocate for policies that will spur further clean energy deployment and decarbonize the electric sector as a whole. Most recently, Meta joined 15 other corporations in filing an Amicus Brief with the U.S. Supreme Court in support of the EPA's authority to regulate CO_2 emissions under the Clean Air Act. Large buyers of electricity with ambitious climate goals — including Meta — work to advocate for policies that would clean the U.S. grid, which would help reduce Scope 2 and 3 emissions. Meta also publicly supported the clean energy and climate provisions within the Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA). Further, we work with various industry stakeholders and organizations to ensure the passage of those policies.

Meta fully supports the European Green Deal, which provides a framework toward a more sustainable and climate-neutral Europe by 2050. We are partnering with the European Union (EU) and the governments across the EU in making the ambitions of the Green Deal a reality. In 2021, Meta joined the EU's Climate Pact, which aims to engage European citizens on climate action, and supported the Corporate Leaders Group↗ sign-on letter in support of the EU nationally determined contribution.

Climate policies such as clean energy standards and efficiency mandates matter at the local and national levels. These policies will accelerate the decarbonization of our global supply chain and open the door to new, low-carbon technology. We will also continue to participate in global climate forums and evaluate opportunities to further global sustainability and climate goals.

MAKING OUR APPS & SERVICES PART OF THE SOLUTION

As a platform that connects 3.7 billion users globally, we have the capacity to mobilize a transition to a sustainable future that is inclusive and accessible. Our platforms can address the social dimensions of climate change by harnessing the power to inform, enable behavior change, build empathy and elevate climate voices. One of the ways we do this is through our Climate Science Center. We work with the Intergovernmental Panel on Climate Change to provide access to science-based and dynamic climate information to more than 18 million people.

Simultaneously, while we promote access to accurate information, we must fight the spread of climate misinformation on our platforms.

We partner with more than 80 independent, third-party, fact-checking organizations that are certified through the non-partisan International Fact-Checking Network (IFCN)↗ to identify, review and take action on this content. As with all types of claims rated false by our partners, we reduce the distribution of these posts in Feed so that fewer people see them, and we show warning labels with more context for people who do see them, try to share them or already have shared them. Accounts that post misinformation repeatedly, including climate misinformation, will see their overall distribution reduced and may lose the ability to advertise or monetize.

In partnership with IFCN and an independent six-member judging panel of climate domain experts, we launched the $1 million Climate Misinformation Grant↗ in 2021 to fund partnerships and proposals from fact-checkers, climate organizations and solution providers working to combat false and misleading information about climate change.

Reaching net zero requires transformational, systems-level change and relies on collaboration with our peers, the expertise of climate experts and support from our employees.

We empower employees to see themselves as part of the climate solution. Employees participate in local Green@ chapters to focus on sustainability in their offices and communities, attend sustainability summits during Earth Week and Climate Week NYC, and stay connected on our sustainability work through company-wide communications platforms that aim to level up climate literacy and offer ways they can support Meta's net zero goal. Individual employees can help Meta directly reduce our emissions, from decision-making on company purchases to opting for more efficient daily commutes and necessary business travel. In 2022, Meta piloted a partnership with Climate Club to enable Scope 3 GHG emissions reductions program with the support of employee advocates to help enable employees to more actively contribute to our emissions reduction goals through education and action toward personal reductions associated with their work, such as from business travel and food waste.

Externally, we aim to share our knowledge on our journey to net zero and learn from experts and our peers through coalitions and working groups that include:

OPEN COMPUTE PROJECT

The Open Compute Project (OCP)↗, of which Meta is a founding member, is a collaborative community focused on redesigning hardware technology to efficiently support the growing demands on compute infrastructure. Sustainability and circularity were identified as 2021 strategic initiatives for OCP. Recognizing the role we can play in galvanizing collaboration, Meta co-led the scoping and definition of the strategic initiative and co-authored the community's first white paper↗ dedicated to a call to action on climate change. Building on this momentum, Meta worked closely with a number of other companies to drive the establishment of sustainability as its own active project—alongside others such as server, storage, networking and security—and the addition of sustainability as a "fifth tenet" of the community↗.

RESPONSIBLE BUSINESS ALLIANCE

The Environmental Sustainability Work Group↗ within the Responsible Business Alliance convenes members to identify pressing environmental issues in climate change, water and waste and to collaborate on solutions that drive improvement not only within their organizations but also throughout their supply chains.

CLEAN ENERGY BUYERS ASSOCIATION

The Clean Energy Buyers Association (CEBA)↗ is a membership association for energy customers seeking to procure clean energy across the United States. We and the over 300 members reflect stakeholders from across the commercial and industrial sector, nonprofit organizations and energy providers and service providers. CEBA's work supports advancement of clean technologies and climate action policies that support economywide decarbonization and climate resiliency.

INTERUNIVERSITY MICROELECTRONICS CENTRE

Interuniversity Microelectronics Centre (IMEC)'s Sustainable Semiconductor Technologies and Systems↗ program sets out to assess, improve and disrupt semiconductor fabrication processes to reduce their environmental impact. Meta funds and participates in IMEC research to contribute to improved LCAs for semiconductors.

OTHER KEY MEMBERSHIPS

We support environmental nonprofit trade organizations working to advance clean technologies and climate action policies that support economywide decarbonization and climate resiliency, including the American Council on Renewable Energy↗, Center for Climate and Energy Solutions' Business Environmental Leadership Council↗ and the Advanced Energy United↗.

Looking ahead

We are designing solutions with scalability and impact in mind to maintain net zero beyond 2030 — and help other businesses do the same. As we decarbonize our business, we are committed to transparency and accountability along the way. We know this journey will have its obstacles, and our program must adapt to identify the most impactful climate solutions that follow the latest science to guide us to a zero-carbon future.

To keep up with our climate work and progress toward net zero, please visit sustainability.fb.com↗.

sustainability.fb.com↗

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