Driving progress with 21 goals for environmental sustainability

Setting goals has long been an essential part of IBM's global environmental management system, with formal goals involving energy conservation (1970s); pollution prevention and recycling (1980s); chlorofluorocarbons (1989); design for the environment (1991); ISO 14001 (1996); CO_2 (2000); and specific perfluorinated compounds, PFOS and PFOA (2007), being characteristic of IBM's journey.

We recently conducted an extensive review and evaluation of our goals against our business and its intersections with the environment. As a result, we are announcing IBM's 21 goals for environmental sustainability. Many of the goals are new, some have been updated and others are continuing. Collectively, they cover energy and climate change, conservation and biodiversity, pollution prevention and waste management, supply chain and value chain, and our global environmental management system.

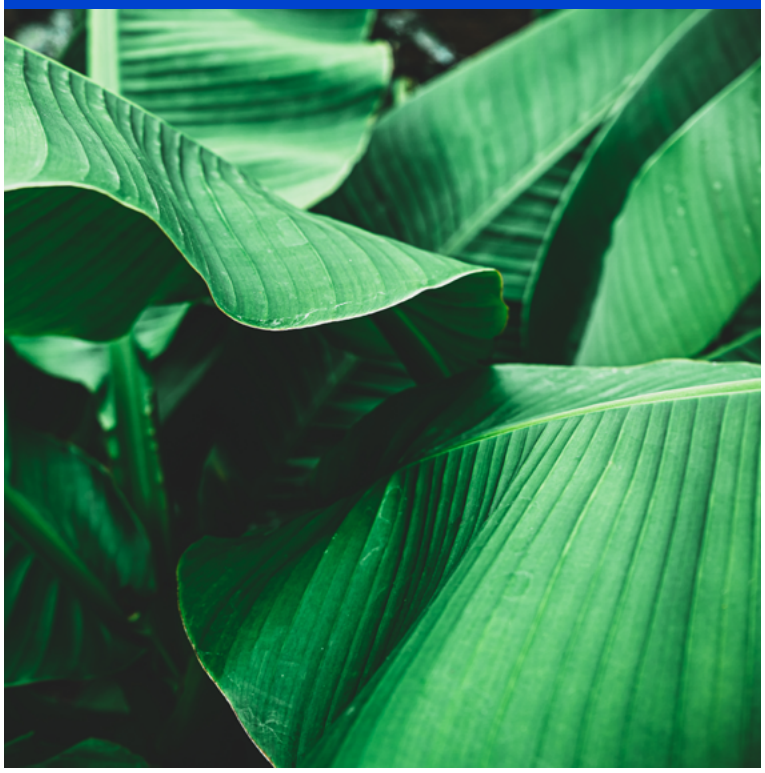
"Setting environmental goals is a long-standing core element of IBM's global environmental management system. We continually assess our intersections with the environment across our operations and drive action to minimize IBM's impact."

Edan Dionne
Vice President,
Environmental, Energy and
Chemical Management Programs,
Corporate Environmental Affairs

Guiding principles: transparency and authenticity

IBM has always sought to be transparent and authentic in its quest for environmental leadership. Applying that to IBM's voluntary goals, we shall:

- Establish near-term targets to promote action and accountability, and to accompany any long-term objectives.
- Encompass 100 percent of IBM's business operations unless otherwise specified.
- Adjust goals for acquisitions and divestitures.
- Avoid opaque representations of achievement.



Energy and climate change

1. Procure 75 percent of the electricity IBM consumes worldwide from renewable sources by 2025, and 90 percent by 2030.

- We include renewable electricity (a) in the grid mix IBM receives from utilities, (b) for which IBM contracts over and above what's contained in the grid mix, and (c) generated on site.
- We challenge ourselves by not counting the purchase of unbundled Renewable Energy Certificates to comprise any percent renewable if IBM cannot credibly consume the electricity those certificates represent.

This is IBM's third successive renewable electricity goal. The prior goal was 55 percent by 2025.

2. Reduce IBM's greenhouse gas (GHG) emissions 65 percent by 2025 against base year 2010, adjusted for acquisitions and divestitures.

- This covers our Scope 1 and Scope 2 emissions, as well as Scope 3 emissions associated with IBM's electricity consumption at co-location data centers.
- This achieves a rate of reduction that equals or exceeds what scientific recommendations from the UN Intergovernmental Panel on Climate Change (IPCC) indicate is necessary to limit Earth's warming to 1.5 degrees Celsius above pre-industrial levels.
- We challenge ourselves by not including the purchase of nature-based carbon offsets to comprise any emissions reduction.

This is IBM's fifth successive emissions goal. The prior goal was 40 percent reduction of CO_2 emissions by 2025 against base year 2005. In addition to increasing our numerical target, this updated goal expands from CO_2 emissions to all GHG emissions and moves the base year for comparison from 2005 to 2010. Both of these latter adjustments increase IBM's ambition.

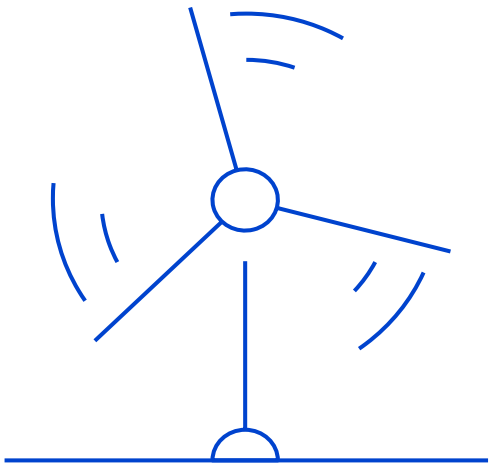
3. Reach net zero greenhouse gas emissions by 2030 using feasible technologies to remove emissions in an amount which equals or exceeds IBM's residual emissions. Aim for residual emissions of 350,000 metric tons of CO_2 equivalent or less by 2030, with 90 percent of IBM's electricity coming from renewable sources.

- This covers our Scope 1 and Scope 2 emissions, as well as Scope 3 emissions associated with IBM's electricity consumption at co-location data centers.
- We challenge ourselves by setting a numerical target for residual emissions.
- We anticipate new carbon removal solutions such as direct air capture, and support their development with research to accelerate the discovery of enabling materials.

This new goal is responsive to the global ambition of the UN IPCC.

4. Implement a minimum of 3,000 energy conservation projects to avoid the consumption of 275,000 megawatt-hours (MWh) of energy from 2021 to 2025.

This new goal builds upon IBM's decades of rigorous energy conservation. From 1990 through 2020, IBM conserved 9.8 million MWh of energy, avoided 4.6 million metric tons of CO_2 emissions, and saved $661 million. The energy with least environmental impact is the energy IBM does not need to consume.



5. Improve average data center cooling efficiency 20 percent by 2025 against base year 2019.

This new goal expands upon IBM's continual innovation for energy-efficient data centers, originating with IBM Research's Measurement and Management Technology invented in 2007.

6. For server products with a valid upgrade path, reduce power consumption per unit of delivered work versus the previous generation.

This goal continues IBM's design for the environment practice across several decades.

7. Establish, by year-end 2021, individual baselines for fleet carbon intensity with each key carrier and shipment supplier involved with IBM's product distribution globally. Starting in 2022, convene with each supplier to set a fleet carbon intensity reduction target covering the services they provide to IBM.

This new goal engages suppliers involved with the distribution of our products.

Conservation and biodiversity

8. Achieve a year-to-year reduction in water withdrawals at specified IBM locations in high or extremely high water-stressed regions.

This goal continues IBM's existing focus upon water resources.

9. Source paper and paper/wood-based packaging directly procured by IBM from forests that are sustainably managed and certified as such.

This goal continues IBM's focus on the use of more sustainable materials.

10. Plant 50 pollinator gardens at IBM locations globally by year-end 2023 to support biodiversity.

This new goal promotes local action to support biodiversity.

11. Pursue third-party sustainability certification for major office construction and renovation projects executed by IBM globally.

This new goal will help guide IBM's real estate occupancy post-pandemic.

Pollution prevention and waste management

12. Divert 90 percent (by weight) of IBM's total nonhazardous waste from landfill and incineration by 2025 through reuse, recycling, composting, and waste-to-energy processes. Use waste-to-energy processes for no more than 10 percent (by weight) of the diverted waste.

This new goal builds upon IBM's prior nonhazardous waste recycling goals across several decades.

13. Send no more than 3 percent (by weight) of end-of-life product waste to landfill or to incineration for treatment. Recycle or reuse at least 97 percent (by weight).

This is a continuing goal which has driven IBM's industry-leading performance across many years.

14. Eliminate nonessential, single-use plastic items (including cups, straws, cutlery, plates, carry bags, and food containers) from IBM-managed cafeteria operations globally by 2025. (An example of an essential use is plastic wrap to protect food for sanitary reasons.)

This new goal addresses concern regarding single-use plastics.

15. Eliminate nonessential plastic from the packaging of IBM logo hardware by year-end 2024. For essential plastic packaging, ensure they are designed to be 100 percent reusable, recyclable, or compostable; or incorporate 30 percent or more recycled content where technically feasible. (Examples of essential plastic packaging include electrostatic bags and certain cushions.)

This new goal addresses concern regarding single-use plastics.

Supply chain and value chain

16. Require all first-tier suppliers to maintain their own environmental management system; set goals regarding energy management, GHG emissions reduction, and waste management; and publicly disclose progress.

This is a continuing goal, first established in 2010.

17. Require key suppliers in emissions-intensive business sectors to set an emissions reduction goal by 2022, addressing their Scope 1 and Scope 2 GHG emissions, that is aligned with scientific recommendations from the UN IPCC to limit Earth's warming to 1.5 degrees Celsius above pre-industrial levels.

This new goal builds upon Goal 16 and deepens our engagement with those suppliers who can have the greatest impact on reducing emissions across IBM's supply chain by requiring them to set more aggressive goals.

18. Convene an annual Sustainability Leadership Symposium to recognize progress and achievement among suppliers in emissions-intensive business sectors across applicable areas of environmental stewardship.

This new goal is a companion to Goals 16 and 17, aimed at encouraging suppliers to take ownership and build their capacity to succeed.

19. Document 100 client engagements or research projects by 2025 in which IBM products, capabilities and/or solutions have enabled demonstrable environmental benefits.

Under this new goal, IBM will keep track of the many ways in which its technology and innovation enable clients to improve environmental sustainability.

Management system

20. Maintain a single, global registration to the ISO 14001 standard for Environmental Management Systems (EMS).

This is a continuing goal, in place since IBM became registered in 1997 (one year after the ISO 14001 standard was released).

21. Ensure IBM's EMS conforms to the ISO 50001 standard for Energy Management Systems.

This is a continuing goal, established one year after the ISO 50001 standard was released in 2011.