

# Measuring Climate Impact

## MIT's 2025 Decarbonization Progress Report

IN FISCAL YEAR 2025, MIT's total campus greenhouse gas emissions remained level, even as campus square footage grew with new facilities, including the Edward and Joyce Linde Music Building. Energy-efficiency upgrades continue to play a central role in MIT's decarbonization efforts and have reduced MIT's energy use per square foot by 10% since 2014.

MIT is on track to achieve net-zero carbon emissions in 2026. As part of its strategy, the Institute dramatically expanded renewable energy procurement over the past year, building on its 2017 Summit Farms Solar power purchase agreement (PPA). Through the Consortium for Climate Solutions, a unique renewable energy buyers collaboration created by MIT and other local institutions, including Harvard University, Mass General Brigham, and nine other non-profits, MIT is accelerating decarbonization of regional power grids by enabling two additional, large-scale projects: Big Elm Solar in Texas and Bowman Wind in North Dakota.

## MIT Decarbonization Progress in 2025



**13%**

total net-emission reductions  
since 2014



**50,000**

MWh in new, renewable  
generation delivered from  
the Big Elm Solar facility  
enabled by MIT



**~65,000**

metric tons of carbon  
emissions avoided by Summit  
Farms and Big Elm Solar PPAs  
using impact accounting—  
equivalent to 33% of MIT's  
total campus emissions

# On Track to Net Zero in 2026

## MAXIMIZING IMPACT WITH RENEWABLE ENERGY

By the end of 2026, MIT's three large-scale, off-campus renewable energy projects are estimated to avoid over 200,000 tons of CO<sub>2</sub> per year—roughly equal to MIT's total annual campus emissions.

In 2025—prior to the Bowman Wind project coming online—the Summit Farms and Big Elm Solar PPAs offset about 7% of MIT's total campus emissions, contributing to an overall emissions level 13% below the 2014 baseline despite campus expansion. This was measured through an accounting method called the Greenhouse Gas Protocol. Using an impact accounting method (see box at right), the two PPAs avoided roughly 65,000 metric tons of carbon emissions, equivalent to 33% of MIT's total campus emissions.

MIT's renewable procurement strategy has several key objectives, working in parallel with on-campus decarbonization.

**Grid impact focus:** Located in areas of the U.S. that have natural resources for solar and wind energy, MIT's renewable energy projects are helping to create a greener grid while making a positive environmental impact.

**Collaborative market development:** Through a unique renewable energy consortium with other major institutions, including Harvard University and Mass General Brigham, MIT is helping to broaden access to PPAs—strengthening markets while advancing collective decarbonization.

**Strategy and scale:** MIT's portfolio now supplies renewable generation to regional grids that exceeds annual electricity use on campus.

## MEASURING IMPACT

MIT reports its greenhouse gas emissions using the Greenhouse Gas (GHG) Protocol, the global standard for carbon accounting. This method accounts for the volume of renewable electricity purchased.

This year's report provides an additional way of measuring MIT's greenhouse gas emissions. Called "impact" or "consequential" accounting, this method demonstrates how renewable energy projects replace fossil fuel generation on the electric grid and have a real-world impact on emissions.

Together, these accounting methods provide a clearer picture of both MIT's operational emissions and the broader climate benefits its investments enable.

## GRAZING AT THE SOLAR FARM IN SUPPORT OF AGRIVOLTAICS

At Big Elm Solar, agrivoltaics are integral to the site design: thousands of grazing sheep maintain vegetation across the 2,000-acre project while preserving active agricultural use. This dual-use model is increasingly shaping solar development nationwide and demonstrates how renewable infrastructure can integrate environmental, economic, and community co-benefits.

## POWERING MORE THAN MEGAWATTS

Recent research\* has indicated that MIT's three PPAs can have substantial economic and health benefits:



Construction creates equivalent of **7,266 jobs** for one year



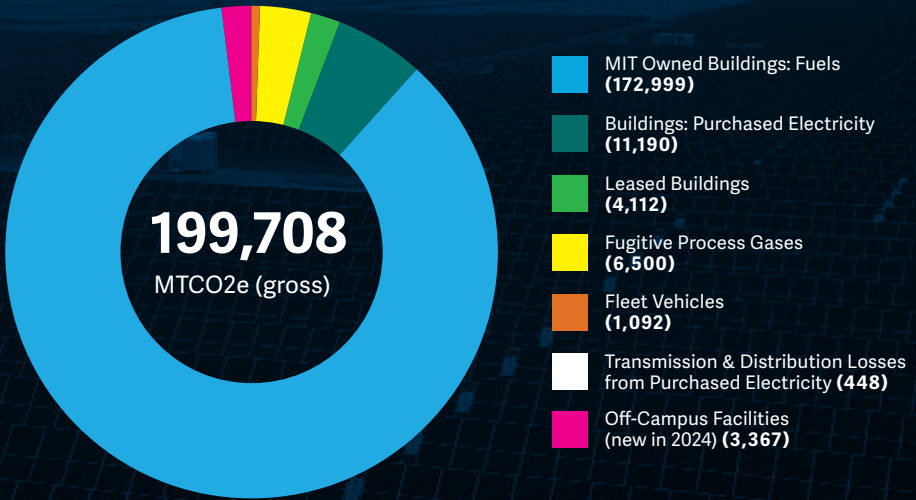
Maintenance adds **189 ongoing jobs** each year for 20 years (on average)



Annual health benefit equivalent to **640 people** quitting smoking for life

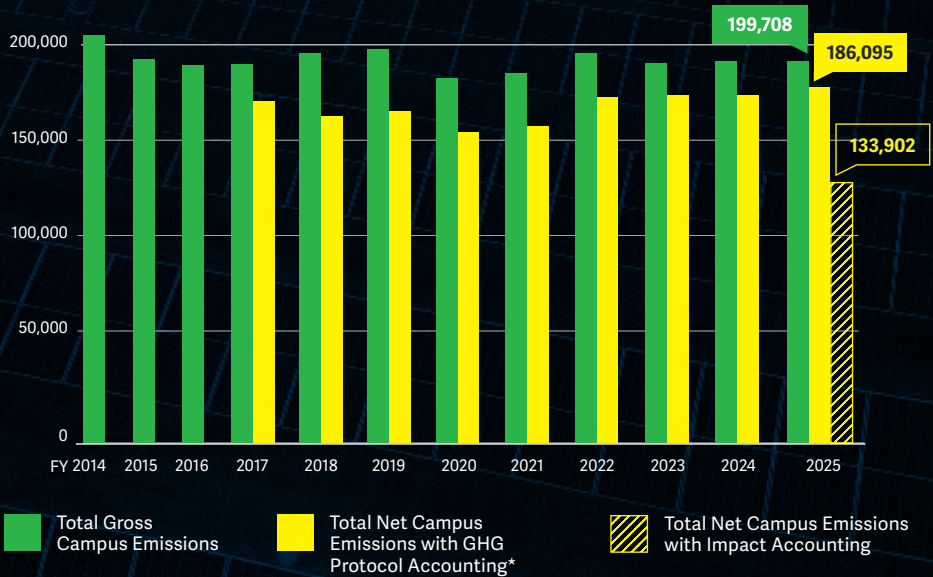
\* Norris, G., & Sanchez, R. (2025). Assessing the economic and health benefits of PPAs [Unpublished report prepared for MIT Office of Sustainability].

## MIT CAMPUS GREENHOUSE GAS EMISSION SOURCES FY25



## MIT CAMPUS GREENHOUSE GAS EMISSIONS

Since FY2014, MIT has reduced emissions per square foot by 12% despite adding over 972,000 square feet of campus space—roughly 8% growth—including energy-intensive facilities and new residence halls.



MIT's total campus emissions reporting boundary includes academic facility emissions: building (owned and leased), mobile, fugitive process gas, and purchased grid electricity sources. FY2023 was the first year that MIT included emissions from off-campus sites, including Bates Research and Engineering Center, Wallace/Haystack Observatory, and Endicott House.

\* Using the Greenhouse Gas Protocol's market-based accounting method. MIT purchased less conventional electricity in 2025 compared to the previous year, which reduced the volume of renewable energy that could be counted under this accounting method.

# MIT's Approach

## INTEGRATED PLANNING FOR LONG-TERM, PHASED DECARBONIZATION

MIT is advancing a campus-wide strategy to align today's major infrastructure decisions with a path to campus decarbonization. Key initiatives already underway—outlined at right—are modernizing MIT's energy systems while building flexibility to adopt emerging zero-carbon technologies. These investments are complemented by an extensive technology assessment and planning initiative that is considering the most effective suite of foundational decarbonized systems. Together, they form a long-term decarbonization platform that enables phased transformation and seeks to position MIT as a model for integrated energy planning.

## MIT RECOGNIZED NATIONALLY FOR RENEWABLE ENERGY COLLABORATION AND IMPACT

MIT and its consortium collaborators received three honors in 2025: the EBC Nicholas Humber Award for its groundbreaking partnership with Harvard, Mass General Brigham, the City of Cambridge, and PowerOptions; the Green Power Leadership Award for the Big Elm Solar and Bowman Wind PPAs, which are accelerating grid decarbonization and delivering community benefits; and the Smart Energy Decisions 2025 Energy and Sustainability Award for demonstrating how higher-education institutions can pair carbon-free electricity procurement with rigorous analytics and transparent reporting to drive systems-level change.



Consortium for Climate Solutions collaborators were recognized for their work, including receiving the New England Environmental Business Council's Nicholas Humber Award for its groundbreaking partnership model.

# 13% NET-EMISSION REDUCTIONS SINCE 2014



### Upgraded Central Utilities Plant

Generating power up to 20% less carbon intensive than local power grid



### AI-driven efficiency

Optimizing temperature set-points and reducing energy use with AI



### Bold solution to advance renewable energy

Accelerating decarbonization of regional power grids



### Innovations in design and construction

Minimizing emissions and increasing energy efficiency—32 LEED Certified Projects



### More efficient thermal distribution

Converting campus heating systems from steam to hot water



### Energy savings measures

Achieving GHG reductions through ~300 projects



Learn more at  
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[web.mit.edu/facilities](https://web.mit.edu/facilities)  
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