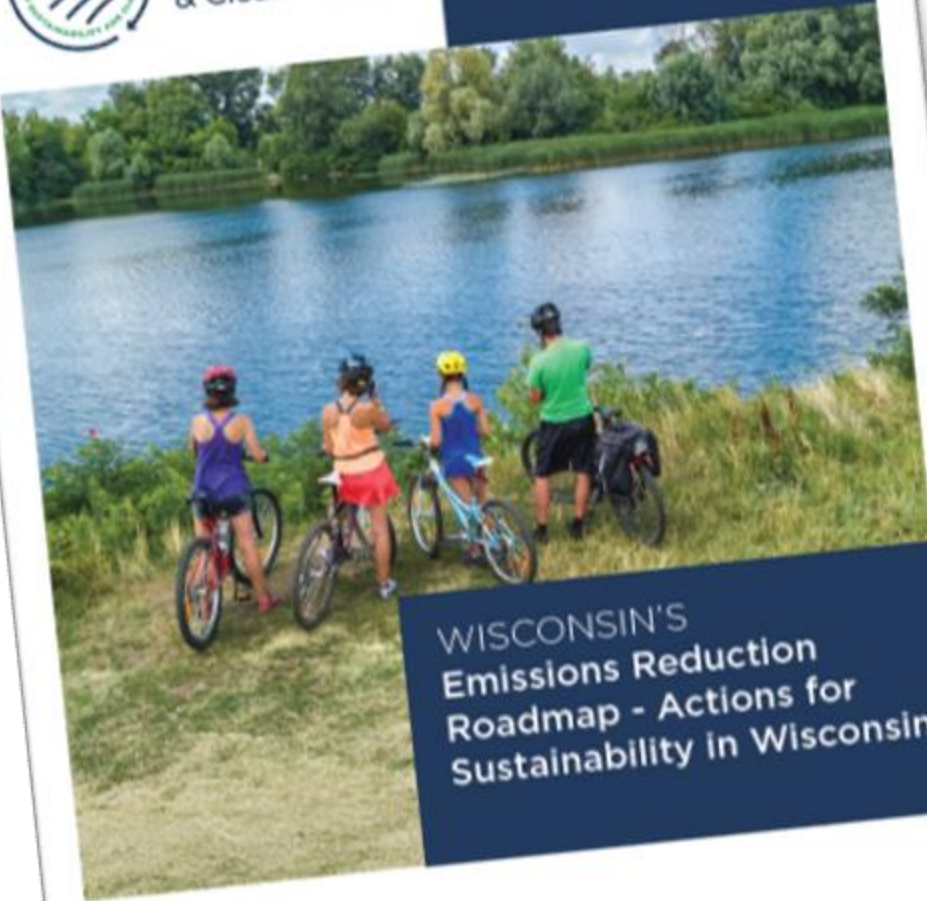




WISCONSIN OFFICE OF
Sustainability
& Clean Energy



WISCONSIN'S
Emissions Reduction
Roadmap - Actions for
Sustainability in Wisconsin

JUNE 2026



WISCONSIN'S EMISSIONS REDUCTION ROADMAP: BUILDINGS

09.21.2026

WEBINAR OVERVIEW

- Climate Action Planning Review
- What is Wisconsin's Emissions Reduction Roadmap?
- Buildings Sector Deep Dive
- Webinar Series
- Q&A





MEET THE OSCE TEAM

WISCONSIN OFFICE OF SUSTAINABILITY & CLEAN ENERGY



Maria Redmond
Director



Caity Carmody
CPRG Technical
Coordinator and
Analyst



Eleanor Gagnon
CPRG Outreach
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Specialist



Eneida Hysi
CPRG Grants
Specialist



**Winston
Thompson**
Lead-by-Example
Research Analyst



Dylan Stone
Climate and Clean
Energy Initiatives
Coordinator



CLEAN ENERGY AND CLIMATE ACTION POLICY & PLANNING



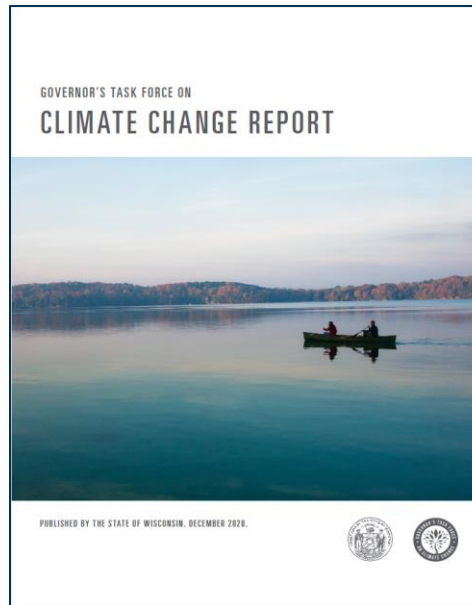
Executive Order
38: Relating to
Clean Energy

Aug 2019

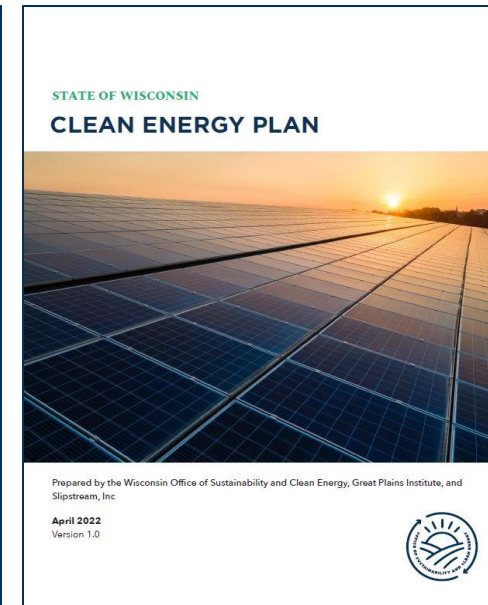


Executive Order
52: Governor's Task
Force on Climate
Change

Oct 2019



Dec 2020



Apr 2022



Executive Order
161: Office of
Environmental
Justice

Apr 2022



CLEAN ENERGY AND CLIMATE ACTION POLICY & PLANNING



Executive Order 195: Green Ribbon Commission

Apr 2023

STATE OF WISCONSIN **CLEAN ENERGY PLAN** Progress Report



Prepared by the Wisconsin Office of Sustainability and Clean Energy

May 2023



May 2023

Wisconsin **Emissions Reduction Roadmap**



Prepared by:
Wisconsin Department of Administration
Office of Sustainability and Clean Energy
101 E Wilson St., 5th FL
Madison, WI 53703
osce@wisconsin.gov

Mar 2024

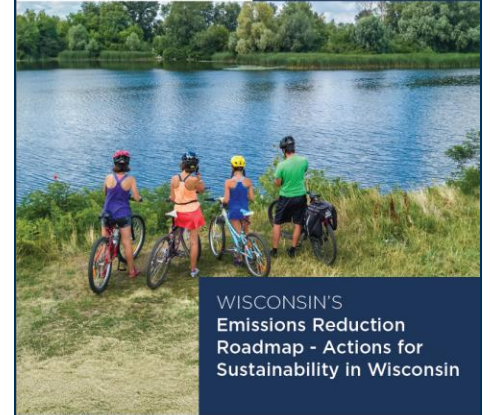
STATE OF WISCONSIN **CLEAN ENERGY PLAN** Progress Report



Prepared by the Wisconsin Office of Sustainability and Clean Energy
August 2024



Aug 2024



WISCONSIN'S
Emissions Reduction
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JUNE 2026

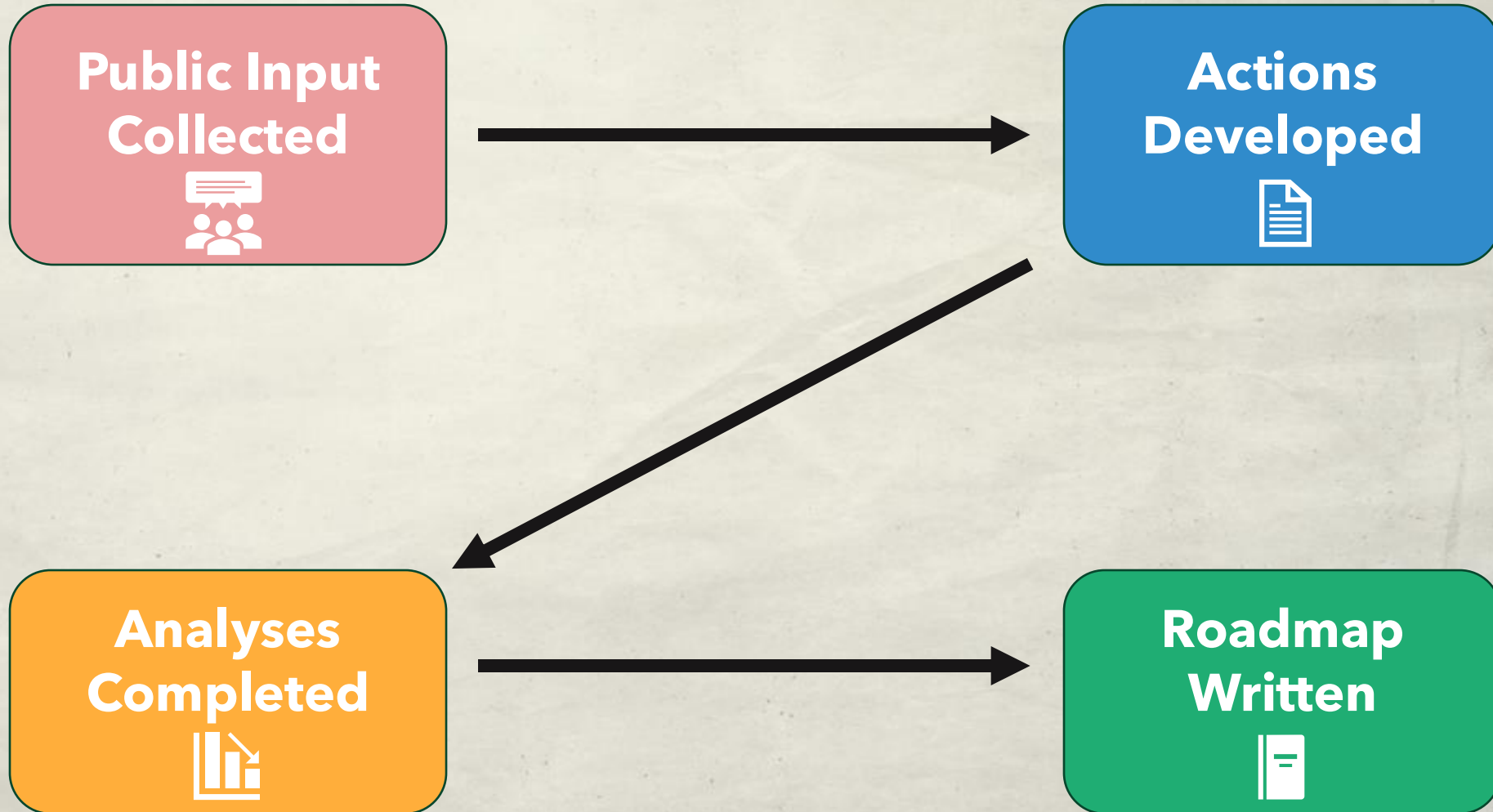
Jun 2026



ROADMAP OVERVIEW

WISCONSIN'S EMISSIONS REDUCTION ROADMAP

- Wisconsin's **first comprehensive climate action plan** tackling emissions reductions actions and targets in all sectors
- Built off the work done through **previous** cross-sectoral planning work and identifying **new opportunities** not previously discussed
- Primary purpose is to **develop policy and programmatic guidance** for state government
- Developed as part of the **\$3 Million** planning grant provided **to OSCE by the U.S. EPA**



MY CLIMATE ACTION PLAN

APPENDIX A: MY CLIMATE ACTION PLAN

Everyone has a role in implementing the state's climate action plan. The OSCE developed this tool to help you consider how you might use this plan as inspiration for your own climate action.

Think about the many hats you may wear and how they may interact with this plan. I am a...

Homeowner

Student

Employee

Landowner

Business/Non-profit owner

Salesperson

Government representative

Teacher

Parent

Other _____

Out of the economic sectors this plan covers, which ones are of most interest to you?

Agriculture

Natural and Working Lands

Buildings

Transportation

Energy Generation

Waste and Materials

Industrial Process and Facilities

Which actions seemed most relevant to your day-to-day life or work?

Considering your roles, is there anything you are currently doing that furthers these actions?

What actions could you take in your current role to make progress on one of the actions identified?

What would you like to do but need more support (financial, technical, etc.) to accomplish?

Do you know any other organizations or people working on this action? If not, where might you find other organizations or people who are working on it?

Need more information or want to share your thoughts? Visit the [OSCE.wi.gov](https://osce.wi.gov) website or email osce@wisconsin.gov



WHY EMISSIONS REDUCTIONS PLANNING?

WHAT ARE “EMISSIONS”?

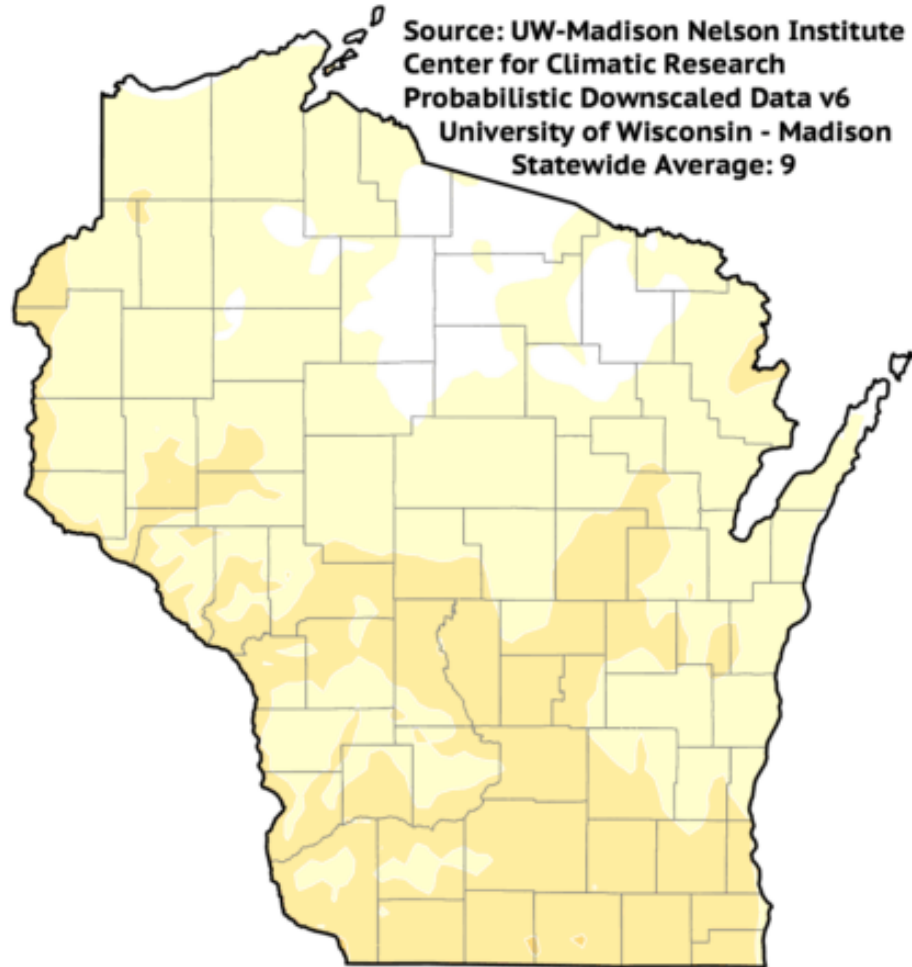
From the U.S. EPA:

“Greenhouse gases **trap heat** and make the planet warmer. Human activities are responsible for almost all of the increase in greenhouse gases in the atmosphere over the last 150 years. The largest source of greenhouse gas emissions from human activities in the United States is from **burning fossil fuels** for electricity, heat, and transportation.”

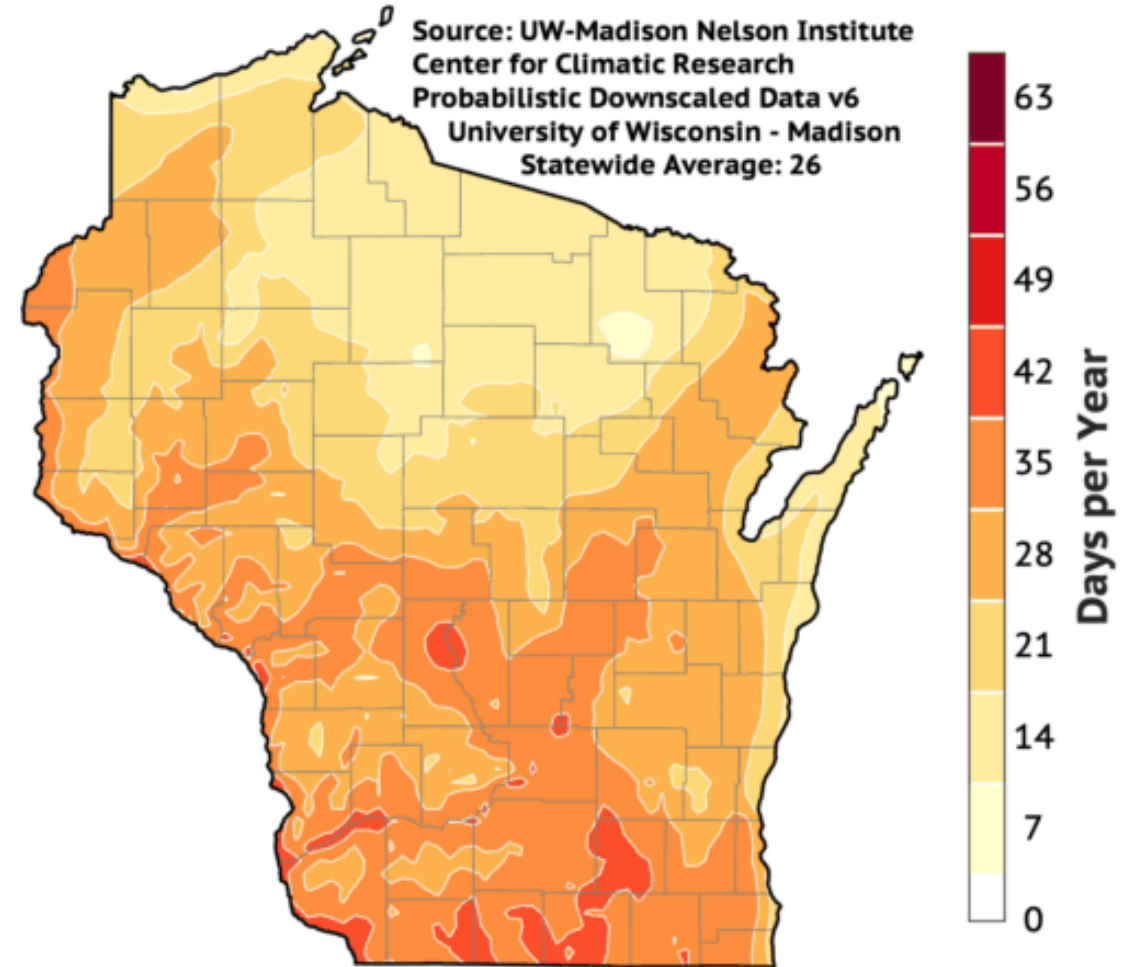
HEATING UP

Number of 90-degree Days per Year

Historical, 1991-2020



Medium Emissions, 2041-2060



Source: WICCI 2026 Assessment Report

WHAT DOES THIS MEAN FOR OUR WEATHER?



Wetter winters and springs



More frequent and intense extreme precipitation events



Extreme nighttime heat: Muggy nighttime lows



Rapid shifts: Alternating very wet and very dry periods



Rising costs: Increasing economic losses from severe weather

Source: WICCI 2026 Assessment Report

HOW MIGHT THIS AFFECT ME?

- **Financial risk:** Climate change could cost Wisconsin agriculture up to \$385 million annually
- **Livestock heat stress:** Rising temperatures impact dairy health and milk production
- **Worker safety:** Rising temperatures increase risks for outdoor labor
- **New pests and diseases:** Tar spot, southern rust, and frogeye leaf spot are becoming more common and causing severe crop loss
- **Water quality and availability:** Volatile rainfall disrupts water supply and increases nutrient runoff

Source: WICCI 2026 Assessment Report

SECTORS



Agriculture



Commercial and
Residential
Buildings



Energy



Industry



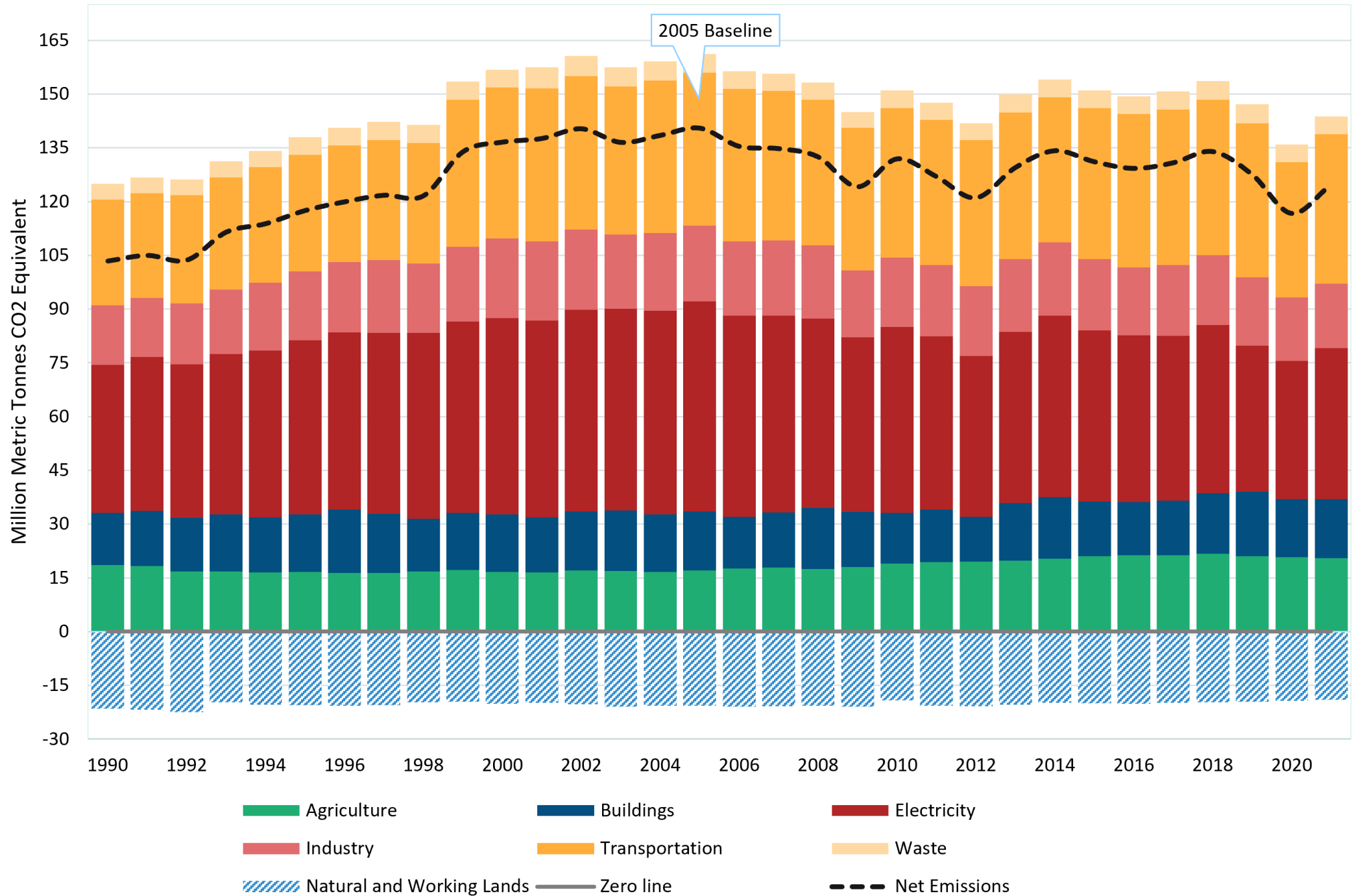
Natural and
Working Lands



Transportation



Waste and
Materials
Management



GREENHOUSE GAS INVENTORY (2024)



BUILDINGS DEEP DIVE

COMMERCIAL AND RESIDENTIAL BUILDINGS

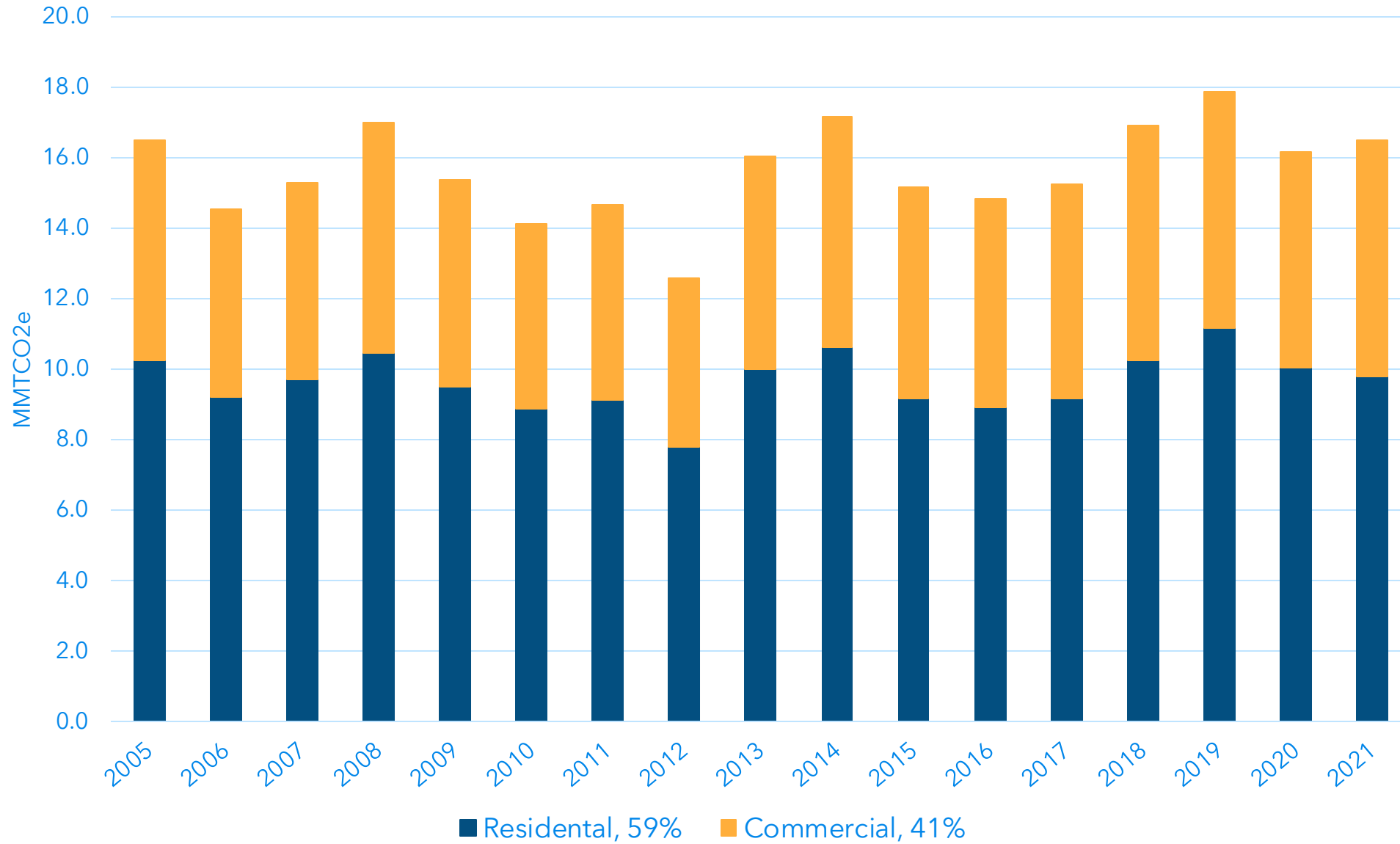


GHG emissions from the Commercial and Residential Buildings sector account for non-electricity energy usage such as space and water heating.

Percentage of total inventory in 2021: 11.5%

Biggest Opportunities: Energy Efficiency, Building Retrofits

BUILDINGS EMISSIONS



Legend includes percent of 2021 total. Does not include Industrial buildings.

ACTIONS FOR REDUCTIONS

#	GHG Reduction Actions	2025-2030	2025-2050
2.1	Continue Wisconsin's leadership in building codes	0.04	0.13
2.2	Improve the efficiency of homes and buildings through building component electrification	1.40	8.20
2.3	Retrofit existing buildings	1.00	5.60
2.4	Create a pre-weatherization program	0.02	0.10
2.5	Support the development of thermal energy networks in residential areas	0.01	0.18
2.6	Work with utilities to develop inclusive utility investment programs	0.89	1.05
2.7	Expand the deployment of low-carbon building materials	0.002	0.05

Estimated reductions in MMTCO₂e within the timeframe.

2.1 CONTINUE WISCONSIN'S LEADERSHIP IN BUILDING CODES

- New Construction adopting 2015 IECC codes

Reductions in MMTCO ₂ e	
2025-2030	2025-2050
0.04	0.13



2.2 IMPROVE THE EFFICIENCY OF HOMES AND BUILDINGS THROUGH BUILDING COMPONENT ELECTRIFICATION

- Heat Pumps
- Envelope Improvements
- Full Appliance Electrification

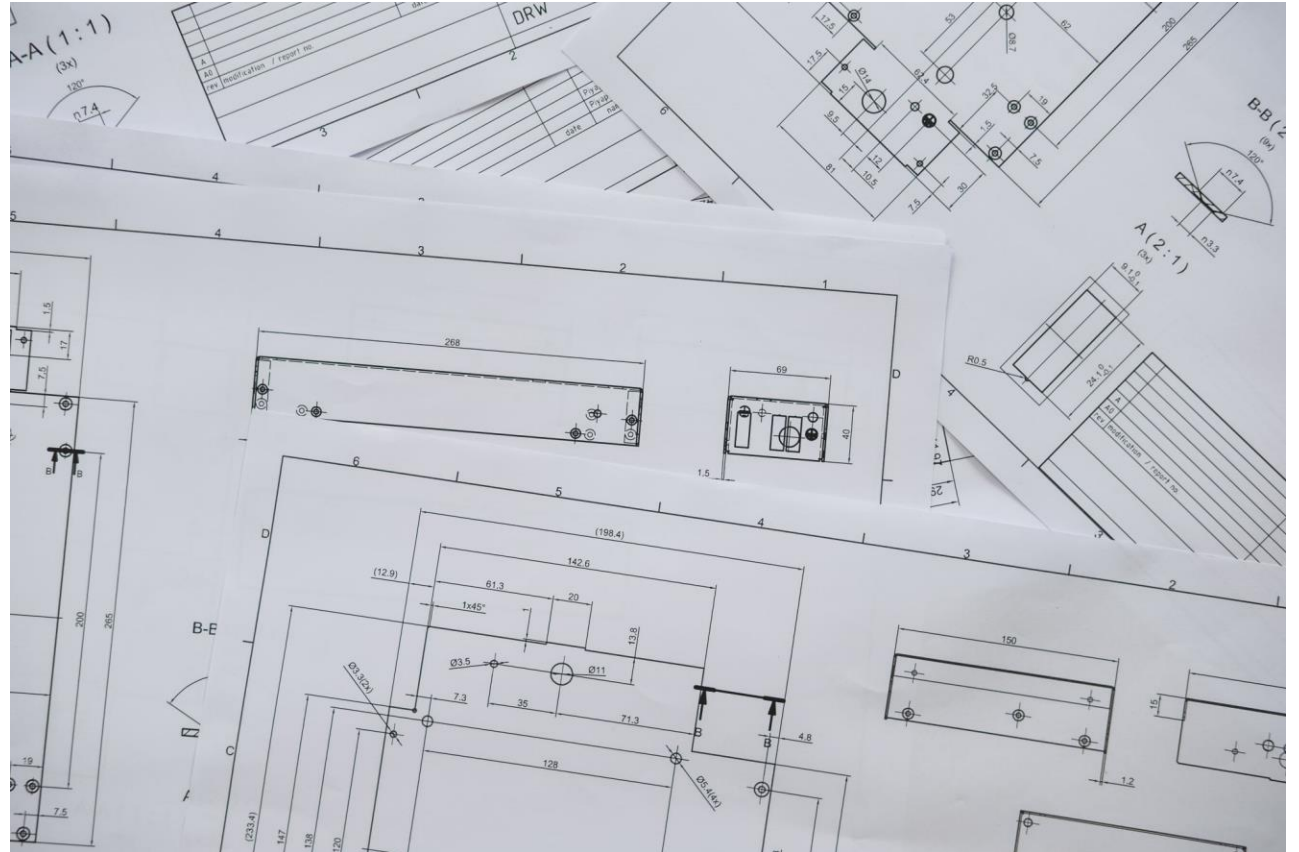
Reductions in MMTCO ₂ e	
2025-2030	2025-2050
1.40	8.20



2.3 RETROFIT EXISTING BUILDINGS

- Envelope Improvements
- Heating System Electrification

Reductions in MMTCO ₂ e	
2025-2030	2025-2050
1.00	5.60



2.4 CREATE A PRE-WEATHERIZATION PROGRAM

- Residential Energy Audits
- Weatherization Projects Completed
- Low Income Weatherization

Reductions in MMTCO ₂ e	
2025-2030	2025-2050
0.02	0.10



2.5 SUPPORT THE DEVELOPMENT OF THERMAL ENERGY NETWORKS IN RESIDENTIAL AREAS

- Best done in high-density areas

Reductions in MMTCO ₂ e	
2025-2030	2025-2050
0.01	0.18



2.6 WORK WITH UTILITIES TO DEVELOP INCLUSIVE UTILITY INVESTMENT PROGRAMS

- Energy Efficiency through On-bill Tariffed Programs
- Related to actions 2.2, 2.3

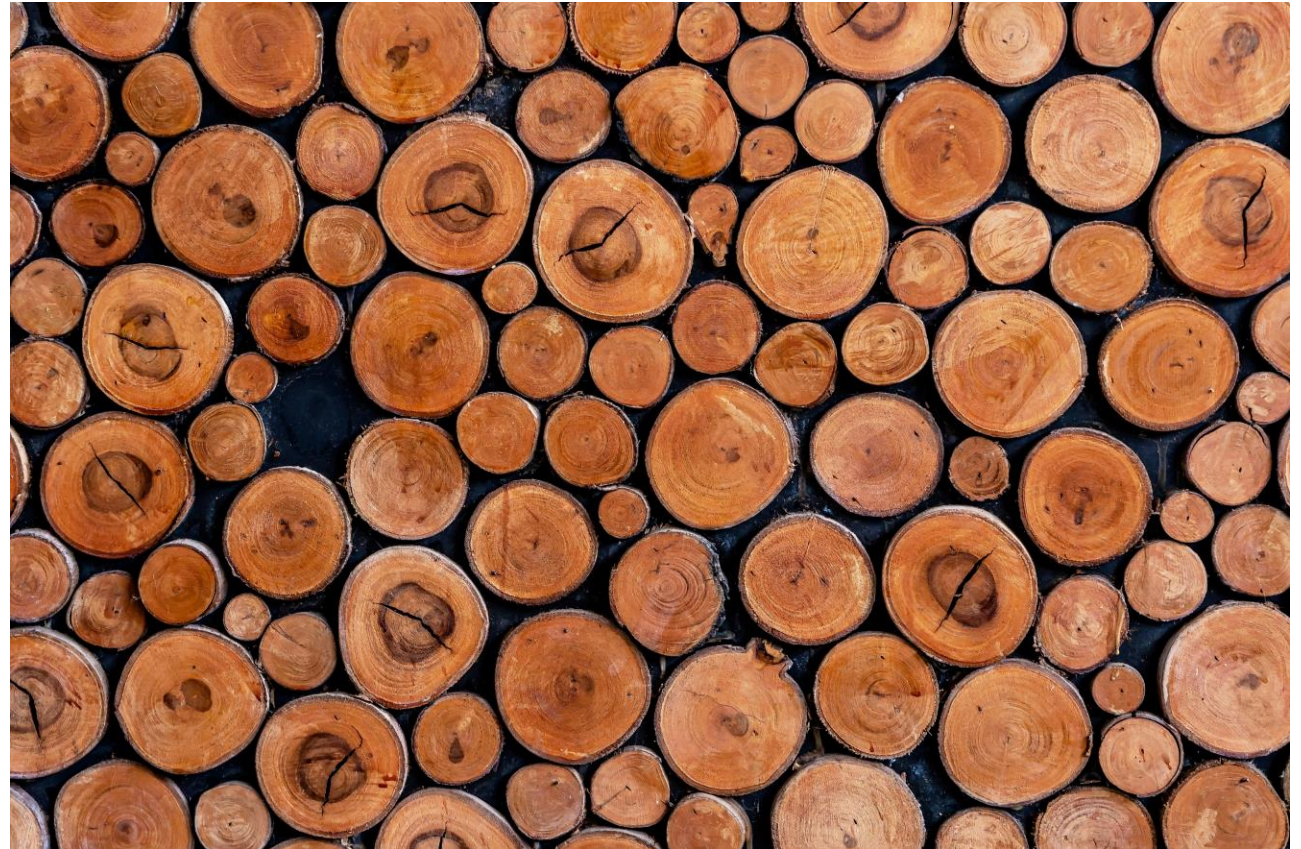
Reductions in MMTCO ₂ e	
2025-2030	2025-2050
0.89	1.05



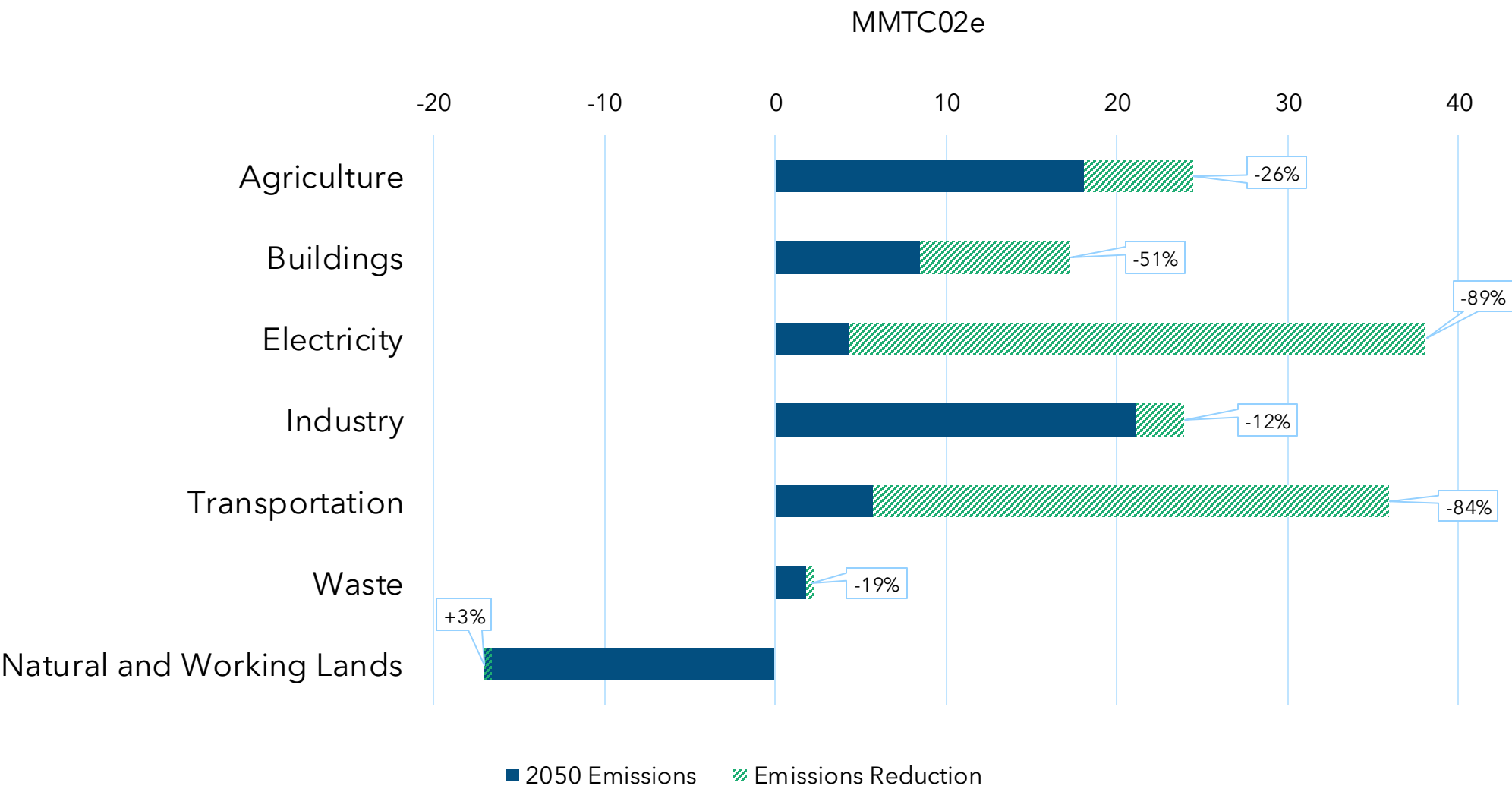
2.7 EXPAND THE DEPLOYMENT OF LOW-CARBON BUILDING MATERIALS

- Timber/framing
- Mass timber
- Low-carbon Concrete/Steel

Reductions in MMTCO ₂ e	
2025-2030	2025-2050
0.002	0.05

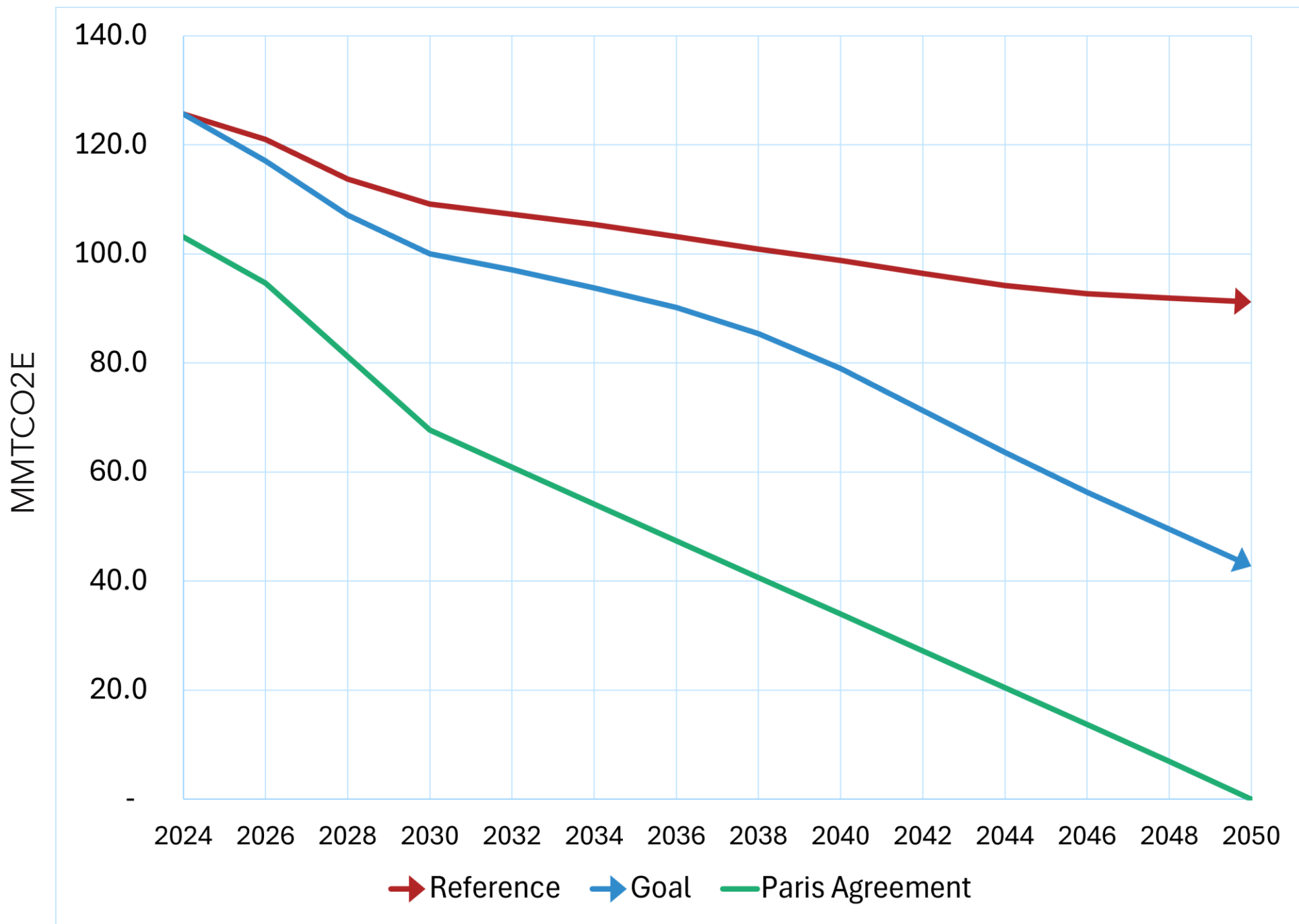


CHANGE IN GHG EMISSIONS FROM ACTIONS 2024-2050



CURRENT SUPPORT FOR ACTIONS

- Focus on Energy
- Wisconsin Office of Energy Innovation - Energy Innovation Grant Program (EIGP)
- Wisconsin Housing and Economic Development Authority
 - Qualified Allocation Plan
 - HOME Homebuyer and Rehabilitation Program (HHR)
- Wisconsin Economic Development Corporation - Green Innovation Fund
- Wisconsin Department of Administration:
 - Wisconsin Home Energy Assistance Program (WHEAP)
 - Weatherization Assistance Program (WAP)
 - Home Energy Plus (HE+) Program
- Services
 - Energy Savings Conservation Programs
 - Help for Homeowners (WHH)
 - Flexible Facilities Grant Program
- Wisconsin Department of Health Services: Asthma Safe Homes/ Healthy Homes
- Inflation Reduction Act HOMES and HEERA rebate programs



EMISSIONS PROJECTIONS

RESOURCES

- Cornell University, [“Understanding Thermal Energy Networks”](#)
- ScienceDirect, [“Greenhouse gas emission forecasts for electrification of space heating in residential homes in the US”](#)
- U.S. EPA, [Inclusive Utility Investments: Tariffed On-Bill Programs](#)
- Carbon Leadership Forum, [“2025 Embodied Carbon Reductions Built Project Case Study Collection”](#)
- [EnergyStar](#)
- [Focus on Energy](#)
- [WI DOA Energy, Housing, and Community Resources](#)
- [WI Office of Energy Innovation](#)



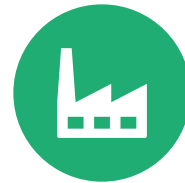
Agriculture
Sep. 14, 630-730PM



Commercial & Residential Buildings
Sep. 21, 630-730PM



Energy
Sep. 28, 630-730PM



Industry
Oct. 05, 630-730PM



Natural and Working Lands
Oct. 12, 630-730PM



Transportation
Oct. 19, 630-730PM



Waste & Materials Management
Nov. 9, 630-730PM



THANK YOU!

USE THE QR CODE TO
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WEBINARS

Contact us: osce@wisconsin.gov or OSCE.wi.gov

