Comprehensive Climate Action Plan

for the Greater Chicago area

Steering Committee
September 24, 2025

CLIMATE POLLUTION REDUCTION GRANTS
U.S. Environmental Protection Agency

COMPREHENSIVE CLIMATE ACTION PLAN FOR GREATER CHICAGO

Welcome

Nora Beck, Policy Principal

COMPREHENSIVE
CLIMATE
ACTION PLAN
FOR GREATER CHICAGO

Agenda

1. Project updates
2. Final modeling results
3. Key reduction strategies
4. Next steps

Meeting objectives

1. Share project updates since last meeting
2. Present final modeling results: economy-wide, sector, air quality, and public health
3. Discuss a subset of priority strategies to reduce emissions
4. Share next steps for plan development and SC member involvement

COMPREHENSIVE CLIMATE ACTION PLAN FOR GREATER CHICAGO

Introductions

Name and organization

What inspires you most to keep pushing forward on climate action?

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Project updates

Kate Evasic, CAP project manager

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Tasks and timeline

Establish guiding principles **(complete)**

Create greenhouse gas inventory **(complete)**

Set reduction targets **(complete)**

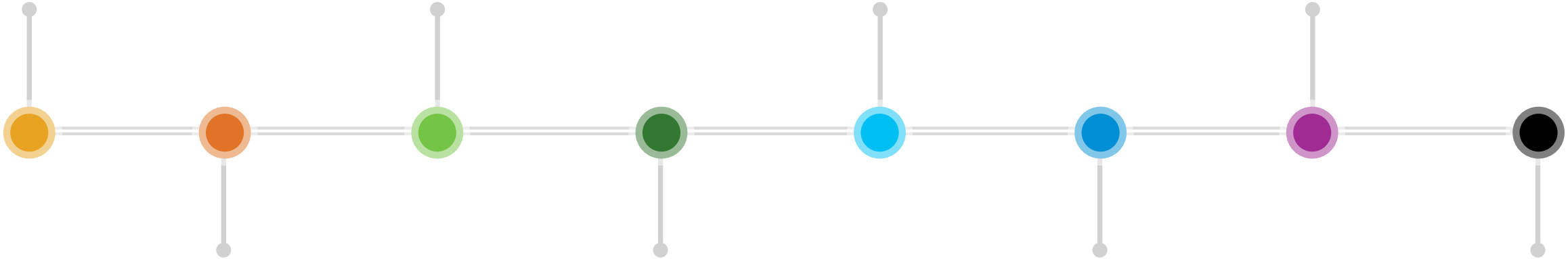
Identify strategies to reduce emissions **(complete)**

Model how strategies impact emissions **(complete)**

Estimate how strategies improve air quality and public health **(complete)**

Submit plan to USEPA **(by 12/1/25)**

Release final plan **(early 2026)**



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Stakeholder engagement

Steering Committee

Regional leaders guiding overall process, including plan goals, reduction targets, and implementation strategy.

Industry **Transportation**

Buildings **Community**

Sector-specific working groups plus a community advisory group, providing technical expertise on decarbonization, engagement, and community priorities.

CMAP, MMC, and NIRPC governance committees

Partner committees to ensure alignment with regional priorities and gain insights on remaining sectors.

Public questionnaire and community workshops

Community-focused engagement activities to ensure the plan reflects local priorities and challenges.

Community engagement

Results

- Facilitated 3 meetings with community working group
- Held 5 community workshops (2 more scheduled)
- Prepared readymade workshop-in-a-box materials
- Received 500+ questionnaire response s

Community priorities to uplift in plan

- Clean air and related health benefits
- Access to safe and accessible bicycle/pedestrian infrastructure
- Access to and more reliable public transit
- Lower energy and water bills
- Extreme weather preparedness and reduced risk
- More trees and natural green spaces
- Workforce opportunities

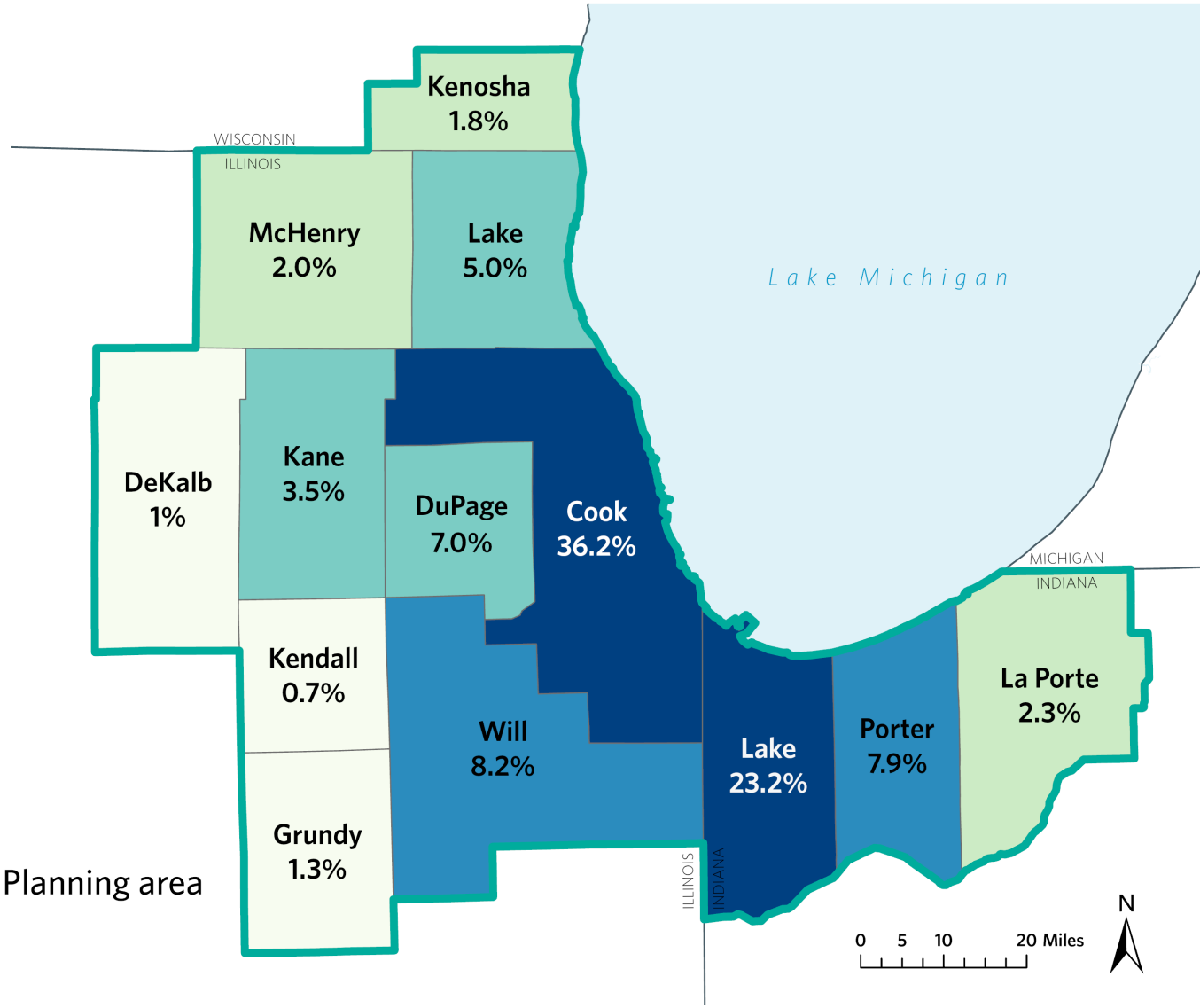
2020 GHG inventory, emissions by county

Update since October:

- Revised electricity emissions factors
- Resulted in decreases for IL, increases for IN & WI

New total emissions:

152 million metric tons of carbon dioxide equivalent (MMT CO2e)



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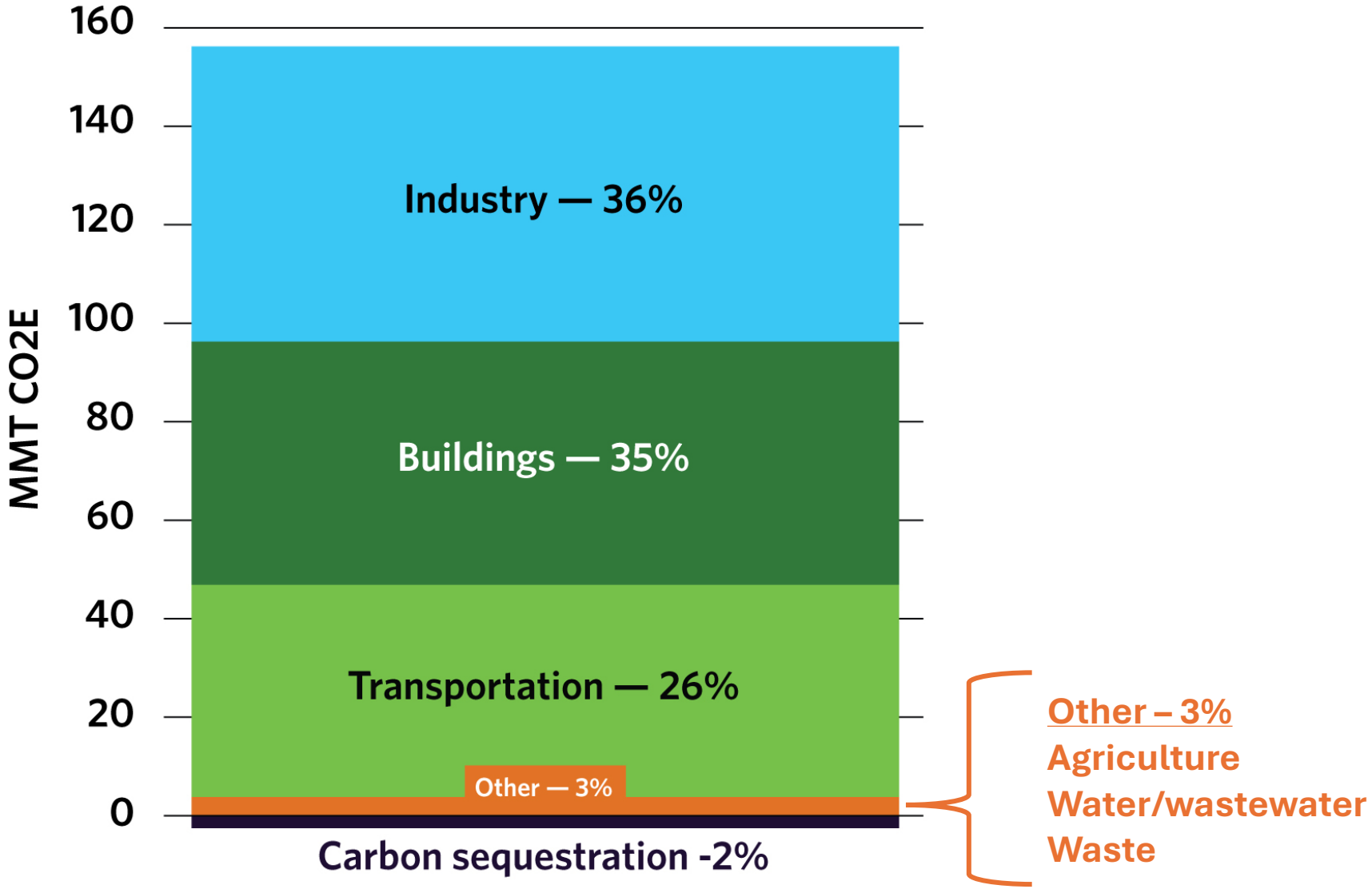
2020 GHG inventory, emissions by sector



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Why the plan matters

- **Greatest impact focus** – zero in on the strategies that matter most
- **Evidence base** – credible, local data to build a shared fact base
- **Regional voice** – stronger together to shape policy & funding
- **Practical tools** – resources implementers can use
- **Inspiration** – real progress that shows what's possible

Final modeling results

Mitch Hirst, CAP modeling lead

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GHG reduction targets for the plan

80-85% reduction of gross GHG emissions from 2005 levels by 2050 within the greater Chicago area

- Encompasses all sectors
- Aligns with targets set by CMAP, City of Chicago, and Metropolitan Mayors Caucus
- Includes sector targets

"Gross" emissions are emissions generated before accounting for carbon sequestration (by natural or other means)

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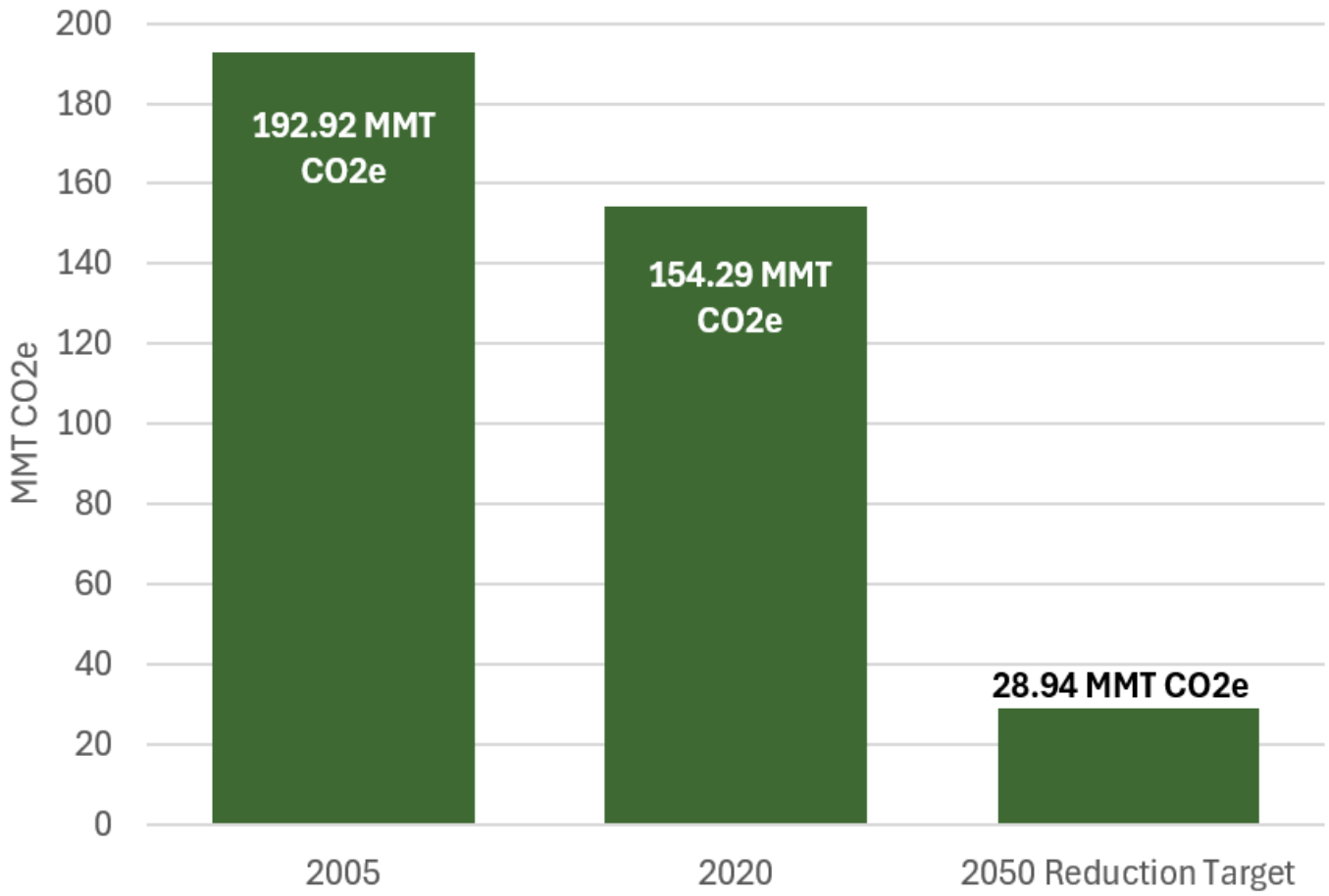
GHG emissions: 2005, 2020, and 2050 target

20% reduction between 2005 and 2020

- 39 MMT CO2e

Additional 65% reduction needed to meet 80-85% target by 2050

- 125.35 MMT CO2e



Emissions depicted represent gross emissions

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Modeling process

Develop decarb. objectives & strategies

Vet objectives and strategies with working groups **(Nov-Dec 2024)**

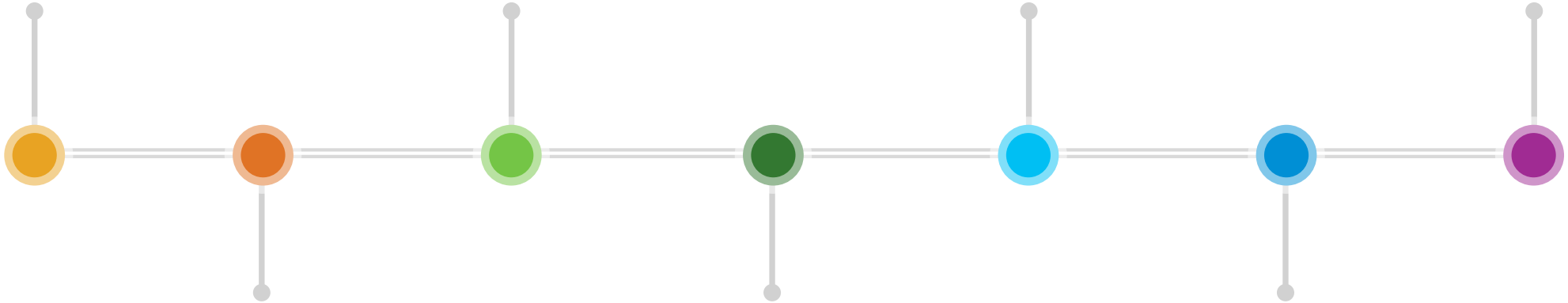
Identify strategies to model in Pathways (36 total)

Conduct first model run **(Apr-May 2025)**

Vet initial model results with working groups **(June-July 2025)**

Incorporate changes into final model run **(July-Aug 2025)**

Share final model results with steering committee **(Sep 2025)**



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GHG emissions scenarios

Current policy	What GHG emissions could be in the future given existing state and federal policy
Plan implementation	Shows how the plan reduction measures will reach the 80-85% reduction target Includes all actions needed – state, local, and federal, as well as technology innovation
State and local portion	Highlights state and local actions that can be led by state and local actors

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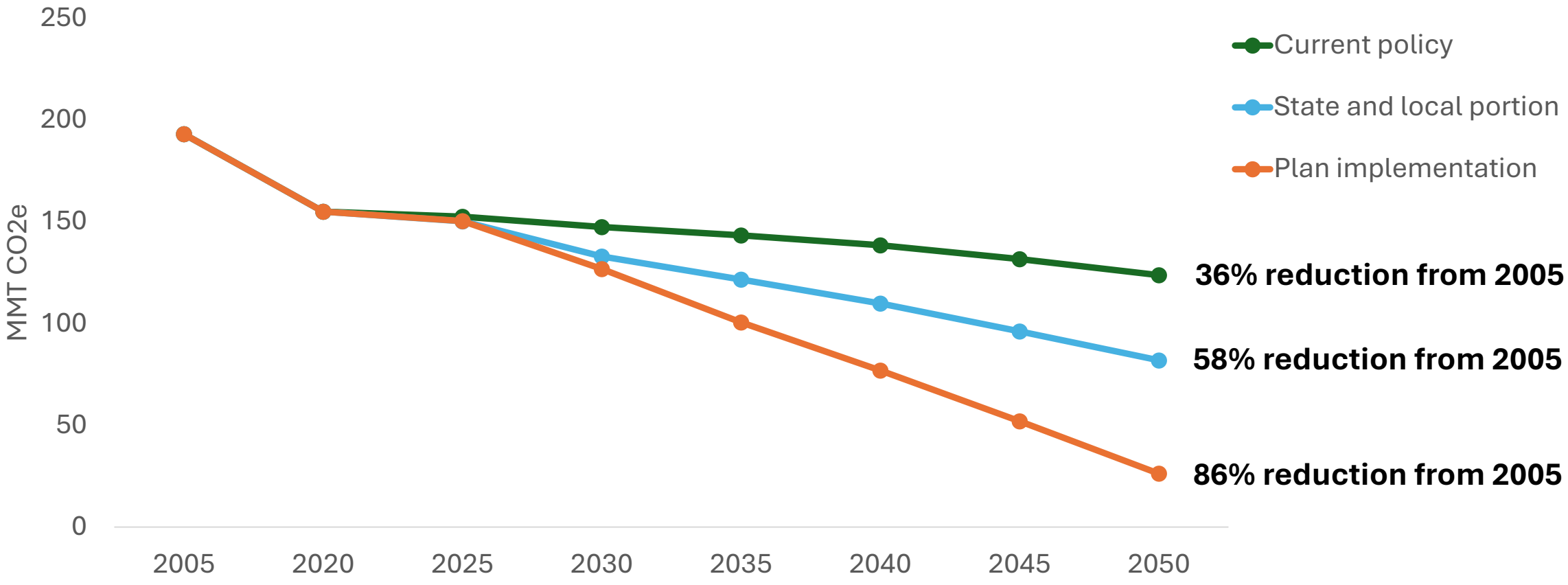
Modeling assumptions

- Estimate 36 modeled strategies
- Implementation rates informed by:
  - Existing policies and programs within the region
  - Existing state and local policies outside the region
  - Additional analysis to align with the plan's 85% reduction target
- Appendix A (Table A-1) includes details for each strategy in isolation

Changes made based on feedback

- Updated current policy to reflect federal changes
- Shifted strategies between scenarios based on changes in state authority to implement
- Incorporated working group feedback to refine and add assumptions

Economy-wide scenarios



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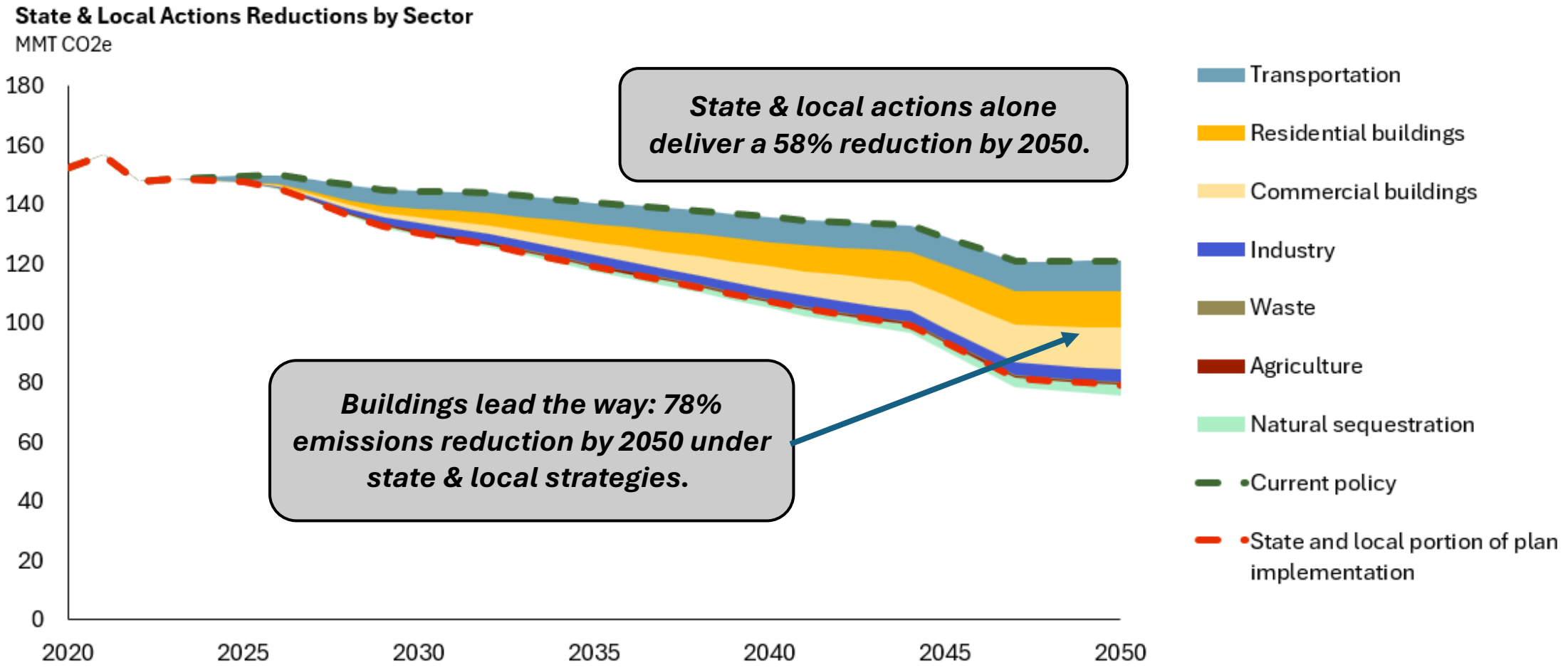
State and local role



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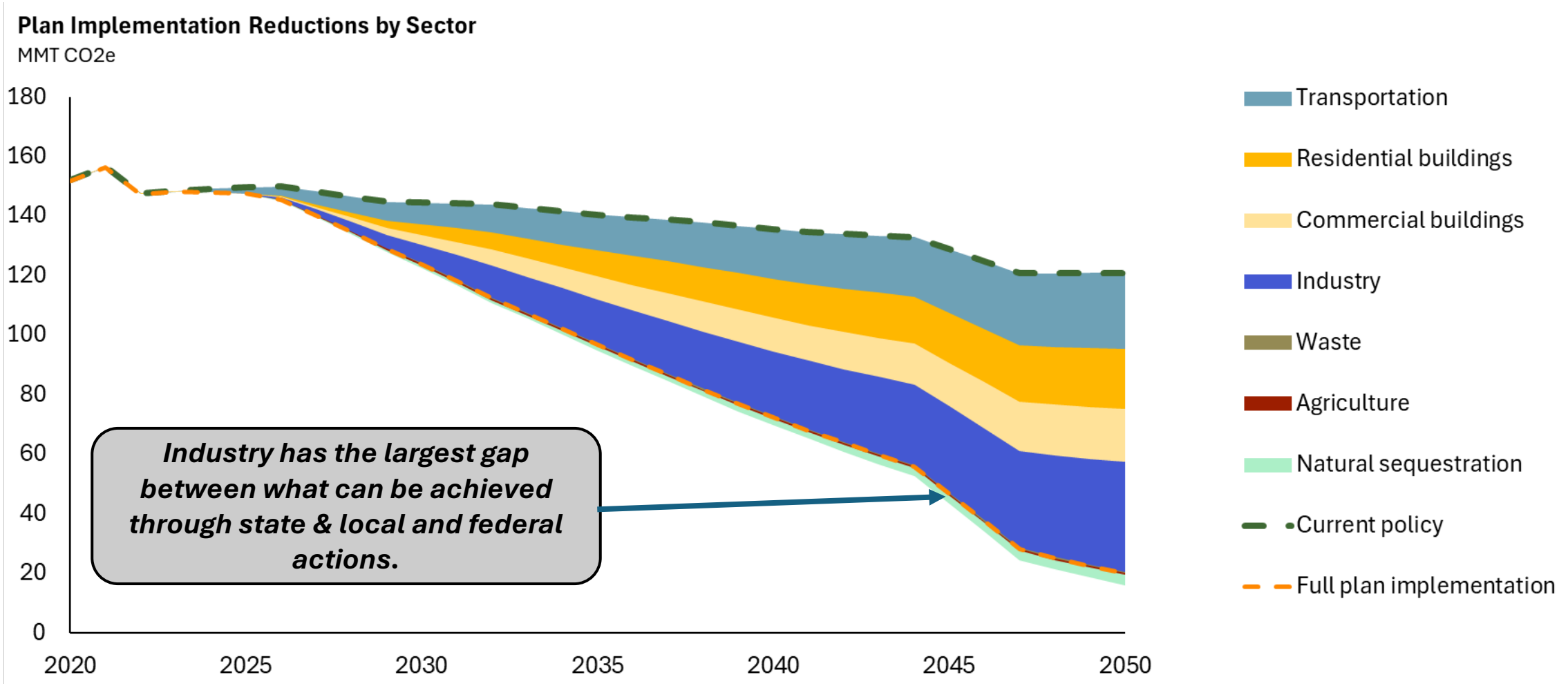
Plan implementation



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Sector targets

Presented as percent change from 2005 GHG levels

Sector	Plan implementation		State and local portion	
	2035	2050	2035	2050
Buildings*	-45%	-95%	-36%	-78%
Transportation	-61%	-91%	-53%	-64%
Industry	-40%	-77%	-24%	-33%
Waste*	-57%	-56%	-57%	-56%
Agriculture	-27%	-27%	-27%	-27%
Gross emissions	**-48%**	**-86%**	**-37%**	**-58%**
Natural sequestration	+16%	+75	+16%	+75%

**Note: Water and wastewater emissions are currently included within the buildings & waste sectors.*

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Q&A and discussion (Menti)

Benefits analysis

- Estimate air quality improvements based on sector-specific changes in technology and fuel use (e.g., shifts in vehicle type and VMT)
- Used USEPA's Co-Benefits Risk Assessment (COBRA) screening model to estimate public health benefits
- Results available by sector and county

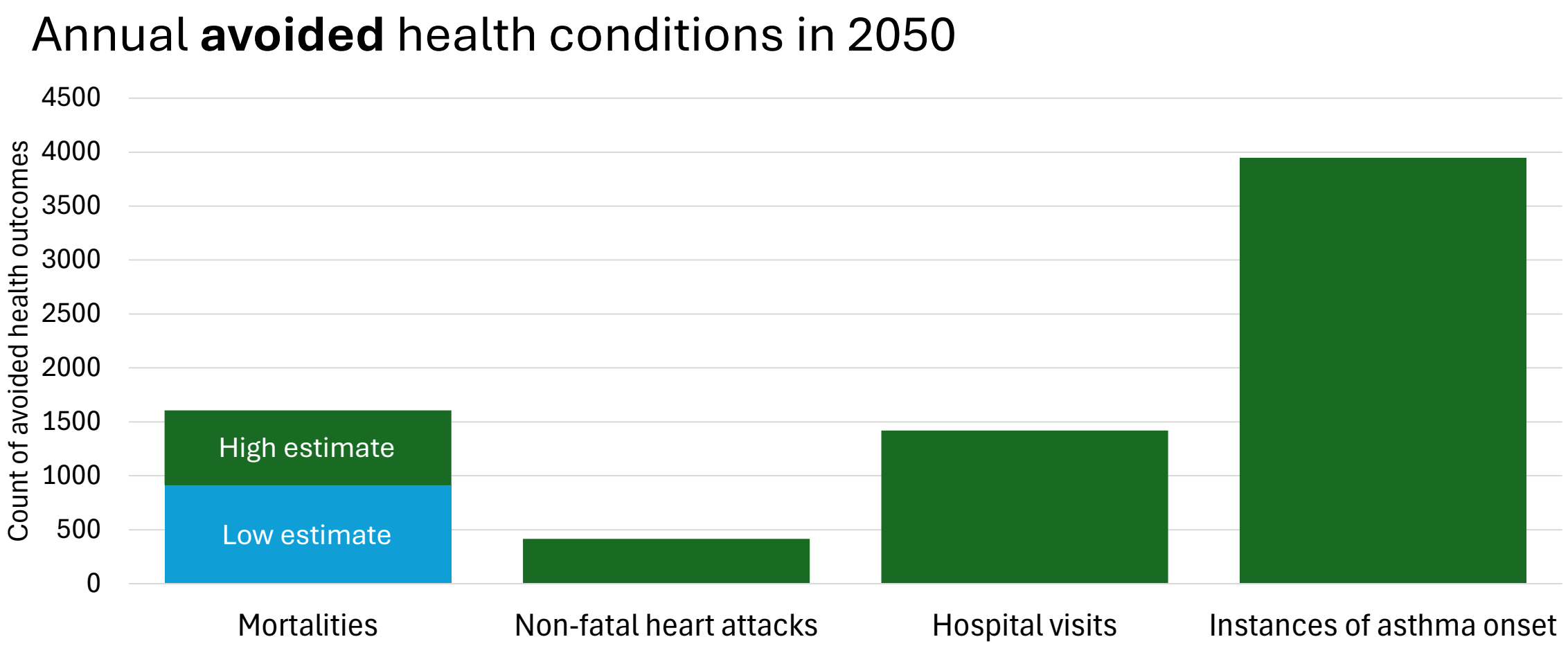
Air quality (AQ) benefits

- PM2.5 drops 35% in industry and 86% in on-road transportation
- VOC emissions from transportation, buildings and industry fall 47% by 2050

Criteria air pollutant reductions by year

Pollutant	2035	2050
Fine particulate matter (PM2.5)	-6%	-17%
Sulfur dioxide (SO2)	-17%	-59%
Nitrogen oxides (NOx)	-19%	-48%
Volatile organic compounds (VOCs)	-8%	-14%

Public health benefits from AQ improvements



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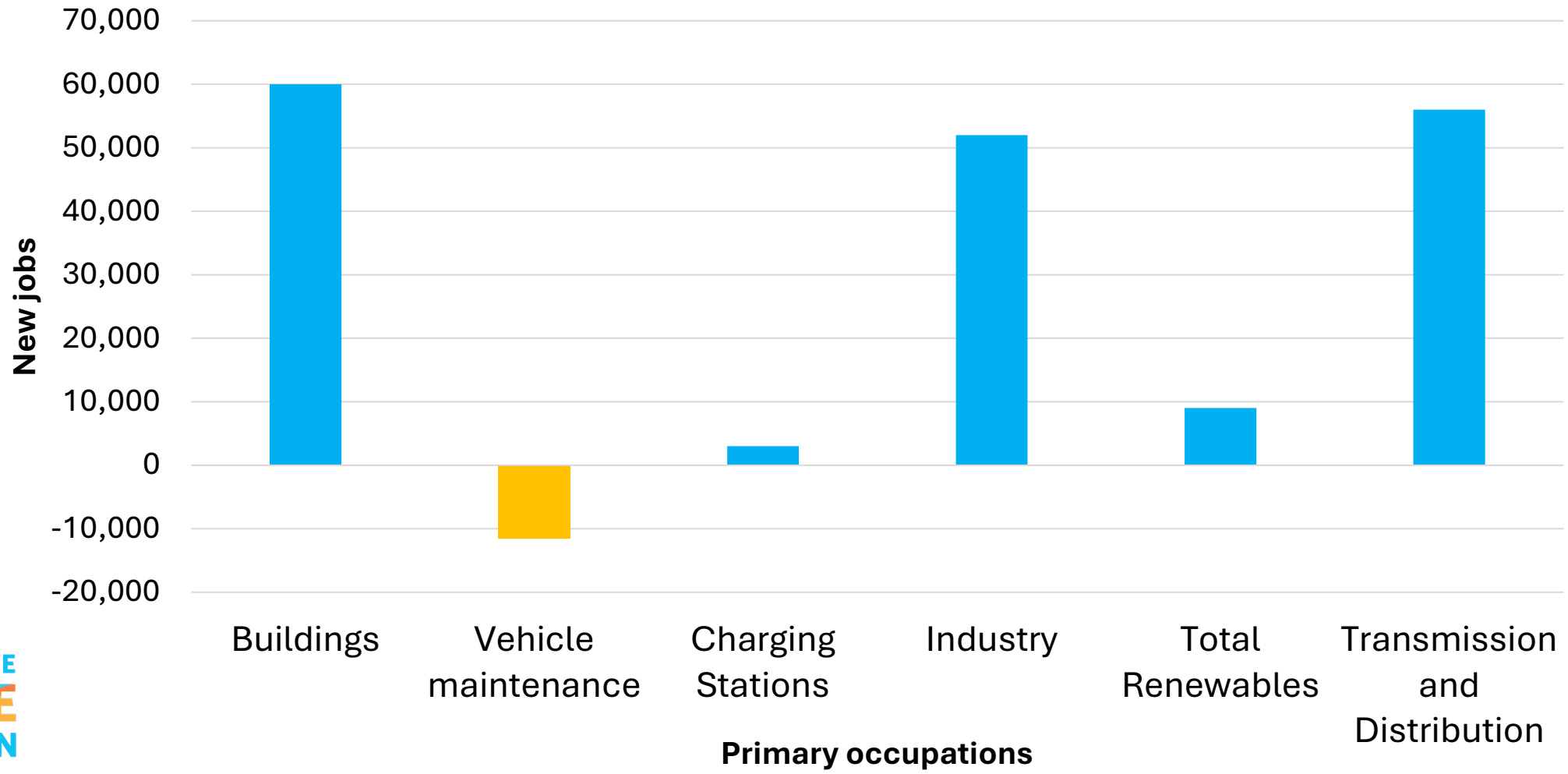
New jobs needed to implement modeled strategies



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Q&A and discussion (Menti)

Key reduction strategies

Kelsey Pudlock, CAP policy lead

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Strategies to discuss today

- Implement CEJA in Illinois
- Adopt building performance standards
- Establish State Buy Clean programs for cement and steel
- Reduce vehicle miles traveled (VMT)

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Implement CEJA in Illinois

Percent sector reduction

2035	2050
17%	79%

What does it entail?

- Requires IL electricity generation facilities to eliminate emissions by 2045
- Raises IL renewable portfolio standard to 50% by 2040
- Requires 100% clean energy by 2050

How is it modeled?

- Responsible for most reductions in the Current Policy scenario
- Note: the plan implementation scenario includes similar clean electricity standards would be adopted in IN and WI

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Implement CEJA in Illinois

Implementation

- Lead: IL state agencies, utilities (ComEd, municipal electric utilities), and regulators (ICC)
- Support: Local governments

Tracking progress

- Emissions reductions achieved by 2024: 20% from 2005 levels
- State's 2025 emissions target for 2025: 26% from 2005 levels

Discussion (Menti)

Adopt building performance standards

What does it entail?

- Require existing buildings to meet energy and/or emissions intensity targets over time
- Enforceable – mandatory and measurable
- Benchmarking requirements are complementary
- State-level adoption is preferred (scalable and consistent requirements)

How is it modeled?

- Based on Colorado's BPS policy

COLORADO
Energy Office

Building Performance Colorado

Benchmarking and building performance standards reduce emissions statewide.

Adopt building performance standards

Percent sector reduction

2035	2050
8.8%	39.1%

Modeled strategy

Adopt statewide building performance standards for existing buildings:

- 2035 target: 20% emissions reduction from a subset of buildings
  - Commercial ≥50,000 sq. ft.
  - Multi-family with ≥5 units and ≥8 stories (~120,500 units)
- 2050 target: 80% emissions reduction from a subset of buildings
  - Commercial ≥25,000 sq. ft.
  - Multi-family with ≥5 units and ≥4 stories (~361,000 units)

Adopt building performance standards

Implementation considerations

Implementers: states, counties, building stakeholders

Key takeaways from Buildings Working Group:

- Scale adoption and simplify decision-making processes
- Engage stakeholders early in policy development
- Use case studies and model examples to build support and reduce the need for costly studies
- Address barriers such as high capital and administrative costs
- Mitigate risk of losing access to Energy Star portfolio manager, a key tool for tracking building performance

Discussion (Menti)

Establish State Buy Clean programs for cement and steel

What does it entail?

Procurement requirement to use low-emissions materials in major public works projects, including:

- Public road work
- State governmental buildings
- Public university buildings

How is it modeled?

- National data to estimate the use of steel and cement in public purchases
- Steel: assumes DRI-EAF with green hydrogen
- Cement: assumes coal to gas conversion and energy-efficiency improvements

Establish State Buy Clean programs for cement and steel

Percent sector reduction

2035	2050
1.5%	3.9%

Modeled strategy

Enact a state-level emissions intensity requirement for cement and steel used in public projects, starting in 2027

- Achieves a 7% reduction in steel emissions and a 23% reduction in cement emissions by 2050

Establish State Buy Clean programs for cement and steel

Key implementers

- Public owners/operators of infrastructure and buildings

Implementation considerations

- Rising costs for public projects
- Potential for limited supply of materials
- Unreliable data for measuring compliance

Discussion (Menti)

Reduce Vehicle Miles Traveled (VMT)

What does it entail?

- Strategies modeled as a combined package:
  - Support compact and transit-oriented land uses
  - Implement road pricing
  - Increase transit ridership
  - Increase active transportation
- Future work: Argonne partnership to evaluate individual strategy impacts and include in 2027 CCAP status report

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Reduce VMT

Percent sector reduction

2035	2050
6.7%	13.2%

Modeled strategy

Achieves a 5% reduction in VMT by 2030 and 16% by 2050 below business-as-usual trends

Equates to 12% reduction per capita

How is it modeled?

Based on peer review and internal analysis

- CMAP region: 1% increase by 2035 and 2% by 2050
- NIRPC region: 20% increase between 2020 and 2050
- Rate of change applied differently across counties

Reduce VMT

Key strategies:

- Transit-supportive land uses
- Implement road pricing
- Increase transit ridership
- Increase active transportation

Implementation considerations

- VMT reduction is as critical as electrification
- Prioritize accessibility and affordability
- Local land use drives transit-oriented development
- Active transportation solves first- and last-mile gaps
- Transit fiscal cliff highlights urgency

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Discussion (Menti)

Next steps

Next steps and key dates

- Incorporate feedback from today into draft CAP; finalize draft
- **Oct 15:** Final community working group meeting to discuss draft strategies and engagement findings
- **Oct 21:** Draft CAP shared with steering committee
- **Oct 22 – Nov 4:** Steering committee review/comment period
- **October 28 at 9:30 AM:** Final steering committee meeting to discuss draft CAP
- Submit the plan to USEPA by December 1, 2025
- Release the plan to the public in early 2026

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Share your success stories

Scan the QR code or visit
cmap.is/ccap-projects

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Thank you

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