Comprehensive Climate Action Plan
for Greater Chicago

Metropolitan Mayors Caucus
Environment Committee

October 21, 2025

COMPREHENSIVE
CLIMATE
ACTION PLAN
FOR GREATER CHICAGO

Agenda

1. Project overview & updates
2. Final modeling results
3. Key reduction strategies: Reduce VMT and Enact State Buy Clean program
4. Next steps

Project overview & update

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Plan overview

- Partnership with the Caucus and Northwestern Indiana Regional Planning Commission
- Roadmap to reduce GHG emissions and criteria air pollutants
- Coordination with State plan and implementation grant

Planning area

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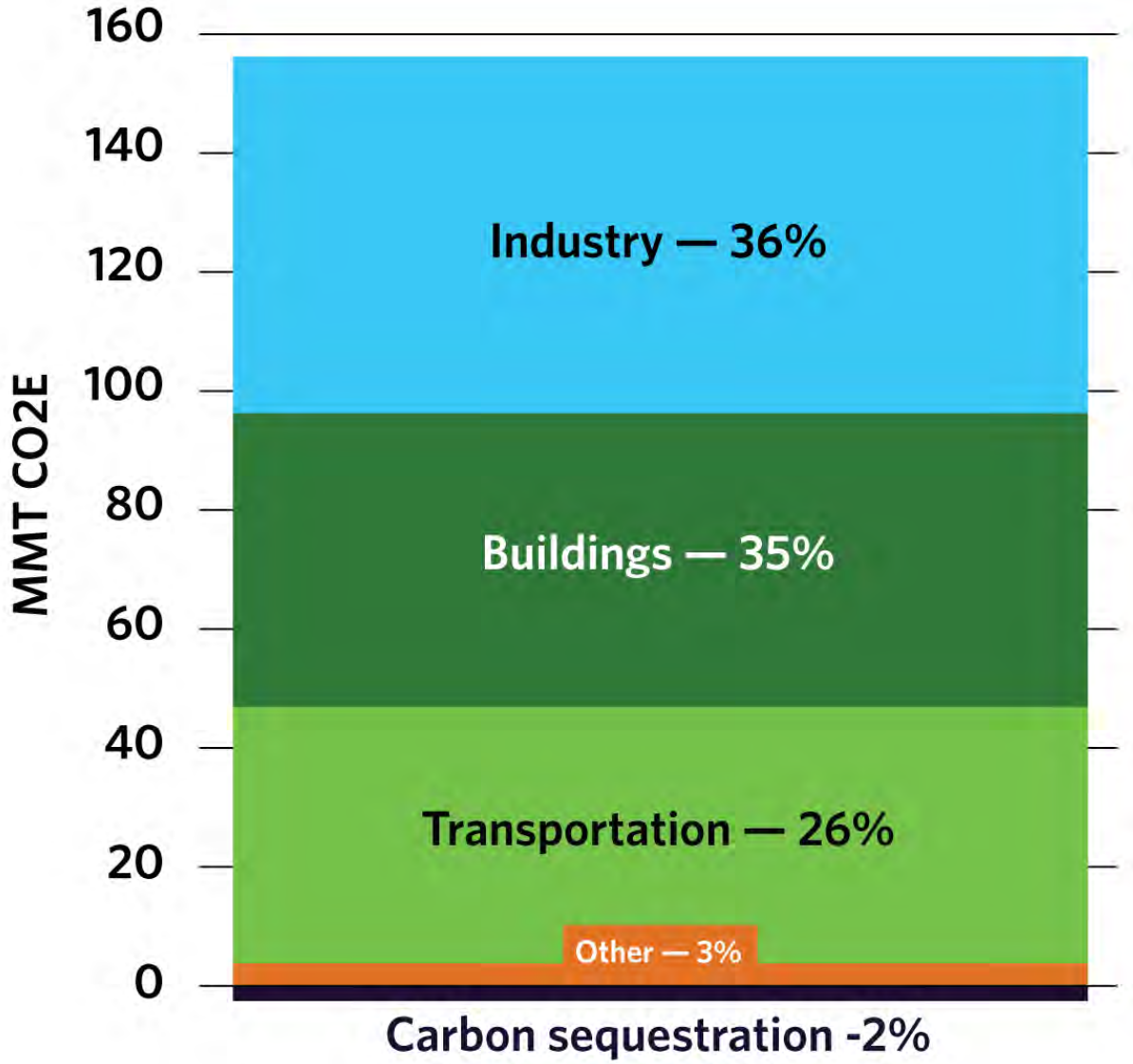
Where are emissions coming from?



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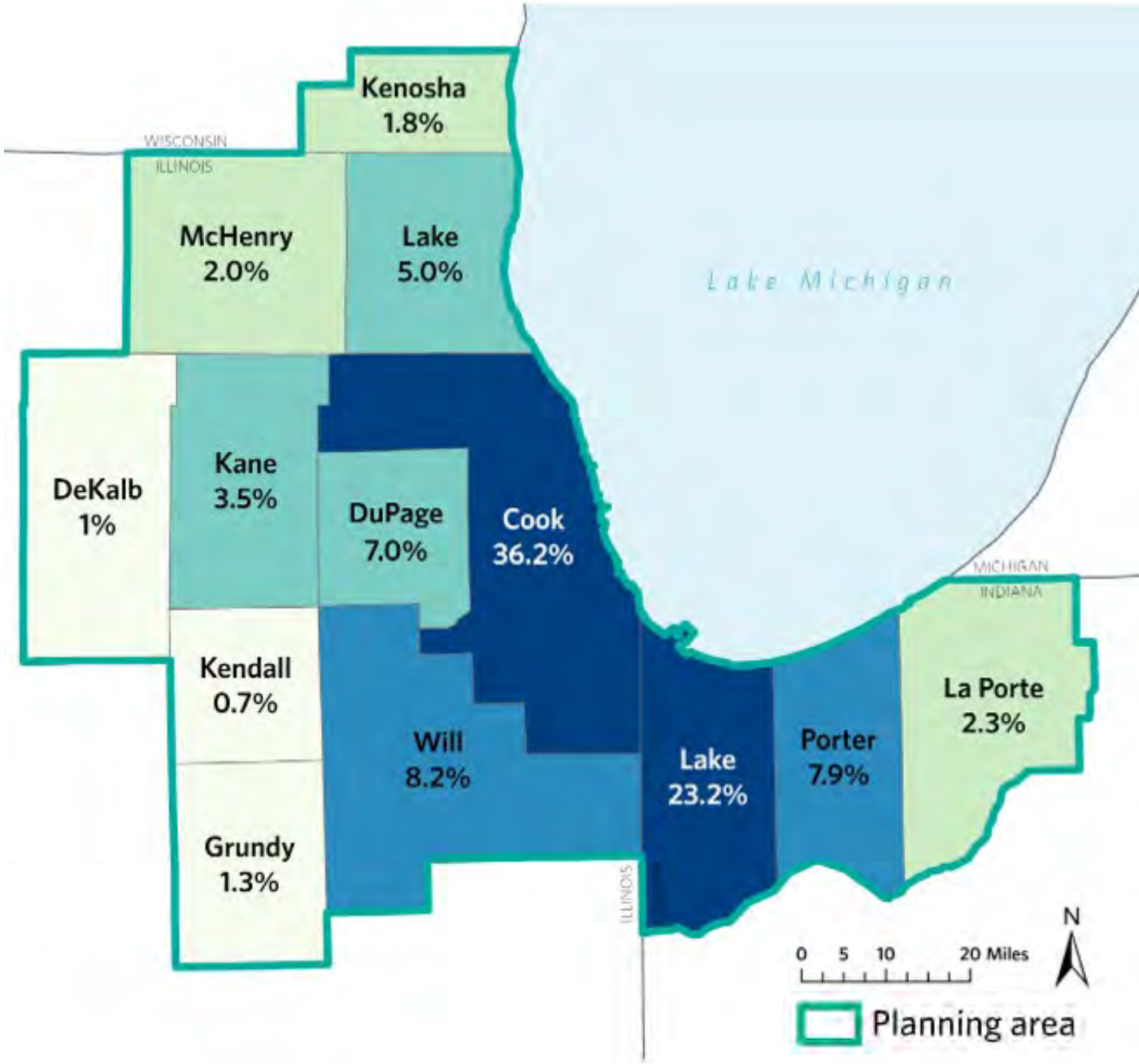
Where are emissions coming from?



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What's our path to meet international climate goals?

- How much do we need to reduce and at what rate?
- How much can happen at the state and local levels?
- Where must we rely on federal action and emerging technology?

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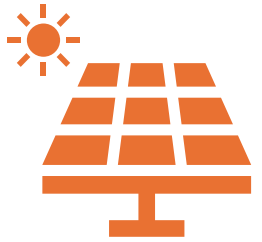
What strategies should be prioritized?

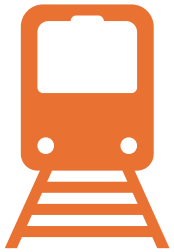
Electric vehicles

Energy efficiency

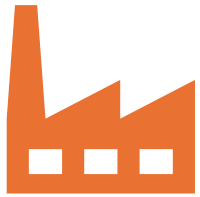
Building electrification



Renewable energy



Transit, walking, and biking



Clean industry practices

Natural carbon capture/ storage

Land use and development

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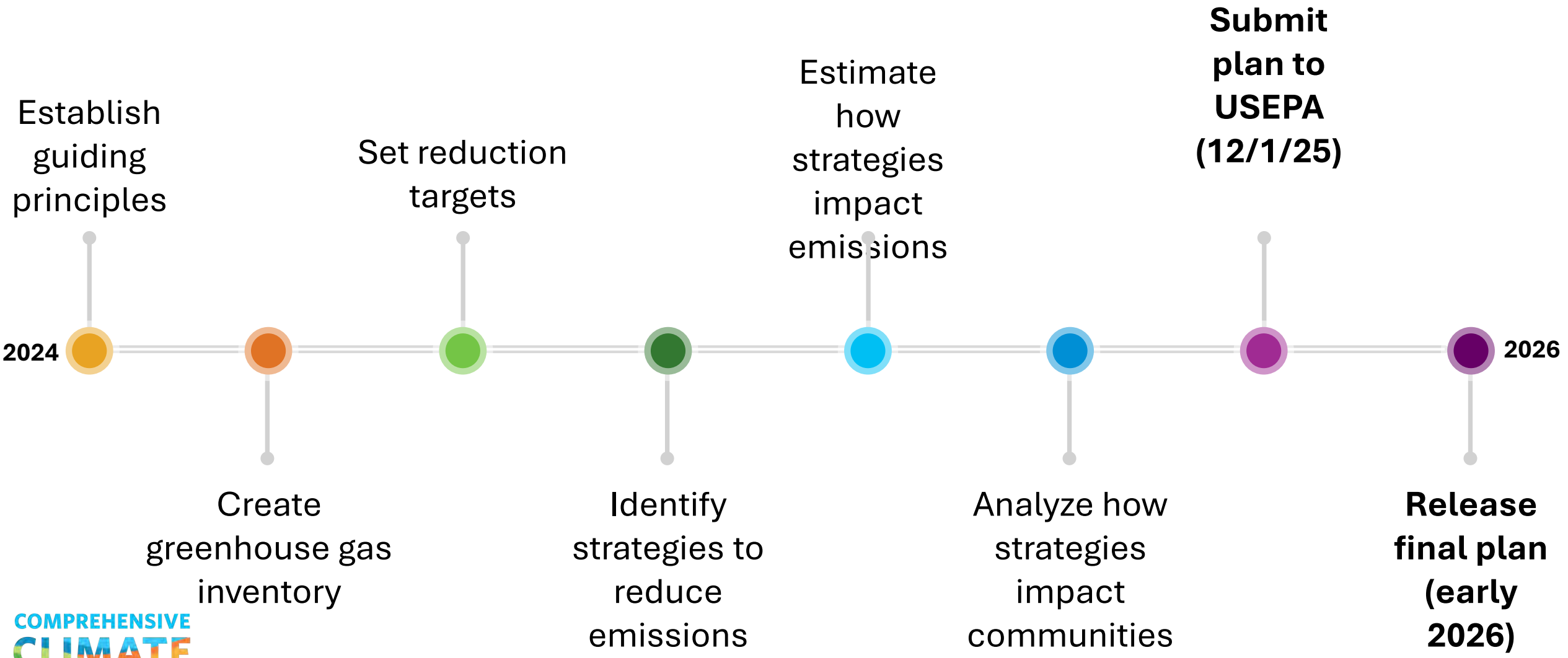
Tasks and timeline



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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 4 meetings with community working group
- Held 6 community workshops
- Prepared readymade workshop-in-a-box materials
- Received 400+ questionnaire responses

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

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

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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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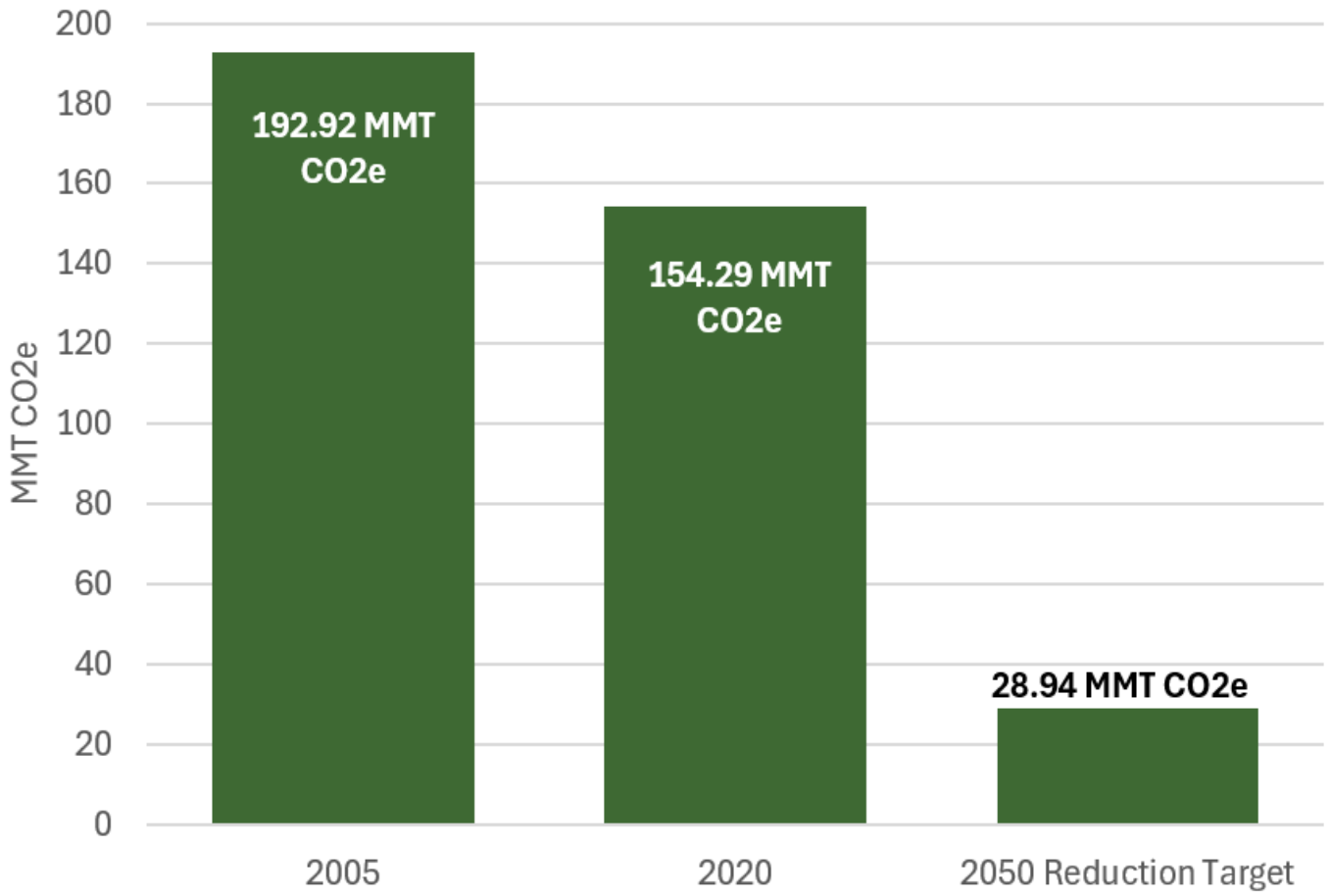
GHG reduction targets: 2005, 2020, and 2050

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)**

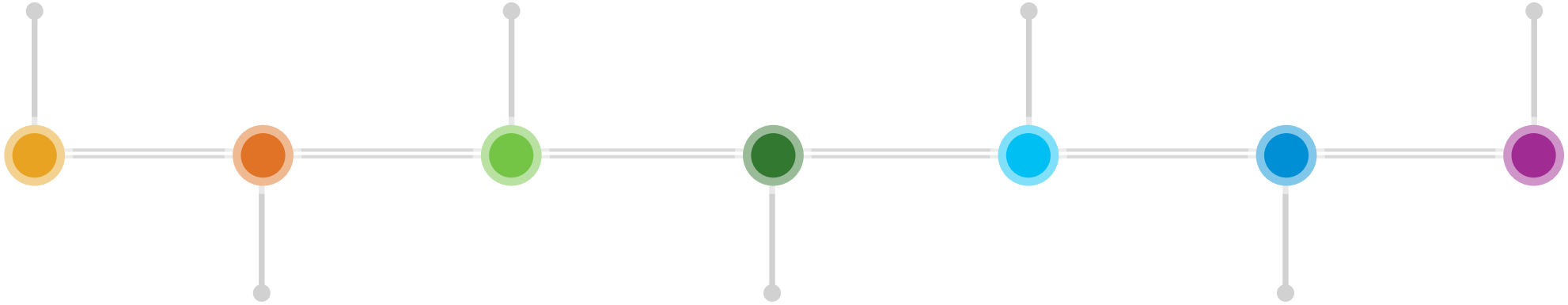
Identify strategies to model in Pathways (36 total)

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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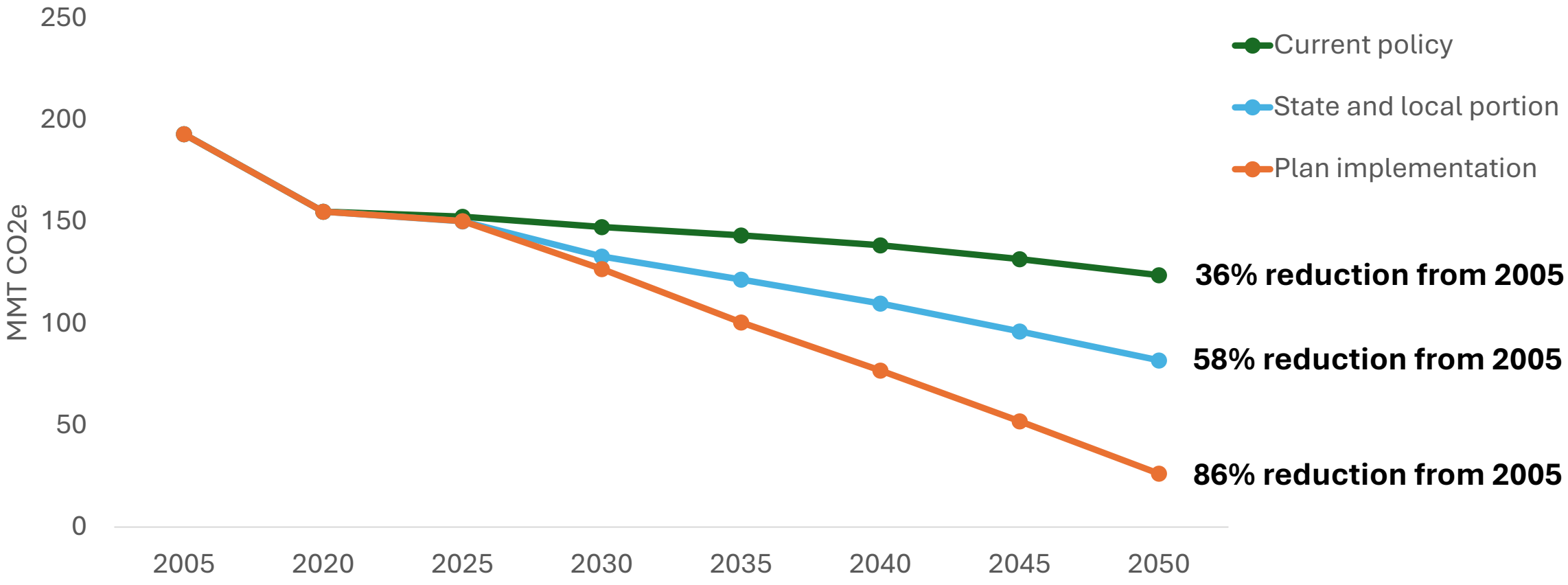
Modeling assumptions

- 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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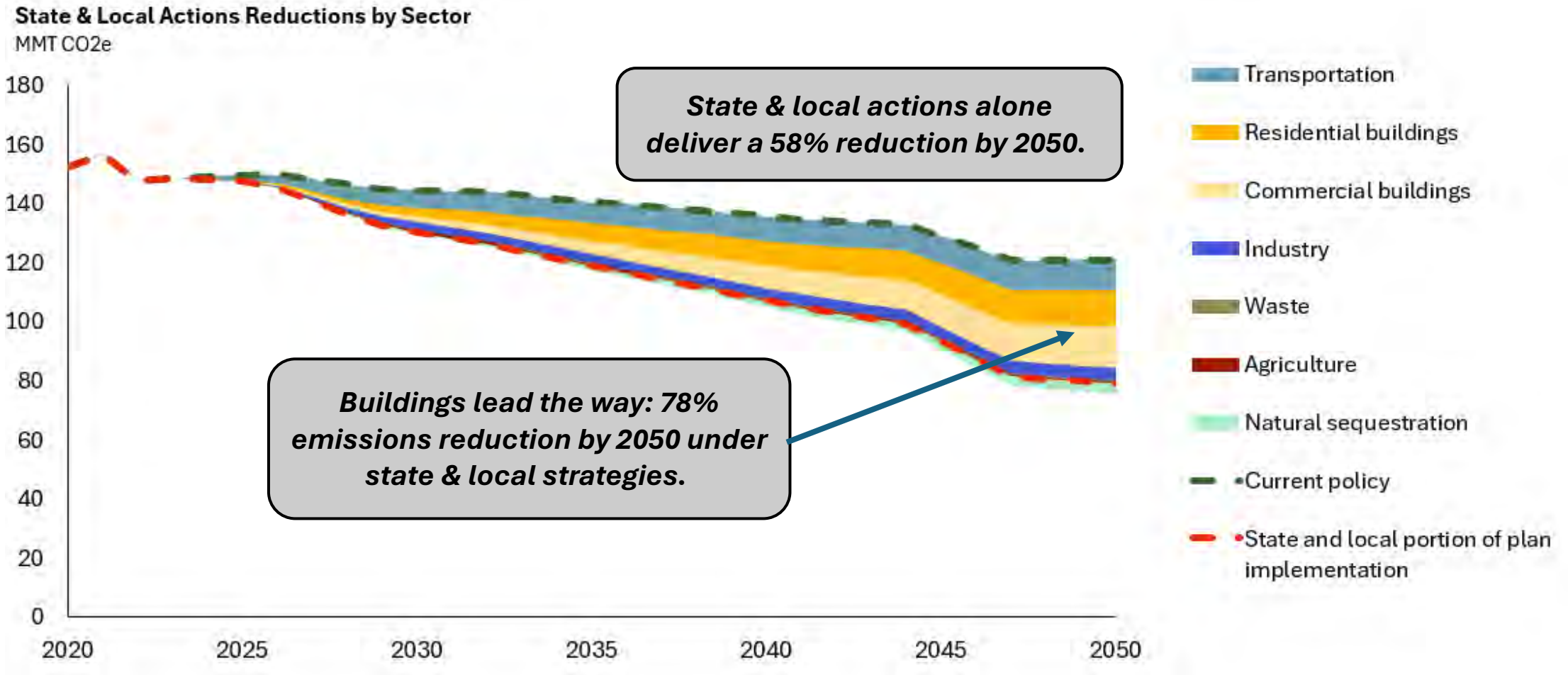
State and local role



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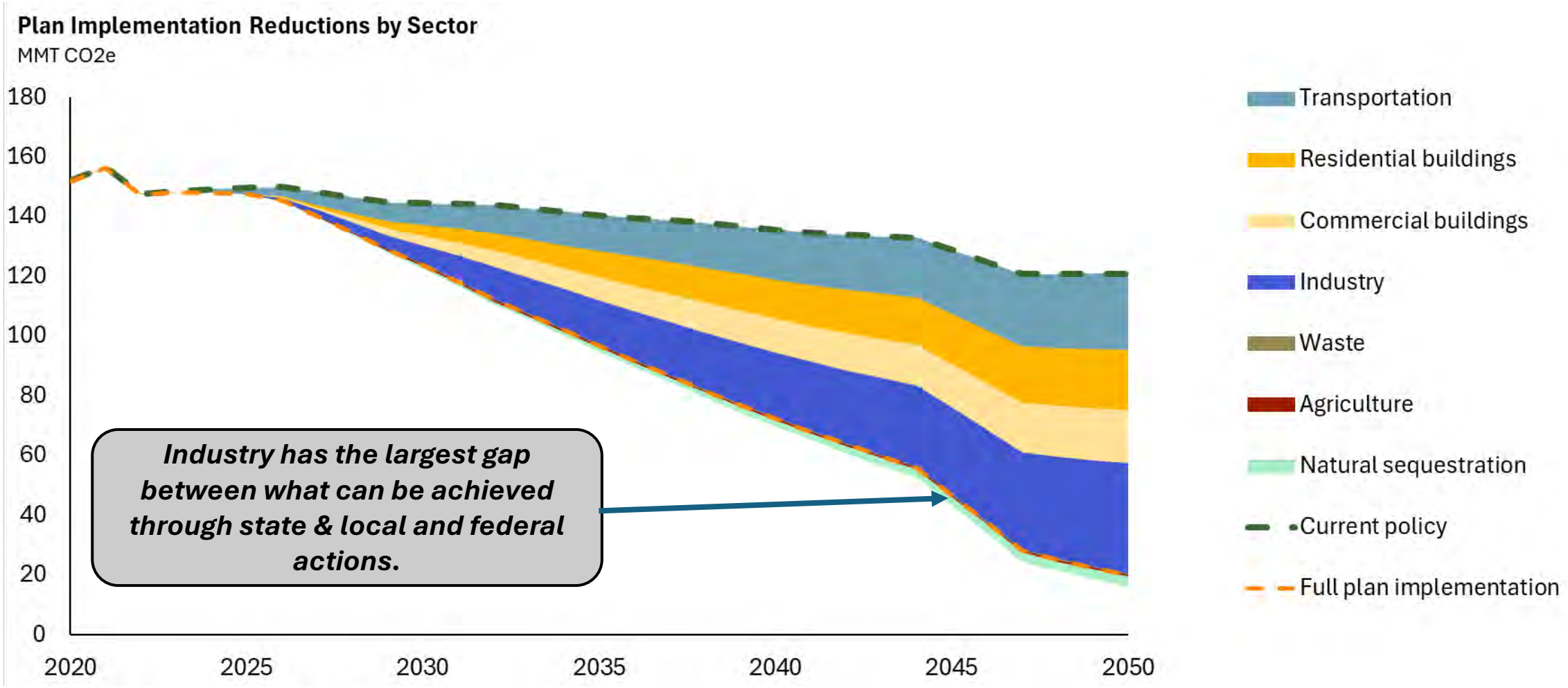
Plan implementation



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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.*

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

Criteria air pollutant reductions by year

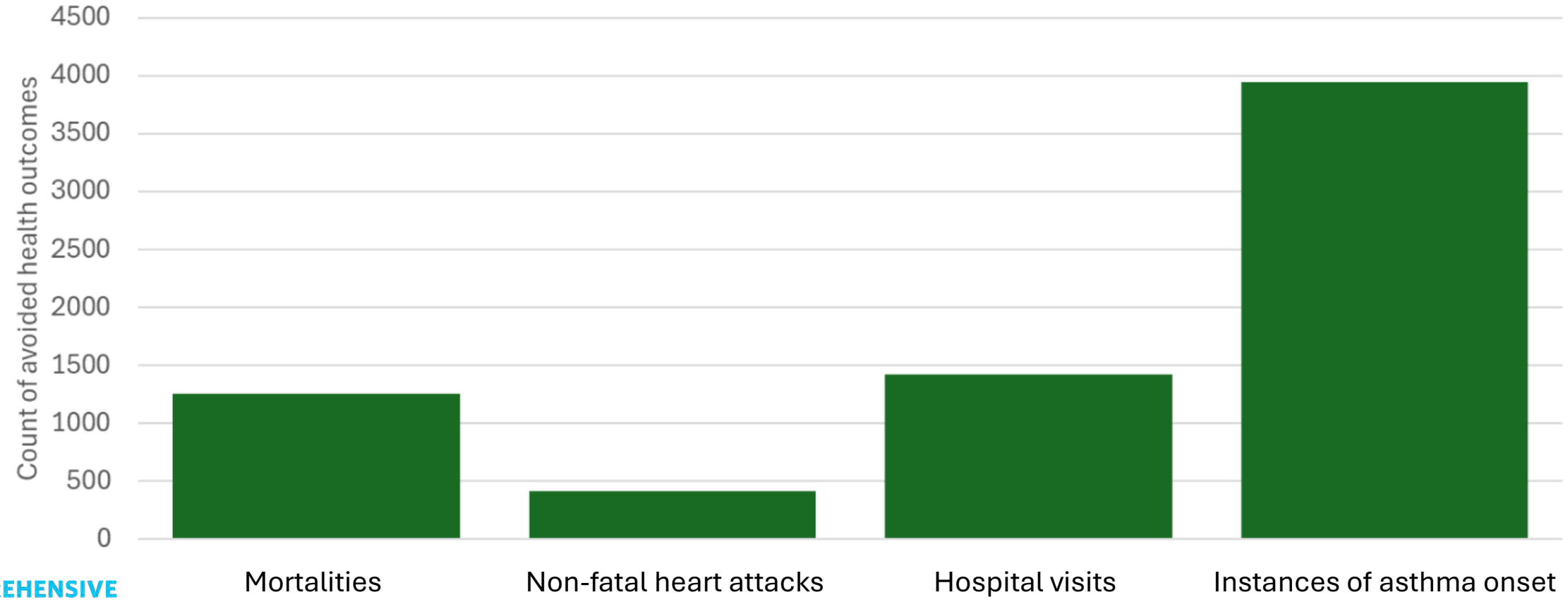
Pollutant	2035	2050
Fine particulate matter (PM2.5)	-6%	-17%
Sulfur dioxide (SO2)	-17%	-59%
Nitrogen oxides (NOx)	-19%	-48%
Volatile organic compounds (VOCs)	-8%	-14%

PM2.5 drops 35% in industry and 86% in on-road transportation

VOC emissions from transportation, buildings and industry fall 47% by 2050

Public health benefits from AQ improvements

Annual **avoided** health conditions in 2050



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Q&A and discussion (Menti)

Key reduction strategies

Establish State Buy Clean programs for cement and steel

Reduce vehicle miles traveled (VMT)

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

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

Percent sector reduction

2035	2050
1.5%	3.9%

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

- **October 28:** Final steering committee meeting to discuss draft
- Revise based on feedback
- Submit the plan to USEPA by December 1, 2025
- Release the plan to the public in early 2026

Share your success stories

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

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Thank you

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