



Minnesota Greenhouse Gas Reduction Legislation Target Setting

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MnDOT's MISSION

Connect & serve all people through a safe, equitable & sustainable transportation system.

4TH LARGEST PUBLIC ROAD SYSTEM IN THE NATION

11,717 centerline miles of Interstate, US and MN Highways



133

Publicly Owned State-funded Airports



More than **200** Construction Projects Annually



800+ MnDOT Snowplows



5,000+ EMPLOYEES

In St. Paul and 8 regional offices

3 U.S. Bicycle Routes



Transit In All

87 Counties



21 Railroad Companies & **4,217** Miles of Track



4,670

HIGHWAY BRIDGES

5 MISSISSIPPI RIVER SYSTEM PORTS



4 LAKE SUPERIOR PORTS



- Share details about recent updates to state law related to greenhouse gas emissions in Minnesota
- Share MnDOT's current approach to meeting state statute requirements
 - 2 approaches with 3 regional scenarios each
- Document your questions and input
- Share next steps and process

Background: Greenhouse Gas Emissions

Timeline of Minnesota's Climate Actions

- 2007** **Next Generation Energy Act** created goal to reduce Minnesota GHG emissions 80% by 2050
- 2008** Minnesota **Climate Change Advisory group** publishes final report recommending a comprehensive set of state-level climate policies
- 2016** **Climate Solutions and Economic Opportunity report** identifies near-term emission reduction opportunities
- 2019** MnDOT publishes **Pathways to Decarbonizing Transportation in Minnesota**, outlining potential transportation actions to meet GHG goals
- 2020** **Sustainable Transportation Advisory Committee** established
- 2021** **Clean Cars Minnesota** rule adopted
- 2022** Minnesota's **Climate Action Framework** set goal to reduce GHG emissions by 50% by 2030 and achieve net-zero by 2050

Minnesota **Statewide Multimodal Transportation Plan** establishes transportation GHG reduction targets consistent with the Framework (80% reduction by 2040)
- 2023** **HF 2887** law creates new transportation funding sources for sustainable transportation, rebates and work groups

Next Generation Energy Act adopts goal to reduce GHG emissions by 30% by 2025, 50% by 2030 and net-zero emissions by 2050

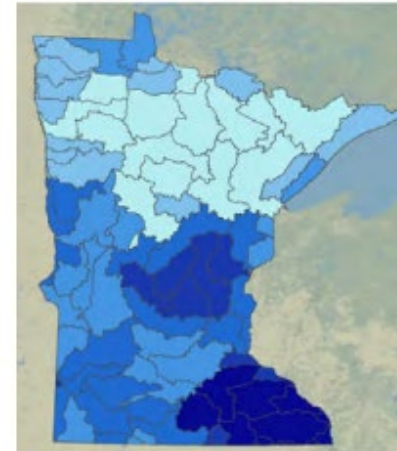
Clean Transportation Fuel Standard Working Group and **GHG Emissions Impact Mitigation Working Group** are established and begin work

Legislation Context



Minnesota is getting warmer, especially winter nights in the northern parts of the state.

Change in daily average minimum temperature during winter (Dec-Feb), 1895-2021.

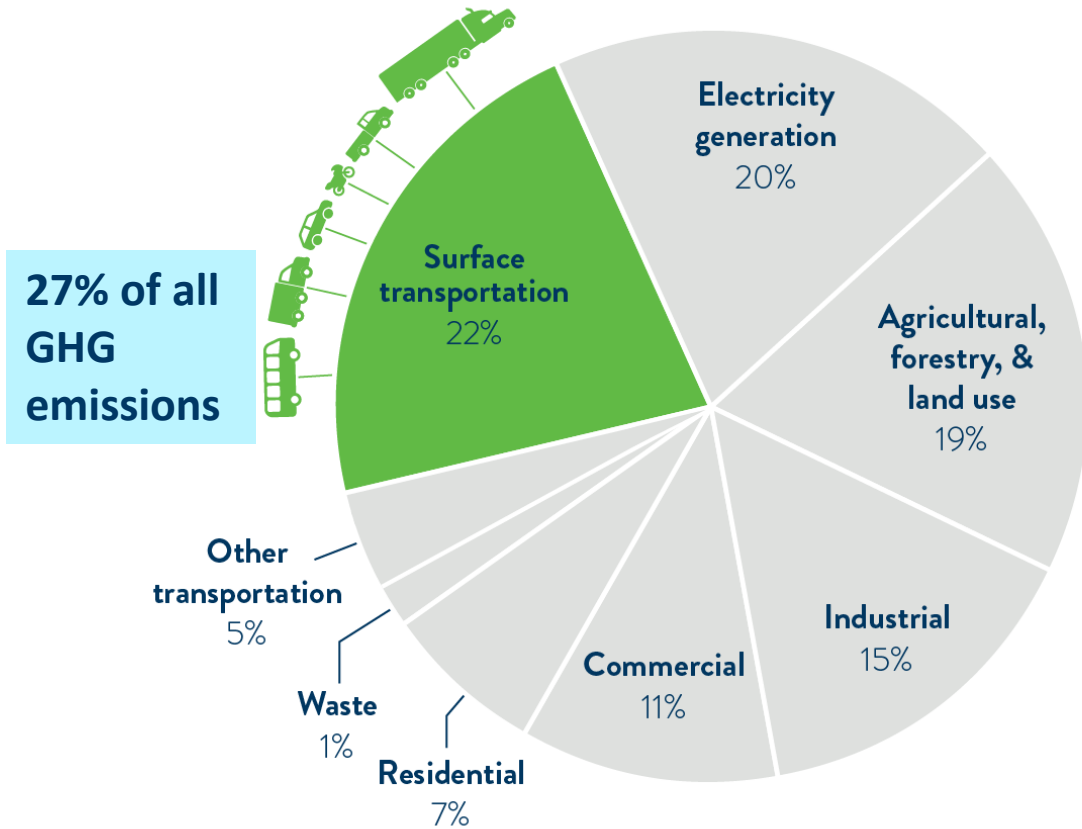


Minnesota is getting wetter, especially the southern parts of the state.

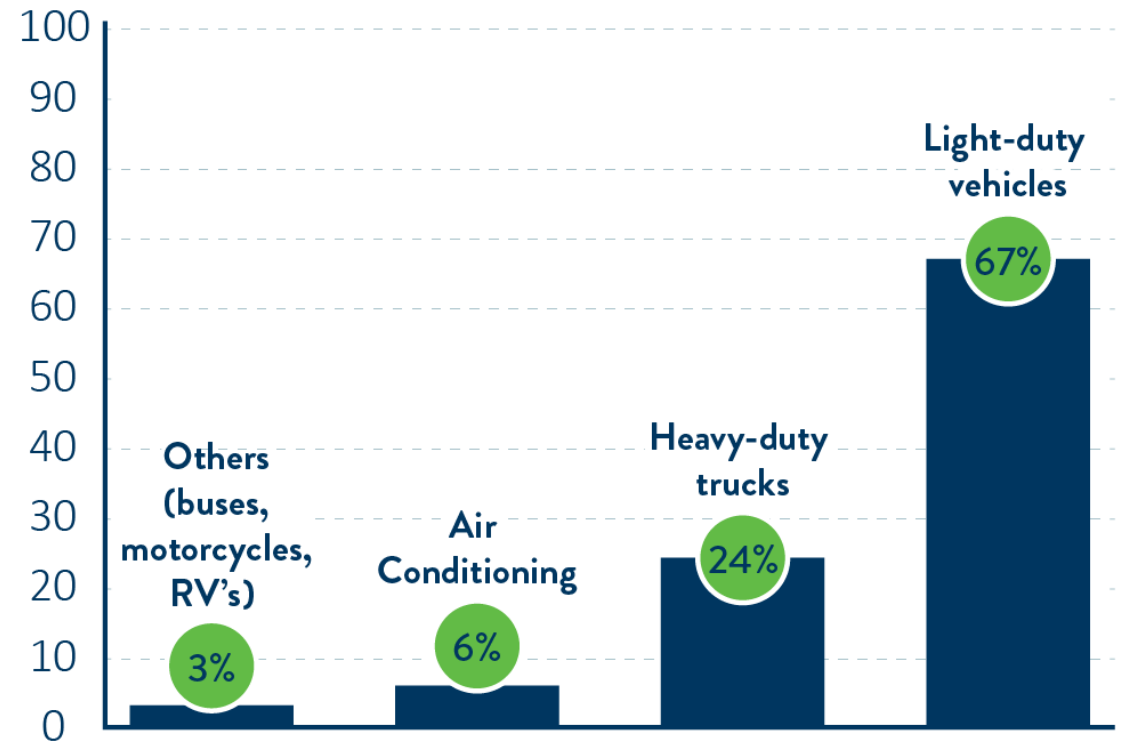
Annual precipitation change by watershed for 2000-2019, compared to 20th century averages.

Transportation Emissions

ALL SECTOR BREAKDOWN (%)

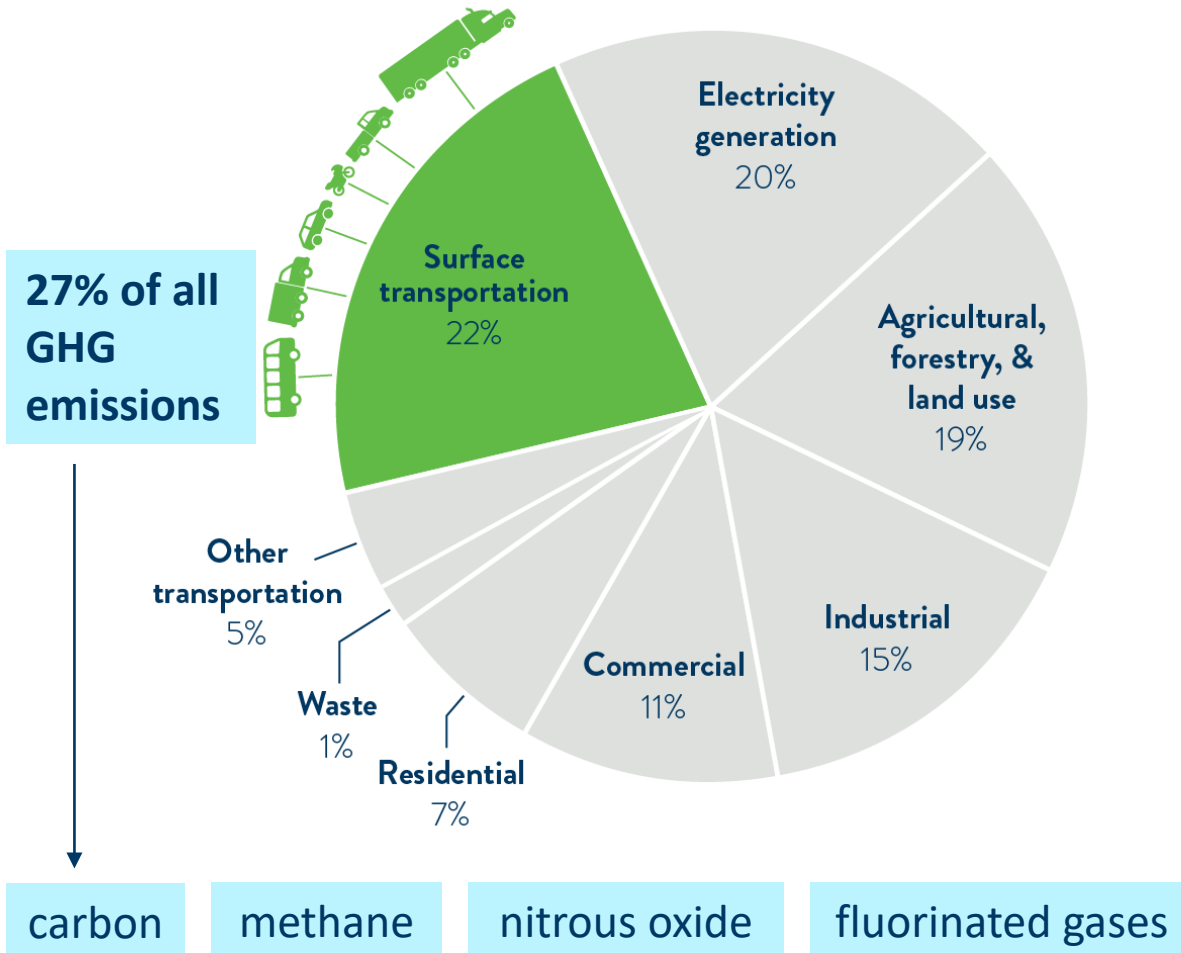


SURFACE TRANSPORTATION BREAKDOWN (%)

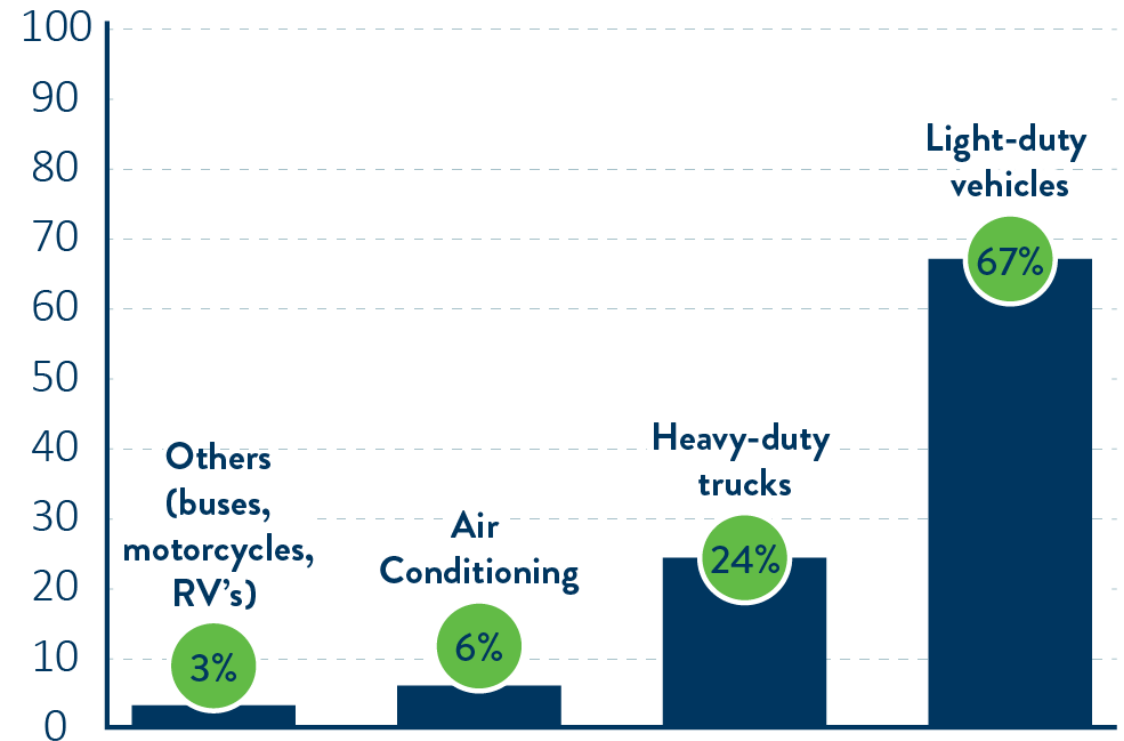


Transportation Emissions

ALL SECTOR BREAKDOWN (%)



SURFACE TRANSPORTATION BREAKDOWN (%)



Transportation emissions | Negative impacts

- Poor air quality
- Increased climate change
- Negative impacts on wildlife, habitats and crop cycles
- Negative health impacts

Transportation emissions | Reductions improving peoples'

- Health
- Safety
- Access
- Equity
- Environment

State and Regional Policy

DECEMBER 2022

STATEWIDE MULTIMODAL TRANSPORTATION PLAN EXECUTIVE SUMMARY



Minnesota's highest level policy plan for transportation

MINNESOTA GO

m DEPARTMENT OF
TRANSPORTATION

CARBON REDUCTION STRATEGY 2023



NOVEMBER 2023

Thrive MN
TRANSPORTATION
POLICY PLAN
2019 UPDATE WITH 2023 AMENDMENTS

2040

Transportation provides connections to opportunity

Legislative Background

Greenhouse gas emissions targets:

- [Chapter 216](#) (2023): Set greenhouse gas emissions goal for Minnesota across all sectors
- [Chapter 174](#) (2023): requires the commissioner of transportation to establish greenhouse gas emission reduction targets for the transportation sector

Transportation project assessment and mitigation:

- [Chapter 161](#) (2023): Requires MnDOT to assess and mitigate greenhouse gas emissions for highway expansion projects
- [Chapter 127](#) (2024): Amends 161.178 to add a requirement of "assessing a portfolio or program of projects instead of on a project-by-project basis" by 2027



Legislative Background

- Set targets that bridge the gap
- Transportation greenhouse gas emissions impact assessment
- Establish a Technical Advisory Committee (TAC) for the Transportation Impact Assessment

Legislative Background

2023 Minnesota Statutes

216H.02 GREENHOUSE GAS EMISSIONS CONTROL.

Subdivision 1. **Greenhouse gas emissions-reduction goal.** (a) It is the goal of the state to reduce statewide greenhouse gas emissions across all sectors producing greenhouse gas emissions by at least the following amounts, compared with the level of emissions in 2005:

- (1) 15 percent by 2015;
- (2) 30 percent by 2025;
- (3) 50 percent by 2030; and
- (4) to net zero by 2050.

(b) To the maximum extent practicable, actions taken to achieve these goals must avoid causing disproportionate adverse impacts to residents of communities that are or have been incommensurately exposed to pollution affecting human health and environmental quality.

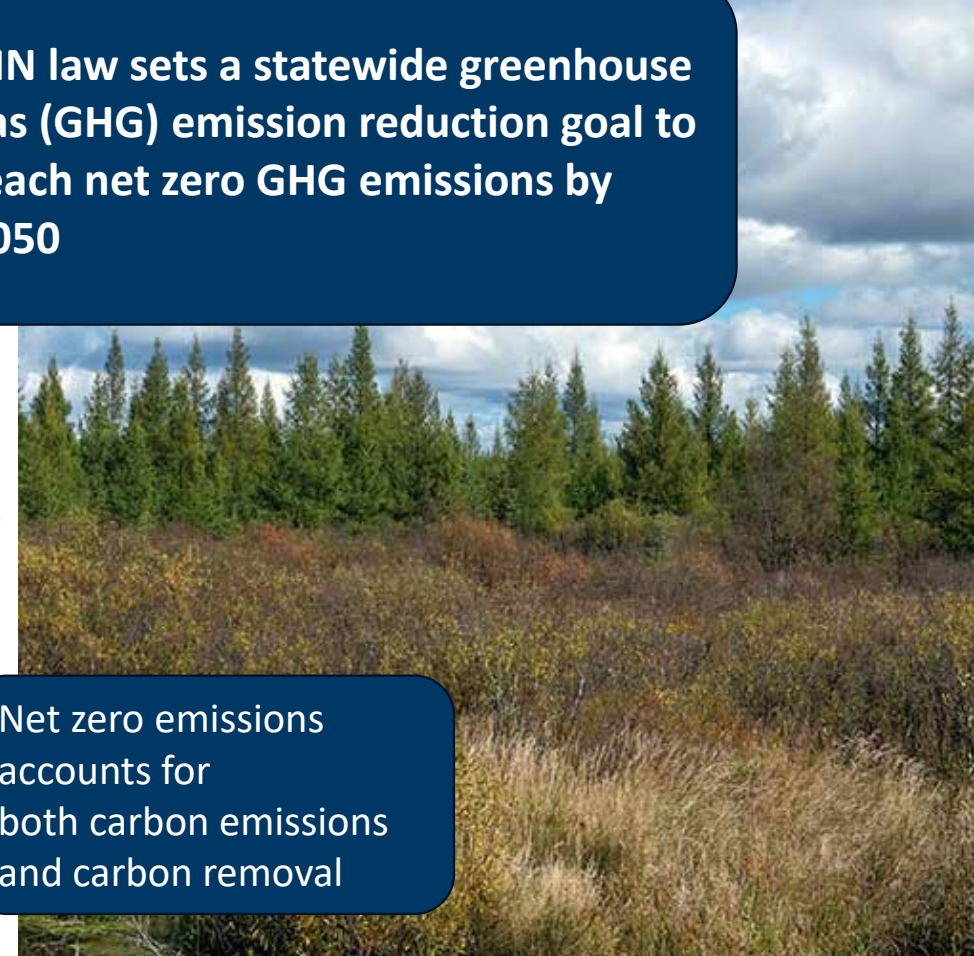
(c) The targets under paragraph (a) must be reviewed annually by the commissioner of the Pollution Control Agency, taking into account the latest scientific research on the impacts of climate change and strategies to reduce greenhouse gas emissions published by the Intergovernmental Panel on Climate Change. The commissioner must forward any recommended changes to the targets to the chairs and ranking minority members of legislative committees with primary jurisdiction over climate change and environmental policy.

(d) For the purposes of the subdivision, "net zero" means:

- (1) statewide greenhouse gas emissions equal to zero; or
- (2) when annual anthropogenic emissions of greenhouse gases to the atmosphere are balanced by removals over a specific period.

MN law sets a statewide greenhouse gas (GHG) emission reduction goal to reach net zero GHG emissions by 2050

Net zero emissions accounts for both carbon emissions and carbon removal



Legislative Background

Subd. 3. **Greenhouse gas emissions targets.** (a) In association with the goals under subdivision 2, clauses (10) and (13) to (16), the commissioner of transportation must establish targets for the statewide greenhouse gas emissions reduction goal under section [216H.02](#), subdivision 1.

(b) The targets must include:

- (1) establishment of proportional emissions reduction performance targets for the transportation sector;
- (2) specification of the performance targets on a five-year or more frequent basis; and
- (3) allocation across the transportation sector, which:

(i) must provide for an allocation to the metropolitan area, as defined in section [473.121](#), subdivision 2;

★ (ii) must account for differences in the feasibility and extent of emissions reductions across forms of land use and across regions of the state; and

(iii) may include performance targets based on Department of Transportation district, geographic region, a per capita calculation, or transportation mode, or a combination.

[See Note.]

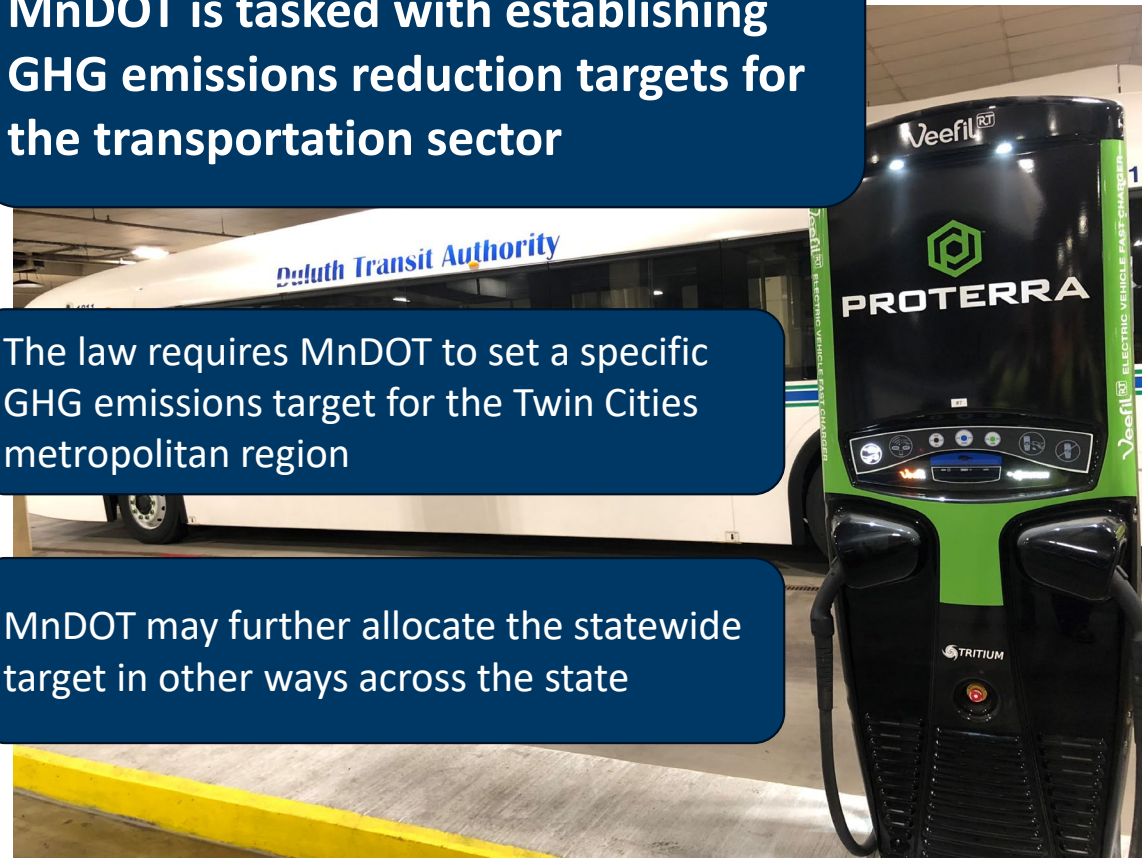
History: [1976 c 166 s 1](#); [1991 c 298 art 1 s 1](#); [2008 c 287 art 1 s 66](#); [2010 c 351 s 38,39](#); [2023 c 68 art 4 s 64](#)

NOTE: Subdivision 3, as added by Laws 2023, chapter 68, article 4, section 64, is effective February 1, 2025. Laws 2023, chapter 68, article 4, section 64, the effective date.

MnDOT is tasked with establishing GHG emissions reduction targets for the transportation sector

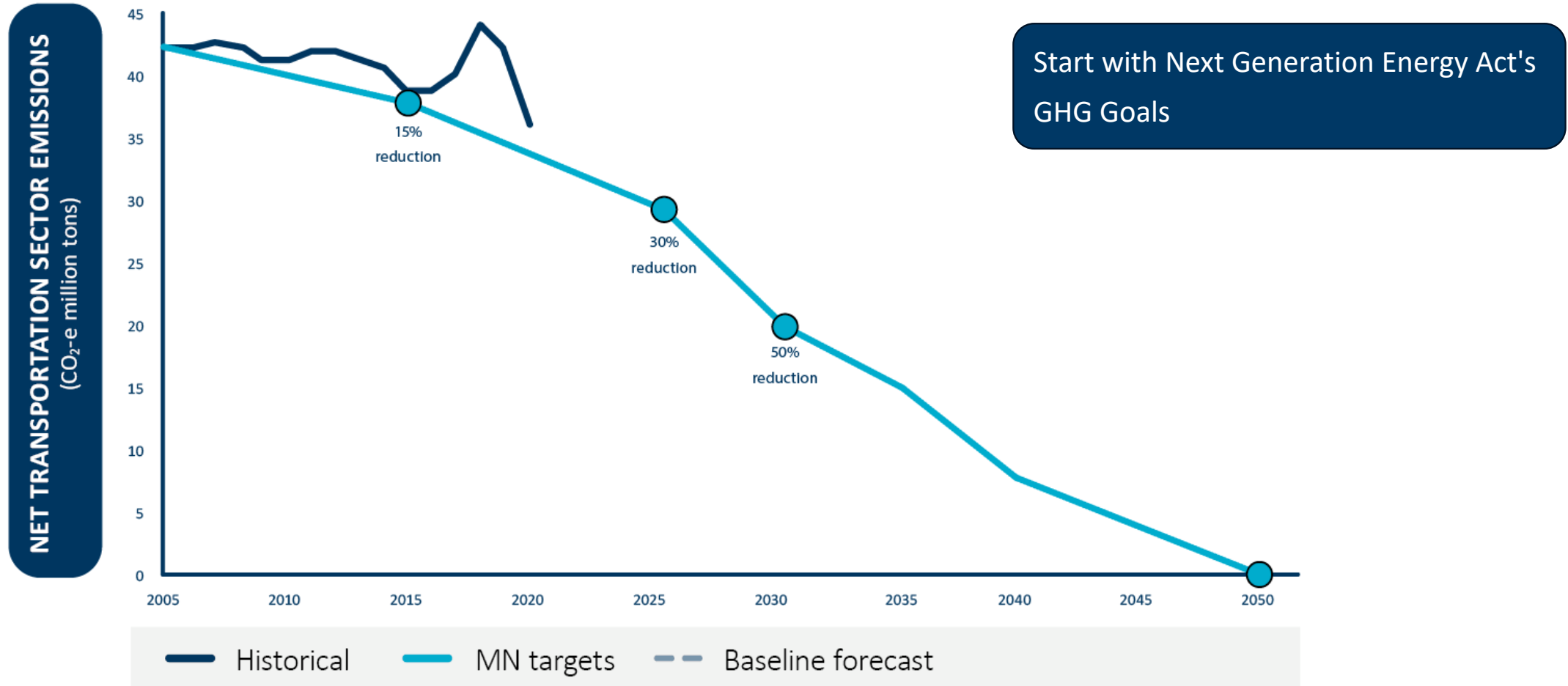
The law requires MnDOT to set a specific GHG emissions target for the Twin Cities metropolitan region

MnDOT may further allocate the statewide target in other ways across the state



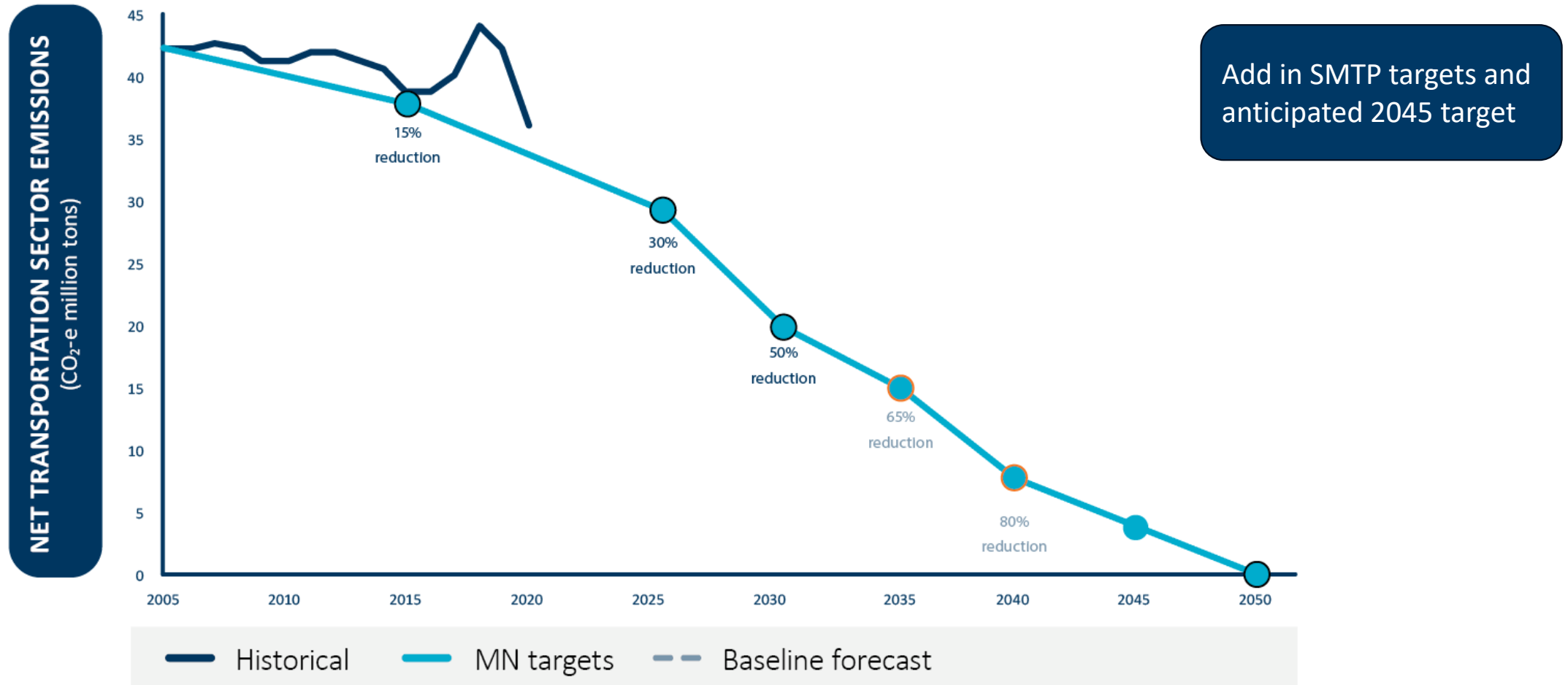
Emissions Target Setting

Target Setting



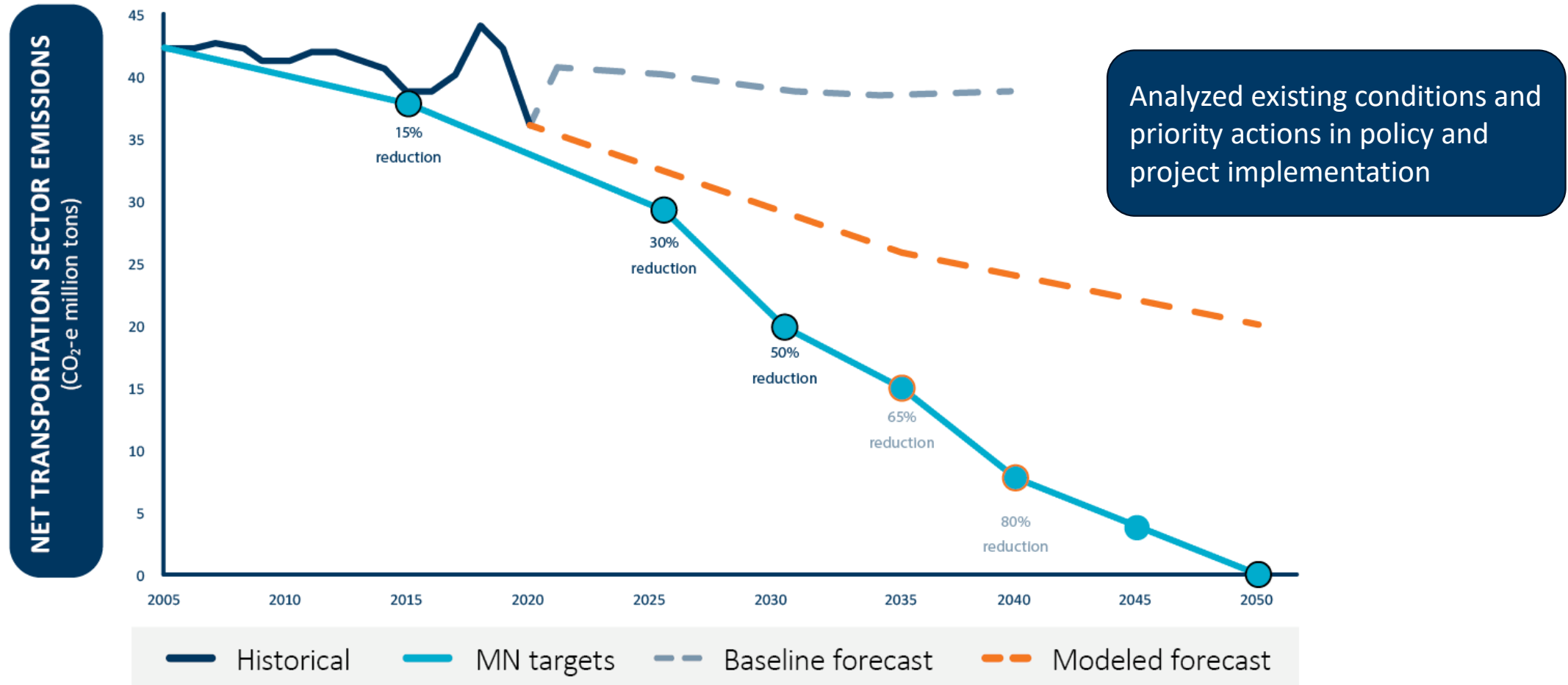
NOTE: The 'zero' at the right hand side represents a net value of zero GHG emissions from the transportation sector above those that existed in 2005 (43,557,058 tons), and net of any mitigation efforts that get counted as 'offsets' to GHG emissions.

Target Setting



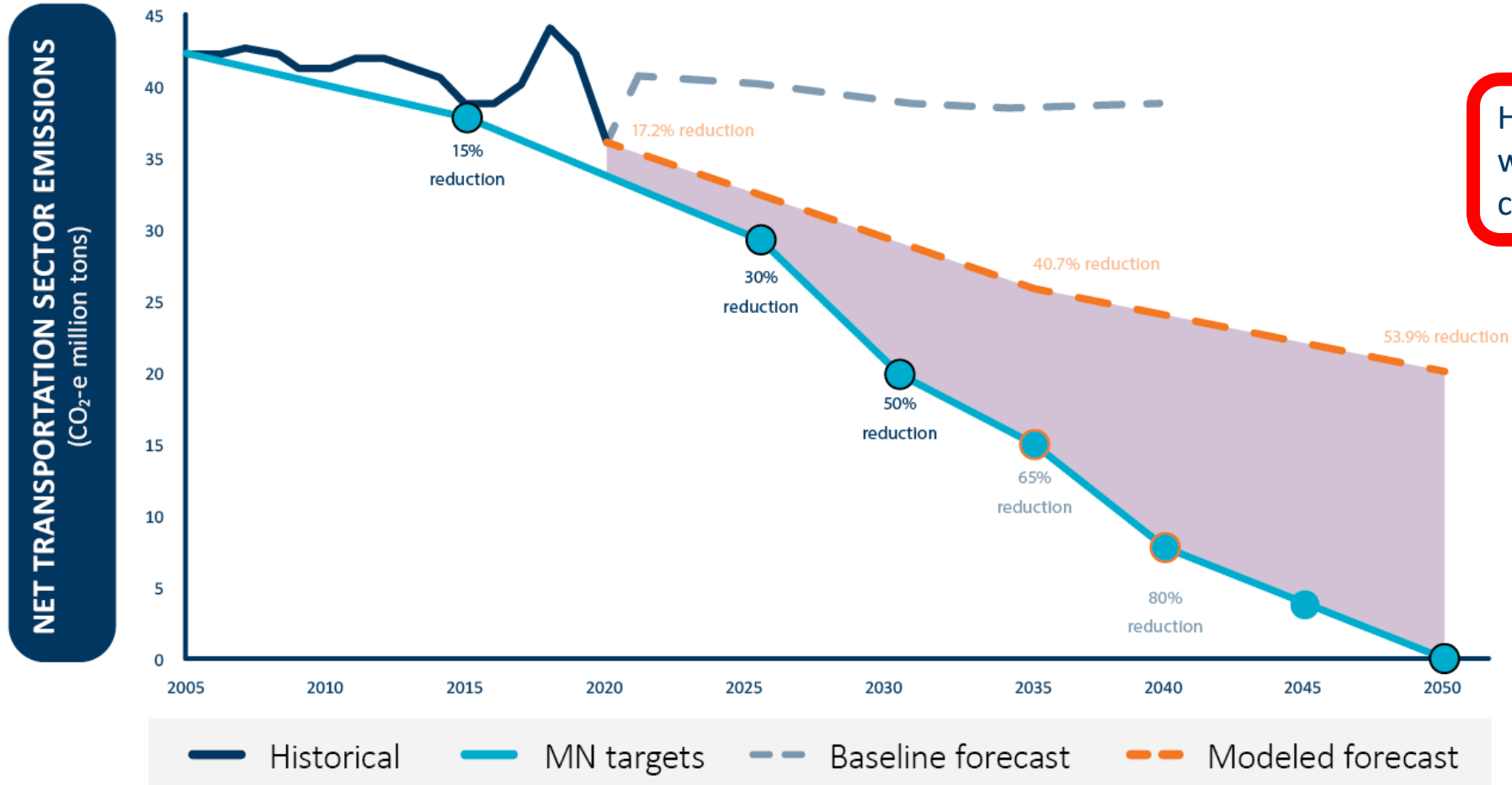
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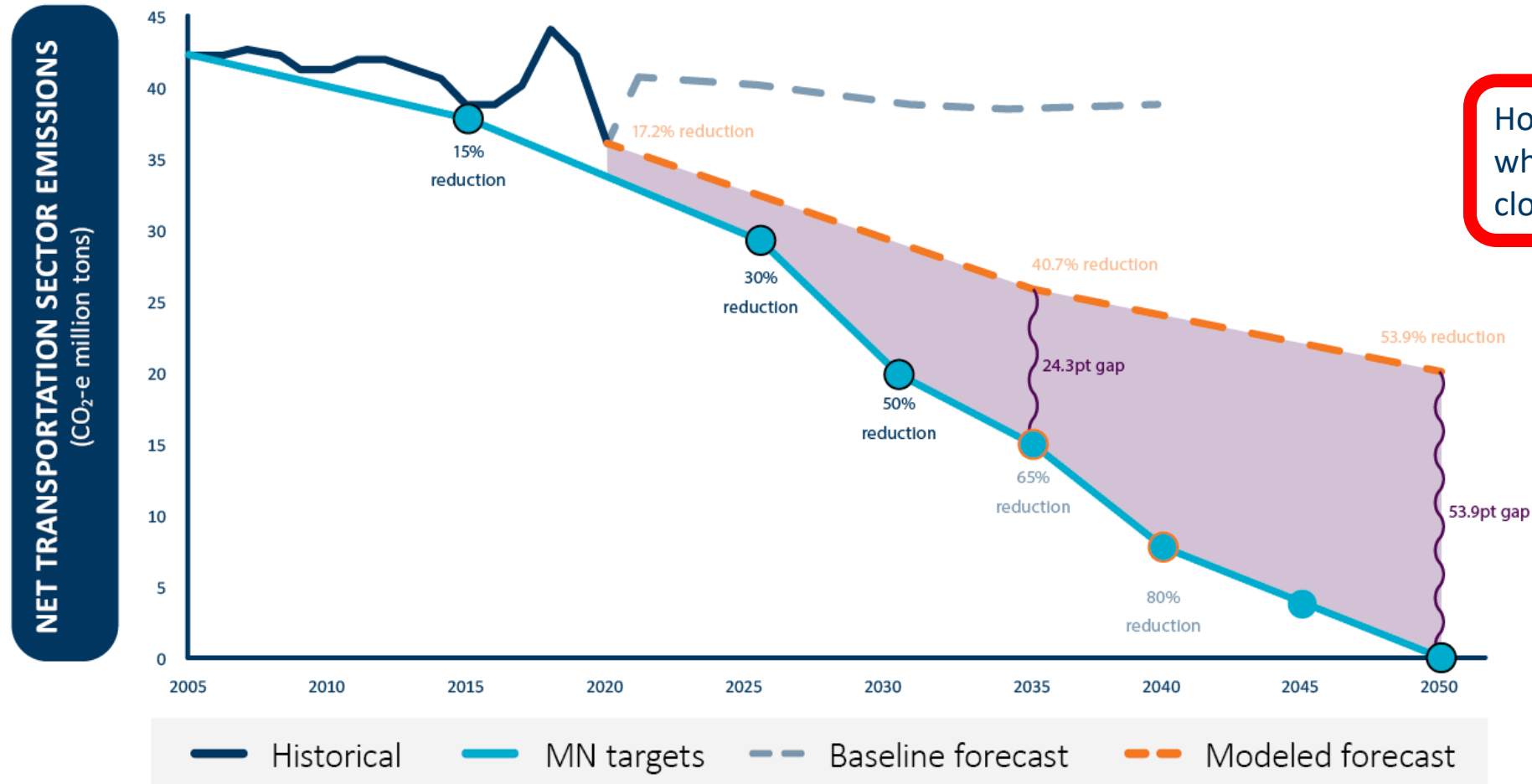
Target Setting | How do we close the gap?



How, where and when do we close the gap?

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When do we close the gap?

Vision

Minnesota's multimodal transportation system maximizes the health of people, the environment and our economy.

Mission

Connect and serve all people through a safe, equitable and sustainable transportation system.

How do we close the gap? | Approaches

Assign emissions targets for each target year

Per capita

- Based on the number of people in a region

Regional priorities + per capita

- Based on regional priorities (e.g., transit, alt fuels, safety, access, health) combined with the number of people in a region

Where do we close the gap? | Regional scenarios

Scenario 1

Metropolitan
Council's 7-county
metro area
(statute defined)

Greater Minnesota
*(everywhere outside the
metro area)*

Scenario 2

Metropolitan
Council's 7-county
metro area
(statute defined)

Greater Minnesota
Metropolitan
Planning
Organizations
(7 urbanized areas)

Greater Minnesota
rural areas
*(everywhere outside the metro
area and 7 MPO urbanized
areas)*

Scenario 3

Metropolitan
Council's 7-county
metro area
(statute defined)

Greater Minnesota
Metropolitan
Planning
Organizations
(7 urbanized areas)

Greater Minnesota
Area Transportation
Partnerships
(8)

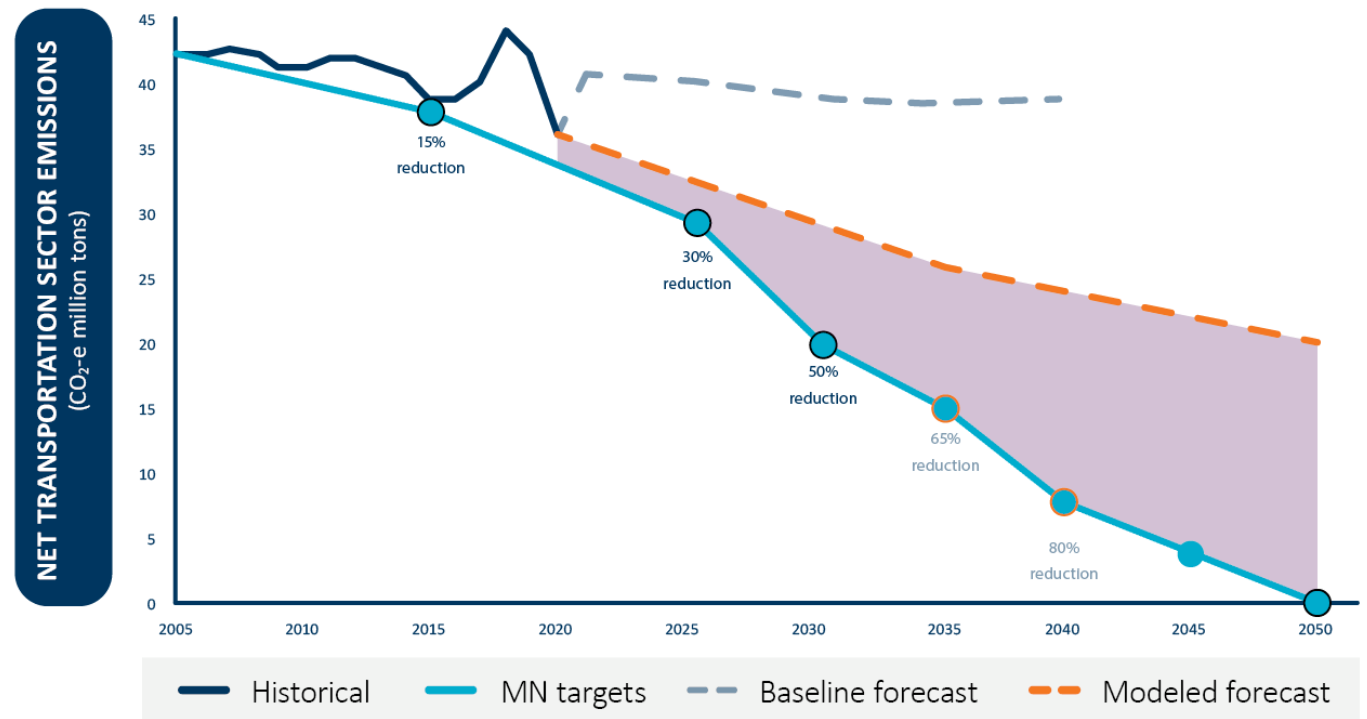
Closing the gap

- This legislation requires us to rethink how we prioritize projects.
- It's asking us to consider how we encourage and implement greater accountability for emissions reduction.
- Emissions reduction is not a 'this or that' situation, it's a way to enhance the work we are already doing to support MnDOT's vision and mission.

Working Together

- No government or agency has complete power over greenhouse gas reduction, but everyone has a role
- Together we can provide holistic approaches that bring together local priorities to create a more sustainable future

Transportation Emissions Reduction Target



NOTE: The 'zero' at the right hand side represents a net value of zero GHG emissions from the transportation sector above those that existed in 2005 (43,557,058 tons), and net of any mitigation efforts that get counted as 'offsets' to GHG emissions.

Opportunities

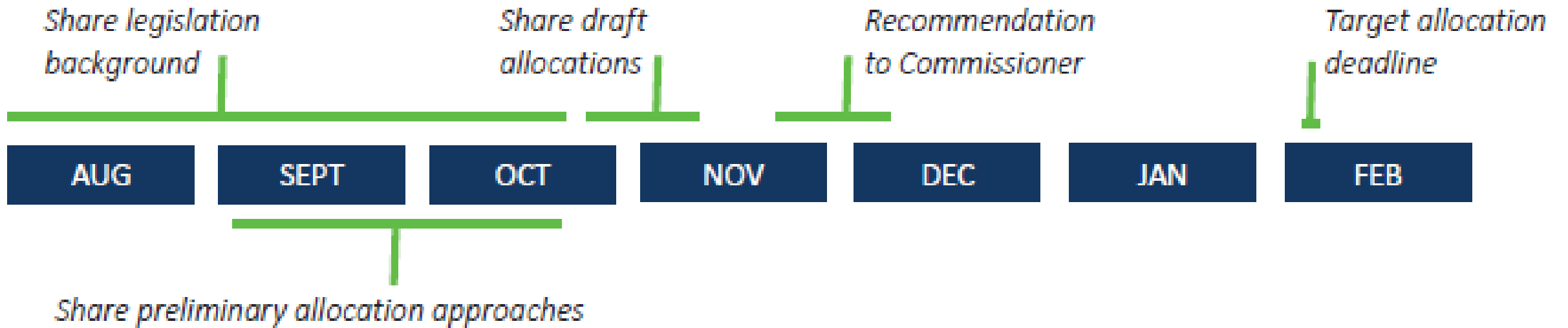
- Align policy-level guidance and performance measures with greenhouse gas reduction targets
- Work together to support local knowledge and action on greenhouse gas reduction strategies and co-benefits
- Encourage locals to submit projects for funding that reduce greenhouse gas emissions
- Program funding with a focus on reducing emissions

**Moving forward with the
HOW**

How would the approaches support decisions related to your work?

What alignments do you see with the regional scenarios?

Next steps | Educate, engage, refine, decide report, implement



Next steps | Educate, engage, refine, decide report, implement

- **Educate and engage** transportation partners and internal MnDOT staff
 - ~~MPO Workshop – August 6th~~
 - ~~RDO Quarterly meeting – August 7th~~
 - ~~Office Hours (virtual) throughout Sept.~~
 - ~~Advocacy Council for Tribal Transportation – Sept. 16 at Red Lake; Dec. TBD~~
 - ~~Metropolitan Council’s Technical Advisory Committee meeting – Oct. 2~~
 - **Metropolitan Council’s Transportation Advisory Board Exec. meeting – Oct. 16**
 - **Metropolitan Council’s Active Transportation Committee – Oct. 24**
 - Office Hours in Oct. and Nov.
 - Area Transportation Partnership meetings – ~~ATP 6 (9/13)~~, ATP 8 (10/4)
 - RDO meetings – ~~HRDC (9/18)~~, Quarterly mtg to be scheduled in Oct. or Nov.
 - MnDOT SLT and ELT + Commissioner – Oct. 14 & 15
- **Decide** and present preferred and alternative approaches to target setting
 - MPO Workshop (10/29-31)
 - **Metropolitan Council’s Technical Advisory Committee meeting – Nov. 6**
 - **Metropolitan Council’s Transportation Advisory Board meeting – Nov. 20**
 - MnDOT SLT and ELT + Commissioner (Nov./Dec. 2024)
- **Report & implement** and continue to coordinate
 - ACEC Minnesota – Dec. 11
 - Advocacy Council for Tribal Transportation – Dec. TBD
 - MFAC – Mar. 2025
 - ACEC Minnesota – Mar. 27, 2025
 - MnDOT & P/T Consultants Partnership Meeting & Networking Event

Questions/Thoughts

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GHG Reduction Legislation
dot.state.mn.us/sustainability/ghg-legislation.html