



MnDOT Response: 2020 Sustainable Transportation Advisory Council Recommendations

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Letter from the STAC Co-Chairs

Climate change is impacting Minnesota and transportation is the number one source of carbon pollution nationally and in our state. We are not currently on track to meet our emission reduction goals under Minnesota's Next Generation Energy Act. The need to take bold action is urgent.

In 2020, the Minnesota Department of Transportation convened a new Sustainable Transportation Advisory Council following the actions and recommendations outlined in the agency's 2019 Pathways to Decarbonizing Transportation report.

The charge for the STAC was significant: "Help Minnesota transition to a low-carbon transportation future in a way that is consistent with statutory goals for energy and emissions reductions and maximizes benefit to Minnesota, while recognizing the importance of continued work towards improving safety, reducing inequities, and supporting economic development."

We are pleased to present this first annual STAC report, recommendations, and MnDOT responses. We especially want to extend our deep gratitude to the members of the STAC for their time, effort, and commitment to this work.

The recommendations put forward by the STAC prompted important conversations within MnDOT and with agency partners. We know that climate action will require collaboration across sectors – from governments and private business to nonprofits, healthcare, community organizations and more. It was critical that we listened to different perspectives in this process and asked ourselves the challenging questions about what it will really take to protect our communities and the planet we all call home.

The recommendations and responses in this report are a starting point and will lead to many future conversations and actions. This is one important step on our journey to a low-carbon transportation future – and there are so many opportunities ahead to expand clean energy, create good jobs in the green economy, accelerate our state's COVID recovery, and give Minnesota a competitive advantage by building safer, healthier and thriving communities. This is all within our grasp.

We look forward to continued engagement and collaboration between the STAC, MnDOT, and the communities we all serve in the years to come. While the work of addressing climate change is not limited to the transportation sector, we believe that transportation must lead the way.

Future generations are relying on us to act now.

Thank you,

Margaret Anderson Kelliher
Commissioner, MnDOT
STAC Co-Chair

Chris Clark
President, Xcel Energy MN, ND, SD
STAC Co-Chair

Summary

In 2020, MnDOT created a new process to invite business, nonprofits, local governments, legislators, and community groups to partner with agency to help us make progress towards our goals.

The Sustainable Transportation Advisory Council (STAC) was designed as a unique type of long-form public engagement to provide new ideas for how the state could move towards a low carbon transportation future. STAC members were appointed by the Commissioner of Transportation and met regularly throughout the year. The agency plans for the STAC to be an ongoing collaboration and for this to be the first of many annual reports.

MnDOT facilitated the STAC process but did not actively participate in development of the recommendations that came directly from the STAC members. The agency did coordinate internally and with external stakeholders and subject matter experts to develop responses to the STAC recommendations.

About this Document

This report presents the MnDOT response to recommendations that the STAC provided in December 2020. For many of the recommendations, the agency expects this response will be the start of future conversations about the recommendations from this first year of the STAC.

It is worth noting that very few constraints were suggested by MnDOT for STAC members related to transportation climate actions. Both STAC members and MnDOT recognize that some of the recommendations to MnDOT may fall outside of direct agency ability to control, which is described in the MnDOT responses.

MnDOT Response to Fueling and Powering Transportation Recommendations

Recommendation #1: Develop a clean fuels policy

MnDOT Related Activities	MnDOT Proposed Action
<ul style="list-style-type: none"> Support clean fuels to reduce GHG emissions Governor’s Climate Change Subcabinet and Governor’s Council on Biofuels identified a Clean Fuels as a policy priority 	<p>Support: The 2021 Governor’s budget proposal includes funding for MnDOT to lead a stakeholder process to develop a Clean Fuels Policy for the state</p>

Recommendation #2: Establish rebates for public and private light-, medium-, and heavy duty- EVs, including dealership support and consumer rebates

MnDOT Related Activities	MnDOT Proposed Action
<ul style="list-style-type: none"> In 2019, MnDOT began a three-year pilot to give a one-time MnPass account credit to eligible EV drivers Several utilities in MN provide incentives for EV charging rates and Level 2 charger rebates 	<p>Explore Further: Support efforts by Governor and legislature to promote EV use.</p>

Recommendation #3: Increase investment in EV charging infrastructure, beyond existing VW settlement investments

MnDOT Related Activities	MnDOT Proposed Action
<ul style="list-style-type: none"> Current investment in EV chargers at State Facilities Bond funding for additional state agency EV chargers Clean Transportation Pilot Funding Program MPCA Small Grants for Fleets 	<p>Support: The 2021 Governor’s budget proposal includes funding for MnDOT to install EV chargers and more strategic opportunities for EV chargers will be identified in the Minnesota 2021 EV Strategic Plan</p>

Additional Fueling and Powering Transportation workgroup recommendations:

- Minnesota signs a multi-state EV charging corridor Memorandum of Understanding:** MnDOT is re-engaging states about the potential for signing the MOU.
- Examine value of NextGen highways:** MnDOT joined an external steering committee to clarify opportunities/challenges to co-locate broadband and electricity transmission in highway right-of-way.
- Develop a state-level plan to support medium/heavy duty electric vehicles:** MnDOT kicked off the 2021 Strategic EV Plan process in February 2021. STAC representatives will be invited to join the Technical Advisory Committee for the plan.
- Incentives to support increased manufacturing of EVs:** MnDOT is exploring opportunities and the agency role to support EV manufacturing.
- Minnesota signs on a Zero Emissions Vehicle truck and bus MOU:** MnDOT is re-engaging states about the potential for signing the MOU.

MnDOT Response to VMT & Transportation Options Recommendations

Recommendation #1: Adopt a statewide goal of reducing VMT by 20% by 2050

MnDOT Related Activities	MnDOT Proposed Action
Improve understanding of a VMT goal, understand ways to evaluate VMT in projects and plans, tracking and reporting VMT	Support: Adopt a preliminary statewide and per capita goal that will be finalized after engagement as part of the SMTP process.

Recommendation #2: Stop expanding highway capacity to reduce congestion

MnDOT Related Activities	MnDOT Proposed Action
<ul style="list-style-type: none"> Consistent with statute 174.01, Minnesota GO 50-year vision 4-tier mobility investment strategy Regional planning coordination: MnSHIP, SMTP, TPP, METC Regional Solicitation, CMP MnDOT Complete Streets Policy update: adding modal-hierarchy framework, based on land use context and functional classification 	<p>Explore Further: MnDOT will partner to evaluate agency actions that support the recommendation in upcoming planning processes. Capacity expansion remains the lowest agency priority option to address congestion.</p> <ul style="list-style-type: none"> MnDOT will add a tier to mobility investment strategy for TDM and explore ways to track and report mobility project decisions. MnDOT will engage STAC in MnSHIP and SMTP updates.

Recommendation #3: Prioritize transit and high occupancy vehicles on MnDOT owned right of way

MnDOT Related Activities	MnDOT Proposed Action
<ul style="list-style-type: none"> Manage and expand MnPASS lanes to provide transit/HOV advantages, 2021+ build-out plans Manage and expand bus-only shoulders system: largest system in US (over 300 miles), 12 additional miles planned Regional coordination: Transit Advantages program 	<p>Support: MnDOT will continue to support this recommendation and build on current efforts:</p> <ul style="list-style-type: none"> Develop a communications strategy Partner with METC to explore expanded transit opportunities Engage STAC in current policy and planning efforts: MnSHIP and SMTP

Additional VMT and Transportation Options workgroup recommendations:

- Conduct a spending audit across project categories:** MnDOT will encourage engagement in MnSHIP and provide a list of capacity expansion projects included in the Statewide Transportation Improvement Program.
- Support efforts by local governments to dedicate their right of way to low carbon and active transportation:** MnDOT will explore opportunities and MnDOT's role to engage in this area.
- Discard auto-centric metrics like Level of Service (LOS), in favor of people-centered metrics like reducing VMT, providing choices for the maximum number of travelers, and accessibility and safety for all users:** MnDOT will continue to advance current pilot to evaluate to potential to incorporate multimodal accessibility tools into our project decisions, including calculating induced demand. The pilot will conclude in 2021 and results can be shared with the STAC.

Background

Transportation is the number one source of carbon pollution in Minnesota and the US. Past work to reduce carbon pollution has been directed by the legislature and through internal leadership in related plans, goals, and performance measures. Despite past efforts, limited progress had been made to reduce carbon pollution from transportation to meet our state's climate change goals. In 2020, the Minnesota Department of Transportation (MnDOT) created a new ongoing process to invite business, nonprofits, local governments, and community groups to partner with agency to help us make progress towards our goals. State legislators and other state agencies representatives were invited to join in ex-officio status.

The Sustainable Transportation Advisory Council (STAC) was designed as a unique type of long-form public engagement with stakeholders to provide new ideas for how the state could move towards a low carbon transportation future. The STAC is facilitated by MnDOT staff but led by STAC members appointed by the Commissioner of Transportation. STAC meetings are open to the public and held every two months throughout the year and smaller working groups that include official STAC members and invited non-STAC members are held approximately every two weeks. The working groups develop recommendations for the full STAC and the full STAC votes on the final recommendations that are sent to MnDOT in December of each year. 2020 was the first year of the STAC and the first year for this report.

This report is the MnDOT response to STAC recommendations. MnDOT coordinated with internal and external stakeholders and subject area experts to develop responses to the STAC recommendations. It is worth noting that very few constraints were suggested by MnDOT for STAC members related to transportation climate actions. Both STAC members and MnDOT recognize that some of the recommendations to MnDOT may fall outside of direct agency ability to control, which is described in the MnDOT responses.

Legislative Direction

Next Generation Energy Act

In 2007, the state passed the bi-partisan Next Generation Energy Act (NGEA), which established goals for the state to reduce greenhouse gas emissions by 15 percent below 2005 levels by 2015, 30 percent by 2025, and 80 percent by 2050. However, the state did not meet the 2015 goal and is not on track to meet our future goals. Transportation became the largest emitter of GHGs in the state in 2016.

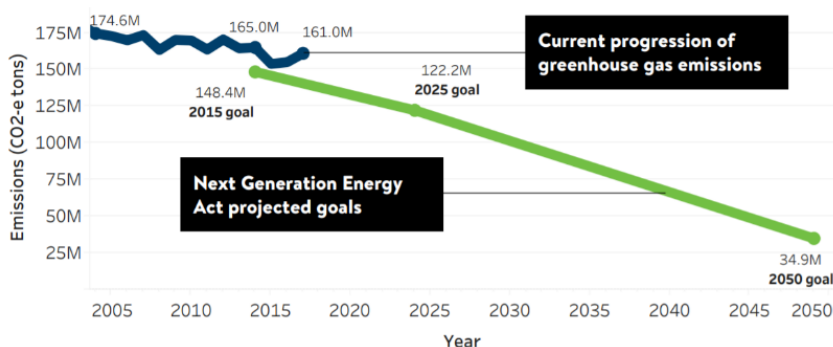


Figure 1. Minnesota's GHG emissions 1990-2018 (blue) and Next Generation Energy Act goals (green). (Minnesota Pollution Control Agency Greenhouse Gas Inventory, 2005-2018)

Minnesota Statute 174.01

MnDOT has 16 primary goals defined in statute (174.01) that guide agency work to create an integrated transportation system in Minnesota. A number of these goals directly relate to the goals of the STAC.

- (10) to ensure that the planning and implementation of all modes of transportation are consistent with the environmental and energy goals of the state;
- (11) to promote and increase the use of high-occupancy vehicles and low-emission vehicles;
- (13) to increase use of transit as a percentage of all trips statewide by giving highest priority to the transportation modes with the greatest people-moving capacity and lowest long-term economic and environmental cost;
- (14) to promote and increase bicycling and walking as a percentage of all trips as energy-efficient, nonpolluting, and healthy forms of transportation;
- (15) to reduce greenhouse gas emissions from the state's transportation sector; and
- (16) to accomplish these goals with minimal impact on the environment.

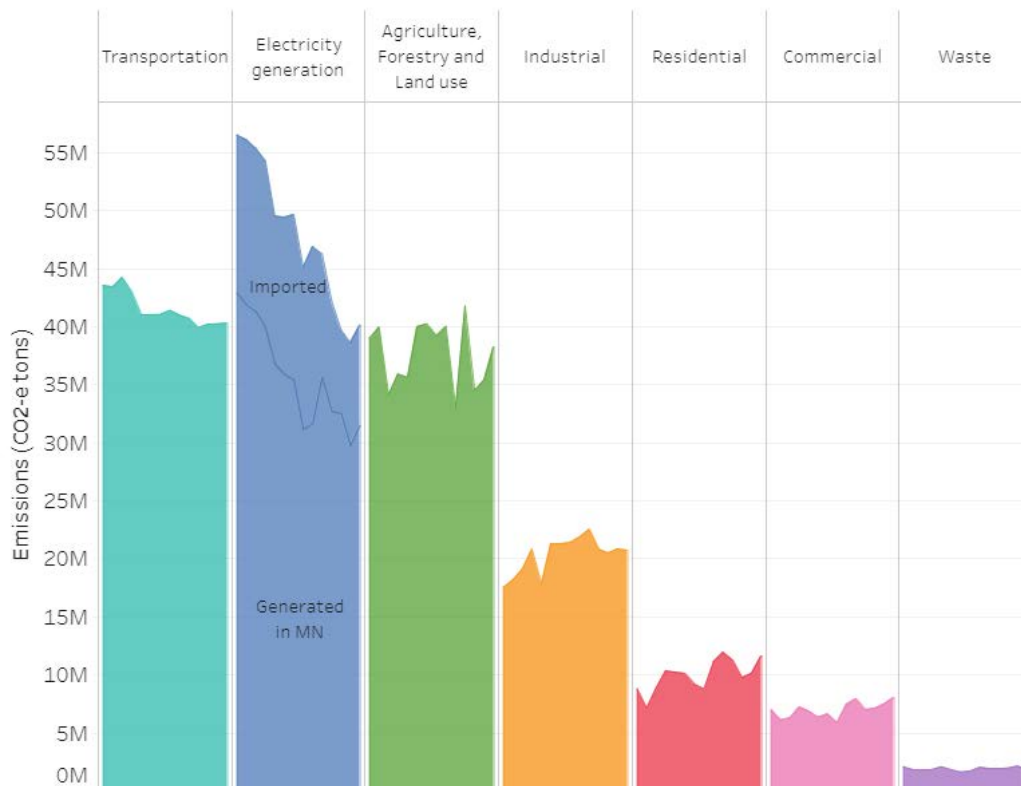


Figure 2. Minnesota Pollution Control Agency greenhouse gas inventory by sector, 2005-2018

Pathways to Decarbonizing Transportation

In 2019, MnDOT initiated the inter-agency *Pathways to Decarbonizing Transportation* project to identify options to move toward a low-carbon transportation future and put the state on track to meet our climate goals in the NGEA. The project built on goals MnDOT adopted in 2017 to apply the NGEA goal to the transportation sector in Minnesota. The purpose of Pathways was to explore opportunities for GHG emission reductions from surface transportation: passenger cars and trucks, medium-duty and heavy-duty trucks, buses, motorcycles, and mobile air conditioning. The project had three connected parts:

1. Coordinate with state and national experts to develop a model inputs and assumptions based on their expertise.
2. Model future scenarios of GHG emissions.
3. Engage with Minnesotans around the state to hear their thoughts on opportunities and challenges for reducing GHG emissions from transportation in their communities.

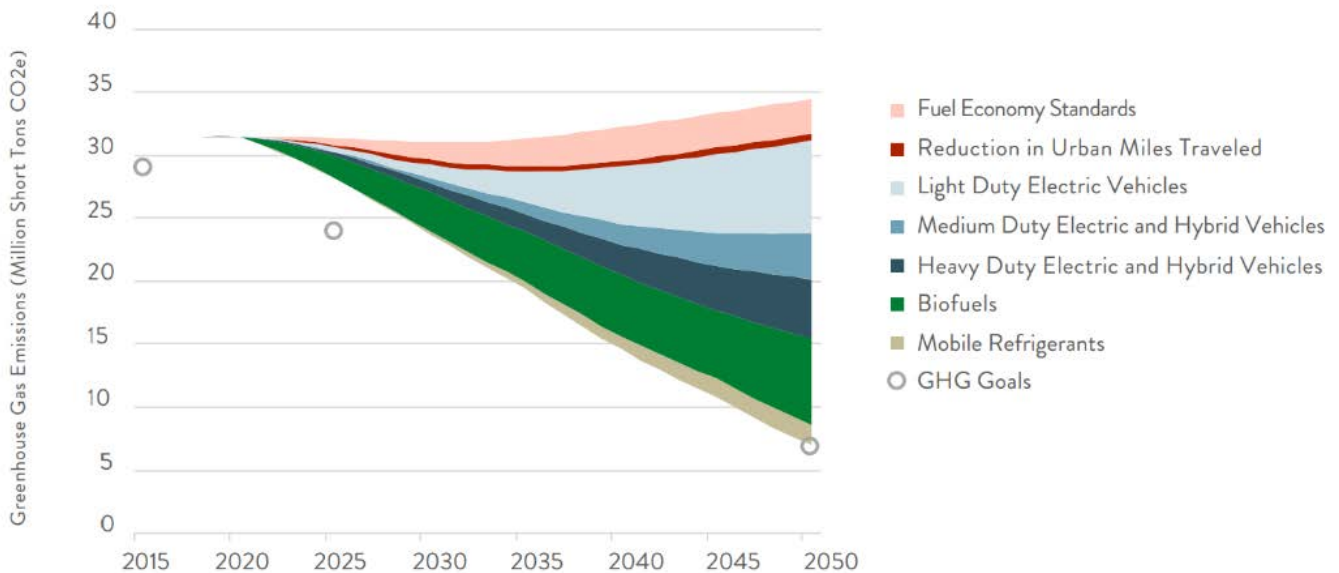


Figure 3. Emission reduction by measure, 80x50 scenario, from Pathways 2019 report

Public Input

The project team held meetings across the state, offered an online survey and a webinar to get additional public input and received more than 400 comments. The following general themes emerged:

- 1) There is a climate crisis and swift action across all sectors is needed.
- 2) More transportation options are needed: from EVs, to safe and accessible walking and biking infrastructure, to high quality transit and electric buses.
- 3) Environmental justice and equity should be at the center of climate action.
- 4) Both local and statewide solutions are needed. The differences between urban and rural areas should be factored into solutions.
- 5) Transportation solutions must be integrated with other systems, including energy generation, land use decisions, and other state and local policy.
- 6) Climate policies can and should also lead to healthier, more equitable, resilient, and economically robust communities.

Recommendations and Next Steps

MnDOT used feedback from technical experts and the public to develop actions and recommendations for the Pathways report. One action identified was to create the Sustainable Transportation Advisory Council (STAC) to advise the state on reducing transportation GHG emissions, while promoting safety, equity, economic development, and multimodal transportation options.

Sustainable Transportation Advisory Council: MnDOT will create a new council to advise the state on reducing transportation GHG emissions, while promoting safety, equity, environmental justice, economic development, and multimodal transportation options. STAC will include leaders from state agencies, local government, frontline communities, and the public, private, and nonprofit sectors.

– Pathways, 2019

STAC Overview

Goals

Purpose of the STAC

The STAC advises MnDOT and provides the agency with recommendations for reducing carbon pollution from transportation, consistent with the MnDOT statutory goals outlined in 174.01.

Goal of the STAC

The STAC will help Minnesota transition to a low-carbon transportation system consistent with statutory goals for energy and emissions reductions to maximize benefits to Minnesota, while recognizing the importance of continued work towards improving safety, reducing inequities, and supporting economic development.

Scope of the STAC

The full breadth of transportation activities in Minnesota may be reviewed, including those where MnDOT has direct responsibility and indirect influence. This includes, but is not limited to, system planning, project design, construction, operations, infrastructure maintenance, and engagement, education, and outreach.

Membership

Organization of the STAC

The STAC includes 18 members appointed by the MnDOT Commissioner and additional ex-officio members from partner agencies and the legislature.

The council will submit a report to MnDOT in December each year. The report describes the actions taken by the STAC during the previous year and specific recommendations for MnDOT. MnDOT will have 90 days to respond to each recommendation in the report.

Co-Chairs

The STAC is co-chaired by the MnDOT Commissioner¹ and Christopher Clark, President of Xcel Energy MN, SD, ND.

Members

STAC members are appointed by the MnDOT Commissioner to provide recommendations to the agency that support the STAC goals, including through development of an annual report. Members vote and approve formal recommendations of the STAC to MnDOT.

¹ 174.02 Commissioner's Powers and Duties. Subd. 1a. (3) minimize the degradation of air, water quality, and the climate, including reduction in greenhouse gas emissions.

Current STAC Members:

Margaret Anderson Kelliher, Co-Chair – Commissioner, Department of Transportation

Chris Clark, Co-Chair – President, Xcel Energy Inc.

Katie Bell – Private Sector EV & Infrastructure Manufacturing Expert

Katie Frye – Minnesota Power

Dorian Grilley – Bicycle Alliance of Minnesota

Greg Ilkka – Steele County

Katie Jones – The Center for Energy and Environment

Ashwat Narayanan – Our Streets Minneapolis

Michael Noble – Fresh Energy

Rolf Nordstrom – Great Plains Institute

Daniel Schellhammer – Midstate Reclamation, Inc.

Patrick Seeb – Destination Medical Center

Russ Stark – City of St. Paul

Emma Struss – City of Bloomington

Vishnu Laalitha Surapaneni – University of Minnesota Medical Center

Lisa Thurstin – American Lung Association – Twin Cities Clean Coalition

Peter Wagenius – Sierra Club North Star Chapter

Tara Wetzel – Mathy Construction Company

LaShella Sims – Minnesota Pollution Control Agency Environmental Justice Advisory Group

Ex officio members

Ex officio members are appointed by the MnDOT Commissioner to provide expertise and may help present recommendations to the STAC. Ex officio members will participate in all STAC activities but do not vote on formal recommendations.

Current ex officio members:

Sen. Scott Dibble – Minnesota State Senate

Rep. Frank Hornstein – Minnesota House of Representatives

Sen. Scott Newman – Minnesota State Senate

Nick Thompson – Metro Transit

Public comment period

Public input and participation are encouraged. Each meeting shall include a period for public comment so that non-members can provide input on topic(s) discussed during that meeting. Meeting information and materials are available on the MnDOT Sustainability and Public Health website.

Process and Timing

The STAC held its first meeting in February 2020. In Summer 2020, STAC members formed three work groups focused on:

- 1) Fueling and Powering Transportation
- 2) Reducing Vehicle miles traveled (VMT) and promoting transportation options
- 3) Climate resilience and adaptation.

Work groups met regularly outside of the full STAC meetings to develop recommendations for MnDOT. In fall and early winter 2020, the STAC prepared and voted on the final recommendations to submit to MnDOT. MnDOT staff coordinated with review teams to provide a response to the recommendations in mid-March 2021.

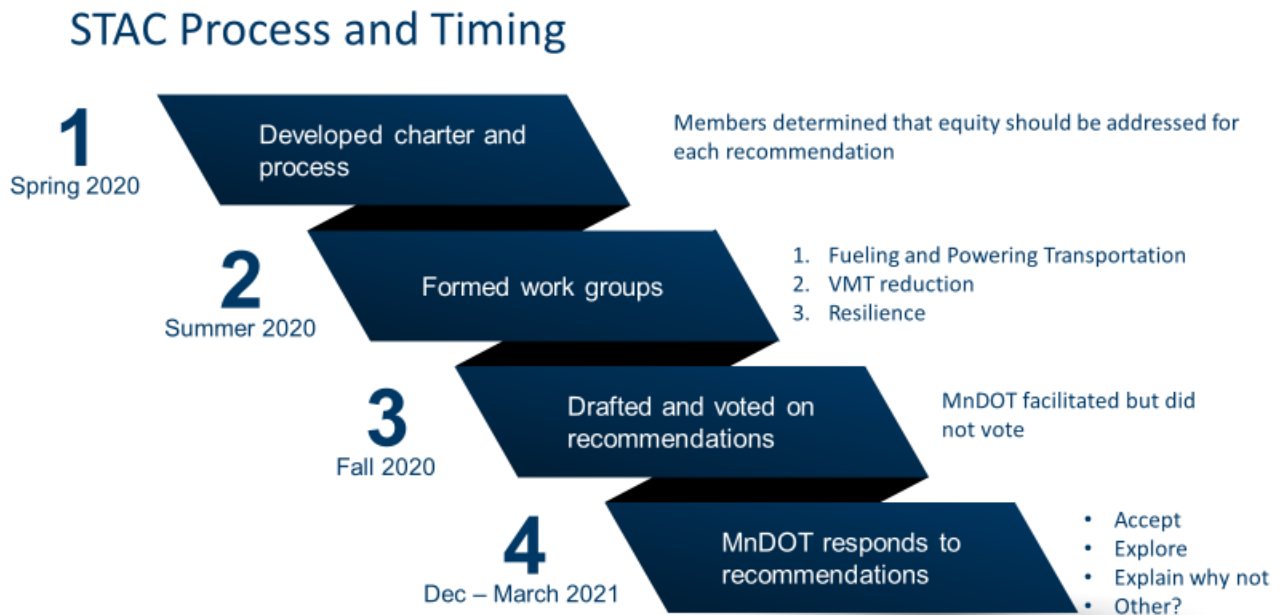


Figure 4. Diagram showing the STAC process and timing

STAC Workgroups

Two STAC workgroups prepared recommendations:

- 1) Fueling and Powering Transportation
- 2) VMT Reduction and Transportation Options

Both groups divided their recommendations into two tiers: high-priority and second-tier recommendations.

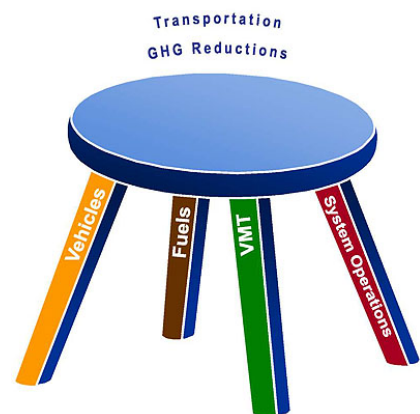


Figure 5. A multi-pronged approach to transportation sector GHG emissions reduction

Work Group Recommendations – Fueling and Powering Transportation

High-priority recommendations

1. Develop a Clean Fuels Policy
2. Establish rebates for public & private light-, medium-, and heavy-duty EVs, including dealership support and consumer rebates
3. Increase investment in EV charging infrastructure, beyond existing VW settlement investments

Second-tier recommendations

1. Minnesota becomes a signatory on a multi-state EV charging corridor Memorandum of Understanding with other Midwestern states.
2. Examine value of NextGen highways, update Minnesota's utility accommodation plan, initiate multi-stakeholder process, and integrate other infrastructure as we entertain the NextGen Highways concept.
3. Develop a state-level plan to support medium/heavy duty electric vehicles.
4. Policy incentives to support increased manufacturing of EVs and EV supply chain.
5. Minnesota becoming a signatory on existing Zero Emissions Truck & Bus Memorandum of Understanding (ZEV Truck & Bus MOU).

The following recommendations did not move forward with the full STAC.

1. E15 becomes standard for gasoline.
2. Incentives for higher blend infrastructure.
3. Fully fund the Bioincentive Program.

Work Group Recommendations – VMT Reduction and Transportation Options

High-priority recommendations

1. Adopt a statewide goal of reducing VMT by 20% by 2050.
2. Stop expanding highway capacity to reduce congestion.
3. Prioritize transit and high occupancy vehicles on MnDOT owned right of way.

Second-tier recommendations

1. Conduct a spending audit across project categories to identify areas where there may be flexibility in spending with the goal of moving funds away from highway capacity expansion and into maintenance, public transit, biking, and walking.
2. Support efforts by local governments to dedicate their right of way to low carbon and active transportation.
3. Discard auto-centric metrics like Level of Service (LOS), in favor of people-centered metrics like reducing VMT, providing choices for the maximum number of travelers, and accessibility and safety for all users.

FUELING AND POWERING TRANSPORTATION WORKGROUP: **Recommendations and Response**

Workgroup Purpose

The Fueling and Powering Transportation Workgroup developed recommendations focused on EV charging infrastructure, incentives, biofuels and clean fuels policies, and vehicle fuels and efficiency, including emerging fuels like hydrogen.

Membership

- Rolf Nordstrom, Great Plains Institute (GPI), Co-chair
- Katie Frye, Minnesota Power, Co-chair
- Chris Clark, Xcel Energy
- Holly Hinman, Xcel Energy
- Rep. Frank Hornstein, Minnesota House of Representatives
- Dan Schellhammer, Mid-state Reclamation, Inc.
- Michael Noble, Fresh Energy
- Anjali Bains, Fresh Energy
- Lisa Thurstin, American Lung Association
- Katie Bell, Private Sector EV & Infrastructure Manufacturing Expert

RECOMMENDATION #1:

Develop a Clean Fuels Policy

Workgroup Recommendation

Why is this important?

Clean Fuels Policies have been demonstrated to increase the use of lower carbon intensity fuels (such as biofuels, electricity, and hydrogen), which supports Minnesota's greenhouse gas (GHG) reduction goals in the Next Generation Energy Act (2007). Economic studies demonstrate large net-positive impacts for the economy, with specific benefits in fuel-producing and fuel-consuming sectors of the economy. Clean Fuels Policies attract investment in emerging clean fuel technologies for aviation biofuel, renewable diesel, and hydrogen. Increasing the use of cleaner fuels also reduces criteria air pollutants. They can also support increased investments in farm conservation practices with soil health and water quality benefits and economic benefits for farmers.

How can this move forward?

MnDOT should encourage the development of a statewide clean fuels policy within the Walz administration and use its authorities to help advance that policy. A Clean Fuels Policy is a technology-neutral market-based policy that sets a standard for lowering the carbon intensity of transportation fuels over time (for example, a 15% required carbon-intensity over ten years). The policy provides incentives for deployment of lower carbon fuels, benefiting fuel consumers and clean fuel producers. The Council specifically recommends a clean fuels policy that will:

- Support the transition to a fully decarbonized transportation and agricultural system by mid-century.
- Advance equity (e.g. affordability of and access to low and zero emissions vehicles, including public transit) and reduce negative health impacts from air pollution for overburdened communities while ensuring other vulnerable communities do not experience an increase in air pollution (e.g. ground-level ozone and particulate matter exposure from fossil fuel production and combustion).
- Include a soil health and water quality program that incentivizes sustainable and regenerative agricultural practices (with special emphasis on nitrogen air and water pollution) and crops that improve soil health and water quality from farming and biofuels production and distribution
- Include safeguards and incentives to protect and enhance environmental integrity, including biodiversity, and to promote job creation and equitable and sustainable economic growth.
- Use peer-reviewed health and pollution data to inform development of the Clean Fuels Policy.

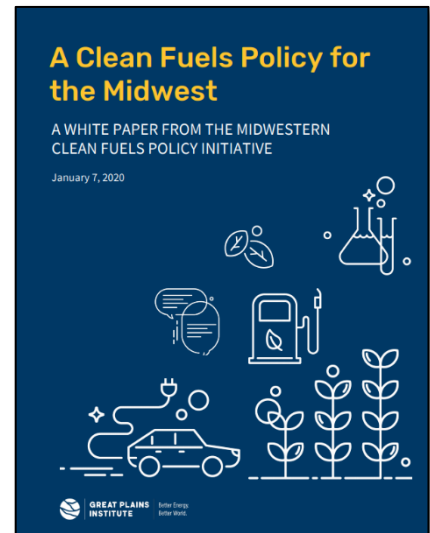


Figure 6. White paper from the Great Plains Institute on a clean fuels policy for the Midwest.

How does this advance equity and environmental justice?

Clean Fuels Policies have minimal impacts (if any) on fuel prices and do not impose a disproportionate impact on lower-income fuel consumers. Clean Fuels Policies reduce air pollution, benefiting geographic areas with disproportionate negative health impacts from transportation fossil fuel consumption. Other jurisdictions with Clean Fuels Policies have taken additional steps to carve out a portion of credit revenues to benefit low-income and minority communities.

MnDOT Review and Response

Related Activities

MnDOT has participated in conversations about a Clean Fuels Policy for the Midwest, led by The Great Plains Institute (GPI), since 2018. These facilitated conversations included representatives from the public and private sector, including groups representing farmers and utilities. The state has a clear role in supporting clean fuels to reduce greenhouse gas emissions and the MnDOT role is defined in statute². MnDOT also leads the interagency Transportation Action Team for the Governor’s Climate Change Subcabinet³ that identified a Clean Fuels Policy as a strategy for the state to reduce carbon pollution from transportation. Finally, the Governor’s Council on Biofuels identified a Clean Fuels Policy as a recommended strategy to reduce carbon pollution from transportation and support the agricultural economy in Minnesota.

Proposed Action—Support

On January 26, 2021, Governor Walz released the Administration’s budget proposal that includes funding for MnDOT to lead a stakeholder process to develop a Clean Fuels Policy for the state. The process would build on existing work facilitated by GPI and include goals consistent with those proposed by the STAC and the Governor’s Council on Biofuels. The goal would be to outline the framework for a Clean Fuels Policy that meets the specific needs identified by Minnesota communities, farmers, and business. The process would run from June – December 2021 so that a policy could be addressed through legislation or rulemaking in 2022.

² [MN Statute 174.01](#) Subd.2 (10) ensure the planning and implementation of all modes of transportation are consistent the environmental and energy goals of the state, (11) to promote and increase the use of high occupancy vehicles and low emission vehicles, and (15) to reduce greenhouse gas emissions from the state's transportation sector

³ Establishing the Climate Change Subcabinet and the Governor's Advisory Council on Climate Change to Promote Coordinated Climate Change Mitigation and Resilience Strategies in the State of Minnesota created by Executive Order ([19-37](#))

RECOMMENDATION #2:

Establish rebates for public and private light-, medium-, and heavy-duty EVs, including dealership support and consumer rebates

Workgroup Recommendation

Why is this important?

EV purchase incentives address a critical barrier to adoption to address higher up-front EV costs. The up-front cost is decreasing but is not expected to hit cost parity with conventional vehicles for a few years. EV incentives have been demonstrated in other states to increase EV adoption.

Studies conducting statistical analysis of market data using both aggregate and disaggregate data found that purchase incentives correlate to EV market shares. Studies that use choice experiments have found consumers are more likely to buy an EV if purchase incentives are available. The abundance of literature using diverse methodologies suggests that EV incentives are an effective policy measure for increasing sales. Governments and nonprofits do not qualify for federal EV tax rebates so state rebates have greater value to them.

How can this move forward?

MnDOT should work with stakeholders to develop eligibility and technical details for an incentive program that provides rebates to eligible fleets and consumers to reduce the incremental cost of qualified electric or plug-in-hybrid vehicles of LD, MD or HD at the time of the purchase or lease. The rebates should be available for consumers purchasing e-bikes. A decreased incentive amount should be available for plug-in hybrid electric vehicles and the incentive should be phased out in the future.

How does this advance equity and environmental justice?

Low-income communities and communities of color disproportionately feel the impacts of vehicle pollution and can benefit the most from the clean air and cost-saving benefits of EVs. Programs for light-duty vehicles can be designed to assure access for lower-income consumers and assure that incentives aren't only directed towards higher-cost vehicles. Policy design options include not allowing incentives above a certain purchase price, means-testing incentives, offering additional incentives for lower-income consumers, and offering incentives for low-cost used EVs. Programs can also be designed to place more EVs (particularly MHD EVs) in areas that are hard hit by poor air quality to achieve measurable improvements through diesel combustion reduction.

MnDOT Review and Response

Related Activities

EV Rebates in Minnesota:

According to the American Council for an Energy-Efficient Economy (ACEEE) *State Transportation Electrification Scorecard*,⁴ “Minnesota is the leader in the Midwest, showing great progress on EVs and EV infrastructure deployment to date. The Minnesota Public Utility Commission (MPUC) has set guidelines for utility investment in EV charging infrastructure, resulting in \$23.6 million in funding for fleet and public charging with another \$13.5 million proposed. The state is poised to take meaningful steps to cement the strength of future EV policies as the MPCA has issued a rulemaking to adopt California’s low- and zero-emission vehicle (ZEV) standards.”

The ACEE scorecard concluded that following:⁵ “The current levels of EVs and EV chargers per capita in Minnesota lag behind those of other states in the Midwest region and nationally. Enhancing incentives and/or directing investment in EVs and EV chargers while codifying binding statewide targets for EV deployment are key steps to improve the per capita numbers of EVs and EV charging infrastructure in the state.”

The State of Minnesota does not currently provide rebates to purchase EVs or e-bikes. However, in 2019, MnDOT began a first in the nation three-year pilot project to give a one-time MnPass account credit to eligible EV drivers to use MnPass managed lanes. The goal of the pilot was to incentivize EVs and increase use of the MnPass system. Drivers who purchase or lease a new or used plug-in hybrid electric vehicle receive a \$125 credit or a \$250 credit for an all-electric vehicle. Vehicles must be purchased or leased between November 1, 2019, and October 31, 2022 to be eligible. Sixty-six credits were issued in the first year of the pilot (Oct. 2020), with 57 going to all-electric vehicles. Twenty-three percent of participants said the credit helped them make their decision to buy an EV.

Federal EV Incentives:

All-electric⁶ and plug-in hybrid⁷ cars purchased new in or after 2010 may be eligible for a federal income tax credit of up to \$7,500. The credit amount varies based on the capacity of the vehicle battery. The expiration date is separate for each manufacturer and only comes after an automaker sells 200,000 qualified vehicles.⁸ To date, Tesla and General Motors have reached these milestones and are no longer eligible for the credit.

State EV Incentives:

Approximately 20 states governments around the US provide tax credits and purchase incentives for EVs and EV chargers. Incentives vary by state and include state sales tax exemptions, income tax credits, and direct rebates

⁴ <https://www.aceee.org/electric-vehicle-scorecard>

⁵ <https://www.aceee.org/sites/default/files/pdfs/2021-EV-Scorecard-Minnesota%202-1-21.pdf>

⁶ <https://www.fueleconomy.gov/feg/evtech.shtml>

⁷ <https://www.fueleconomy.gov/feg/phevtech.shtml>

⁸ <https://www.irs.gov/Businesses/Plug-In-Electric-Vehicle-Credit-IRC-30-and-IRC-30D>

for the purchase price of light-, medium-, and/or heavy-duty EVs. Several states also provide rebates for the purchase of EV chargers to homes and businesses.⁹

A small number of city and county governments have established small rebate programs to support the purchase of e-bikes but there are no known state-funded incentives in the US.

Utility Rebates:

Several utilities in Minnesota offer utility-specific programs to promote EVs, including EV-specific charging rates offered by Xcel Energy,¹⁰ Connexus Energy,¹¹ Otter Tail Power,¹² and Lake Region Electric Cooperative.¹³ Several Minnesota utilities also offer rebates for purchasing Level 2 EV chargers.

Opportunities and Considerations

In the past, external organizations in Minnesota have advocated to the legislature for state EV rebate programs in Minnesota to reduce the upfront costs of EVs. We are not aware of any current bills presented during this legislative session to create rebates for EV or e-bikes.

⁹ <https://pluginamerica.org/why-go-plug-in/state-federal-incentives/>

¹⁰ https://www.xcelenergy.com/energy_portfolio/innovation/electric_vehicles/charging_your_electric_vehicle

¹¹ <https://www.connexusenergy.com/save-money-and-energy/programs-rebates/electric-vehicle>

¹² <https://www.otpco.com/ways-to-save/electric-vehicles/>

¹³ <https://www.lrec.coop/products-service/chargewise>

A recent study suggests that GHG emissions could be reduced by up to 12% if 15% of urban VMT shifted to e-bikes.¹⁴ Partly based on this research, a bill was introduced to Congress in February 2021 to provide a consumer tax credit that would cover 30% of the cost of e-bikes, with a max credit of \$1,500.¹⁵

Proposed Action—Explore Further

MnDOT supports efforts to promote EVs and e-bikes and appreciates past support for EV charging by the Governor and legislature, including \$2M for EV-charging on state properties through bonding in 2020. However, MnDOT does not have legislative or funding authority to provide direct rebates for EVs. The decision to create state incentives for EV and e-bikes is made by the Governor and the state legislature.

MnDOT will continue to evaluate its first in the nation MnPass EV pilot and consider expansion beyond the current 3-year review period, depending on performance.

MnDOT is also leading development of an update to Minnesota’s EV Vision to create a strategic EV plan for the state. The plan may also provide more detailed information about EV incentives provided by other states and incentive opportunities for e-bikes. The agency will invite STAC members and member organizations to play an active role in the plan development.

¹⁴ <https://www.sciencedirect.com/science/article/abs/pii/S1361920920306696?via%3DiHub>

¹⁵ <https://panetta.house.gov/media/press-releases/congressman-panetta-introduces-e-bike-act-encourage-use-electric-bicycles-and>

RECOMMENDATION #3:

Increase investment in EV charging infrastructure, beyond existing VW settlement investments

Workgroup Recommendation

Why is this important?

By increasing access and availability of EV charging through infrastructure investments, we can address barriers to EV adoption such as upfront costs, range anxiety, and lack of charging access. Increasing EV adoption can improve air quality and reduce carbon emissions.

How can this move forward?

MnDOT should use available health and pollution data to inform increased investment in EV infrastructure and identify and remove barriers to the deployment of that infrastructure (e.g. current prohibition against EVSE at rest stops). This would increase access to EV charging and encourage EV adoption.

How does this advance equity and environmental justice?

Potential to provide electric mobility services for all, including buses and public EV charging in communities. Decreased use of internal combustion engines results in universal air quality benefits. High visibility charging infrastructure within the community could serve all of Minnesota, including Minnesotans living in multi-family buildings. This could be an additional important step alongside investments along transportation corridors.

MnDOT Review and Response

The State of Minnesota is currently investing in EV charging infrastructure beyond the VW settlement grants distributed by the Minnesota Pollution Control Agency. Current activities are summarized below:

Invest in EV Charging at State Facilities:

Minnesota state agencies are investing in EV chargers at state-owned facilities. For example, MnDOT installed over 20 Level 2 EV chargers at facilities throughout Minnesota¹⁶, some of which are available to visitors at no cost, while others are dedicated for use by MnDOT fleet vehicles. Another example is the Minnesota Department of Natural Resources provision of EV chargers at state parks in partnership with local utilities.

¹⁶ [MnDOT EV Charging Stations, February 2020](#)

Bond Funding Secured for Additional State Agency Investment in EV Charging:

In 2020, the Minnesota State Legislature passed a bonding bill that included \$2 million for EV charging infrastructure on state-owned property¹⁷. The funding will be used for up to 13 DC fast chargers to support state fleets and up to 100 Level 2 chargers at state facilities. State agencies are identifying additional locations for the EV chargers to leverage utility programs and expand the impact of the bond funding.

Clean Transportation Program:

The MnDOT Clean Transportation Pilot Funding Program provides up to \$2 million annually for three years in grants ranging from \$25,000 to \$500,000 to pilot, test, and increase adoption of clean transportation technologies, especially where cost is a barrier to implementation. This program was developed in collaboration with MnDOT's Sustainable Transportation Advisory Council and is administered by MnDOT's Office of Sustainability and Public Health. The grants can be used by local governments, regional transportation authorities, transit agencies, natural resource or public land agencies, schools, tribal governments, or non-profits to fund EV charging infrastructure. The first round of successful applicants will be March 2021.

Minnesota Pollution Control Agency Small Grants for Fleets:

In 2019, the MPCA awarded \$185,000 for EV fleet charging to five public fleets. MPCA requested proposals to install Level 2 or Level 3 EV chargers at locations serving fleet vehicles in Minnesota with the goal to reduce emissions across the state, especially in high-population areas most impacted by vehicle pollution.

Opportunities and Considerations

MnDOT and other state agencies are developing plans and partnerships to support EV charging around the state, make charging more convenient, and address range anxiety as a barrier to EV adoption. Using models such as TESLA and Electrify America, MNDOT will consider placing additional fast charging stations at the 60 charging hubs (22 by 2021, 38 more by 2024) across Minnesota that will be funded by the Volkswagen Settlement. Charging hubs are future proofed to allow for additional chargers and parking and co-locating multiple fast chargers creates reliability like the gas station model. Expanding EV charging in Minnesota will require short-term investment and a long-term strategy to address immediate needs and support the ongoing EV adoption statewide. Examination of barriers to charging for certain groups is especially important.

The Walz Administration's 2022-2023 budget proposal recommends that half of the current \$75 registration fee on all-electric vehicles (EV)¹⁸ be used by MnDOT to expand public EV charging across the state. At current levels, half of the \$75 EV registration fee could add about four DC-fast chargers or a combination of DC-fast and Level 2 chargers each year. The program would focus on rural Minnesota and communities of concern for environmental justice. The proposed budget would also fund around 150 EV chargers at MnDOT facilities.

¹⁷ [HF 1, 91st Legislature, 2020 5th Special Session \(2020\), October 20, 2020](#)

¹⁸ MS 168.013

Upcoming planning efforts, like the Minnesota 2021 Electric Vehicles Strategic Plan will provide additional direction to support strategic action and investment in EVs. The plan will analyze gaps in the current EV charging network, opportunities/challenges for medium- and heavy-duty EV charging (see “Medium- and Heavy-Duty EV Plan” response for details), and equitable access to EV technology, including home EV charging access for people who lack garages and those in multi-unit dwellings.

Proposed Action—Support

MnDOT will advance this recommendation through the following actions:

- Increase investment in EV charging infrastructure at MnDOT facilities using bond funding and/or funding identified in the Walz Administration budget, if it is approved
- Review EV charging infrastructure proposals for Clean Transportation funds
- Identify strategic opportunities for EV infrastructure to create a more equitable transportation system in the region through the Minnesota 2021 Electric Vehicles Strategic Plan
- Explore options to install EV charging infrastructure at non-interstate rest areas

See also the “Next Generation Highways” and “Medium- and Heavy-Duty EV Plan” responses.

Second-Tier Recommendations

Workgroup Recommendation

- » Minnesota becomes a signatory on a multi-state EV charging corridor Memorandum of Understanding with other Midwestern states

MnDOT Review and Response

Related Activities

Multi-state collaboration on EV charging has helped states attract private investment, promote signage and marketing, improve the EV driver experience, and efficiently use state resources. Examples from other regions include the West Coast Electric Highway (CA, OR, WA)¹⁹ and REV-West (AZ, CO, ID, MT, NV, NM, UT, and WY).²⁰

In 2017, MnDOT partnered with state DOTs from IN, IL, MI, and WI²¹ to establish I-94 as The Great Lakes Zero Emission Corridor,²² which became the first signed EV Charging Corridor as part of the Federal Highway

¹⁹ <http://www.westcoastgreenhighway.com/electrichighway.htm>

²⁰ https://www.naseo.org/Data/Sites/1/revwest_mou_2019_final.pdf

²¹ Wisconsin DOT and Indiana DOT participated in the effort but were not official signatories.

²² <http://www.dot.state.mn.us/sustainability/docs/zero-emission-corridor-mou.pdf>

Administration’s Alternative Fuel Corridors (AFC) program.²³ The states agreed to coordinate on communications, marketing, research, and other activities to support travel by EV throughout the Upper Midwest. In 2020, MnDOT signed I-35 as part of the AFC program.

Since 2018, MnDOT has been a member of the Midcontinent Transportation Electrification Collaborative (MTEC) that includes the states participating in the I-94 MOU plus Iowa, Kansas, Kentucky, Missouri, Arkansas, Louisiana, and Ohio. The states are connected through the Midcontinent Independent Service Operator (MISO) (i.e., the Midwest electric grid). MTEC includes representatives from state environmental and economic development agencies, Governor’s Office staff, and private industry.

Proposed Action—Support

Following the STAC recommendation, MnDOT partnered with Michigan to re-engage with states in the Upper Midwest (IA, IL, IN, MI, MN, OH, WI) on EV corridor collaboration with a focus on medium- and heavy-duty vehicle electrification. MnDOT and other Minnesota state agencies also continue to work with the larger MTEC group. These two efforts are complimentary and there is value pursuing both to coordinate and encourage a consistent experience for EV drivers throughout the midcontinent.

Workgroup Recommendation

- » Examine value of NextGen highways, update Minnesota's utility accommodation plan, initiate multi-stakeholder process, and integrate other infrastructure as we entertain the NextGen Highways concept

MnDOT Review and Response

Related Activities

The goal of NextGen Highways²⁴ is to use linear highway and interstate corridors to do the following:

1. Efficiently facilitate the electric sector’s transition to renewable energy and the transportation sector’s transition to zero-emission vehicles
2. Co-locate fiber/broadband/5G infrastructure along the highway right-of-way to help reduce the digital divide facing rural communities
3. Identify public-private partnership opportunities between the DOT, telecommunications industry partners, and communities.

²³ https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/

²⁴ <https://19fgew3zyb632ma8181lw82b-wpengine.netdna-ssl.com/wp-content/uploads/2020/09/NextGen-Highways-Sept-22nd.pdf>

Recently, Secretary of Energy Granholm highlighted the opportunity to bury transmission and fiber in the highway right of way during her Senate confirmation hearing²⁵ and former USDOT Secretary John Procarri, authored an op-ed on the topic.²⁶

Opportunities and Considerations

MnDOT coordinated with NGI Consulting on the NextGen Highway concept since 2019. The agency recognizes that interstate and highway right-of-way and construction projects provide a unique opportunity to promote collaboration among the state and private sector. The MnDOT Office of Connected and Automated Vehicles (CAV-X) partnered with Ernst & Young on the Minnesota Fiber Optic Planning Study (2021) to review gaps in the state's fiber optic network along highway rights-of-way and support future planning to build out the state's fiber optic network to support future transportation information needs and help reduce the digital divide between urban and parts of rural Minnesota.

NGI Consulting partnered with nonprofit The Ray,²⁷ who had been working on similar concepts. Together, they plan to use Minnesota as a pilot state for a detailed examination of the feasibility of co-locating high-voltage direct current (HVDC) electric transmission along transportation corridors. Their analysis would consider the technical and regulatory barriers and the overall economic costs and benefits.

Proposed Action--Support

The agency recognizes a need for the state to support additional electricity transmission to help incorporate more renewable energy onto the electricity grid and to support EV charging, especially for medium- and heavy-duty trucks. MnDOT also recognizes the need to align with state and national efforts to build out broadband and telecommunications infrastructure. MnDOT has agreed to join a multi-stakeholder steering committee for the NextGen Highways proposal to better understand the implications and opportunities for Minnesota, including potential updates to Minnesota's utility accommodation plan.

²⁵ https://www.youtube.com/watch?t=1h12m25s&v=_66lr8gx4&feature=youtu.be

²⁶ <https://thehill.com/opinion/energy-environment/531793-a-transportation-infrastructure-and-climate-priority>

²⁷ <https://theray.org/>

Workgroup Recommendation

- » Develop a state-level plan to support medium/heavy duty electric vehicles

MnDOT Review and Response

Proposed Action--Support

MnDOT is leading development of an update to Minnesota's EV Vision to create a strategic EV plan for the state. Advancing low and zero emission vehicles in the MD/HD sector in Minnesota is a priority area for the new plan and the agency will invite STAC members and member organizations to play an active role in the plan development.

Workgroup Recommendation

- » Policy incentives to support increased manufacturing of EVs and EV supply chain

MnDOT Review and Response

Related Activities

Advanced transportation is Minnesota's third-largest clean energy sector with 3,191 jobs, according to the 2020 Clean Jobs Midwest Report.²⁸ After several years of record growth, the advanced transportation sector saw a pre-COVID dip in job growth in 2020. The report estimates that 742 of the 3,191 advanced transportation jobs in Minnesota are tied to EVs. More information on EV jobs outlooks and information from the Bureau of Labor Statistics²⁹ and the International Energy Agency.³⁰

Minnesota industry has a small but growing footprint for EV-related jobs, but several national and Minnesota-based firms have a growing presence in Minnesota.

- New Flyer (Crookston, Saint Cloud) is North America's largest transit bus manufacturer and develops EV charging and mobility solutions. About 7,300 of their 41,000 in-service transit buses are electric and 1,600 are zero-emission. The Crookston team of over 300 people builds 20 buses a week, including all three zero-emission types: fuel cell-electric, battery-electric, and trolley-electric.³¹
- Tesla (Brooklyn Park) has over 200 full-time employees in Minnesota; most working in EV manufacturing.

²⁸ <https://www.cleanjobsmidwest.com/state/minnesota>

²⁹ https://www.bls.gov/green/electric_vehicles/

³⁰ <https://www.iea.org/reports/global-ev-outlook-2020>

³¹ <https://www.crookstontimes.com/news/20191030/manufacturers-week---new-flyer-of-america-on-cutting-edge>

- Zeus Electric Chassis (Chisago City) specialize in medium-duty electric trucks for utilities and government fleets. They are the only medium-duty electric work truck chassis manufactured in North America.
- Niron Magnetics (Minneapolis) spun out of the University of Minnesota. They are developing the first advanced manufacturing process to mass produce permanent magnets with iron nitride that can be made at lower cost than rare-earth magnets. The magnets could revolutionize design of new electric motors³².
- ZEF Energy (Edina) develops and deploys EV chargers and software for drivers, utilities, and businesses.
- Thermo King (Minneapolis) develops transport refrigeration and heating for trailers, trucks, buses, rail cars and shipboard containers. Products include electric options for auxiliary power units, electric standby for refrigeration units, and electric HVAC systems for coach and transit applications.

Opportunities and Considerations

Clean energy jobs in Minnesota have grown 2.5 times faster than overall state employment³³ and supporting clean energy job growth is a priority for the state. Coordination with the state agencies working on clean energy and advanced manufacturing since submittal of the STAC recommendations has been complicated by demands from the state's COVID response. We look forward to additional coordination with STAC members and representatives from other state agencies in the future.

Proposed Action—Explore Further

MnDOT currently leads a multi-agency effort to update the state EV Plan by August 2021. The plan may include more information about opportunities for the state to support increased EV manufacturing and the EV supply chain jobs in Minnesota. MnDOT will provide opportunities for the STAC to engage with the state on this plan in spring 2021.

³² <https://nironmagnetics.com/>

³³ <https://www.cleanjobsmidwest.com/state/minnesota>

Workgroup Recommendation

- » Minnesota becomes a signatory on existing Zero Emissions Truck & Bus Memorandum of Understanding (ZEV Truck & Bus MOU)

MnDOT Review and Response

Related Activities

Fifteen states and the District of Columbia signed an MOU to work collaboratively to advance and accelerate the market for electric medium- and heavy-duty (MHD) vehicles, including large pickup trucks and vans, delivery trucks, box trucks, school and transit buses, and long-haul delivery trucks. The goal is to ensure that 100% of all new truck and bus sales are zero-emission vehicles (ZEVs) by 2050, with an interim target of 30% by 2030.³⁴ The signatory jurisdictions are working through the multi-state ZEV Task Force facilitated by the Northeast States for Coordinated Air Use Management (NESCAUM)³⁵ to develop a MHD ZEV Action Plan.

Proposed Action—Explore Further

Minnesota supports the goals of the MOU to support and advance development of low and zero emission vehicles in the MD/HD sector. MnDOT will continue to engage with states on this goal and facilitate future discussions with other state agencies and the Governor’s Office to evaluate the potential for collaboration on this topic.

MnDOT is also leading development of an update to Minnesota’s EV Vision to create a strategic EV plan for the state. Advancing low and zero emission vehicles in the MD/HD sector in Minnesota is a priority area for the new plan and the agency will invite STAC members and member organizations to play an active role in the plan development.

³⁴ <https://www.nescaum.org/documents/multistate-truck-zev-governors-mou-20200714.pdf/>

³⁵ <https://www.nescaum.org/>

REDUCE VMT AND IMPROVE TRANSPORTATION OPTIONS WORKGROUP: **Recommendations and Response**

Workgroup Purpose

The Reducing Vehicle Miles Traveled (VMT) and Improve Transportation Options Workgroup developed recommendations that address transportation options, including biking, walking, and transit; MnDOT project planning and project selection process; and land use and transportation.

Membership

Workgroup participants include STAC members, STAC ex-officio members, and invited technical experts:

- Ashwat Narayanan, Co-chair — Our Streets Minneapolis (STAC member)
- Emma Struss, Co-chair — City of Bloomington (STAC member)
- Dorian Grilley — Bicycle Alliance of Minnesota (STAC member)
- Katie Jones — The Center for Energy and Environment (STAC member)
- Peter Wagenius — Sierra Club North Star Chapter (STAC member)
- Russ Stark — City of St. Paul (STAC member)
- Sen. Scott Dibble — Minnesota State Senate (STAC ex-officio member)
- Vishnu Laalitha Surapaneni — University of Minnesota (STAC member)
- Nick Ray Olson — Our Streets Minneapolis (Technical expert)
- Sam Rockwell — Move MN (Technical expert)

RECOMMENDATION #1:

Adopt a statewide goal of reducing VMT by 20% by 2050

Workgroup Recommendation

Why is this important?

Driving is responsible for the largest share of carbon emissions in Minnesota and is growing. Carbon reduction gains made through more efficient vehicles, and fuel economy standards have been offset by large increases in VMT. Minnesota will not be able to achieve its carbon reduction goals without a significant reduction in VMT, paired with other strategies like electrification of the transportation system.

Figure 1. Statewide Annual Growth Trends:1992-2018



Figure 7. VMT trends, 1992-2018 (MnDOT)

Setting a VMT reduction goal will identify this strategy as a priority for MnDOT and help evaluate yearly progress. This goal is in alignment with Minneapolis and St. Paul’s established 38-50% VMT reduction targets. Establishing a VMT reduction goal is also in alignment with other state DOT VMT reduction goal efforts, such as in Delaware, California, and Washington State.

How can this move forward?

We recommend that MnDOT should:

- Incorporate VMT reduction in the purpose and need section of all major MnDOT transportation projects.
- Apply a VMT reduction goal on the MnDOT “Rethinking I-94” project that seeks to reconstruct Interstate 94 between Minneapolis and St. Paul.
- Establish a statewide VMT reduction goal and track it in the annual MnDOT sustainability report.
- That statewide goal should be divided into specific goals for different geographic areas based on the ability of different areas to shift modes of travel. The greatest VMT reduction should be expected in the Twin Cities Metropolitan Area where transit, biking, and walking are most feasible, followed by major regional centers. The smallest reduction in VMT should be expected in rural areas that depend on agriculture.

How does this impact equity and environmental justice?

The impacts of climate change are felt world-wide, but they are disproportionately worse for people of color. Reducing VMT will have immediate, lasting benefits for those who have historically been marginalized—specifically Black, Indigenous, People of Color (BIPOC). BIPOC community members breathe worse air and are at a higher risk of traffic crashes. These disparities are partially a result of transportation decisions that have prioritized automobile infrastructure over other modes of transportation. Lowering VMT will help reduce both particulate matter emissions and reduce the risk of traffic crashes, resulting in improved equitable outcomes.

MnDOT Review and Response

Minnesota will not be able to achieve our state greenhouse gas (GHG) reduction goals without reducing vehicle miles traveled (VMT). Reducing the amount of time and money that people spend driving is important to reduce carbon pollution, support financial sustainability of the transportation system, and promote safe and healthy communities around the state.

People shouldn’t have to drive so far to accomplish their needs. The goal from Sustainability Transportation Advisory Committee (STAC) members with the VMT goal is to lower carbon emissions and reduce the time spent driving and the costs of driving. Minnesotans can:

- Use their time more productively
- Promote equity through lowering household travel costs
- Reduce costs to taxpayers from constructing and maintaining roadways
- Support community design that provides safe and convenient biking, walking, and transit travel options.

VMT Reduction Goal

Setting a preliminary VMT reduction goal will start a conversation with the public and stakeholders about what the goal means and how to achieve it. MnDOT recognizes that different opportunities exist in urban and rural communities to reduce VMT and that related goals must acknowledge those differences.

MnDOT has reviewed the STAC recommendation and proposes these next steps:

- Set a preliminary statewide goal for a 20% VMT reduction statewide and per capita by 2050. Adding per capita is important to understand the role of population growth in metro and non-metro Minnesota.³⁶
- Review and finalize the goal after engaging the public and stakeholders, including cities and counties, through the Statewide Multimodal Transportation Plan (SMTP) process that will occur throughout 2021.
- Evaluate different goals for the metro Twin Cities region and Greater Minnesota and establish a baseline year from which reductions would be measured and consider interim goal years that align with current planning year horizons.
- Create a new intergovernmental climate change council to coordinate this and related efforts with partner agencies, cities, and counties.

For the average Minnesota driver, a 20% VMT reduction would mean traveling about 45 miles less per week in 2050 (30 years from now), or about 1 hour less time in their cars, than they spend today. This number will vary for people living outside the 7-county metro where fewer alternatives are currently available.

Other states, including CA, DE, and WA have established similar goals and more ambitious goals already exist in Hennepin County (DRAFT, -80M VMT by 2040), Minneapolis (-1.8% VMT per year to 2040), and the City of St. Paul (-40% by 2040).

Collaboration and Exploration of New Tools

This is a preliminary goal and progress will require extensive collaboration with local partners as MnDOT is the owner/operator of approximately 12% all roadways in Minnesota. Reducing VMT will require diverse approaches and thorough tracking and reporting. MnDOT expects the following strategies will play a role in the future.

- Transportation demand management, including support for statewide broadband access to support jobs that allow a shift to more remote work. This has the potential to reduce VMT and support vibrant communities and increased quality of life throughout the state.
- Improve understanding and information on the time spent in traffic and direct costs of automobile ownership, especially for people with lower incomes who spend a disproportionate amount of their incomes on transportation required to get to/from work.
- Increase support for multimodal transportation options, especially in the Twin Cities metro where these options have greater potential to reduce VMT.
- Continue buildout of the MnPass managed lane system to provide advantages for transit and non-single occupancy trips.

³⁶ According to the Vehicle Miles Traveled Trends in Minnesota (1992-2018) report, statewide VMT has grown around 1% per year but VMT per capita has decreased slightly since 2004 in metro and non-metro counties due. https://www.dot.state.mn.us/traffic/data/reports/vmt/VMT_Trend_Report_2018.pdf

- Continue exploring transportation pricing strategies to reduce trips and shift travel to non-peak hours to reduce roadway capacity needs.
- Develop new tools to understand impacts of induced demand from transportation projects, accuracy of travel demand forecasting, and strategies to improve multimodal accessibility and inform transportation plans and projects.

Equity Considerations

Addressing transportation equity and environmental justice must be prioritized in implementation efforts. COVID highlighted inequities in the flexibility to adjust travel times and in the jobs that allow remote work. Increased housing costs can further exacerbate inequities and may continue to force people to live further from where they work, which can also impact VMT and exacerbate inequities.

Proposed Action--Support

Set a preliminary statewide goal for a 20% VMT reduction statewide and per capita by 2050.

- MnDOT will finalize the goal after engaging the public and stakeholders, including cities and counties, through the Statewide Multimodal Transportation Plan (SMTP) process that will occur throughout 2021.
- As part of the SMTP process, MnDOT will evaluate different goals for the metro Twin Cities region and Greater Minnesota and establish a baseline year from which reductions would be measured and consider interim goal years that align with current planning year horizons.
- Develop a method for estimating program and project VMT outcomes by assessing both induced (e.g. adding lanes) and reduced (e.g. increasing walking access) vehicle travel demand
- MnDOT will work to develop a new intergovernmental climate change council to coordinate this and related efforts with partner agencies, cities, and counties.

Applying VMT Workgroup Recommendations to the I-94 Project

It's critical that MnDOT fully engages with I-94 communities to gather feedback before determining project goals and outcomes, including potential goals around VMT reduction. Project-specific details, including VMT workgroup suggestions such as setting a VMT reduction goal, not expanding highway capacity, and prioritizing transit and high occupancy vehicles on MnDOT owned right of way, are more appropriate to consider when the project reaches the alternatives development phase. MnDOT will include these workgroup suggestions as part of the current public engagement phase and evaluate feasibility of applying them as the project moves into development of project alternatives.

Stop expanding highway capacity to reduce congestion

Workgroup Recommendation

Why is this important?

As we seek to address climate pollution from the transportation sector, we would all benefit from bringing other disciplines to bear like public health and economics. In public health, the Hippocratic Oath calls on us to “first do no harm.” While clearly unintended, we now know that trying to address congestion by expanding highways not only doesn’t work, it is doing harm. Experts across disciplines including public health and economics have documented this and the data is clear—highway capacity expansion does not reduce traffic congestion over the long term. Instead, capacity expansion projects have been shown to induce more driving—leading to more congestion and carbon emissions. A recent study of the 100 largest urbanized areas in the US found that freeway capacity grew by 42% from 1993 to 2017—much faster than a 32% increase in population growth—and traffic congestion increased by 144% in the same time period.³⁷

Highway capacity expansion projects are also some of our most expensive projects. Additional costly expansions leave fewer financial resources for the maintenance of our existing system and investing in low carbon modes of transportation. This will also promote job growth. Dollar for dollar, repairing and rebuilding existing infrastructure puts more people to work than expanding new lanes.

How can this move forward?

- Focus the limited resources available on maintaining existing infrastructure and providing choices for travelers.
- Act right away by adding this goal into projects like “Rethinking I-94”.

How does this impact equity and environmental justice?

Highway expansions have caused lasting harm to communities of color across the United States. For example, historically black communities like St. Paul’s Rondo Neighborhood and North Minneapolis were divided by the construction of Interstate 94 through them—destroying many Black-owned homes and businesses. These highways continue to have negative impacts on these neighborhoods—cutting them off from accessing jobs and opportunity, exposing them to high particulate matter emissions and noise, and reduced property values. Continuing to expand highway capacity at this stage is to perpetuate harm knowingly. Moving away from capacity expansion projects will help mitigate some of these impacts.

³⁷ Kent Hymel, “If you build it, they will drive: Measuring induced demand for vehicle travel in urban areas,” *Transport Policy*, Volume 76, 2019, Pages 57-66, ISSN 0967-070X, <https://doi.org/10.1016/j.tranpol.2018.12.006>.

MnDOT Review and Response

Related Activities

Reducing congestion will require a multi-prong, cross-jurisdiction approach. MnDOT uses capital investment guidance in the MnDOT’s State Highway Investment Plan (MnSHIP), objectives and strategies to improve the highway system in the MnDOT’s Statewide Multimodal Transportation Plan (SMTP), and regional transportation partner priorities, such as those in the Metropolitan Council’s Transportation Policy Plan (TPP). Balancing system operations and maintenance, increasing traveler choice, and prioritizing low cost, high-benefit mobility investments inform the MnDOT approach to congestion management.

MnSHIP capital budget currently dedicates 70% of funds to maintaining the existing system with limited investments in bicycle infrastructure (.6%) and accessible pedestrian infrastructure (2.5%). Expansion projects may use funding from multiple categories and are not tracked separately. The capital budget approach reflects stakeholder input that prioritizes maintenance and operation of existing resources over expansion. One of the drawbacks of this approach is that it offers limited ability to increase infrastructure and multimodal needs.

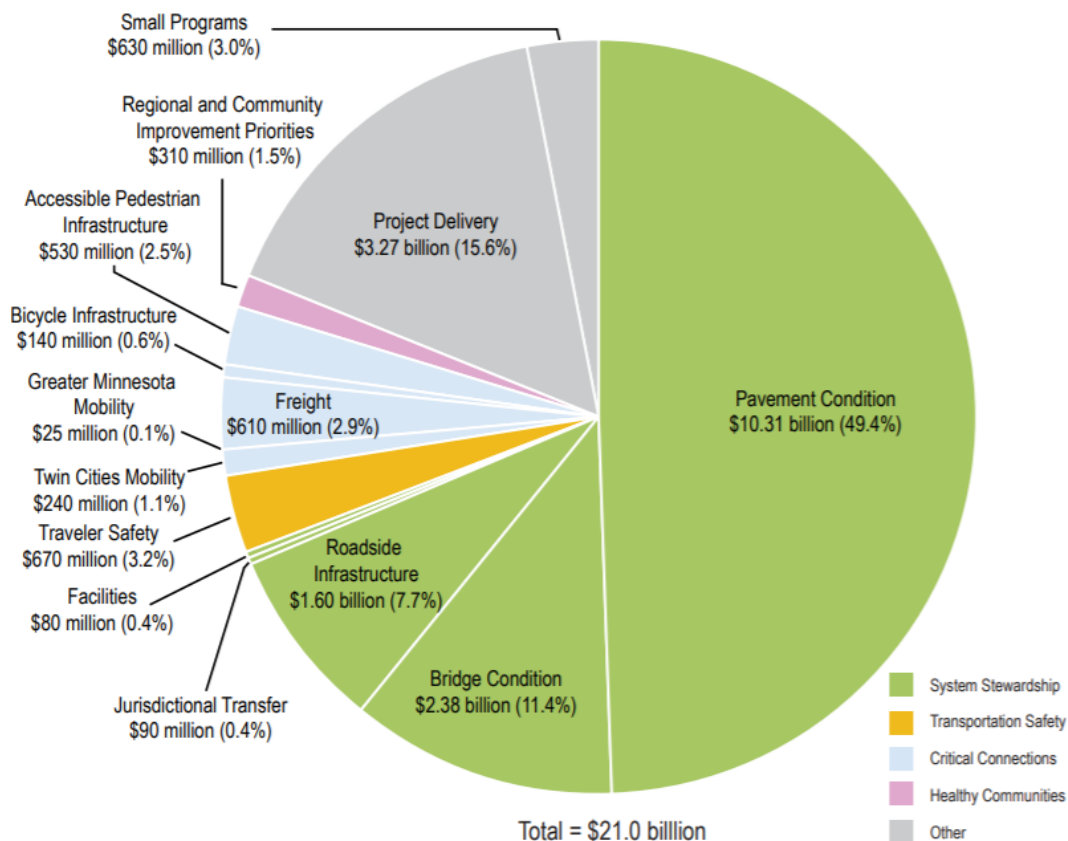


Figure 8. MnDOT 20-Year Capital Highway Investment Direction, 2022-2027
(MnDOT, https://minnesotago.org/application/files/1214/8431/5968/Chapter_5.pdf)

The SMTP is Minnesota’s highest-level policy plan for transportation that guides policy and investment decisions for all forms of transportation throughout the state. The plan focuses on six policy objectives: accountability, transparency, and communication; traveler safety; transportation in context; critical connections, asset management; and system security. The critical connections focus area notes that many factors may contribute to decisions about low-cost improvements versus expansion, including access to destinations, efficient, affordable, and reliable movement of goods and people, freight network connections, multimodal options, and safety.

MnDOT works to expand traveler choice through multimodal options and access that aligns with MnSHIP and SMTP guidance, including the following:

- Statewide Bicycle and Pedestrian Planning: MnDOT strategically invests in statewide planning to coordinate bicycle and pedestrian system investments³⁸.
- Complete Streets: MnDOT was one of the first DOTs to develop a Complete Streets Policy (2013).³⁹ MnDOT is updating the policy now and adding a modal hierarchy based on roadway class and adjacent land use.
- Transit Efficiency and Access: MnDOT has over 300 miles of bus only shoulders on metro-area freeways. Buses can use the bus-only shoulders any time adjacent main lane traffic is going slower than 35 mph to provide a time advantage for transit users.⁴⁰
- Metro District Multimodal Investments: Pedestrian, bike and transit travel are considered by project managers for construction projects and Metro District enhances pedestrian and bike facilities when appropriate. Minnesota’s Olmstead Plan directs MnDOT to bring existing sidewalks into ADA compliance by 2037.⁴¹

MnDOT has limited resources and/or ability to add lane capacity, especially in fully developed urban corridors. MnDOT coordinates with the Metropolitan Council’s TPP direction to de-emphasize roadway expansion investments in the Twin Cities Metropolitan Region using a tiered mobility investment approach that only recommends highway expansion if lower-cost, higher-benefit non-expansion options cannot meet the facility’s needs. The tiered mobility investment approach includes the following steps, in priority order:

1. **Active Traffic Management:** Transportation technologies that move people efficiently and effectively on the existing freeway system. Examples of active traffic management include real time traveler information systems, ramp meters, changeable message signs and FIRST response vehicles. Active traffic management is first priority for addressing congestion and mobility issues.

³⁸ The [Statewide Bicycle System Plan](#) (2016), MnDOT [District Bicycle Plans](#) (2019), [Minnesota Walks](#) Vision (2016, partnership with MDH), the [Minnesota Statewide Pedestrian System Plan](#) (exp. spring 2021) and the [ADA Transition Plan](#) (2010).

³⁹ <http://www.dot.state.mn.us/policy/operations/op004.html>

⁴⁰ Bus Only Shoulders in the Minneapolis/St. Paul Area. November 2010. <https://www.dot.state.mn.us/metro/teamtransit/pdf/bus-only-shoulders-revised-mn.pdf>

⁴¹ <https://www.dot.state.mn.us/ada/olmstead.html>

2. **Spot Mobility Improvements:** Improvements at specific locations that are typically smaller in scope than traditional highway projects that relieve bottlenecks, improve geometric design, and address safety issues. Spot improvements can improve traffic flow by adding auxiliary lanes or lengthening entrance/exit ramps and provide transit advantages (e.g., bus-only shoulders). Most spot improvements are identified through MnDOT's Congestion Management & Safety Plan (CMSP).
3. **Managed Lane System:** Strategies include price managed lanes, high occupancy vehicle lanes, and bus only shoulders. MnPASS Express Lanes are price managed lanes on I-394, I-35W and I-35E that support more reliable travel for transit riders, carpoolers, motorcyclists, and solo motorists⁴². MnDOT is committed to managed lanes without freeway expansion where viable.
4. **Strategic Capacity Enhancements:** Adding interchanges and general-purpose lanes is only recommended when the previous steps would not improve conditions. These projects use existing pavement and right-of-way to the fullest extent possible.



Opportunities and Considerations

MnDOT investments require extensive coordination with regional and local partners which can influence capacity expansion decisions:

- **Corridors of Commerce:** MnDOT administers the Corridors of Commerce program, which authorizes new trunk highway bonds for construction, reconstruction, and trunk highway improvement projects not in the 4-Year State Transportation Improvement Program (STIP).⁴³ Corridors of Commerce program has historically included capacity expansion projects in Greater Minnesota. The program depends on legislative funding and is not currently funded.
- **Transportation Economic Development (TED):** The TED Program provides competitive grants to construction projects on state highways that provide measurable economic benefits. Roadway expansion projects can be eligible for TED funding. MnDOT partners with the Minnesota Department of Employment and Economic Development (DEED) to administer the program. DEED administers a parallel Transportation Economic Development Infrastructure (TEDI) program that funds similar projects on local roads.⁴⁴

Figure 9. Current MnDOT Mobility Investment Approach

⁴² MnDOT plans to open the next MnPASS lanes on I-35W North in fall 2021 between Hwy. 36 in Roseville and Lexington Ave. in Blaine.

⁴³ The 2013 Minnesota Legislature created the [Corridors of Commerce](#) program ([Minnesota Statute 161.088](#)) for the construction, reconstruction, and improvement of trunk highways for projects not already in the [State Transportation Improvement program \(STIP\)](#).

⁴⁴ <https://mn.gov/deed/government/financial-assistance/business-funding/tedi/>

- **Local and legislative priorities:** Local partners can partially fund expansion projects on the state highway system with their own funding, particularly in the Metro area. These projects are not always MnDOT priorities or led by MnDOT. In 2020, the legislature funded project development of six additional expansion projects in the Metro District. The Metropolitan Council’s Regional Solicitation process also partially funded multiple strategic capacity projects (five new interchanges and two arterial lane expansion projects) on the state highway system in their 2020 funding cycle.⁴⁵

Traveler behavior also has the potential to influence congestion. MnDOT congestion tracking indicates that telecommuting and shifting traveler behavior may be an effective and feasible way to reduce the peak travel demand that can drive congestion, which in turn drive system capacity needs. During the 2020 COVID-19 stay-at-home orders, highway traffic volume decreased by 30-50% and congestion largely disappeared with a shift to telework for many workers. Traffic volumes are still down about 10-20% as of February 2021 on metro area freeways and congestion remains significantly lower than pre-COVID for all but the metro’s busiest corridors. An increase in telecommuting from the normal 5% of daily commuters up to 20% could help reduce the time and money lost to a commute while helping to reduce vehicle emissions.

Proposed Action—Explore Further

MnDOT will work with partners, including the STAC, Metropolitan Council, and local municipalities in the Metropolitan area, to evaluate long-term agency actions that can reduce congestion by other means than highway capacity expansion. MnDOT will continue to apply a “fix-it-first” approach and highway capacity expansion will remain the lowest priority for MnDOT-led projects.

- MnDOT will add a new tier one priority for travel demand management to the existing mobility investment approach (capacity expansion will remain the last option). The update will be part of the current MnSHIP update and will keep STAC informed (2021-2022). MnDOT will also establish a new transparent reporting process to share project decisions based on the tiered approach.
- MnDOT is updating the Complete Streets policy and include a modal-hierarchy framework based on land use context and roadway functional classification. MnDOT will bring the draft framework to STAC in early summer of 2021 for feedback.
- MnDOT will engage the STAC as a stakeholder group to get feedback on investment scenarios (MnSHIP, 2021-2023) and priorities for state transportation decisions, which guide plans for each part of the transportation system (SMTP, 2021-2022).
- MnDOT will coordinate with STAC members and a new proposed intergovernmental working group (see previous response), to better understand existing state and regional transportation funding programs and barriers and opportunities related to this recommendation.

⁴⁵ <https://metro council.org/Transportation/Planning-2/Transportation-Funding/Regional-Solicitation-NEW.aspx>

RECOMMENDATION #3:

Prioritize transit and high occupancy vehicles on MnDOT owned right of way

Workgroup Recommendation

Why is this important?

A critical piece of reducing VMT is providing convenient and reliable low and zero carbon options for people to access their destinations. One way to do this is to repurpose existing lanes to prioritize high-occupancy vehicles. This will prioritize people over single-occupancy vehicles, reducing travel times for mass transit and other high occupancy vehicles. It will also cost-effectively provide increased mobility, connecting people who may not have access to cars to jobs and opportunity.

How can this move forward?

- Prioritize high occupancy and low carbon design alternatives using existing lanes in the ‘Rethinking I-94’ and other projects.
- Prioritize multimodal movement along and across highways.

How does this impact equity and environmental justice?

Historically BIPOC communities have higher rates of poverty and continue to be marginalized in transportation decision-making. Transportation access is one the strongest indicators of being able to break out of a cycle of poverty. Reliable mass transit access helps connect people to jobs, school, groceries and opportunity.

Providing transportation choices also helps advance health equity. Our current auto-centric approach to transportation and land use does not support active transportation like biking and walking, increases cardiovascular disease and diabetes, and exposes people, including especially growing children, to pollution which causes asthma and other negative health effects.⁴⁶

In addition, multiple studies show that regions which invest in multi-modal choices including transit, walking, and biking are more economically competitive. In particular, those regions are better able to attract and retain young people who increasingly choose first where they want to live first before looking for a job.^{47,48}

⁴⁶ Howard Frumkin, Lawrence Frank and Richard Jackson, *Urban Sprawl and Public Health*. 2004.

⁴⁷ The Segmentation Company, “Attracting College-Educated, Young Adults to Cities”. 2006.

⁴⁸ Christopher Leinberger, *The Option of Urbanism: Investing in a New American Dream*. 2009.

MnDOT Review and Response

Related Activities

The MnDOT Metro District prioritizes transit and high occupancy vehicles (HOV) along and across the state trunk highway system in several ways. MnDOT is committed to implementing managed lanes without freeway expansion wherever viable. MnPASS and other strategies for transit and HOV, such as bus-only shoulders, often involve expansion to safely accommodate greater person throughput.

- **Managing and expanding the MnPASS Express Lanes:** The MnPASS Express Lane System improves efficiency and effectiveness of the region's transportation system by maximizing the use of highway capacity and providing an advantage to transit buses and high occupancy vehicles.⁴⁹ MnPASS corridors are prioritized in part due to their high levels of congestion and typically involve lane expansion, however opportunities for converting existing general purpose lanes to MnPASS are evaluated and implemented whenever viable such as on I-35E through the I-694/I-35E commons area. In 2021, MnDOT will open its fourth MnPASS facility on I-35W North, as well as MnPASS extensions on I-35W South as part of the I-35W@I-94 project and on I-35E northbound through the I-694/I-35E interchange area. Other corridors are currently being planned.⁵⁰
- **Managing and expanding the bus-only shoulders system:** MnDOT has designated over 300 miles of bus-only shoulders on metro-area freeways to encourage single-occupant drivers to choose transit. This is more than 10 times the number of bus-only shoulder miles in the rest of the nation combined.⁵¹ The agency currently has identified 12 miles of additional bus-only shoulders.⁵² Bus-only shoulder investments are prioritized based on roadway congestion and anticipated bus use. At times, these needs can be met with the simple placement of roadway signs authorizing bus shoulder use. More often, shoulders will require strengthening and/or widening of the roadway to safely accommodate buses.

Opportunities and Considerations

The transit system is a network planned and serviced by multiple entities. This includes MnDOT, the Metropolitan Council, and local levels of government (e.g., counties, cities and townships). For example, the Transit Advantages program is a partnership between MnDOT, Metro Transit, Metropolitan Council, the cities of Minneapolis and St. Paul, Transit providers, metro-area counties, and municipalities.⁵³ The partners collaboratively identify opportunities to incorporate transit advantages into regular MnDOT construction projects. Adding bus shoulders is most common, but can also include HOV lanes, park-and-ride lots, and HOV bypasses.

⁴⁹ <https://www.dot.state.mn.us/mnpass/index.html>

⁵⁰ [Managed Lane System Map](#)

⁵¹ Bus-Only Shoulders in the Twin Cities. June 2007. <https://www.dot.state.mn.us/metro/teamtransit/pdf/Bus-Only-Shoulders-Report.pdf>

⁵² <https://www.dot.state.mn.us/metro/teamtransit/documents.html>

⁵³ <https://www.dot.state.mn.us/metro/teamtransit/pdf/transitadvantages.pdf>

MnDOT supports other entities, like the Metropolitan Council, on projects under construction and development that impact the state trunk highway system. This includes [Southwest Light Rail Transit \(LRT\) METRO Green Line Extension](#), which will serve downtown Minneapolis and the communities of St. Louis Park, Hopkins, Minnetonka, and Eden Prairie;⁵⁴ the METRO Gold Line Bus Rapid Transit (BRT) project, which is a planned 10-mile dedicated BRT to connect St. Paul, Maplewood, Landfall, Oakdale, and Woodbury generally along I-94; and the Rush Line BRT, which is a proposed 15-mile transit route with stops between Lowertown St. Paul and White Bear Lake.⁵⁵

Proposed Action—Support

MnDOT supports the recommendation to prioritize transit and high occupancy vehicles but cannot always accommodate these modes within existing right of way. MnDOT would like to explore opportunities related to this recommendation through agency planning processes and partner coordination:

- MnSHIP and SMTP updates: In coordination with MnDOT’s response to the VMT workgroup’s second recommendation, engage the STAC as a stakeholder group in the MnSHIP and SMTP processes to gather feedback on investment scenarios, priorities for state transportation decisions (2021-2023).
- Regional coordination: see MnDOT’s response to the VMT workgroup’s first recommendation to involve the STAC in the proposed new intergovernmental climate change working group. The goal is to better understand barriers and opportunities related to prioritizing transit and HOV as part of a VMT reduction strategy and potentially identify expanded transit opportunities. Develop communications materials: Engage the STAC to develop communication materials that highlight the benefits of transit and HOV through the lens of sustainability and public health. This can be particularly poignant for supporting agency emission reduction goals as we emerge from the COVID-19 pandemic.

⁵⁴ <https://metro council.org/transportation/projects/Light-Rail-Projects/Southwest-LRT.aspx>

⁵⁵ <https://www.ramseycounty.us/residents/roads-transit/transit-corridors-studies/rush-line-brt-project>

Second-Tier Recommendations

Workgroup Recommendation

- » Conduct a spending audit across project categories to identify areas where there may be flexibility in spending with the goal of moving funds away from highway capacity expansion and into maintenance, public transit, biking, and walking.

MnDOT Review and Response

Related Activities

The Minnesota State Highway Investment Plan (MnSHIP) is a 20-year plan that guides future capital investments on the state's highway system. It supports the guiding principles of the Minnesota GO Vision and links the Statewide Multimodal Transportation Plan (SMTP)'s objectives and strategies to improvements on the highway system. The 20-year investment direction identifies the amount of funding that MnDOT will spend in each investment category established in MnSHIP. Investment levels are set based on robust MnDOT and stakeholder input and key requirements and agency commitments. The investment direction was last updated in August 2018 and focuses on maintaining the existing state highway system while making limited mobility investments⁵⁶. Nearly 70% of investment was identified for improvements to existing pavements, bridges, and other roadside infrastructure. Less than 12% of the investment was directed to mobility, bicycle, pedestrian, and new safety infrastructure. The remaining investment provides funding for small programs. Highway capacity expansion is not an investment category in the investment direction, but capacity projects are funded through the Twin Cities Mobility and Greater Minnesota Mobility investment categories.

Opportunities and Considerations

The following activities are coordinated outside of the MnSHIP planning process and can influence overall MnDOT investment levels in capacity expansion projects:

- **Corridors of Commerce projects:** MnDOT administers the Corridors of Commerce program, which authorized new trunk highway bonds for the construction, reconstruction, and improvement of trunk highway projects not already in the 4-Year State Transportation Improvement Program (STIP). The Corridors of Commerce project has historically included capacity expansion projects in Greater Minnesota.
- **Local priorities:** In addition, local partners partially fund expansion projects on the state highway system with their own funding, particularly in the Metro area. The Metropolitan Council's Regional Solicitation process has partially funded multiple expansion projects on the state highway system. Counties also have used their local sales tax revenue to partially fund expansion projects. These projects are not always MnDOT's highest priority and are not necessarily led by MnDOT.

⁵⁶ [Impact of 2017 and 2018 Legislative Sessions on the 2018-2037 MnSHIP](#)

- **Legislative priorities:** Legislative priorities can also affect investment levels. Bonding bills may identify capacity expansion projects and, in these cases, MnDOT influence in the process selection process is limited. The Legislature may also direct MnDOT to bond for a specific program that is a legislative priority. The Corridors of Commerce program is an example of this.

Proposed Action—Support

While MnDOT cannot commit to the recommended spending audit at this time, the agency will support the recommendation through the following activities:

- MnDOT will compile a list of expansion projects identified in STIP and selected for the Corridors of Commerce Program. The list will indicate the amount of funding directed toward expansion investments in the Twin Cities and Greater Minnesota. The list will be for educational purposes only because opportunities to adjust the project plans and investment levels are limited once projects are scoped and included in the STIP. It will be available by May 2021.
- Changes to the investment direction should be identified through the MnSHIP update process. MnDOT recently launched the MnSHIP update process with public engagement scheduled to occur during the summer of 2021 and winter of 2022. MnDOT will tailor an engagement session specifically to the STAC to gather feedback on different investment scenarios.

Workgroup Recommendation

- » Support efforts by local governments to dedicate their right of way to low carbon and active transportation.

MnDOT Review and Response

Related Activities

MnDOT provides support through multiple avenues (programs and resources, projects):

- **Transit Assistance:** As described in the response to Recommendation #3, MnDOT’s Metro District Team Transit coordinates with local governments and the Metropolitan Council to plan and coordinate transit projects in the Twin Cities Metro.⁵⁷ In addition, MnDOT’s Office of Transit and Active Transportation provides other types of support to local transit agencies, including the Rural Transit Assistance Program,⁵⁸ state and federal grants for transit systems in Greater Minnesota,⁵⁹ and Regional Transportation Coordinating Councils for the “transportation disadvantaged” in Greater MN.⁶⁰
- **Support for Active Transportation:** MnDOT provides support to local governments pursuing active transportation on their rights-of-way through distributing federal funding for Transportation Alternatives in Greater MN;⁶¹ Safe Routes to School grants statewide, including funding for infrastructure

⁵⁷ <https://www.dot.state.mn.us/metro/teamtransit/>

⁵⁸ <https://www.mnrtap.us/>

⁵⁹ <https://www.dot.state.mn.us/transit/grants/index.html>

⁶⁰ <https://www.dot.state.mn.us/transit/grants/RTCC/index.html>

⁶¹ <https://www.dot.state.mn.us/ta/>

improvements and non-infrastructure education and encouragement activities,⁶² technical assistance for short-term demonstration projects, which could inspire a community to pursue active transportation options on additional roadways;⁶³ bikeable community workshops⁶⁴ to help municipalities plan to increase their community's bike-friendliness;⁶⁵ and guidance and resources for road design that safely accommodates bicyclists⁶⁶ and pedestrians.⁶⁷ The statewide bicycle⁶⁸ and pedestrian⁶⁹ plans prioritize completion of local bicycle and pedestrian networks.

- **Complete Streets:** As one of the first DOTs to establish a Complete Streets Policy, MnDOT's role includes providing guidance and resources that local governments can follow in their efforts to dedicate their ROW to low-carbon, active transportation.

Opportunities and Considerations

- **The Clean Transportation Pilot Program:** MnDOT's Clean Transportation Pilot Funding Program provides up to \$2 million annually in grants ranging from \$25,000 to \$500,000 to pilot, test, and increase adoption of clean transportation technologies, especially where cost is a barrier to implementation.⁷⁰ This funding is for entities, including local governments, regional transportation authorities, and transit agencies. MnDOT will announce applicants selected to receive funding for FY2021 grants in March 2021.
- **Related Metropolitan Council Activities:** The Metropolitan Council is currently conducting an EV Planning study to identify the role EVs can play in local climate mitigation, hurdles to widespread EV adoptions, and best practices. Also, the Metropolitan Council is a Congestion Mitigation and Air Quality Improvement (CMAQ) program grant recipient and shares with funding with subrecipients throughout the seven-county region. Historically CMAQ funds have been used for transportation demand management, transit service expansion, or highway system management projects (such as traffic signal coordination).

Proposed Action—Explore Further

MnDOT will explore opportunities and MnDOT's role:

- **Coordinate with the Metropolitan Council:** Engage with METC to identify opportunities based on EV Planning study results.
- **Update MnDOT's Complete Streets Policy resources and educational materials:** The Complete Streets policy update will include an update of MnDOT Complete Streets resources. These resources will be promoted in coordination with districts for use by local government partners (2021-22).

⁶² <http://www.dot.state.mn.us/saferoutes/grants-funding.html>

⁶³ <https://www.minnesotawalks.org/demonstration-projects/>

⁶⁴ <https://www.bikemn.org/collaboration/bikeable-community-workshops>

⁶⁵ <https://www.bikemn.org/collaboration/bikeable-community-workshops>

⁶⁶ <http://www.dot.state.mn.us/bike/design-engineering.html>

⁶⁷ <http://www.dot.state.mn.us/peds/design-engineering.html>

⁶⁸ <https://www.dot.state.mn.us/bike/statewide-bicycle-system-plan.html>

⁶⁹ <https://www.dot.state.mn.us/peds/pedestrian-system-plan.html>

⁷⁰ <http://www.dot.state.mn.us/sustainability/clean-transportation.html>

Workgroup Recommendation:

Discard auto-centric metrics like Level of Service (LOS), in favor of people-centered metrics like reducing VMT, providing choices for the maximum number of travelers, and accessibility and safety for all users

MnDOT Review and Response

Related Activities

LOS measures delay and solutions can include widening roads, adding turn lanes, reducing signal timing for people walking. Relieving congestion can be a temporary fix because of induced demand which can lead to more congestion. Counterintuitively, adding more lanes to a street or highway can lead to more congestion, not less. People-centered metrics shift the focus from moving cars faster to moving people more safely, conveniently, and with less carbon emission. Mitigation could include investments in transit, widening sidewalks, or building bike lanes to help reduce VMT. Changing the measure of impact to VMT from LOS, project proponents would assess the added vehicle miles associated with a new building or road construction⁷¹.

Opportunities and Considerations

In 2020, MnDOT began a pilot with the State Smart Transportation Initiative (SSTI) to test tools to measure accessibility and multimodal access to destinations in communities and for transportation plans and projects. This work will continue in 2021 and will include exploration of additional tools to evaluate induced demand from transportation investment.

The California Department of Transportation (Caltrans) is currently the only state DOT in the US actively applying a VMT measure to transportation investments, including the use of an induced demand calculator. The work that MnDOT is currently piloting will inform the potential for Minnesota to incorporate similar.

Proposed Action—Explore Further

MnDOT will continue to advance current pilot to evaluate to potential to incorporate multimodal accessibility tools into our project decisions, including calculating induced demand. The pilot will conclude in 2021 and results can be shared with the STAC.

⁷¹ <https://www.calbike.org>

Conclusion

As mentioned previously, the STAC process was an outcome of the Pathways to Decarbonizing Transportation process. Addressing the climate crisis remains a top priority for the Walz-Flanagan Administration and MnDOT and the scale and urgency of climate action to address transportation carbon pollution cannot be over-stated.

MnDOT is grateful to all the STAC members for volunteering their time, energy, and expertise to advise the agency on potential strategies to make progress towards the state climate goals in the Next Generation Energy Act. State government cannot achieve these goals alone and support is needed from the local governments; the private, and nonprofit sectors; community groups; and elected officials represented on the STAC. Leading on climate action can give the state a competitive advantage for clean energy jobs, reduce historic and structural inequities, and help Minnesota remain a healthy and vibrant state for future generations.

The STAC recommendations initiated important conversations within the agency that will continue in the future, including through development of the SMTP and MnSHIP planning processes that provide the policy and investment frameworks, respectively, for the agency.

We recognize there are some STAC recommendations the agency supports in part or is supportive of but needs to be explored further. In some cases, MnDOT lacks the legislative authority to adopt a recommendation or needs to connect with more Minnesotans following our agency's commitment to public engagement. MnDOT looks forward to further engagement with the STAC in 2021 (and beyond) to continue working together to make progress towards a low carbon transportation future for Minnesota.

Next Steps

The STAC will continue to meet and update their priorities and recommendations based on MnDOT’s response and engagement (see draft calendar below). Workgroups, including two additional workgroups (Transportation Resilience and Funding Transportation), will draft another set of recommendations by December 2021.

MnDOT agency staff and leadership will move forward actions identified in the responses outlined above, including incorporating recommendations and STAC input into existing planning processes.

STAC 2021 Workplan

Activity	Deadline	Notes
MnDOT formal response to STAC	March 18, 2021	
STAC #2 meeting	March 18, 2021	MnDOT presents final responses, discuss next steps with STAC; workgroup updates (initial 2021 priorities)
Form STAC Funding Transportation workgroup	May 2021	MnDOT solicits participation from STAC, organize first meeting
STAC #3 meeting	May 24, 2021	Workgroup updates (updated priorities based on MnDOT response & engagement)
STAC workgroup coordination	July 2021	MnDOT facilitates cross-workgroup coordination on draft recommendations
STAC #4 meeting	July 22, 2021	STAC outline of draft recommendations Discuss workgroup co-chair roles for 2022
STAC workgroup coordination	September 2021	MnDOT facilitates cross-workgroup coordination on draft recommendations
STAC #5 meeting	September 22, 2021	STAC updated draft recommendations, discuss equity implications
STAC workgroup coordination	November 2021	MnDOT facilitates cross-workgroup coordination on final recommendations
STAC #6 meeting	November 16, 2021	STAC updated draft recommendations
STAC #7 meeting	December 15, 2021	STAC final recommendations due

Appendix 1

MnDOT Review Teams

MnDOT staff coordinated review teams for each recommendation including internal and external stakeholders and subject area experts. Each review team met several times to inform the MnDOT responses which were approved by agency senior leadership.

Fueling and Powering Transportation

Develop a clean fuels policy: MN Pollution Control Agency, MN Dept. of Commerce, Minnesota Dept. of Agriculture, MnDOT

Establish EV rebates: MN Pollution Control Agency, MN Dept. of Commerce, MnDOT

Increase investment in charging infrastructure: MN Pollution Control Agency, MN Dept. of Administration, MnDOT Office of Land Management, MnDOT Office of Chief Counsel

Reduce VMT & Improve Transportation Options

Adopt a statewide VMT goal of 20% by 2050: MnDOT: Office of Transportation System Management, Office of Transit and Active Transportation, Metro District, District 4

Stop expanding highway capacity to reduce congestion: MnDOT, Metropolitan Council

Prioritize transit and HOVs on MnDOT-owned right of way: MnDOT, Metropolitan Council