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# 2023 MnDOT Update Report: Sustainable Transportation Advisory Council

*December 2023*

# Letter from the STAC Co-Chairs

Since the Sustainable Transportation Advisory Committee was formed in 2020, Minnesota has made progress on efforts to advance a low-carbon future. Although the transportation sector remains the largest contributor to greenhouse gas emissions in Minnesota, with the support of the Sustainable Transportation Advisory Council, MnDOT and our partners continue to increase their commitments to goals and targets that indicate a more sustainable and equitable transportation system.

The STAC recognizes that the role of the committee has moved into supporting and advising implementation of previous years' recommendations. Implementation of recommendations has been a focus of MnDOT's Office of Sustainability and Public Health. MnDOT staff are responsible for implementing federal sustainability programs, MnDOT's vehicle miles traveled strategies, and coordinating work groups to develop Clean Transportation Standard and Greenhouse Gas mitigation recommendations.

This report reflects the importance of focusing on implementing all the recommendations made by the STAC over the last four years and the progress made toward these efforts. The 2023 MnDOT Update Report on the STAC identifies the workgroups, projects, contracts, and research completed and underway to meet MnDOT's commitments to past STAC recommendations and outlines future work needed to achieve greater integration with agency and partner's operations.

Many STAC members are engaged in these efforts through related work groups and committees to support implementation. The STAC recognizes implementation of recommendations will take time. With this understanding, STAC members support a committee pause where MnDOT will re-evaluate the role of the STAC following the 2024 Legislative Session.

MnDOT is encouraged by the dedication and commitment of STAC members' participation in several MnDOT-led working groups, research studies, and technical advisory panels and committees. We look forward to continuing to work together to implement new federal programs and state legislation that will reduce carbon and expand lower-carbon transportation options for all Minnesotans.

Nancy Daubenberger  
Commissioner, MnDOT  
STAC Co-Chair

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

# Summary

*In 2023, MnDOT and the STAC focused on implementing previous years' recommendations.*

In 2020, the Minnesota Department of Transportation (MnDOT) created a new ongoing process to invite business, nonprofits, local governments, and community groups to help us make progress towards our goals. State legislators and other state agency 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 to provide new ideas for how the state could move toward a low carbon transportation future. To learn more about the background of the STAC's creation, including the Next Generation Energy Act, Pathways to Decarbonizing Transportation, and membership of the organization of the STAC, please see past STAC reports at <https://www.dot.state.mn.us/sustainability/advisory-council.html>.

In the past four years, the STAC advised MnDOT on how to best meet sustainability goals and targets while promoting safety, equity, environmental justice, economic development, and multimodal transportation options. STAC recommendations have led to significant changes within MnDOT, especially those represented in the adopted 2022 update of the Statewide Multimodal Transportation Plan and directed by the Minnesota legislature. In 2023, the 2022-2023 STAC decided that in response to the 2023 Legislative session and the significant work toward previous recommendations, they would pause until mid-2024 following the 2024 Minnesota Legislative session. STAC members are appointed by the Commissioner of Transportation to two-year terms and meet regularly throughout the year, and as such, this was the second year of the 2022-2023 STAC.

## About this Document

This report is the MnDOT update on implementation progress made on MnDOT's commitments to previous years' STAC recommendations from 2020-2022. MnDOT coordinated with internal and external stakeholders and subject matter experts to respond to the STAC recommendations. This report represents a change in how MnDOT responds to STAC recommendations to reflect the current stage that sustainability work is at within MnDOT and our partners, where there is a need to focus on implementing and integrating the work of past recommendations. As acknowledged in previous reports, the agency expects this response to previous years' recommendations will be the start of ongoing conversations.

Note: 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 update.

MnDOT facilitates the STAC process but does not actively participate in development of recommendations, which come directly from STAC members. The agency coordinates internally and with external stakeholders and subject matter experts to develop responses to the STAC recommendations.

## 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.

## 2023 Legislative Session Updates

The 2023 Legislative Session resulted in significant transportation investments:

- Establishes GHG and VMT Impact Assessment for highway capacity expansion projects
  - Established the Greenhouse Gas Emissions Impact Mitigation Working Group
- Significant increases in long-term, dedicated transit funding
- Indexes the gas tax to inflation and increases the sales tax on new vehicles, creates new sales tax in the Twin Cities area specifically devoted to transit
- Provides investments for a variety of projects including dedicated funds for bus rapid transit, enhanced intercity rail, bicycle and pedestrian networks, safe routes to schools, and funds for the transportation management organizations in the Twin Cities region
- Statewide e-bike rebate (income-qualifying households)
- Transit Rider Investment Program (TRIP) ambassador program
- Transit Safety Intervention Project (TSIP) social services and Code of Conduct enforcement on transit
- Free fare pilot program
- Clarified that PUC-permitted high voltage electric transmission lines may be placed in trunk highway rights of way, with exceptions for safety and future expansion needs

### *Greenhouse Gas Emissions Impact Mitigation Working Group*

The 2023 legislature established the Greenhouse Gas Emissions Impact Mitigation Working Group. It was created to prepare recommendations for implementing a Transportation Greenhouse Gas Emissions Impact Assessment for capacity expansion projects on state highways prior to inclusion in the State Transportation Improvement Program (STIP) or a metropolitan Transportation Improvement Program (TIP). The working group is convened by the Commissioner of Transportation.

### *Clean Transportation Standard Working Group*

The 2023 legislature established the Clean Transportation Standard Work Group to prepare recommendations for implementing a Clean Transportation Standard (CTS). This includes development of performance-based incentives to reduce carbon pollution from all transportation fuels including gasoline, diesel, biofuels, and electricity. The work group is jointly convened by the Commissioners of Agriculture, Commerce, Transportation, and the Pollution Control Agency.

The goal of a CTS is to significantly reduce transportation emissions, create new jobs, attract new investments, and reduce air and water pollution in Minnesota. The work group will make recommendations on fuel pathways and determine impacts to jobs, fuel prices, rural and agricultural economic development, and environmental justice for legislation in the 2024 legislative session to reduce the carbon intensity (CI) of all fuels used in transportation.

By Feb. 1, 2024, the work group will develop recommendations for structuring a CTS that requires the aggregate carbon intensity of transportation fuel supplied to Minnesota be reduced to at least 25% below the 2018 baseline level by the end of 2030, by 75% by the end of 2040, and by 100% by the end of 2050.

### *Minnesota Active Transportation Advisory Committee*

The 2023 legislature established the Minnesota Active Transportation Advisory Committee. It is composed of 18 community members and 11 direct appointments from state agencies that serve as a central advisory body to develop active transportation goals, policies, and standards in Minnesota. This legislative-authorized committee advises and makes recommendations to the Commissioner of Transportation and the Active Transportation Coordinator to direct this new program, funding and resources. The committee must review and analyze issues and needs relating to active transportation on public rights-of-way and identify solutions and goals for addressing identified issues and needs.

## **MnDOT Updates on Commitments to Fueling and Powering Transportation Recommendations**

- MnDOT is about to begin work on the Minnesota Zero-emission Vehicle Infrastructure Plan (MnZEVIP) that will identify priority areas for zero-emission vehicle (ZEV) fueling and electric vehicle (EV) charging infrastructure throughout Minnesota.
- MnDOT will release the Request for Proposals for the first round of NEVI funding investments for 18 locations along I-94 and I-35 in mid-December 2023.
- Over \$13 million in funding over FY 2024 and 2025 was approved by the 2023 Legislature for the newly established Electric Vehicle Infrastructure Program.

- MnDOT and the University of Minnesota (PI - Professor Alireza Khani) completed a first phase of research on medium-and heavy-duty charging modeling.
- Joint agency (MPCA, transportation, commerce, and agriculture) Clean Transportation Standard Work Group was approved by the legislature to recommend performance-based incentives to reduce carbon pollution from all transportation fuels including gasoline, diesel, biofuels, and electricity.
- Transportation electrification cannot be achieved without expanded grid capacity. To support energy security and reliability, better solutions to transmission siting in highway rights of way may play an important role in bringing renewables online and increasing grid capacity.
- Use of MnDOT rights of way for transmission occupancy offers benefits to accelerating new transmission development. In 2023, MnDOT's NextGen highways initiative was selected to participate in a national AASHTO Moonshot pilot to continue to build and test effective practices for coordination, planning, and permitting of electric transmission infrastructure in highway rights of way in Minnesota to support decarbonization of energy per the Clean Energy 2040 statutes passed in the 2023 legislative session.

## **MnDOT Updates on Commitments to VMT & Transportation Options Recommendations**

- MnDOT is developing a VMT reduction toolkit and communication materials, VMT Target Analysis and Education, and is facilitating internal conversations about VMT reduction strategies. VMT strategies and actions are focused on encouraging modal shifts away from single-occupant vehicles through infrastructure improvements, education, programs and services.
- MnDOT and State Smart Transportation Initiative (SSTI) completed the Transportation Research Synthesis: Transportation Options and VMT Reduction Field Scan.
- MnDOT and Toole began Transportation Research Synthesis: Culture Building and Behavior Change Strategies for VMT Reduction.
- MnDOT conducted a market research study on VMT and travel behavior messaging.
- MnDOT-led Greenhouse Gas Emissions Impact Assessment Work Group was approved by the legislature to provide recommendations on GHG Impact Assessment, which will require that capacity expansion projects meet GHG and VMT reduction targets or mitigate to meet targets.

## **Changes to the STAC**

Significant progress has been made toward fulfilling MnDOT commitments to previous STAC recommendations. MnDOT recognizes the work that many STAC members do to participate and support efforts within MnDOT and with external partners to advance STAC recommendations, outside of the formal STAC structure. Considering the focus on continuing to further implement past recommendations, combined with anticipated further legislative direction on some of the topics of past STAC recommendations, the STAC will pause at the end of 2023, which is the end of the two-year term for current STAC members. MnDOT will re-evaluate the role of the STAC following the 2024 Legislative Session.

# FUELING AND POWERING TRANSPORTATION WORKGROUP

## MnDOT Update on Recommendations

### Workgroup Purpose

The Fueling and Powering Transportation Workgroup was created to develop greenhouse gas (GHG) emissions reduction recommendations related to electric vehicle (EV) charging infrastructure, incentives, biofuels and clean fuels policies, and vehicle fuels and efficiency, including emerging fuels like hydrogen, for the Minnesota Department of Transportation (MnDOT).



## Update on MnDOT Committed Actions in Response to 2022 Recommendations

RECOMMENDATION	MNDOT ACTION(S)	STATUS
<p>1. Support increased investment in EV charging infrastructure, especially as it relates to federal infrastructure funding</p>	<p>MnDOT should support efficient investment in make -ready infrastructure and grid upgrades for EV charging, including consideration of future charging needs and, in doing so, partner with utilities on evaluating grid impacts of the NEVI Plan.</p> <p><b>MnDOT Committed Action(s):</b> MnDOT supports the recommendation that the agency support efficient investment in make ready infrastructure and grid upgrades for EV charging, including consideration of future charging needs and, in doing so, partner with utilities on evaluating grid impacts of the NEVI Plan. MnDOT will continue to work with Utilities as EV charging infrastructure is built with federal funds</p>	<p><b>In Progress – Update November 2023</b></p> <p>MnDOT is about to begin work on the Minnesota Zero-emission Vehicle Infrastructure Plan (MnZEVIP) that will identify priority areas for zero-emission vehicle (ZEV) fueling and electric vehicle (EV) charging infrastructure throughout Minnesota. Gaps in ZEV fueling and EV charging infrastructure will be identified and prioritized into corridors for improvements and implementation for light-duty vehicles. The goal is to provide guidance to MnDOT, transportation and industry partners (including utilities), as well as state agency partners on where, when and how to prioritize ZEV fueling and EV charging in Minnesota. This effort will build on past EV and charging infrastructure planning and will be used to inform the next round of NEVI investments. The timeline is to start in early 2024 and complete the plan by June 2025.</p> <p>MnDOT will release the Request for Proposals for the first round of NEVI funding investments for 18 locations along I-94 and I-35 in mid-December 2023. Conditional award announcements are expected in May 2024.</p> <p>The Carbon Reduction Program (IIJA funds) required the development of a Carbon Reduction Strategy (CRS). It was submitted to FHWA in November 2023. The CRS is organized into three overarching categories. Each category has subsequent supportive strategies and associated project types. One of the categories is Electrification with a project type of Installing EV and ZEV Infrastructure.</p> <p>Since the STAC recommendation in 2020, MnDOT’s NextGen Highways initiative has evaluated expanded use of highway rights of way for transmission to support the transition to clean energy needed to decarbonize electricity and electrify transportation.</p>
	<p>MnDOT should request legislative funding for the 20% non-federal match for NEVI funds.</p> <p><b>MnDOT Committed Action(s):</b> In the 2023 Legislative session MnDOT proposed \$3.4 million per year to secure the 20% non-federal match for NEVI funds</p>	<p><b>Completed – Update November 2023</b></p> <p>Over \$13 million in funding for FY 2024 and 2025 was approved by the 2023 Legislature for the newly established Electric Vehicle Infrastructure Program. A portion of the funds will be used as match in the NEVI RFP for the first round of funding investments.</p>
	<p>MnDOT should provide periodic updates to the STAC of efforts to coordinate with other states on NEVI plans and explain to the STAC how it will meet Justice40 Initiative requirements through the NEVI Plan.</p> <p><b>MnDOT Committed Action(s):</b> MnDOT staff will provide updates to the STAC at several points through the year.</p>	<p><b>In Progress – Update November 2023</b></p> <p>MnDOT provided an update on NEVI program at the September 2023 STAC meeting. The 2023 NEVI annual plan update includes a copy of the Community Engagement Outcomes report and information on Justice 40 initiative. The plan can be found on MnDOT <a href="#">NEVI program webpage</a>.</p>

<p>2. Take a proactive leadership role in working with other states to develop a charging and refueling network to support low and zero carbon freight transportation</p>	<p>Undertake a gap analysis to identify the numbers, types and ownership of charging stations needed to build a statewide EV charging network including light-, medium- and heavy-duty applications.</p> <p><b>MnDOT Committed Action(s):</b> MnDOT will submit a proposal in Spring 2023 to use MnDOT Research and Innovation funds for a more detailed gap analysis. MnDOT will seek to partner with other state agencies to include Department of Commerce, the Minnesota Pollution Control Agency and Department of Employment and Economic Development.</p>	<p><b>In Progress – Update November 2023</b></p> <p>See Recommendation 1 and information about MnDOT work to begin on MnZEVIP. After consideration of scope of work and with funding from the 2023 Legislative session MnDOT decided to go the route of hiring a consultant to support this work. This work will build off the 2021 Minnesota Electric Vehicle Assessment that was completed with Great Plains Institute and Bellwether consulting.</p> <p>MnDOT and the University of Minnesota (PI - Professor Alireza Khani) completed a first phase of research on medium-and heavy-duty charging modeling – <a href="#">Identifying and Optimizing Electric Vehicle Corridor Charging Infrastructure for Medium and Heavy-Duty Trucks (July 2023)</a>.</p>
	<p>MnDOT should play a leadership role in pursuing federal funding opportunities to build out a regional EV charging network, for light-duty, medium-duty, heavy-duty and non-road applications.</p> <p><b>MnDOT Committed Action(s):</b> MnDOT will continue to play a shared, active leadership role in REV Midwest and include updates around medium-and heavy-duty EV charging as appropriate in updates to the Minnesota Electric Vehicle Infrastructure Plan.</p>	<p><b>In Progress – Update November 2023</b></p> <p>See recommendation 1, action 1 on MnZEVIP planning work.</p> <p>MnDOT continues to participate in REV Midwest. In November 2022, REV Midwest applied to the US Department of Energy, Vehicle Technology Office for a two-year effort to better understand and permanently integrate medium-and heavy-duty (MD/HD) electric vehicles (EV) and associated charging infrastructure in the Midwest.</p> <p>MnDOT and the University of Minnesota (PI - Professor Alireza Khani) completed a first phase of research on medium-and heavy-duty charging modeling – <a href="#">Identifying and Optimizing Electric Vehicle Corridor Charging Infrastructure for Medium and Heavy-Duty Trucks (July 2023)</a>.</p> <p>MnDOT’s Office of Freight and Commercial Vehicle Operations (OFCVO) is working on an update to the State Freight Plan to be completed in 2024. This plan will include a Clean Truck Strategy section that will provide some high-level direction on carbon reduction from this sector.</p>
	<p>Recognizing the recently signed multi-state hydrogen MOU, MnDOT should support development of a multistate plan to refuel hydrogen fuel cell vehicles, with an initial focus on freight.</p> <p><b>MnDOT Committed Action(s):</b> Department of Commerce is the lead agency on two MOUs regarding hydrogen. MnDOT will coordinate with Department of Commerce to identify opportunities to support implementation of Executive Order 22-22 and hydrogen hub activities if they are funded.</p>	<p><b>Not started. MnDOT response was Explore Further – Update November 2023</b></p> <p>US Department of Energy Hydrogen Hubs announced. Minnesota will be part of the <a href="#">Heartland Hydrogen Hub</a>. Details on MnDOT role TBD. The prime contractor is the Energy &amp; Environmental Research Center (EERC) at the University of North Dakota. MnDOT will continue to monitor this work and determine where it can participate.</p>

<p>3. Develop a Clean Fuels Policy</p>	<p>MnDOT should play a leading role in supporting and passing legislation in 2023.</p> <p><b>MnDOT Committed Action(s):</b> Independent from the administration, House and Senate authors Clean Fuels Standard introduced bill that has the MPCA as the lead agency associated rulemaking. MnDOT will continue to explore the best methods to implement these recommendations with the Executive Branch.</p>	<p><b>In Progress – Update November 2023</b></p> <p>Joint agency (MPCA, transportation, commerce, and agriculture) <a href="#">Clean Transportation Standard Work Group</a> was approved by the legislature - HF 2887 Conference Committee Report - 93rd Legislature (2023 - 2024) (mn.gov) (May 20, 2023). The group convened eight times between July 31 – end of 2023. A technical consultant completed baseline and scenario technical analyses to inform work group discussions and recommendations. A preview of the draft report will be posted on the CTS webpage end of November, and a final report of the work group member process, findings and recommendations will be submitted to the legislature by Feb. 1, 2024.</p>
	<p>MnDOT should support a Midwestern Clean Fuels Summit to bring leadership from multiple states together to craft a regional approach to a Clean Fuels Policy.</p> <p><b>MnDOT Committed Action(s):</b> MnDOT and MPCA cannot commit to a Clean Fuels Summit due to staff capacity. MnDOT will continue to explore the best methods to implement these recommendations with the Executive Branch.</p>	<p><b>Not Started – Update November 2023</b></p> <p>No action is planned at this time given active Clean Transportation Standard Work Group.</p>

## Update on MnDOT Committed Actions in Response to 2021 Recommendations

RECOMMENDATION	MNDOT ACTION(S)	STATUS
<p>1. Lead by example by transitioning state fleet to zero-emission vehicles, including metrics that build on MnDOT’s existing goals</p>	<p>Explore opportunities to transition all light duty vehicles in the agency fleet to ZEVs, considering existing barriers and challenges.</p>	<p><b>In progress – Update November 2023</b></p> <p>Per the draft 2022 Sustainability report, in calendar year 2022, 16% of sedans and SUVs in the light duty fleet are either EVs or hybrids – there are 36 Plug-In Hybrid Electric Vehicles (PHEV) and 8 Battery-Electric Vehicles (BEV).</p> <p>MnDOT has had challenges with vehicle procurement due to limited availability of all vehicle types. Fleet management staff continue to look for opportunities to purchase ZEVs.</p>
	<p>Continue to publish annual updates on progress toward the ZEV sedan and SUV target and share the updates with the STAC.</p>	<p><b>In progress - Update November 2023</b></p> <p>The annual Sustainability Report will be published by the end of 2023.</p>
	<p>Annually reassess opportunities to transition the fleet to more ZEVs as more vehicles become available, costs decline, and the state EV charging network expands.</p>	<p><b>In progress – Update November 2023</b></p> <p>In April 2023, MnDOT completed a study with Sawatch Labs to analyze utilization of MnDOT’s existing EV fleet and determine which vehicles are most suitable for electrification as well as understanding the usage of exiting EVs. This information will be used to inform future purchasing decisions and vehicle usage.</p>
<p>2. Support medium- and heavy-duty EV market including education, incentives, charging infrastructure/travel corridors, partnerships</p>	<p>Continue to engage stakeholders to identify corridors for electric vehicle charging station investments through the Statewide Electric Vehicle Infrastructure Deployment Plan and subsequent planning efforts.</p>	<p><b>In progress – Update November 2023</b></p> <p>The 2023 Annual update to the MN EV Infrastructure Plan available on <a href="#">MnDOT website</a>. The update includes the Community Engagement Outcomes report.</p>
	<p>Provide a link to the Electric Vehicle Resource Database on the Sustainability and Public Health website and provide Drive Electric Minnesota with additional resources for fleet owners and state agencies as they become available.</p>	<p><b>Complete – Update November 2023</b></p>

3. Take a proactive leadership role in working with other states to establish a Midwest DC fast charging network that enables a seamless charging experience across the U.S.	Participate and provide leadership on REV Midwest to support timely and productive efforts to advance Midwest DC Fast Charging.	<b>In progress – November 2023</b>  REV MW members approved the group charter and are exploring some outside facilitation assistance to expand capacity.
	Provide updates to the STAC and the Minnesota Clean Cities Coalition, along with other groups in Minnesota working to advance EVs and EV charging.	<b>Not started – Update November 2023</b>

## Update on MnDOT Committed Actions in Response to 2020 Recommendations

RECOMMENDATION	MNDOT ACTION(S)	STATUS
1. Develop a Clean Fuels Policy	Lead a stakeholder process to develop a Clean Fuels Policy for the state.	<b>In progress– Update November 2023</b> See full update in the 2022 recommendations table under recommendation number three. MnDOT has had challenges with vehicle procurement due to limited availability of all vehicle types. Fleet management staff continue to look for opportunities to purchase ZEVs.
2. Establish rebates for public and private light-, medium-, and heavy-duty EVs, including dealership support and consumer rebates	Continue to evaluate its first in the nation MnPass EV pilot and consider expansion beyond the current 3-year review period, depending on performance.	<b>In progress – November 2023</b>  The MnPass EV pilot program continues. The incentive is available through Oct. 31, 2025.  As of Sept. 29, 2023, there were 1,539 Minnesota E-ZPass EV incentive enrollments. The majority (87%) have purchased battery electric vehicles—1,345 BEV and 194 PHEV.
	Lead an update to the MN EV Vision to create a strategic EV plan for the state, which may provide detailed information about EV incentives.	<b>Complete – Update November 2023</b>
3. Increase investment in EV charging infrastructure, beyond existing VW settlement investments	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.	<b>In progress – Update November 2023</b>  MnDOT ordered 42 chargers for MnDOT facilities in 2021. Chargers received and sent to MnDOT District Offices in August 2022 for installation.
	Review EV charging infrastructure proposals for Clean Transportation funds.	<b>Complete – Update November 2023</b>
	Identify strategic opportunities for EV infrastructure to create a more equitable transportation system in the region through the MN 2021 EV Strategic Plan.	<b>In progress – Update November 2023</b>  The first round of NEVI funded investments for EV charging is considering equity as part of scoring for grant funds.
	Explore options to install EV charging infrastructure at non-interstate rest areas.	<b>Not started – Update November 2023</b>  Current federal and state rules do not allow for charging infrastructure when a fee is charged for electricity.

<p>4. Examine value of NextGen highways concept—or the co-location of broadband and transmission in highway rights of way</p>	<p>Update Minnesota's utility accommodation plan, initiate multi-stakeholder process, and integrate other infrastructure as we entertain the NextGen Highways concept.</p>	<p><b>In-progress – Update November 2023</b></p> <p>In 2021, MnDOT joined a feasibility study to evaluate technical and regulatory considerations for <a href="#">NextGeneration Highways</a> - highways that strategically co-locate transmission lines with broadband in highway rights of way. MnDOT activated a working group of more than a dozen MnDOT offices, the MN Public Utility Commission, and the MN Dept. of Commerce to evaluate the risks and benefits of increased transmission in highway rights of way. The result of this work is the <a href="#">NextGen Highways Feasibility Study: Buried High-Voltage Direct Current Transmission</a> report released in April 2022.</p> <p>A second phase of analysis is wrapping up in 2023, with new laws passed in the MN 2023 legislative session directing MnDOT to allow high voltage lines in most instances, with exceptions for safety and future expansion. After two years of NextGen analysis, MnDOT is starting to receive increasing requests for transmission occupancy on US and State highways in Minnesota.</p> <p>In 2023, MnDOT’s NextGen highways initiative was selected to participate in <a href="#">AASHTO’s Moonshot</a> pilot to continue to build and test effective practices for coordination, planning, and permitting of transmission infrastructure in highway rights of way in Minnesota to support decarbonization of energy and transportation for 2040.</p>
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# REDUCING VMT AND IMPROVING TRANSPORTATION OPTIONS WORKGROUP

## MnDOT Update on Recommendations

### Workgroup Purpose

The Reducing Vehicle Miles Traveled (VMT) and Improving Transportation Options Workgroup developed recommendations that address transportation options, including biking, walking, and transit. It also created a MnDOT project planning and project selection process, as well as land use and transportation.

The Reducing Vehicle Miles Traveled (VMT) and Improving Transportation Options Workgroup is focused on providing recommendations that accelerate VMT reduction and improve equitable transportation options in Minnesota. In 2022, the work group's priority was to further advance implementation of the 2020 and 2021 recommendations. The new recommendations focus on institutionalizing VMT reduction efforts at MnDOT, with partners, and through education and research.

In 2021, the VMT reduction and transportation options workgroup's priority was to advance implementation of the adopted 2020 goals. The group focused on finding pathways to incorporate existing STAC recommendations so they could be adopted into existing projects and investment plans currently underway.



## Update on MnDOT Committed Actions in Response to 2022 Recommendations

RECOMMENDATION	MNDOT ACTION(S)	STATUS
<p>1. Prioritize VMT Reduction throughout MnDOT</p>	<p>Prioritize implementation of the VMT reduction target throughout the agency by integrating meeting the target into all staff positions descriptions and creating a new position or allocating existing staff dedicated to VMT reduction.</p> <p><b>MnDOT Committed Action(s):</b> MnDOT leadership will support the new Future Mobility Planner’s role to lead internal education efforts along with agency coordination to inform how different agency programs and staff roles are expected to advance the VMT reduction target. MnDOT will pursue training opportunities for staff to advance and build knowledge for implementation of the target. This could include lunch and learns and/or training for a broad agency audience as well as technical trainings tailored for staff roles.</p>	<p><b>In progress – Update November 2023</b></p> <p>MnDOT created a new Future Mobility Planner position in the Office of Sustainability and Public Health in early 2023. Responsibilities include leading the development of plans, tools, and implementation of the VMT reduction target and related strategies. There are also many agency positions throughout Central Office and the districts that include responsibilities for advancing multimodal transportation options, which is necessary for VMT reduction.</p> <p>MnDOT has a consultant contract underway “VMT Reduction Target Analysis and Education” which is facilitating an internal engagement process around VMT reduction strategies and developing internal and external education and messaging materials.</p> <p><b>Next steps:</b> Pursue training/learning opportunities once MnDOT strategies are identified, expected late fall 2023. VMT strategies and actions are focused on encouraging modal shifts away from single-occupant vehicles through infrastructure improvements, education, programs and services.</p>

	<p>Dedicate and seek funding to research VMT and transportation options by creating a multi-year research program with dedicated funding. <b>MnDOT Committed Action(s):</b> MnDOT will pursue dedicating research funding for a multi-year research effort, either specific to VMT reduction or to include VMT reduction as part of a decarbonization focus that also includes research related to EVs, clean fuels, etc. MnDOT will explore participation in and/or leading national-level research opportunities with other state DOTs to build the collective body of knowledge.</p>	<p><b>In progress – Update November 2023</b></p> <p>MnDOT’s Office of Sustainability and Public Health is leading two Transportation Research Synthesis (TRS) projects specific to VMT reduction underway:</p> <ol style="list-style-type: none"> <li>1) Field Scan: Minnesota-specific field scan to identify what local partners are already doing, which analyzed comprehensive and climate action plans, as well as transportation-specific plans. The study gathered best practices, case studies, and challenges from within Minnesota (study completed June 2023)</li> <li>2) Culture Building and Behavior Change: It includes a literature review of academic and public agency documents as well as interviews and focus groups. The project demonstrates that the similarities between transportation and non-transportation focused behavior change strategies can impart important lessons for applications to strategies to support reducing VMT in Minnesota (anticipated completion January 2024)</li> </ol> <p>MnDOT also has a VMT Market Research study underway which surveyed 700+ Minnesotans about travel behavior and language that could be used to communicate about travel behavior and the VMT reduction target.</p> <p>MnDOT Office of Sustainable and Public Health, including the Future Mobility Planner, regularly participate in the US Climate Alliance Monthly Land Use Coordination monthly calls, the Association of Commuter Transportation, and TRB committees (ACH10 Pedestrian Committee, ACH20 Bike Committee, AME50 Accessible Transportation AEP60 Travel Demand Management, APO20 Innovative Public Transportation Services)</p> <p><b>Next steps:</b> MnDOT’s Office of Sustainable and Public Health will continue to coordinate with Research and Innovation Office on research projects that advance transportation options and support VMT reduction strategies.</p>
	<p>Incorporate VMT into the project selection process by utilizing an induced demand calculator and multimodal accessibility tool.</p> <p><b>MnDOT Committed Action(s):</b> MnDOT will begin applying the multimodal accessibility tool and induced demand calculator, earlier in the project development process, to many MnDOT-led corridor planning studies selected for implementation starting in July 2023. MnDOT will integrate guidance for applying these tools into the upcoming Corridor Planning Guidebook effort.</p>	<p><b>In-progress – Update November 2023</b></p> <p>MnDOT staff are working to incorporate multimodal accessibility tool and induced demand calculator earlier in the project development process, e.g., into MnDOT-led corridor planning studies starting in July 2023 and the Corridor Planning Guidebook effort.</p> <p>MnDOT convened a Greenhouse Gas Emissions Impact Mitigation Working Group to develop process for Transportation Greenhouse Gas Emissions Impact Assessments for capacity expansion projects on trunk highways - HF 2887 Conference Committee Report - 93rd Legislature (2023 - 2024) (mn.gov)</p> <p><b>Next steps:</b> MnDOT will continue to incorporate VMT into corridor planning efforts as they get underway.</p>

<p>2. Lead interagency collaborations to reduce VMT and increase transportation options</p>	<p>Collaborate with local units of government to develop jurisdiction specific VMT reduction targets consistent with MnDOT’s target. Work with partners to identify a shared VMT assessment methodology and implementation strategies. Begin with a metro centered VMT reduction target, followed by (8) MPOs, then smaller communities.</p> <p><b>MnDOT Committed Action(s):</b> MnDOT cannot require local jurisdictions to set jurisdiction-specific targets. MnDOT will provide convening opportunities, resources and support for local partners that are interested in setting their own target. MnDOT will begin formal engagement with local partners to develop shared understanding, identify technical assistance needs, create a shared methodology, identify research gaps, generate strategies, and provide target-setting support for interested jurisdictions starting winter 2023. MnDOT will start with a metro-centered and urban support approach where there are already several jurisdictions with VMT reduction targets/goals established. Support for other communities will follow.</p>	<p><b>In-progress – Update November 2023</b></p> <p>MnDOT’s Office of Sustainability and Public Health and State Aid co-lead the Local Agency VMT Workgroup, consisting of elected officials, planners, and engineers from counties and cities across Minnesota. The workgroups goals are to develop shared understanding of why we’re measuring outcomes with a VMT target, provide input to MnDOT’s emerging VMT research, education, and strategy development, guide development of consistent VMT modeling, and support development of local VMT strategies. The workgroup meets monthly and meetings consist of updates from MnDOT staff, presentations from technical staff at MnDOT and partner agencies, and discussions that help identify questions or recommendations for collaborating on VMT reduction.</p> <p>MnDOT will begin formal engagement with local partners to develop shared understanding, identify technical assistance needs, create a shared methodology, identify research gaps, generate strategies, and provide target-setting support for interested jurisdictions starting winter 2024.</p> <p>Will begin formal partner engagement starting winter 2023, after MnDOT strategies are finalized.</p>
	<p>Support local units of government to implement VMT reduction strategies. For all, develop and implementation toolkit. Metro-specific, work with the Metropolitan Council to revisit 2014 Highway BRT study and prioritize initial BRT projects for implementation.</p> <p><b>MnDOT Committed Action(s):</b> MnDOT will develop educational tools for partners, tailored to meet their needs. MnDOT will continue partnership with the Metropolitan Council and other local partners to address transit needs in prioritized and other corridors.</p>	<p><b>In-progress – Update November 2023</b></p> <p>MnDOT has a consultant contract underway for the “VMT Reduction Target Analysis and Education.” It will facilitate an internal engagement process around VMT reduction strategies and developing internal and external education and messaging materials.</p> <p>MnDOT adopted the new Statewide Pedestrian System Plan and implementation of the updated Complete Streets Policy.</p> <p><b>Next steps:</b> MnDOT will use these communication materials in an upcoming contract, which will focus on engagement with Metro area partners on VMT reduction. MnDOT will update the Statewide Bike System Plan and develop a Corridor Planning Guidebook, which will both integrate VMT reduction strategies.</p>
<p>3. Expand outreach and education activities to promote transportation options and VMT reduction</p>	<p>Dedicate website section about VMT reduction, transportation options and land use.</p> <p><b>MnDOT Committed Action(s):</b> Adapt existing content and create new content on the benefits of transportation options for MnDOT’s website</p>	<p><b>In-progress – Update November 2023</b></p> <p>Consultant contract on “VMT Reduction Target Analysis and Education” will develop internal and external education and messaging materials which will be posted online in a dedicated website section.</p>

	<p>Identify resources to fund hands-on learning opportunities to support mode shift.</p> <p><b>MnDOT Committed Action(s):</b> Continue and expand programming through Safe Routes to School, Active Transportation program</p>	<p><b>In-progress – Update November 2023</b></p> <p>MnDOT’s Office of Sustainability and Public Health co-leads MnDOT’s Eco-Experience booth at the Minnesota State Fair, which had 220,000 visitors in 2023 and 18,000 who completed the interactive bingo game with stops at each station. MnDOT is planning an update to the booth materials for the 2024 State Fair that will focus on mode shift and learning opportunities for mode shift and multimodal travel.</p> <p>MnDOT’s Office of Transit and Active Transportation received funds from the 2023 Legislature to expand the Safe Routes to School program.</p> <p>MnDOT convened the Active Transportation Advisory Committee at the direction of the State Legislature, which will make recommendations related to active transportation, the active transportation program, and safe routes to school.</p>
	<p>Lead by example.</p> <p><b>MnDOT Committed Action(s):</b> MnDOT will engage with MMB and conduct an analysis to determine the feasibility of reducing the price of existing amenities and expanding amenities (e.g., bike racks, showers, etc.).</p>	<p><b>In-progress – Update November 2023</b></p> <p>MnDOT’s Office of Sustainability and Public Health staff have convened several meetings with MnDOT facility staff as well as began coordination with MMB about potential strategies related to subsidies of multimodal commutes.</p> <p><b>Next steps:</b> Office of Sustainability and Public Health will resubmit consultant support request for FY24 to complete feasibility analysis to incentivize multimodal staff travel.</p>

## Update on MnDOT Committed Actions in Response to 2021 Recommendations

RECOMMENDATION	MNDOT ACTION(S)	STATUS
<p>1. Implement the VMT reduction goal and incorporate it into Purpose and Need section of every major transportation project</p>	<p>Work with transportation users and partners to identify and advance statewide strategies for reducing VMT by 20% per capita (7% statewide) by 2050.</p>	<p><b>In-progress – Update November 2023</b></p> <p>Target integrated into 2022 Statewide Multimodal Transportation Plan (SMTP) update. Will begin formal partner engagement in winter 2024. See agency response to 2022 STAC recommendations.</p>
	<p>Continue to develop a multimodal accessibility tool and an induced demand calculator to support future consideration, as appropriate, of VMT in plans and projects.</p>	<p><b>In-progress – Update November 2023</b></p> <p>MnDOT started tool development in summer 2022. Will begin applying them to many MnDOT-led corridor planning studies selected for implementation starting in July 2023. See agency response to 2022 STAC recommendations.</p>
	<p>Pursue research to improve understanding of costs/benefits of VMT reduction strategies specific to Minnesota, the current landscape of VMT reduction strategies in Minnesota, and stakeholder communication.</p>	<p><b>In-progress – Update November 2023</b></p> <p>Started two transportation research synthesis projects in winter 2022 (field scan) and spring 2023 (strategies that drive culture change). The final deliverables are expected late 2023. MnDOT will also pursue dedicated funding for a multi-year research effort, either specific to VMT or to include VMT reduction as part of a decarbonization focus that also includes research related to EVs, clean fuels, etc. See agency response to 2022 STAC recommendations.</p>
	<p>Work with federal partners to explore the potential to incorporate a VMT target or supporting strategies into the NEPA process, including discussions about ability to include and any funding risks/constraints.</p>	<p><b>In-progress – Update November 2023</b></p> <p>See Update Table for Commitments to 2022 Recommendations.</p>
<p>2. Partner with the Metropolitan Council and other Metropolitan Planning Organizations (MPOs) to adopt a similar VMT reduction goal and ensure that state and federal dollars coming into Minnesota are invested consistent with the VMT reduction goal</p>	<p>Coordinate with MPOs and local partners to develop and implement VMT strategies starting in Fall 2022, following adoption of a VMT reduction target in the SMTP.</p>	<p><b>In-progress – Update November 2023</b></p> <p>See Update Table for Commitments to 2022 Recommendations.</p>
	<p>Explore how projects directed by the legislature (e.g., Corridors of Commerce) and projects that advance other agency priorities (e.g., safety) relate to VMT.</p>	<p><b>Not started – Update November 2023</b></p> <p>See Update Table for Commitments to 2022 Recommendations.</p>

<p>3. Build public and local support for providing transportation choice for travelers and reducing VMT through MnDOT’s educational programs, traditional media, social media, local units of government and extensive outreach to, and partnering with, multiple stakeholders</p>	<p>MnDOT will expand the scope and scale of education and communication strategies to help build public and local support for providing transportation choice for travelers and reducing VMT.</p>	<p><b>In progress – Update November 2023</b> Sustainability and Public Health Fellow implemented <a href="#">Tell us How You Move Around</a> project in 2023. See Update Table for Commitments to 2022 Recommendations.</p>
	<p>Conduct a research study that includes an audience segmentation analysis and message testing component to inform and target external communication and engagement strategies.</p>	<p><b>In progress – Update November 2023</b> Scoping a market research analysis, anticipate spring 2023 start.  See Update Table for Commitments to 2022 Recommendations.</p>
	<p>Leverage the research study to inform and implement an education and outreach plan.</p>	<p><b>In-progress – Update November 2023</b>  See Update Table for Commitments to 2022 Recommendations.</p>

## Update on MnDOT Committed Actions in Response to 2020 Recommendations

RECOMMENDATION	MNDOT ACTION(S)	STATUS
<p>1. Adopt a statewide goal of reducing VMT by 20% by 2050</p>	<p>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.</p>	<p><b>Complete – Update November 2023</b></p> <p>Target included in 2022 Statewide Multimodal Transportation Plan (SMTP) update to “Work with transportation users and partners to identify and advance statewide strategies for reducing VMT by 20% per capita (7% statewide) by 2050.”</p>
	<p>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.</p>	<p><b>In-progress – Update November 2023</b></p> <p>Set interim year targets and baseline year in 2022 SMTP. Will begin formal partner engagement in winter 2023, to include support for partners that wish to set jurisdiction-specific targets. See agency response to 2022 STAC recommendations.</p>
	<p>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</p>	<p><b>In-progress – Update November 2023</b></p> <p>MnDOT started tool development in summer 2022. Will begin applying them to many MnDOT-led corridor planning studies selected for implementation starting in July 2023. See agency response to 2022 STAC recommendations.</p>
	<p>Work to develop a new intergovernmental climate change council to coordinate this and related efforts with partner agencies, cities, and counties.</p>	<p><b>In-progress – Update November 2023</b></p> <p>Current MnDOT Climate and Resilience Workgroup (CRW) with subgroups are providing a venue for VMT and other transportation sustainability efforts.</p>

2. Stop expanding highway capacity to reduce congestion	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. MnDOT will also establish a new transparent reporting process to share project decisions based on the tiered approach.	<b>In-progress – Update November 2023</b>  MnDOT added a new tier one for TDM to the existing mobility investment approach.
	Update the Complete Streets policy and include a modal-hierarchy framework based on land use context and roadway functional classification.	<b>Complete – Update November 2023</b>  <a href="#">Updated Policy</a> approved, effective Oct. 31, 2022. Released updated communication materials and training staff in Nov 2022-Jan 2023.
	Engage the STAC as a stakeholder group to get feedback on investment scenarios (MnSHIP, 2023) and priorities for state transportation decisions, which guide plans for each part of the transportation system (SMTP, 2022).	<b>In-progress – Update November 2023</b>  Engaged on draft SMTP in Nov. 2021, July 2022 and Sept. 2022 STAC meeting. Engaged on MnSHIP at Sept. 2022 STAC meeting
	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.	<b>In-progress – Update November 2023</b>  The proposed group was not formed, with preference to integrate into existing efforts. Current MnDOT Programming Update Workgroup (PUW) and Climate and Resilience Workgroup (CRW) with subgroups provide a venue for VMT and other transportation sustainability efforts.
3. Prioritize transit and high occupancy vehicles on MnDOT owned right of way	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).	<b>Ongoing – Update November 2023</b>  Members engaged on draft Statewide Multimodal Transportation Plan (SMTP) at November 2021 and July 2022 STAC meetings. Members also engaged on MnSHIP at September 2022 STAC mtg.
	Engage the STAC to develop communication materials that highlight the benefits of transit and HOV through the lens of sustainability and public health.	<b>Ongoing – Update November 2023</b>  Will engage the STAC in 2023, in coordination with 2021 activity to implement a toolkit/guide for sustainable transportation.



# Conclusion and Next Steps

MnDOT is grateful to all STAC members for 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, 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 have initiated important conversations within the agency that will continue in the future, including through implementation of the Statewide Multimodal Transportation Plan (SMTP) and Minnesota State Highway Investment Plan (MnSHIP). They provide the policy and investment frameworks, for the agency. MnDOT agency staff and leadership will continue to move forward with actions identified in the responses outlined above, including incorporating recommendations and STAC input into existing planning processes.