How Minnesota Can Lead on Transportation Electrification in 2021

December 3, 2020
10:00am - 12:00pm CT

Drive Electric MINNESOTA

Plug In America

Xcel Energy

SUSTAINABLE GROWTH COALITION

Technology Reminders:

- Please type any questions into the chat or Q&A button - questions are welcome!
- All attendees will be muted and have their videos turned off until the Q&A session.
- The presentations and recordings will be available on the Plug In America and the Drive Electric MN websites.

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Minnesotans Going Electric

A Free Six-Part Webinar Series

December 1-4, 2020

1. **The Role of Cities and Counties in the Shift to Transportation Electrification**
   - December 1, 2020 11:00am - 12:30pm CT
2. **The 101 on Electric Vehicles in Minnesota**
   - December 1, 2020 1:00pm - 2:00pm CT
3. **Experience Electric Vehicles in a Virtual Test Drive**
   - December 1, 2020 2:15pm - 3:00pm CT
4. **How Minnesota Can Lead on Transportation Electrification in 2021**
   - December 3, 2020 10:00am - 12:00pm CT
5. **Economic Development Opportunities for MN from the Transportation Electrification Sector**
   - December 3, 2020 1:00 - 2:30pm CT
6. **Expanding Charging for MN Fleets, Workplaces, Multi-Unit Dwellings and Public Locations**
   - December 4, 2020 10:00am - 12:00pm CT

Minnesotans Going Electric

Thank you to our partners!

Minnesotans Going Electric

Thank you to our partners!

Minnesotans Going Electric

A Free Six-part Webinar Series

December 1-4, 2020

Register at

https://www.driveelectricmn.org/webinar-series-minnesotans-going-electric/

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MINNESOTA SUSTAINABLE GROWTH COALITION

Plug In America

- **<u>The voice of the EV consumer</u>** – in Minnesota and nationwide
- 501c3 nonprofit founded in 2008
- Our members represent the world's deepest pool of experienced EV drivers
- Two core areas:
  1. Policy and Advocacy
  2. Education and Outreach
     - PlugStar: dealers, consumers, utilities
     - National Drive Electric Week and Drive Electric Earth Day

Our Speakers:

Katherine Stainken
Policy Director
Plug In America

Commissioner
Laura Bishop
MPCA

Tim Sexton
Assistant
Commissioner
and Chief
Sustainability
Officer
MnDOT

Dean Taylor
Senior Policy
Advisor
Plug In America

Brendan Jordan
Lead Facilitator
Drive Electric MN

Drive Electric MINNESOTA

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Our Speakers:

Hon. Rep Zach Stephenson

Hon. Senator David Senjem

Hon. Rep Jamie Long

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Speaker bios:

- **Katherine Stainken** is Policy Director for **Plug In America**. Prior to her work at Plug In America, Katherine was a Director of Government Affairs at the Solar Energy Industries Association (SEIA), focused on policies to promote solar on the federal level as well as southeast and northeast regions, along with regulatory work at federal agencies. Katherine was also the chief liaison to the solar heating and cooling and EH&S groups at SEIA. She is former Fulbright and Thinkswiss scholar.
- **Commissioner Laura Bishop** directs the day-to-day work of the **Minnesota Pollution Control Agency**. She is a leading corporate and public affairs executive with a demonstrated record for motivating diverse coalitions to achieve results. A strategic leader that easily navigates and communicates complex issues to internal and external audiences, she has held senior roles in both the private and public sector. Most recently, Laura was Chief Sustainability and Corporate Responsibility Officer for Best Buy Co., Inc.
- **Tim Sexton** was appointed as the first Chief Sustainability and **Assistant Commissioner** for Sustainability and Public Health at the **Minnesota Department of Transportation** in 2019. He leads a team focused on reducing carbon pollution, improving resilience of the transportation system to climate change, and addressing public health impacts of transportation, especially for Minnesota's most vulnerable populations. Tim has 15 years of experience with the Minnesota and Washington State departments of transportation leading sustainability, environmental, transit, and active transportation programs, including leadership roles with the AASHTO (American Association of State Highway and Transportation Officials) and the Transportation Research Board.

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Speaker bios:

- **Dean Taylor** is a senior policy advisor for **Plug in America**. He has 30 years of transportation electrification (TE) experience with a focus on regulatory and legislative affairs, external engagement, business planning, strategy development and utility program design (mostly for Southern California Edison and for his own consulting practice since March 2019). He has chaired many regulatory and TE coalitions (e.g., over 14 years with California's Low Carbon Fuel Standard, the 2008 federal EV tax credit coalition), and designed and project managed dozens of technical, environmental and business planning TE studies.
- **Brendan Jordan** is the VP of Transportation and Fuels programs at **Great Plains Institute**, and the lead facilitator for **Drive Electric MN.**
- **Rep Zack Stephenson** was elected in 2018 and 2020 to the **Minnesota House of Representatives**. He is member of the Minnesota Democratic–Farmer–Labor Party (DFL) and represents District 36A in the northwestern Twin Cities metropolitan area.
- **Senator David Senjem** was reelected to the **Minnesota Senate** in 2020. He served as majority leader from 2011 to 2013 and minority leader from 2007 to 2011. A Republican, Senjem represents District 25, which includes portions of Dodge and Olmsted counties in the southeastern part of the state.
- **Rep Jamie Long** was elected in 2018 and 2020 to the **Minnesota House of Representatives.** He is Assistant Majority Leader. Prior to holding this office, he was an attorney.

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Agenda:

10:00	Welcome	Katherine Stainken	Plug In America
10:03	Opportunity for 2021	Hon. Laura Bishop	MPCA Commissioner
10:13	Minnesota's Vision	Tim Sexton	MnDOT
10:23	Comparison to Other States	Katherine Stainken	Plug In America
10:28	Clean fuels policy	Brendan Jordan	Great Plains Institute
10:38	Legislation on Utility TE role	Hon. Zach Stephenson	MN House of Representatives
10:53	RDA and Bonding bills	Hon. David Senjem	MN Senate
11:03	EV Incentives Bill	Hon. Jamie Long	MN House of Representatives
11:13	Low & No Cost TE Legislation	Dean Taylor	Plug In America
11:33	Q&A		
11:55	Closing	Katherine Stainken	Plug In America

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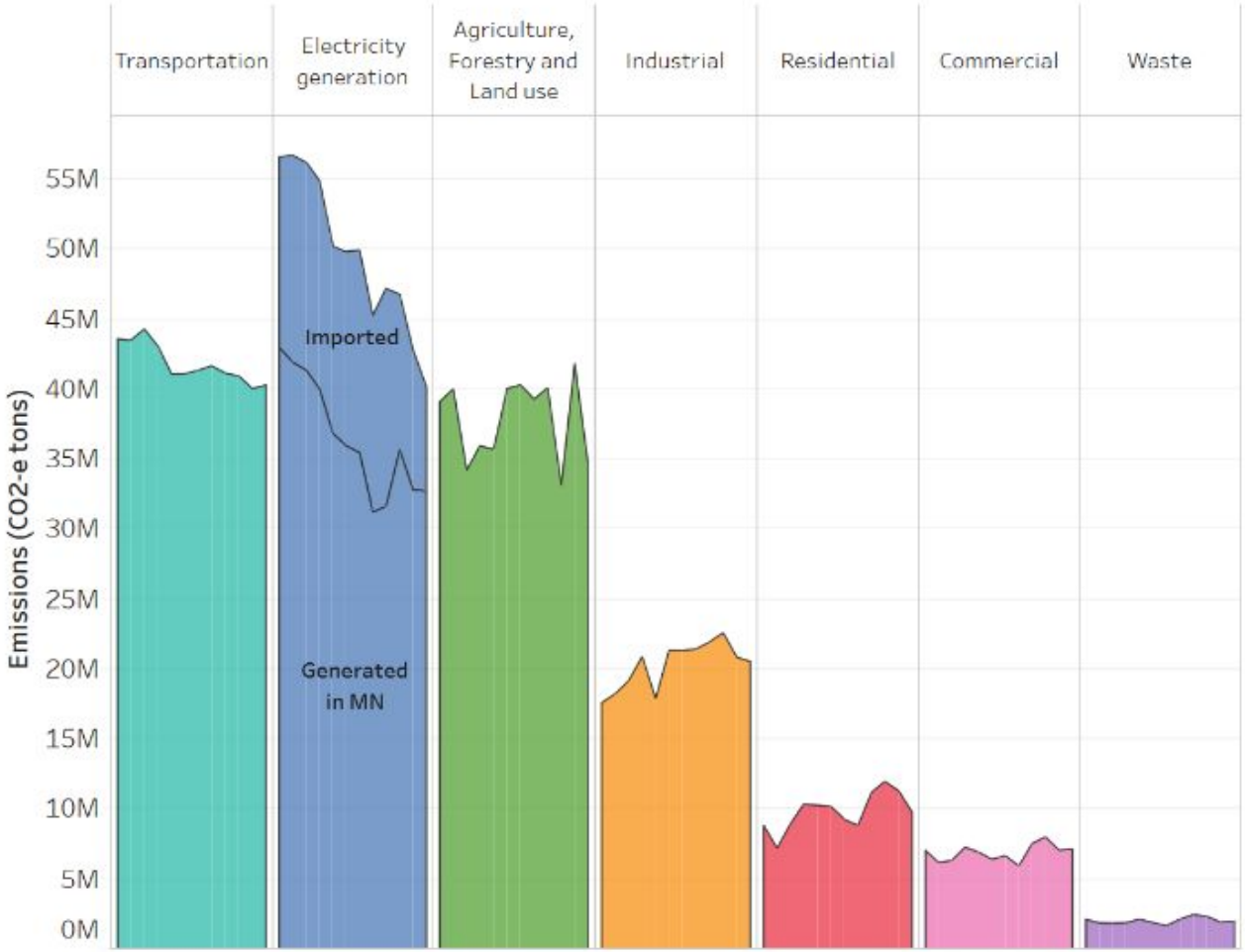
SUSTAINABLE GROWTH COALITION

MINNESOTA POLLUTION CONTROL AGENCY

Leading electrification in transportation

Commissioner Laura Bishop

December 3, 2020



Our current greenhouse gas emissions picture (2016)

Reducing GHG emissions from transportation

- Ensuring Minnesotans have access to the cleanest vehicles available
- Advancing electrification and building EV infrastructure
- Cleaner fuels, including biofuels
- Community efforts

Clean Cars Minnesota

Smart investments of VW settlement funds

- Grant funding to help replace older, diesel-powered school buses, trucks, other heavy-duty vehicles and equipment

Electric school bus pilot project

- First in the Midwest
- Investing $3M
- Up to 10 new buses across the state

Building a statewide charging network

Bonding bill

Reduce fleet fossil fuel consumption

30% reduction of state fleet consumption of fossil fuels by 2027

One Minnesota Climate Vision

Climate change is an existential threat that impacts all Minnesotans.

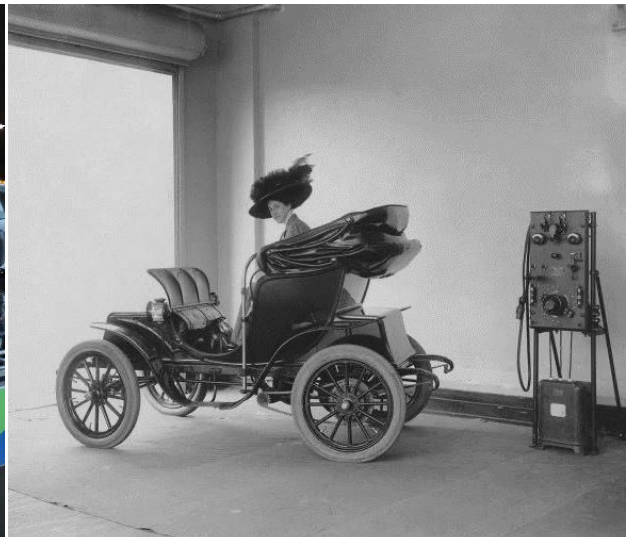
Establish and accelerate policies that put Minnesota on track to meet or exceed our greenhouse gas goals and achieve greater resiliency in the face of climate change.

Thank you!

Commissioner Laura Bishop

Laura.Bishop@state.mn.us

MINNESOTA POLLUTION CONTROL AGENCY



How Minnesota Can Lead on Transportation Electrification

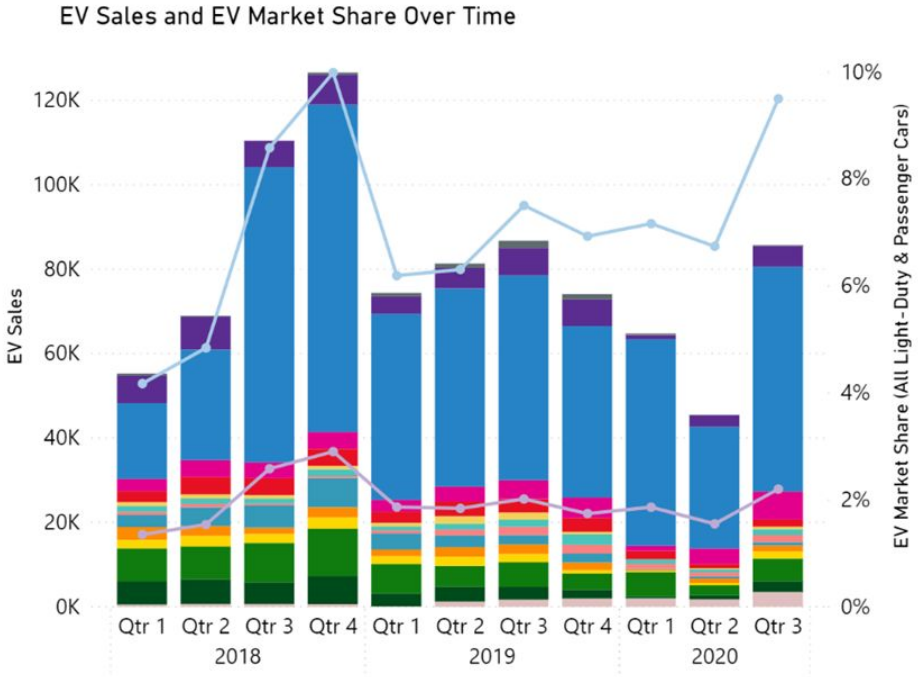
Webinar Series: Minnesotans Going Electric, December 3, 2020

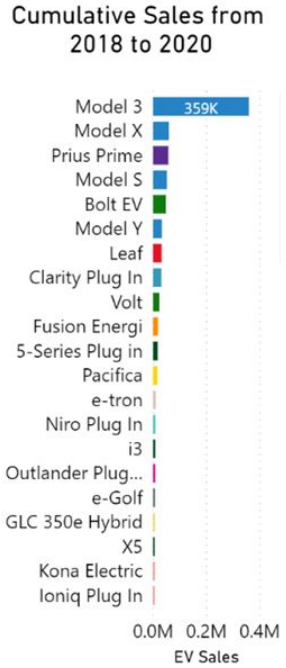
Tim Sexton, Assistant Commissioner, Sustainability and Public Health

DEPARTMENT OF TRANSPORTATION

www.dot.state.mn.us/sustainability/

US EV Sales and Market Share





Cumulative Sales: 2011 - 2020

EV Sales

- 1,629,382

BEV Sales

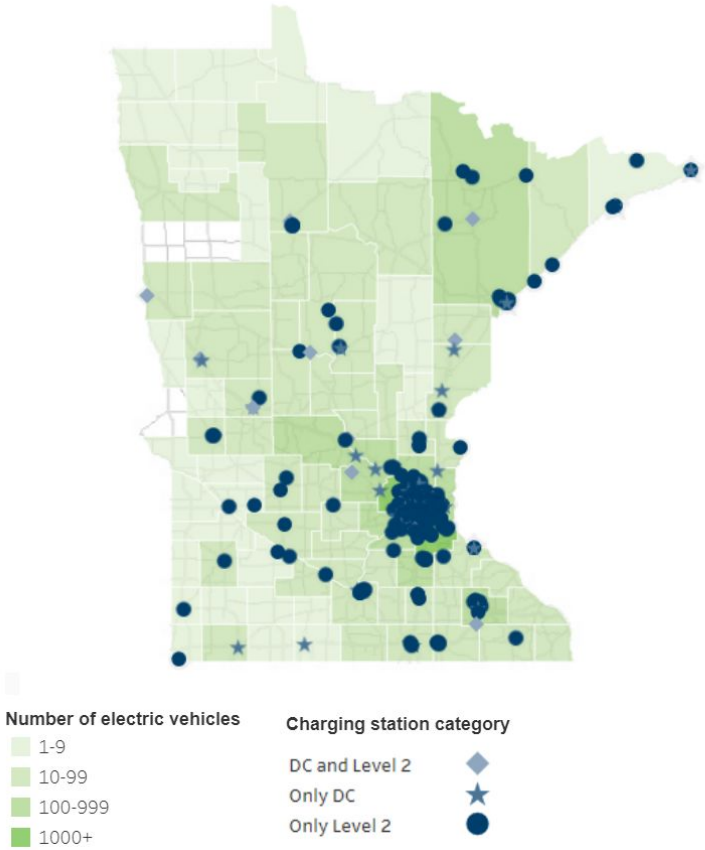
- 1,029,183

PHEV Sales

- 600,199

Source: Atlas Public Policy

EVs in Minnesota



Charging stations

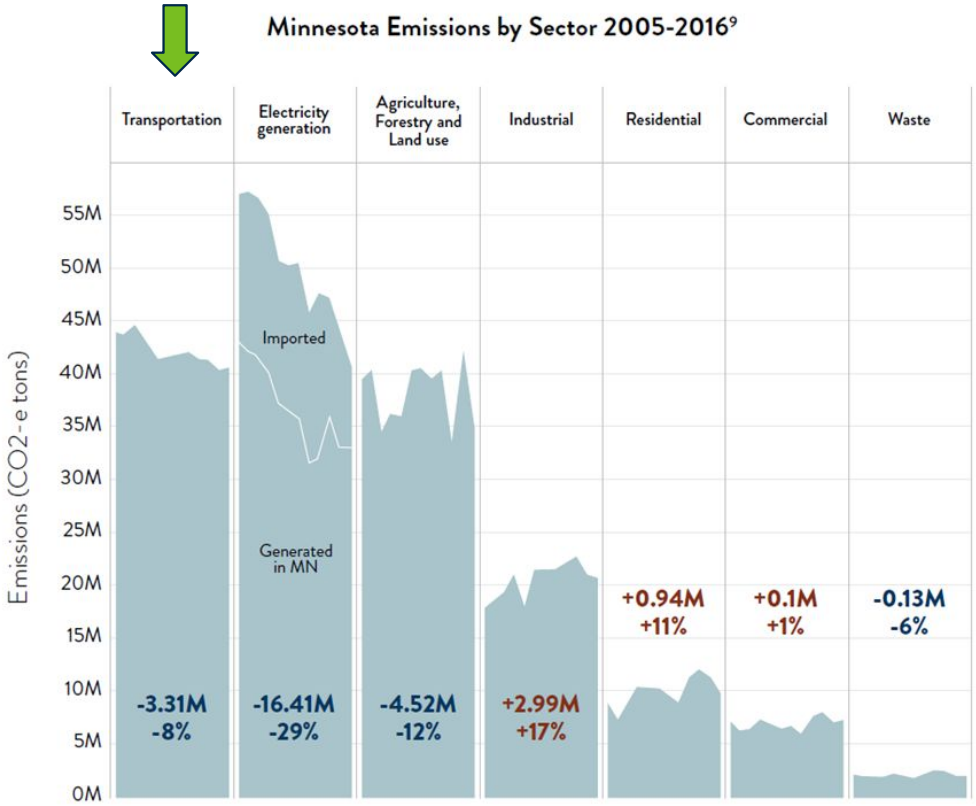
Level 2 charger	DC fast charger	Total
824	187	1,011

Total vehicles per Level 2 charger	Total vehicles per DC fast charger
18	77

Vehicles

Battery electric vehicles (BEV)	Plug-in hybrid electric vehicles (PHEV)	Total
7,808	6,676	14,484

MnDOT Role



MN Statute 174.01 - Transportation goals

(2) provide multimodal and intermodal transportation facilities and services to increase access for all persons and businesses and to ensure economic well-being and quality of life without undue burden placed on any community;

(10) ensure planning and implementation of all modes of transportation are consistent with the environmental and energy goals of the state;

(11) promote and increase the use of high-occupancy vehicles and low-emission vehicles;

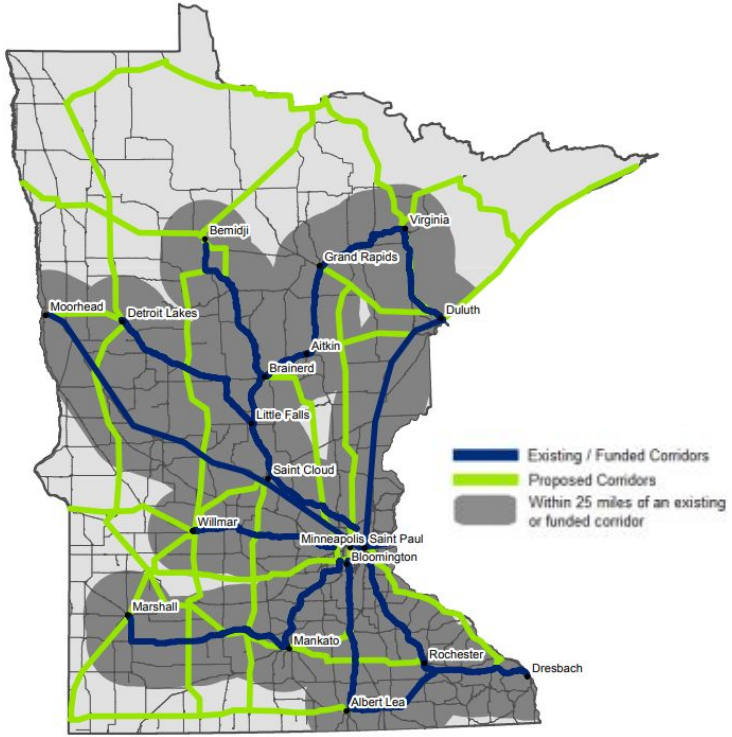
(15) reduce greenhouse gas emissions from the state's transportation sector;

Collaborate with Regional Partners

EV charging sign on I-94

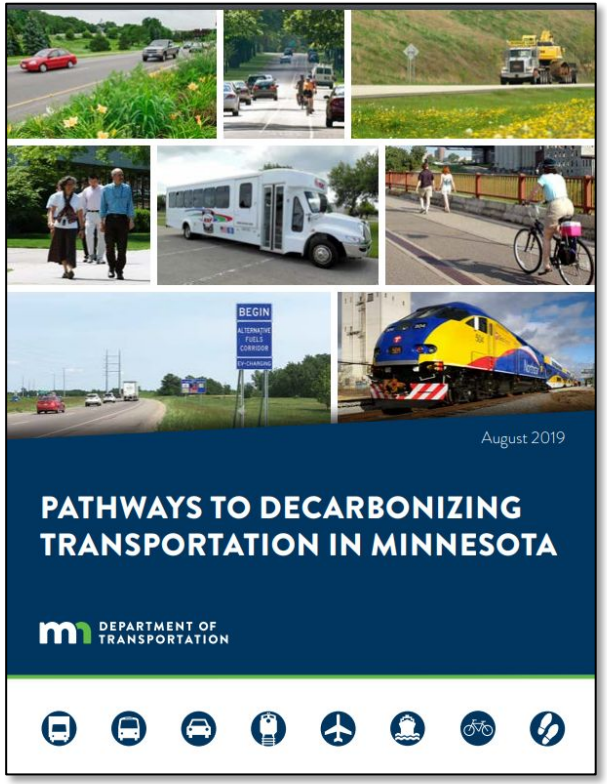
Source: FHWA

Establish a Vision



- Established state goal: 20% of light-duty vehicles EV by 2030
- Research on economic benefits of EV charging
- Potential for net positive to transportation funding
- Outlined potential map of EV charging network for MN

Engage with Minnesotans



Minnesota should...

- Collaborate with regional partners on EVs
- Adopt Clean Car Standards
- Provide incentives for low carbon transportation
- Support low carbon biofuels and more transportation options

Coordinate with the Public and Private Sector and Elected Officials

Sustainable Transportation Advisory Council

- Next step from *Pathways*
- External feedback and recommendations for MnDOT
- First report in March 2021

Back row (left to right): Daniel Schellhammer, Ashwat Narayanan, Russ Stark, Rolf Nordstrom, Katie Frye, Micheal Noble, Sam Sanders (for Senator Scott Newman), Greg Ilkka. Front row (left to right): Tim Sexton, Patrick Seeb, Peter Wagenius, Vishnu Laalitha Surapaneni, Katie Bell, Katie Jones, Commissioner Margaret Anderson Kelliher, Chris Clark, Emma Struss, Tara Wetzel, LaShella Sims. Not Pictured: Lisa Thurstin, Nick Thompson, Senator Scott Dibble, Representative Frank Hornstein.

Support for Local Communities

VW Settlement

- $47M with 15% for EV charging
- Transit, school busses, HD vehicles

Clean Transportation Pilot Program

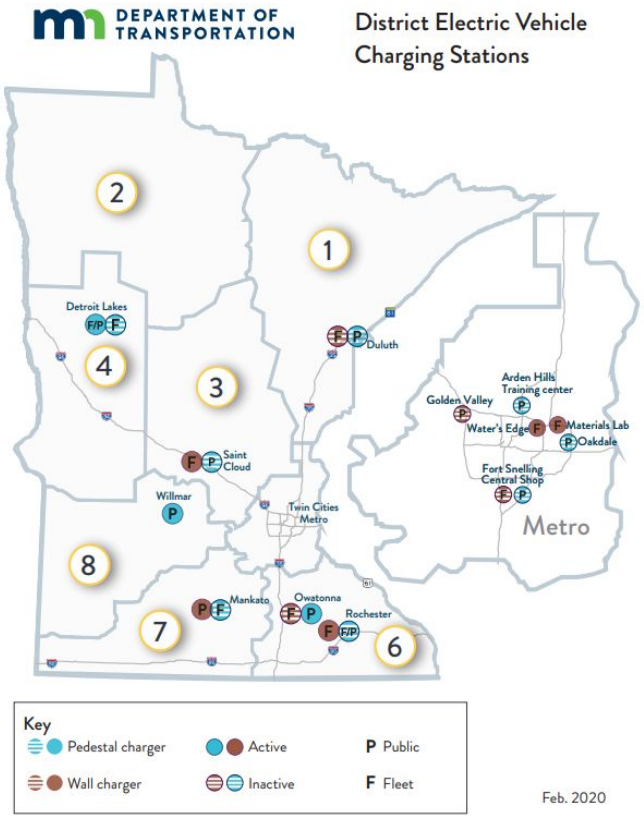
- Pathways recommendation
- Funding for clean transportation investment in/by local communities

Lead by Example

MnDOT goal: electrify 100% of sedans and SUVs 2030 (currently 10%)

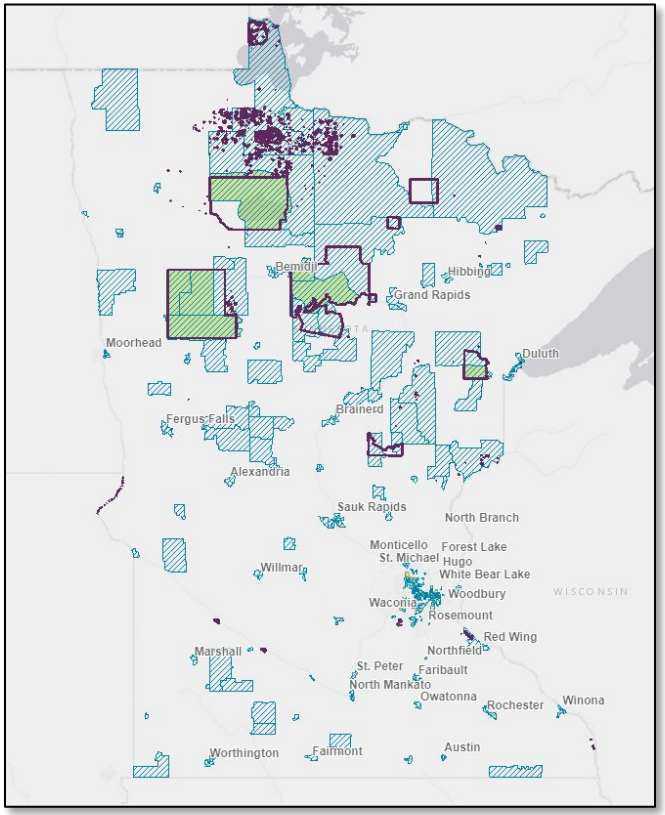
- Guidance for installation and use (ADA)
- Educational tools
- ADM bond funds for public charging at state facilities

MnDOT EVs charging in Mankato (D6)



Ongoing Opportunities

- Equity and Environmental Justice
- Governor's Climate Change Subcabinet and Climate Change Advisory Council
- Strategic Planning for EVs
- Transportation funding



Source: MPCA Areas of Environmental Justice Concern

Thank you!

Source: Medium

Plug In America

WE DRIVE ELECTRIC. YOU CAN TOO.

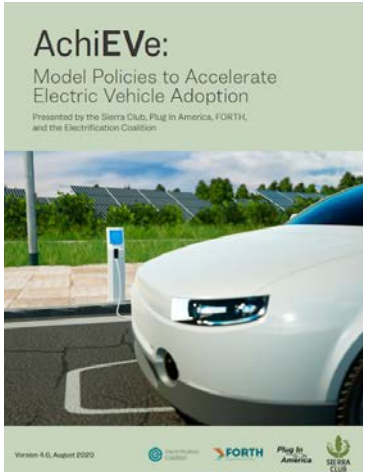
What the EV Driver Needs: the Top 25 States Leading the Way

December 3, 2020

Katherine Stainken, Policy Director

What the EV Driver Needs: Top 25 States Leading the Way

- We update our AchiEVe: Transition to EVs Model Policy Toolkit every year.
  - 2020 is the 4.0 version
  - shows what the best practice policies are
- **How can we encourage states to be BOLD in their policies for 2021 to support the EV Driver?**
- Highlight the leadership and policies in the top states, encourage the bottom ranking states.
- Focus on policies for the light-duty EV driver (no MHD or bus policies).



Categories of Policies for the EV Driver

Category	Breakdown
Policies Supporting EV Driver Pre-Purchase	EV purchase incentive
	Access to clean cars
	HOV lane access and/or toll exemption
	Creative Ideas
Policies Supporting EV Driver During Ownership	Fair EV fee
	Clean fuels policy
	Public EVSE Requirements on Payment Methods
	Favorable EV charging rates at utility
	Physical Access to EVSE
Policies Enabling EV Infrastructure	Utility enabling legislation
	EVSE rebates
	Building codes for EVSE readiness
	Creative Infrastructure Solutions
	Targets and goals for EVSE
	Corridor policies
Education and Outreach Activities	Significant state funding for E&O
	City level E&O campaigns
	Strong utility E&O budgets
	Partnerships and programs to train dealers

How does MN compare?

Category	Breakdown	Minnesota	California	New Jersey
Policies Supporting EV Driver Pre-Purchase	EV purchase incentive	No	Yes	Yes
	Access to clean cars	No	Yes	Yes
	HOV lane access and/or toll exemption	Yes	Yes	Yes
	Creative Ideas	No	Yes	Yes
Policies Supporting EV Driver During Ownership	Fair EV fee	Yes	Yes	Yes
	Clean fuels policy	No	Yes	No
	Public EVSE Requirements on Payment Methods	No	Yes	Yes
	Favorable EV charging rates at utility	Yes	Yes	Yes
	Physical Access to EVSE	No	Yes	Yes

How does MN compare?

Category	Breakdown	Minnesota	California	New Jersey
Policies Enabling EV Infrastructure	Utility enabling legislation	Yes	Yes	Yes
	EVSE rebates	Yes	Yes	Yes
	Building codes for EVSE readiness	Yes	Yes	No
	Creative Infrastructure Solutions	No	Yes	No
	Targets and goals for EVSE	Yes	Yes	Yes
	Corridor policies	Yes	Yes	Yes
Education and Outreach Activities	Significant state funding for E&O	No	Yes	No
	City level E&O campaigns	Yes	Yes	Yes
	Strong utility E&O budgets	Yes	Yes	Yes
	Partnerships and programs to train dealers	No	Yes	Yes

Stay Tuned! Full report coming Q1 2021.

Katherine Stainken
Policy Director

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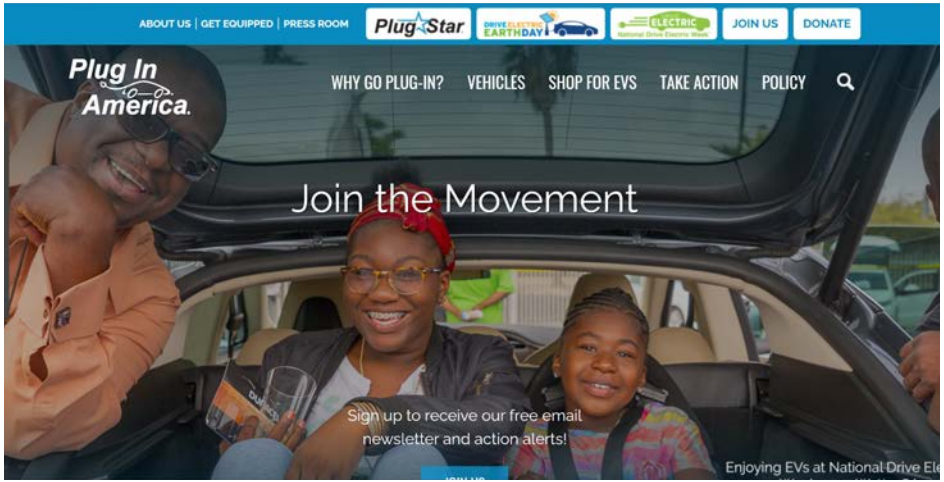

Clean Fuels Policy and EVs

Minnesota Transportation Electrification Forum: How Minnesota Can Lead

Brendan Jordan, VP Transportation & Fuels

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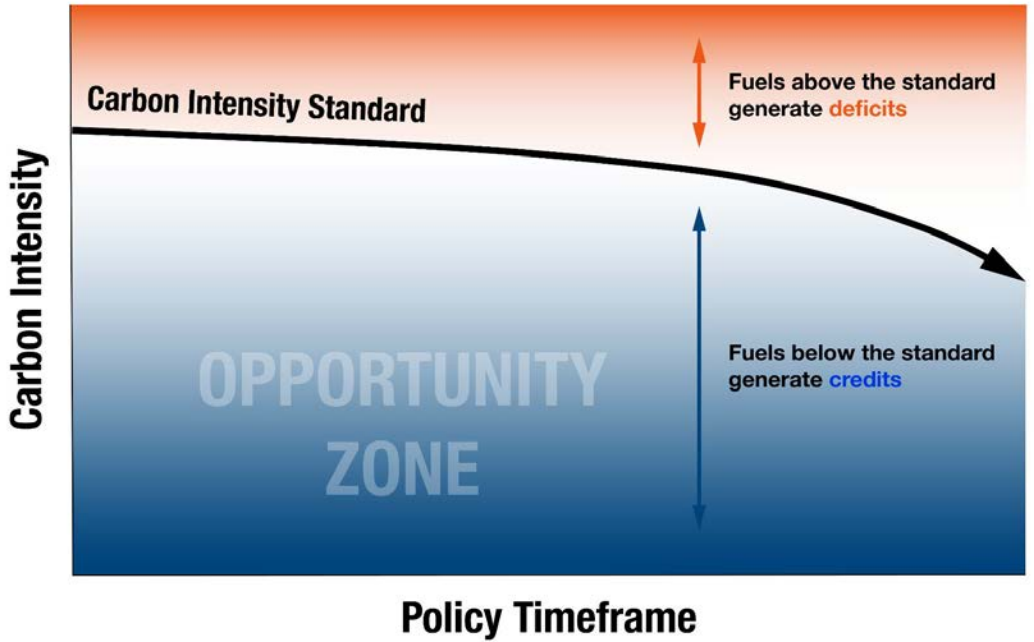
What is a Clean Fuels Policy?

- **Market-based, performance-based, technology-neutral, policy that provides valuation to any fuel with a greenhouse gas advantage**
- **Sets a standard for reduced carbon intensity (CI) of fuels over time**
- **GHG credit market establishes incentives for fuel producers to lower their carbon intensity through:**
  - Production process **efficiency** improvements
  - Switching to **lower carbon fuel or feedstocks**
  - **Decarbonizing** the fuel and feedstock **supply chain**
- **Results in reduced use of higher carbon fuels and supports commercial deployment of a portfolio of lower carbon fuels (including ethanol, biodiesel, renewable diesel, renewable natural gas, renewable propane, electricity, hydrogen)**

How does a Clean Fuels Policy work?

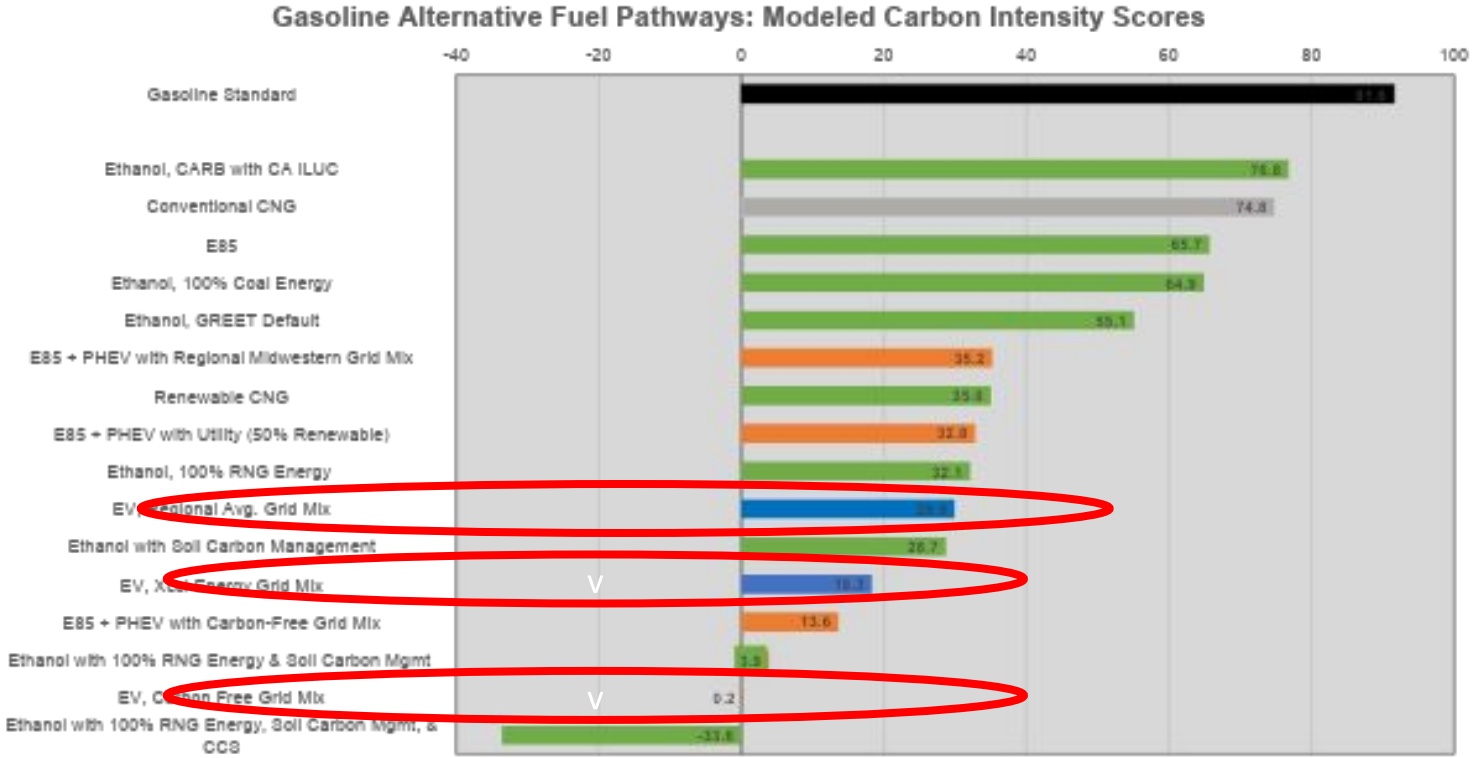
- Fuel producers that do not meet the annual baseline standard must purchase alternative fuel or credits
- Fuel producers that meet or exceed the standard generate credits proportional to the difference in their carbon intensity and the standard



MIDWESTERN CLEAN FUEL POLICY STAKEHOLDER PARTICIPANTS

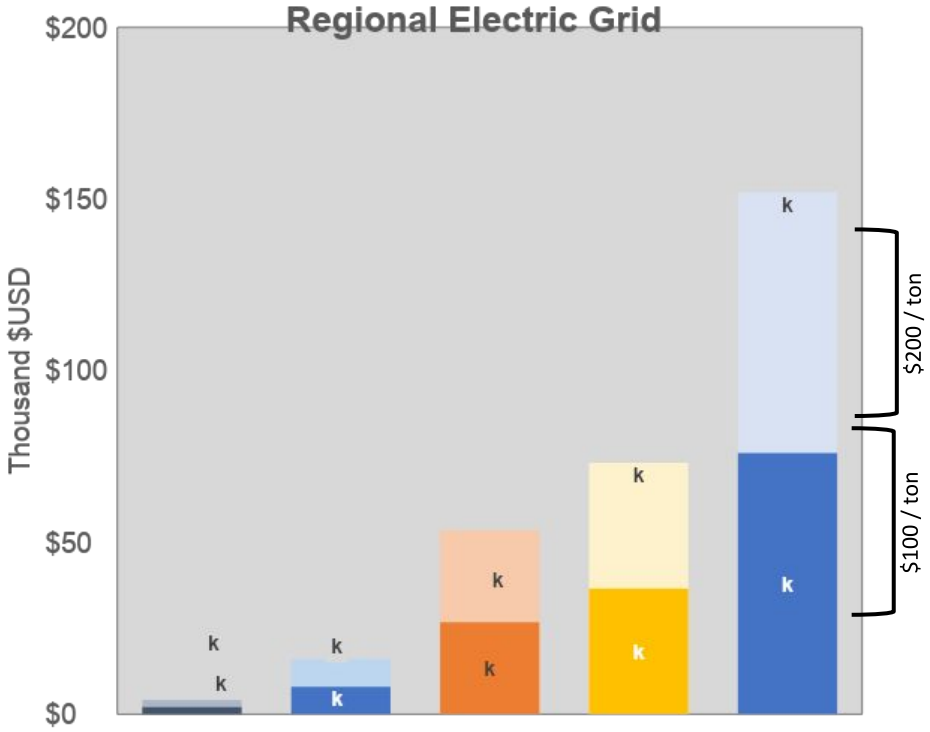
- Alternative Fuels Council
- American Coalition for Ethanol
- Center for Energy and Environment
- ChargePoint
- Christianson PLLP
- Coalition for Renewable Natural Gas
- Conservation Districts of Iowa
- Conservation Minnesota
- Environmental Law and Policy Center
- EcoEngineers
- Fresh Energy
- Governors' Biofuel Coalition
- Guardian Energy
- Highwater Ethanol, LLC
- Iowa Environmental Council
- Iowa Soybean Association
- Iowa State University Bioeconomy Institute
- Kansas Corn
- Low Carbon Fuel Coalition
- Minnesota Bio-Fuels Association
- National Biodiesel Board
- National Corn Growers Association
- Partnership on Waste & Energy (Hennepin, Ramsey & Washington Counties)
- Renewable Fuels Association
- Renewable Products Marketing Group
- South Dakota Corn
- Sustainable Farming Corporation
- Union of Concerned Scientists
- Urban Air Initiative
- Xcel Energy
- ZEF Energy

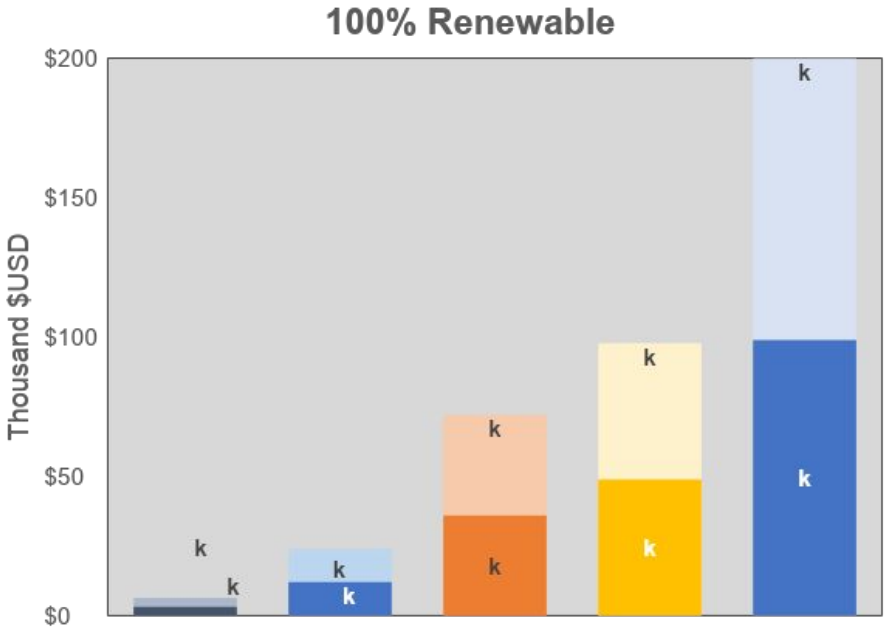
GREET DEFAULT FUEL CARBON INTENSITIES



10-Year Credit Value for Electric Vehicles

At $100/ton and $200/ton, 10-year aggregate credit value for various vehicles ranges





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COMPLIANCE MODELING

	Current (2018) Conditions	10% Carbon Intensity Reduction	15% Carbon Intensity Reduction	20% Carbon Intensity Reduction
Vehicle Replacement				
Light-duty EVs	<1% of fleet in MN and IA.	5% of fleet by 2030 8.9% of sales by 2030 Low adoption of carbon-free electricity	10% of fleet by 2030 16.6% of sales by 2030 Moderate adoption of carbon-free electricity	15% of fleet by 2030 24.3% of sales by 2030 Higher adoption of carbon-free electricity
Medium- and heavy-duty EVs	<1% of fleet in MN and IA.	1% fleet EV by 2030 Low adoption of carbon-free electricity	5% of fleet EV by 2030 Moderately carbon-free electricity	10% of fleet by 2030 Higher adoption of carbon-free electricity

Net Positive Economic Impacts for Minnesota + Iowa

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Total and Average Economic Benefit by Sector

Impacted Group	Total Impact, 2021-2030 ($USD Million)	Average Annual Impact ($USD Million)
Gasoline Users	$726.18	$72.62
Trucking	$1,363.24	$136.32
Electricity Sales	$2,255.43	$225.54
Ethanol Producers	$615.38	$61.54
Biodiesel Producers	$703.86	$70.39
Renewable Diesel Producers	$332.94	$33.29
RNG Producers	$115.91	$11.59
Farmers	$247.97	$24.80

Take-aways

- Clean Fuels Policy supports transportation electrification goals for Minnesota
- Provides sustainable funding stream for electrification activities (charging, vehicles)
- Minimal impact on state budget
- Net positive ($billions) for economy
- Net positive for gasoline and diesel consumers
- Broad political coalition with EV advocates, biofuels industry, agriculture


www.betterenergy.org/cleanfuelspaper
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THANK YOU

Brendan Jordan, Vice President

bjordan@gpisd.net

612-278-7152

The Honorable Zach Stephenson

Minnesota House of Representatives

Drive Electric MINNESOTA

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SUSTAINABLE GROWTH COALITION

The Honorable David Senjem

Minnesota Senate

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The Honorable Jamie Long

Minnesota House of Representatives

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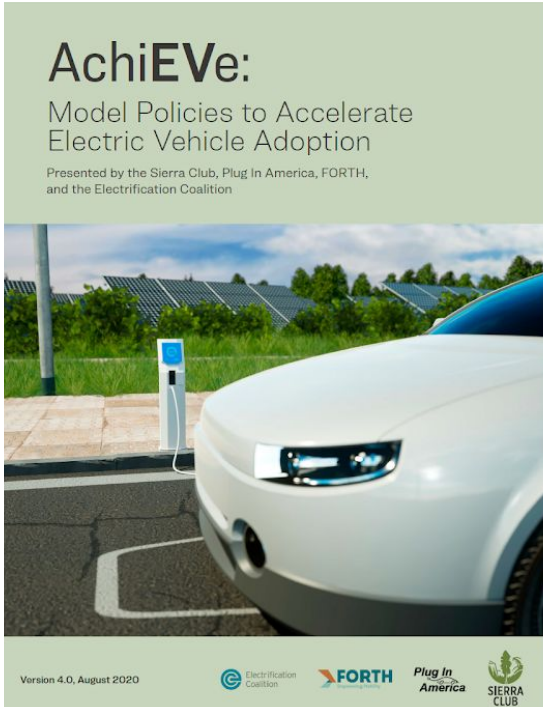
Low and No Cost EV Legislation and Executive Orders

December 3, 2020

Dean Taylor, Senior Policy Advisor

AchiEVe: Transition to EVs Model Policy Toolkit

- Collaboration between PIA, Sierra Club, Electrification Coalition, Forth Mobility
- Designed for 6 key stakeholder groups:
  - Legislators; Governor's offices / state agencies; transit agencies; cities and local government, businesses; regulators & utilities
- Various categories of policies
  - Enable vehicle purchase
  - Increase charging infrastructure
  - Prioritize equity and expand access
  - Electrify fleets
  - And more!



Policies to Increase Availability of Charging Infrastructure

Low and no cost legislation

- Direct that X% of federal CMAQ funds must go to for EV infrastructure at public facilities (e.g., fleets, transit and school buses, public parking lots, curbside).
  - Can also link to EV and e-truck corridor planning and rural EV tourism
- Clean fuel policy legislation or executive order
- Pooled procurement legislation or public sector collaboration
- Revolving loan program (see next slide)
- Requirements on new homes, multi-dwelling units and commercial buildings to be EV ready
- Study on potential of EV charging at streetlights and power poles statewide
- Encouraging cities to grant franchises for EV charging (like Europe)
- Clarifying utility role in investments

Policies to Encourage and Enable Vehicle Purchase

Other

- Clean Cars MN
- Pooled procurement - public-sector collaboration
- Green bonds - municipal or state

Low-cost Legislation

- Allow single-occupant BEVs and PHEVs into MN's Carpool lanes (MN Pass express lanes)
- Low and no-cost loans for low-income consumers (several models)
  - Seed money to a foundation or state agency to operate a revolving loan financing program
  - Assistance to public private partnership (e.g. credit union and NGO) for a revolving loan financing program
- Low and no-cost loans for e-trucks and e-buses for small fleets
  - Similar to above
  - Seed money for Loan guarantee program

Policies for Consumer Education and Protection

EV proclamations and executive orders

- EV bill of rights (see appendix) to improve the consumer, purchase, charging and ownership experience
- Proclamations and advertising of Drive Electric Earth Day and National Drive Electric Week and similar events

Low and no cost legislation

- Protecting EV-designated parking spots. Authority to fine and tow non EVs
- Open Access, payment and interoperability requirements (with equity)
  - Requirements for charging access (e.g. credit/debit/pre-paid cards) so as not to have to have multiple "club" cards
  - Requirements for access to level 1, level 2 and DC fast charging (e.g., not always 24-7)
  - Requirements for signage or pricing transparency
  - Clear authority and direction to weights and measures
- Uniform signage requirements
- Requiring clear mapping data
- Directing utilities to do broad market education and outreach and attractive rates for EV charging in all locations

Policies on Equity

Low and no-cost Legislation

- Goals for state and utility programs in underserved communities (e.g. disadvantaged, rural and tribal)
- Goals or requirements for disabled community charging access
- Study on potential of EV charging at streetlights and power poles statewide
  - Helps with those who do not have access to home or workplace charging
- Utility – stakeholder study on all the ways to reduce the up-front and on-going costs of charging
- Requirement for charging access that work for low-income EV drivers (e.g. credit/debit/pre-paid cards)
- Pilot program on pre-paid cards to access charging stations

Other Low and No Cost Legislation / Exec Orders

- **Policies for Batteries and Battery Recycling**
  - E.g., participation in collaboration of states on best practices for state-based collection, recycling and reprocessing facilities and battery producer responsibility framework.
- **Solutions to Barrier of Auto Dealers Selling EVs**
  - Direct utilities to do innovative programs to help auto dealers
- **Policies for Medium and Heavy Duty Freight**
  - Join the 15-state Governor's MOU
  - Direct utilities to innovative rates and develop scenarios for handling mostly EVs in 2040
  - Earlier slides have many ideas that also apply here

Other Low and No Cost Legislation / Exec Orders

- **Policies to enable workplace charging**
  - Requirements for new construction to be EV ready
- **State Energy Office Efforts**
  - Lead multi-agency effort to develop a ZEV action plan with deliverables and due dates for agencies
  - Fund EV readiness plans for MN regions
- **Electric Ride-hailing Policies and Programs**
  - Allow access to bus-only lanes
  - Exempt EV ride hailing from any volume caps on licenses
  - Streamline permitting for ride hailing EV projects

Other Low and No Cost Legislation / Exec Orders

- **Vehicle Grid Integration**
  - Policy directive on self-management charging and tech neutral network automated charging (V1G or V2G)
- **Permits and New Construction Requirement**
  - EV ready requirements on new homes and commercial bldgs.
  - Cap on permit fees and/or state model permit process
- **Economic Development**
  - Executive order directing creating of a rural EV tourism program and making new jobs from TE a priority in general
- **Prizes**
  - Competitions and annual recognition awards from state agencies or Governor's office in the categories in this presentation

Sample EV Driver Bill of Rights

1. **All EV Drivers have the right to an informed EV car buying experience, with up-to-date shopping websites and buyer resources, including up-to-date government incentive pages, and dealers knowledgeable about the EVs, including benefits and incentives.**
2. **All drivers have the right to know the usable battery pack capacity and expected range per full charge for a new EV, and the correct comparison of usable battery pack capacity and expected range per full charge for a used EV compared to the new model.**
   - Dealers should not reset the battery pack capacity estimate when selling a used EV.
   - Consumers must be shown a battery capacity estimate within the larger of 1 kWh or 5% of the battery pack's original nominal full capacity at the time of purchase or lease.
   - If that number can be reset, the dealer must show how long it's been since it was reset and how long before the number should be considered accurate.
3. **All EV Drivers have the right to access a robust network of public charging stations.**
   - All EV Drivers have the right to appropriate public EV charging access at transportation hubs, such as bus stations, train stations, airports, and park-and-ride lots- particularly those near the edge of a metro area,
   - All EV Drivers have the right to public charging at major destination centers where visitors travel long distances to reach
   - All EV Drivers have the right to appropriately spaced public charging stations including fast charge stations on highway corridors for long distance trips, including at public rest stops. The number of public charging stations along highway corridors should be plentiful enough to meet the growing adoption of EVs.

Sample EV Driver Bill of Rights (cont'd)

4. **All EV Drivers have the right to charge at their place of dwelling if the EV driver pays for reasonable costs of installation and the electricity consumed, regardless if that dwelling is a multi-unit dwelling (MUD), apartment complex, or if the dwelling is part of a condo association, cooperative or mobile home park, or if that apartment (or rental unit) is rent-controlled.**
5. **All EV Drivers have the right to charge their EV at public charging stations and workplace charging stations that abide by uniform standards.**
    - All EV Drivers have the right to know the total cost to charge for using the public charging station and/or workplace charging station before initiating a charge session, including all separate charges and penalties such as any network access fee, roaming fee, demand charges, hourly charges, parking fees, electricity fees, and penalties for not moving the EV after a certain time.
    - All EV Drivers have the right to pay at the public charging station and/or workplace charging station using a credit card or mobile technology, or both.
    - All EV Drivers should have the right to pay a price that is proportional to their charging speed.
6. **All EV drivers have the right to charge their EV at home and receive off-peak electric prices from their utility for charging.**
7. **Sites that host a charging station such as workplaces, fleets and public locations have the right to as reasonably low as possible demand charges for electricity to encourage adoption of EVs and therefore more efficient utilization of the electric grid.**
8. **All EV drivers have the right to timely maintenance of public, workplace and multi-unit dwelling electric vehicle charging stations**

Sample EV Driver Bill of Rights (cont'd)

9. **All EV Drivers have the right to up-to-date maps and directional signage indicating the location of public charging stations.**
10. **All EV Drivers have the right to consistent etiquette guidelines at public and workplace charging stations. It should be clearly marked at public and workplace charging stations how to report broken stations, how to report complaints, and how to report vehicles that are parked in a public charging spot and blocking access to the charging station.**
11. **All EV Drivers have the right to claim purchase incentives such as rebates or tax credits, when offered by the state or federal government, without a sales tax on the purchase incentives provided.**
12. **All EV Drivers have the right to install EV charging stations on previously wired infrastructure at new homes, apartments, condominiums and commercial buildings. Such buildings are considered to be "EVSE" ready by having raceways, conduits and wiring built at the time of construction.**

Thank you!

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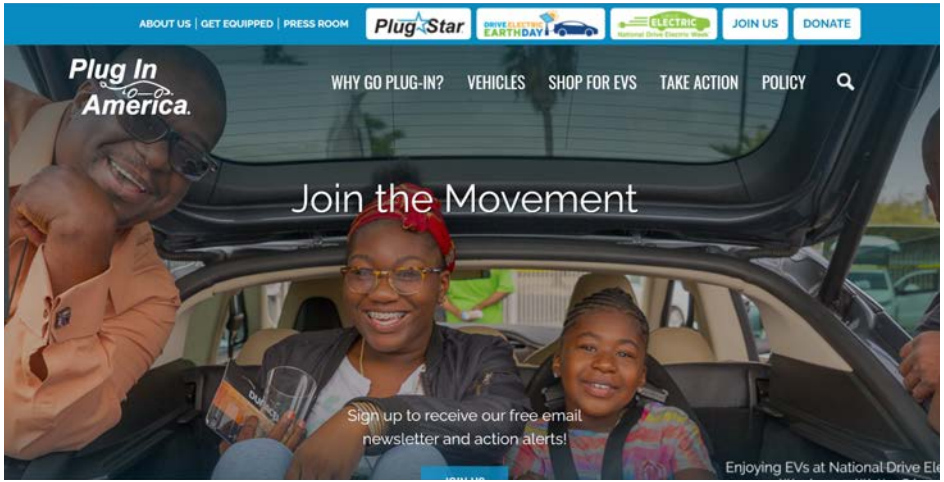

Closing Reminders:

Recordings available here:
https://pluginamerica.org/policy/webinar-series-minnesotans-going-electric/

- Plug In America
  - www.pluginamerica.org
  - Dean Taylor, Senior Policy Advisor: dtaylor@pluginamerica.org
- Drive Electric Minnesota
  - www.driveelectricmn.org
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- Xcel Energy
  - www.xcelenergy.com
- Sustainable Growth Coalition
  - https://environmental-initiative.org/work/sustainable-growth-coalition/
  - Amy Fredregill, Managing Director: afredregill@en-in.org

Drive Electric MINNESOTA

Plug In America

Xcel Energy

SUSTAINABLE GROWTH COALITION