The Role of Cities and Counties in the Shift to Transportation Electrification

December 1, 2020
11:00am - 12:30pm CT
Technology Reminders:

- This is a zoom meeting, with different functions than a zoom webinar.
- Please type any questions into the chat - questions are welcome!
- All attendees will be muted and have their videos turned off until the breakout session.
- The presentations and recordings will be available on the Plug In America website.
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/
• **The voice of the EV consumer** – 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:

Dean Taylor  
Senior Policy Advisor  
Plug In America

Hon. Charlie Zelle  
Chair  
Metropolitan Council

Brian Ross  
Senior Program Director  
Great Plains Institute

Diana McKeown  
Director  
Metro Clean Energy Resource Team

Katherine Stainken  
Policy Director  
Plug In America
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.
- **Charlie Zelle** has served as Chair of the **Metropolitan Council** since January of 2010. He has over 30 years of experience in economic development, transportation policy and operations, including serving as Commissioner of the Minnesota Department of Transportation and CEO of Jefferson Lines, an intercity bus company in 14 heartland states.
- **Brian Ross**, AICP, Senior Program Director at the **Great Plains Institute**, has 25 years of experience working with local, regional, and state governments on climate and energy planning, policy and regulation. He currently works with local and state governments on climate planning, EV readiness and local initiatives, and state and local renewable energy market transformation.
- **Diana McKeown** is the **Metro CERT** (Clean Energy Resource Team) Director. Diana has led the metro region of CERTs since October 2007, during which time she has coordinated and participated in a number of clean energy initiatives including Cities Charging Ahead (CCA), CCA 2.0 and Powering Ahead with Vehicle Electrification (PAVE) and is an EV owner.
- **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.
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
<th>Organization</th>
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<tbody>
<tr>
<td>11:00</td>
<td>Welcome</td>
<td>Dean Taylor</td>
<td>Plug In America</td>
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<tr>
<td>11:03</td>
<td>Opportunity for 2021</td>
<td>Hon. Charlie Zelle</td>
<td>Metropolitan</td>
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<tr>
<td>11:13</td>
<td>EV Readiness</td>
<td>Brian Ross</td>
<td>Great Plains Institute</td>
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<tr>
<td>11:28</td>
<td>City Actions</td>
<td>Diana McKeown</td>
<td>Metro Clean Energy Resource</td>
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<tr>
<td>11:43</td>
<td>Model EV policies</td>
<td>Katherine Stainken</td>
<td>Plug In America</td>
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<tr>
<td>11:49</td>
<td>Q&amp;A</td>
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<tr>
<td>11:58</td>
<td>Breakout Session</td>
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<tr>
<td>12:13</td>
<td>Recap of Breakouts</td>
<td>Dean Taylor</td>
<td>Plug In America</td>
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<tr>
<td>12:23</td>
<td>Closing</td>
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**Agenda:**
Sustainability

- Met Council - $15 million annual energy costs
- 10% reduction in carbon emissions since 2015
- Goal – 100% of energy from carbon free sources by 2040

- Renewables now 3 to 6 cents per kilowatt
- Coal from 5 to 17 cents per kilowatt
Xcel is seeking PUC authority to invest $100 million in transit electrification
Innovation
Partners in Planning – Local Governments


Minnesota GreenStep Cities
• Creating solar + EV opportunities
• Transportation Advisory Board including EV charging in regional solicitation
• EV charging being evaluated by Governor’s climate change subcabinet
Looking Ahead

Electric Bus Stats

- 60’ articulated
- 48 riders (15 pandemic)
- Noise 60dB
- 100 miles per charge
- 4 hours full charge
- In-route quick charge 12 minutes
- Emissions 150 tons less than standard diesel
Looking Forward – a measured approach

Guiding principles

- Environmental responsibility
- Service excellence
- Financial responsibility
TRANSFORMING THE ENERGY SYSTEM TO BENEFIT THE ECONOMY AND ENVIRONMENT.

- INCREASE ENERGY EFFICIENCY AND PRODUCTIVITY
- DECARBONIZE ELECTRICITY PRODUCTION
- ELECTRIFY THE ECONOMY AND ADOPT ZERO- AND LOW-CARBON FUELS
- CAPTURE CARBON FOR BENEFICIAL USE AND PERMANENT STORAGE
Why EV-Ready Communities?

Local governments are essential partners in creating a self-sustaining electric vehicle market

✔ EV market transformation requires that public and private development accommodates EV charging infrastructure

✔ Local governments can and do shape how public and private development occurs

✔ Local governments can use existing, familiar tools to foster the community’s transition to EVs
Common EV Myths

✔ EVs are not cost efficient
✔ EVs are “coal cars” regarding emissions
✔ EVs are small, slow, boring
✔ EVs don’t allow people freedom

Source: Drive Electric Minnesota, https://www.driveelectricmn.org/electric-vehicles/
Barriers to EV Adoption

**Market Transformation Targets**

1. Upfront costs (and lack of attention to lifecycle costs)
2. Actual or perceived vehicle range
3. Perceived or actual lack of charging infrastructure

*Source: Green Car Reports*
### Planning for New Infrastructure

#### Electric Vehicle Infrastructure Projection Tool (EVI-Pro) Lite

This tool provides a simple way to estimate how much electric vehicle charging you might need and how it affects your charging load profile.

**Your Results**

**21,987** Workplace Level 2 Charging Plugs

**13,599** Public Level 2 Charging Plugs

**2,785** Public DC Fast Charging Plugs

Where Do I Start?

Planners may want to prioritize installation of fast charging infrastructure above Level 2 charging.

**Build DC Fast First** Establishing fast charging networks that enable long-distance travel, serve as charging safety net, and provide charging for drivers without home charging is critical to support plug-in electric vehicles that have no other alternative for quickly extending their driving range.

**Build Level 2 Second** EVI-Pro typically simulates the majority of Level 2 charging demand coming from plug-in hybrid electric vehicles, which have the ability to use gasoline as necessary for quickly extending driving range.

#### Change Assumptions

<table>
<thead>
<tr>
<th>Vehicle Mix</th>
<th>Plug-in Hybrids</th>
<th>20-mile electric range</th>
<th>25-mile electric range</th>
<th>50-mile electric range</th>
<th>100-mile electric range</th>
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<tbody>
<tr>
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**Number of vehicles to support**: 4,944,300

#### National Plug-In Electric Vehicle Infrastructure Analysis

September 2017
NREL’s EVI-Pro Lite Tool

- ✔ 10% EV market share in the metro area requires 9,000 workplace or public Level 2 chargers (if EV owners can charge at home).
- ✔ If 25 percent of EV owners cannot charge the vehicle at home, the need for non-home Level 2 chargers increases to almost 19,000.
- ✔ Minnesota’s 2030 goal of 20% EVs would require over 35,000 chargers.
- ✔ The Minneapolis-Saint Paul metro area currently has about 500 workplace and public Level 2 chargers.

Planning for New Infrastructure

Electric Vehicle Infrastructure Projection Tool (EVI-Pro) Lite

How many plug-in electric vehicles would you like to support in Minneapolis–St. Paul?

259,900

For reference, there were 2,599,900 light-duty vehicles on the road in the Minneapolis–St. Paul area as of the end of 2016 and 3,500 of those were plug-in electric vehicles.
Planning for New Infrastructure

NREL’s EVI-Pro Lite Tool

- Duluth – 2,130
- Fargo – 2,500
- Grand Forks - 800
- LaCrosse – 1,470
- Mankato - 710
- Rochester - 2,000
- St. Cloud – 1,800
Five Principles for EV Ready Communities…

1. **Policies and Plans** that support electrification of transportation and acknowledge EV benefits

2. **Ordinances** that enable public and private sector EV use

3. **Administrative Processes** for installing EV charging infrastructure that are predictable, transparent, and documented

4. **Local Market Transformation Programs** to reduce or overcome market barriers to EV use and installation of EVSE

5. **Public Sector Investment** in EVs and charging infrastructure to demonstrate EV viability and capture operational and environmental savings
EV-Ready Action Categories

1. Policy
2. Regulation
3. Administration
4. Public Programs
5. Leadership

Equity
<table>
<thead>
<tr>
<th>Policy</th>
<th>Regulation</th>
<th>Administration</th>
<th>Public Programs</th>
<th>Leadership</th>
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</thead>
<tbody>
<tr>
<td>P-1</td>
<td>Address EVs and EVSE in Comprehensive Plan</td>
<td>Enable EVSE as an accessory land use</td>
<td>Clarify and streamline EVSE permitting</td>
<td>Financial incentives for EV purchase</td>
</tr>
<tr>
<td>P-2</td>
<td>Address EVs and EVSE in Specific-area Plan</td>
<td>Protect EV Charging Access</td>
<td>Streamline preferred EVSE design standards</td>
<td>Financial incentives for EVSE installation</td>
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<tr>
<td>P-3</td>
<td>Address EVs and EVSE in functional plan</td>
<td>Require EV-ready in parking standards</td>
<td>Develop permit for public ROW charging</td>
<td>Joint programs with utility on marketing</td>
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<tr>
<td></td>
<td></td>
<td>Require EVSE in parking standards</td>
<td>Develop EVSE design guidelines for accessibility</td>
<td>EV/EVSE education of commercial property owners</td>
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<tr>
<td></td>
<td>Permit DCFC installations in selected districts</td>
<td>Educate permit and inspection staff on EVSE applications</td>
<td>Create EV webpage for programs, standards</td>
<td>Deploy electric school buses</td>
</tr>
<tr>
<td>R-6</td>
<td>Incorporate EV-readiness in Building Code</td>
<td>Host public education events and campaigns</td>
<td>Install Employee-reserved EVSE</td>
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<tr>
<td>Leadership</td>
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<tr>
<td>L-1</td>
<td>Electrify public fleet</td>
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<tr>
<td>L-2</td>
<td>Provide public chargers</td>
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<td>L-3</td>
<td>ROW charging deployment</td>
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<tr>
<td>L-4</td>
<td>Deploy electric transit buses, para-transit vehicles</td>
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<tr>
<td>L-5</td>
<td>Deploy electric school buses</td>
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<tr>
<td>L-6</td>
<td>Install Employee-reserved EVSE</td>
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- ✔ Complete assessment of EV conversion opportunities (FleetKarma, etc)
- ✔ **Adopt EV conversion goals** for public fleets with timelines
- ✔ **Purchase EVs** for fleet use to meet adopted goals
<table>
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<tr>
<th><strong>ENCOURAGEMENT</strong></th>
<th><strong>REGULATION</strong></th>
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<tbody>
<tr>
<td>• Provide educational materials on lifecycle costs, public charging options, and purchasing options to cities and businesses</td>
<td>• Require EV-ready parking within parking standards</td>
</tr>
<tr>
<td>• Publicly recognize car dealerships that stock and promote EVs, or businesses that provide EV charging for employees.</td>
<td>• Require EV infrastructure within PUD ordinance or other optional zoning path</td>
</tr>
<tr>
<td><strong>INCENTIVES</strong></td>
<td><strong>PUBLIC DEMONSTRATION, LEADERSHIP</strong></td>
</tr>
<tr>
<td>• EVES as an optional amenity within PUD (or flexible zoning) ordinances</td>
<td>• Purchase EVs for the public fleet</td>
</tr>
<tr>
<td>• Participate in an EV or EVSE “bulk-buy”, aimed at city residents or businesses</td>
<td>• Install EV charging at public facilities</td>
</tr>
<tr>
<td>• Work with municipal utility to create EV charging rates, financing, other incentives</td>
<td>• Require new public parking areas to have EV charging options</td>
</tr>
<tr>
<td></td>
<td>• Consider EV charging in the public ROW</td>
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Transforming Minnesota’s Electric Vehicle Market:
Comprehensive Plan Best Practices for Local EV Action

City Tools for EV Transformation

Comprehensive Plan Best Practices for Local EV Action

1. Support Electric Vehicles in Zoning Code
2. Electric Vehicles in City’s Fleet
3. Support Deployment of Charging Infrastructure
4. Support for Charging Infrastructure in Public Areas
5. Prioritize Benefits of Electric Vehicles
City Tools for EV Transformation

Summary of Best Practices in Electric Vehicle Ordinances

BY CLAIRE COOKE AND BRIAN ROSS

JUNE 2019

1. Electric Vehicle Charging Stations as Permitted Land Uses
2. Electric Vehicle Make-Ready Standard
3. Electric Vehicle Supply Equipment Standards
4. Electric Vehicle Parking Space Design and Location
5. Required EV Parking Capacity & Minimum Parking Requirements
6. Electric-Vehicle-Designed Parking Use Standards and Protections
7. Signage, Safety, and other standards
THANK YOU!

Brian Ross, AICP, LEED GA
Senior Program Director
bross@gpisd.net, 612-767-7296
Cities Charging Ahead!

Diana McKeown
Metro CERT Director, Great Plains Institute

December 1, 2020
Overview

• Quick CERTs overview

• Local Government growing interest in EVs

• What is Cities Charging Ahead?

• Resources for your EV journey
Helping Minnesotans build clean energy

MISSION
We connect individuals and their communities to the resources they need to identify and implement community-based clean energy projects
How we help cities & counties

- Assistance in understanding options
- Support for advancing your goals
- Tools you need to get projects done

PHOTO
Electric vehicle charger ribbon cutting in Red Wing
Action-oriented and voluntary program offering a cost-effective, free, peer-focused path to sustainability work.

Currently 141 Participants including four Tribal Nations
Growing interest in EVs
Growing interest and demand

- EV registrations (nearly 15k now!)
- Ride and Drives
- Utilities in action
- Cities and counties asking for help (over 50 GreenStep Cities!)
- Large attendance at several EV related webinars
- Comprehensive plans
EVs in Comp Plans

- Apple Valley
- Arden Hills
- Belle Plaine
- Bloomington
- Burnsville
- Champlin
- Coon Rapids
- Eden Prairie
- Falcon Heights
- Fridley
- Golden Valley
- Hastings
- Jordan
- Lakeville
- Maple Grove
- Marine on St. Croix
- Minneapolis
- North St. Paul
- Oak Grove
- Oakdale
- Richfield
- Rogers
- Rosemount
- Shakopee
- Shoreview
- St. Anthony
- St. Louis Park
- St. Paul
- Stillwater
- Vadnais Heights
- Victoria
- Wayzata
- West St. Paul
- Woodbury
Cities Charging Ahead!
Cities Charging Ahead! (CCA)

Peer cohort of 28 cities working together across Minnesota exploring electric vehicle readiness.

Led by Clean Energy Resource Teams (CERTs) and Great Plains Institute (GPI)

Based on the GreenStep Cities program EV related best practices

Convened Spring 2018 until Summer of 2019

Funded by Energy Foundation, Carolyn Foundation and Xcel Energy
We used the best practices related to EVs, charging etc. From the GreenStep Cities program as the basis for Cities Charging Ahead!

https://greenstep.pca.state.mn.us/
Participants

28 City Participants

- Metro Cohort:

- Southeast Cohort:
  - Rochester, Red Wing, Winona, Faribault

- Northeast Cohort:
  - Virginia, Duluth, Fond du Lac Band of Chippewa Tribe

- Greater Minnesota Cohort:
  - Albert Lea, Grand Marais, Hackensack, Morris, Warren
Actions Completed in CCA 1.0

51 Best Practice Actions (BPAs) in total

16 cities completing BPAs while in CCA

Cities completing the most:
- Red Wing (7 BPAs)
- St. Louis Park (6 BPAs)
- Falcon Heights (5 BPAs)

Most popular BPAs:
- 23.5 Charging Stations (10 cities)
- 13.3 fleets (10 cities)
- 6.5 Comp Planning (9 cities)
CCA 2.0

- Launched September 2020
- 28 Cities and 1 Tribal Nation
- 14 Cities returning from CCA 1.0
- Next up
  - Jan. 2021 Fleet sessions
  - Feb. 2021 EV Standards/EV Ready Cities
- Led by CERTs/GPI
- Funded by McKnight Foundation
### CCA 2.0 Participants

#### 29 Participants

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<tr>
<th>Apple Valley</th>
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<td>Eagan</td>
<td>Hutchinson</td>
<td>St. Louis Park</td>
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<tr>
<td>Eden Prairie</td>
<td>Inver Grove Heights</td>
<td>St. Paul</td>
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<tr>
<td>Edina</td>
<td>Leech Lake Band of Ojibwe</td>
<td>Shakopee</td>
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<td>Falcon Heights</td>
<td>Marine on the St. Croix</td>
<td>Shoreview</td>
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<td>Minnetonka</td>
<td>Shorewood</td>
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<td>Northfield</td>
<td>Victoria</td>
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<td>Golden Valley</td>
<td>Oakdale</td>
<td>White Bear Lake</td>
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<td>Grand Marais</td>
<td>Red Lake</td>
<td>Winona</td>
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Adding EVs to fleets

15 Cities and 1 Tribal Nation (participants in CCA 1.0 or 2.0) added over 30 EVs to their fleets 2018-2020

Common vehicles
- Chevy Volt (PHEV)
- Chevy Bolt (BEV)
- Nissan Leaf (BEV)
- Mitsubishi Outlander (PHEV)
20 Cities and 1 Tribal Nation (participants of CCA 1.0 or 2.0) added over 40 EV Chargers to their communities between 2018-2020

- Many added them to City Hall or a Community Center
- Almost exclusively Level 2 chargers
- Mostly dual head (2 plugs on one charger)
- Many don't charge for the electricity, or have a few hours free of charge (may charge in the future)
Resources for your City or County
Drive Electric Minnesota

Communities Charging Ahead

We encourage communities to use our resources to help pave the way for electric vehicles (EVs). Learn how to become EV ready, find out what other Minnesota cities have done, and get guidance on adding charging stations in your community.

https://www.driveelectricmn.org/communities/
Communities Charging Ahead

Communities Tab

- Becoming EV Ready
- Cities Charging Ahead!
- EV Charging Guidance (NEW guide to purchasing an EV charging station!)
- Resources
CCA Resources

Categories

• Educate your Community
• Engage your Audience
• Promotional Tools
• Take Action
Educate your Community

• EV Top Ten
• Electric Vehicle Content Sharing Kit for Communities
• Slide deck
Top Ten EV Facts in MN

- Collection of ‘truths’ to common myths and misconceptions about EVs
- Easy to understand language
- Talking points contain links to source info and further resources
- Quick reference
- Digitally available

Electric vehicles provide many benefits beyond the environment; they will save you money and time over the life of the vehicle.

- Even though the up-front cost of an electric vehicle (EV) is currently a bit higher than a gas or diesel-powered car, over the life of the vehicle the savings from fuel and maintenance add up quickly.
- In 2015, a study published by Massachusetts Institute of Technology showed that EVs are already among the cheapest per-mile available.
- For a city fleet vehicle with intermittent idling and use, an EV is perfectly suited to replace an old vehicle and save the city money.
- EVs help build energy independence for the US because they do not rely on imported fuels. In 2017, the US imported 19% of the petroleum it consumed.
- Electric vehicles are not just a trend, they are here to stay and more people are buying them every year.
- Estimates indicate that 55% of all new vehicle sales will be electric in 2025.
- EV costs continue to fall, with upfront costs expected to be comparable to conventional vehicles by 2024.

Charging infrastructure is already being added every day in Minnesota to support your driving needs, more chargers are being added every day.

- If you drive more than 60 miles a day, you usually do not need to take time out of your day to charge your electric vehicle. You can charge at home while you sleep.
- DC fast chargers (DCFC) can almost fully charge a car in about a half hour and a Level 2 charger (240-volt) can charge a car in two to four hours.
- If you need to recharge your electric vehicle during the day, the network of charging stations, including DCFC, around Minnesota is growing quickly.
- Finding a charging station is easy thanks to websites like PlugShare and the Alternative Fuels Database’s fueling station map. As of March 2018, PlugShare shows there are more than 300 publicly available charging stations at Level 2 or higher in Minnesota.
- Electric vehicles can do function in cold climates.
    - The most bitter cold days might reduce the charge by 40%, and that is only in the rarest of circumstances. Batter temperatures below -10 F only occur three to four days a year.
Content Sharing Kit for Communities

- Easy templates to tweak
- Good for general EV education or about your city’s initiatives
- Samples for website, newsletters, press releases etc.
CCA Slide Deck

- 100 slides with EV information
- Pick and choose slides to create a custom slide show
- Topics: CCA Overview, EVs 101, EV Charging, Global EV Trends, City Fleets, Common Myths and Barriers, Tools and Resources
Engage Your Audience

• EV Fast Facts
• EV quizzes
• Social media posts
• Ride and Drive Toolkit
EV Fast Facts

Electric Vehicle Fast Facts

- GREAT as a handout for your next EVent!
- Covers the basics
- Addresses some of the more common myths and perceived barriers
- PDF so you can easily print two per sheet
- Digitally available
EV Quizzes

Fun way to test your audiences EV IQ

• Use on website or at an event
• Create a quiz to use on a survey
• Fun twist? Combine with a giveaway (Level 2 charging station or week in an EV?)
Promotional Tools

- Social Media Guide
- Stock Photos
Promotional Tools

Ride and Drive Toolkit
- Checklists
- Event Worksheet template
- Dealer outreach tips
- Sample press release
- Sample Flyer
- Waiver forms
- Test drive tally sheets
- Sample surveys

#ButtsInSeats
Take Action

Pick a best practice (13.2? 23.5?)

AND ACT!
UTILITY INFORMATION:

A time-of-use rate is a rate offered by utilities to incentivize consumers to use electricity during specific times, generally overnight or low demand times (i.e. off-peak). Typically, this means that when there is higher electricity demand, the rate is higher, so when you use electricity becomes just as important as how much you use. This offers significant benefit to EV drivers as most EV charging is done overnight during the low-demand rate times.

The Minnesota Department of Commerce compiled a list of time-of-use rates that Minnesota utilities offer to customers that own an EV. It indicates what subscribers pay during off-peak and on-peak times of the day as well as contains information about available rebates and renewable energy programs.

Local Utility Resources:

- Austin Public Utilities
- Connexus Energy
- Dakota Chargewise
- Windsorce
- Dakota Electric Cooperative
- Drive On (Otter Tail Power)
- East Central Energy
- Xcel Energy EV Programs
- Write-Hennepin Cooperative Electric Association
- Great River Energy
- Minnesota Power
- Revolt
EV Charger Funding Available!

Rare funding opportunities for EV charging

VW Settlement funds for Level 2 chargers
https://www.pca.state.mn.us/air/volkswagen-settlement

MNDOT Funding for Clean Transportation
http://www.dot.state.mn.us/sustainability/clean-transportation.html
"We learned a ton about the financial benefits of Fleet Studies in helping with purchasing, and about charging infrastructure and policy. All super helpful, and something to guide future decision making."

Anne Reich, Community Volunteer, Marine on the St. Croix
"The broad scope of experiences and backgrounds of the participants brought a high level of information and professionalism to the problems of adaption and charger supply that we were trying to address. The depth and breadth of the technical knowledge was greatly appreciated."

Paul Drotos, Former Sustainability Coordinator, Red Wing
Thank you!

Diana McKeown, Metro CERT Director
Great Plains Institute
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Policies for Cities and Local Government on EVs
December 1, 2020
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Who we are

• **The voice of the EV consumer** – 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
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!
Cities and Local Gov. Policies and Programs

1. EV Ready Wiring Codes and Ordinances
2. Streetlight and Power Pole Charging Access
3. Ride and Drive Events
4. Solutions to the Barrier of Auto Dealers
5. Zero and Low-interest Loans for Consumers
6. Using VW Settlement Funds for Electrifying School Buses and Transit Buses
7. Using VW Settlement Funds to Grow EV Charging Networks
8. EV Infrastructure at Multi-Unit Dwellings
9. Right-of-Way Charging
10. EV Car Sharing Programs
11. Charging Access in Underserved Communities
12. Workplace Charging
13. School Bus Electrification Policies and Pilots
14. Financing of Infrastructure
**Streetlight and power pole charging access:**

**Seattle:** The city of Seattle, the Woodland Park Zoo, and ReachNow installed 20 Light & Charge systems at the Woodland Park Zoo. The Light & Charge system transforms existing streetlights and parking lot lights into host sites for EV charging stations.

**Los Angeles:** The city has installed EV chargers on 284 streetlights across the city and is installing chargers on utility poles as well.

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**Solutions to auto dealers selling EVs**

**PlugStar:** Qualified staff teach the auto dealers about the EV battery, how to charge and how to access charging stations, as well as review the answers to questions consumers might ask.

**Madison Gas and Electric Dealer Program:** The Dealership Rewards program offers a $50 gift card to each dealer who connects Madison Gas and Electric with customers in their service territory who are interested in purchasing an EV. The utility tracks dealership activity, including the greatest number of qualified leads, highest EV sales and event participation. The winning dealership receives a social media advertising campaign valued up to $1,500.
**Zero and Low-interest loans**

**Washington:** The EVs for EVERYONE program is offered to Washington residents through a partnership between Plug In America and the Express Credit Union. Loans to purchase a new EV are as low as 3.24 percent, while loans to purchase a used EV are as low as 3.49 percent.

**Right-of-way charging**

**Sacramento, CA:** Locating EVSE on the sidewalks through a partnership with the city and Evgo. The stations range from 150 kW to 50 kW.

**New Orleans:** The City Council unanimously voted to allow EV owners to apply for permits to install chargers for personal, noncommercial use next to the curb between their home and the street—a necessity in a city where many homes do not have driveways. Some of the requirements include how much space must remain on the sidewalk for pedestrians to pass and how close the devices can be to fire hydrants. A permit is $300 with a yearly renewal fee of $100.
Workplace Charging

- Install charging stations: L1, L2
- Offer free charging as employee benefit
- Partner with local utilities

Why?

- Make it easy for employees to switch to electric: increase adoption 6x
- Attract and retain talent
- Build company reputation as a sustainability leader: Earn LEED points
• National Drive Electric Week
  – Sept. 25 – Oct. 3, 2021
  – driveelectricweek.org
• Drive Electric Earth Day
  – April 2021
  – driveelectricearthday.org
Thank you!

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Break out session questions

- What did the cities hear and what do they want to do as next steps?
- What are the barriers for your city?
- Do you have plans to add EVs, EVSE or EV standards/Ordinances?
- If not, what are the barriers and what do you feel like you need?
- Does your city have any legislative requests?
- How do you see EVs as an opportunity for your community?
- Are you aware of the utility programs to help you?

Facilitators:

Room 1: Hon. Charlie Zelle  
Room 2: Dean Taylor  
Room 3: Mathias Bell  
Room 4: Amy Fredregill  
Room 5: Brian Ross  
Room 6: Diana McKeown  
Room 7: Pete O’Connor  
Room 8: Katelyn Bocklund
Closing Reminders:

● Plug In America
  ○ www.pluginamerica.org
  ○ Dean Taylor, Senior Policy Advisor: dtaylor@pluginamerica.org

● Drive Electric Minnesota
  ○ www.driveelectricmn.org
  ○ info@driveelectricmn.org

● Xcel Energy
  ○ www.xcelenergy.com

● Sustainable Growth Coalition
  ○ https://environmental-initiative.org/work/sustainable-growth-coalition/
  ○ Amy Fredregill, Managing Director: afredregill@en-in.org

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