Session I: Growing Public EV Charging Networks

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Executive Director, A Climate to Thrive

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Town Manager, Town of Millinocket

Michael Stoddard  
Executive Director, Efficiency Maine Trust
The Challenge

• To support recommendations in *Maine Won’t Wait*
  Strategy A: Embrace the Future of Transportation
  1. Accelerate Maine’s Transition to Electric Vehicles

• Thoughtfully build-out EV charging network across the State to enable EV drivers to travel N-S and E-W

• Encourage the use of electric vehicles and lower emission vehicles to meet light-duty EV targets in *Maine Won’t Wait*
Process

• Develop the Plan for Electric Vehicle Infrastructure Deployment
  • “A convenient, reliable, affordable, and equitable charging experience for all users”
  • Targeted areas and timeline
  • Level 2 and DC fast chargers
  • Competitive solicitation

• Final Rule

• Charging and Fueling Infrastructure discretionary grants
Solutions/Results/Insights

• Installed more than 24 DC fast charger ports and 186 Level 2 ports
• Recharging Maine - Plan for Electric Vehicle Infrastructure Deployment
• Funding (MJRP, NEVI, potential discretionary)
• Collaborating with Efficiency Maine
• MaineDOT Climate Initiative website
  https://www.maine.gov/mdot/climate/electrification/
Session 1/ Growing Public EV Charging Networks

Johannah Blackman, Executive Director, A Climate to Thrive
The Challenge

• EV chargers sited to expand access to year-round residents, such as renters
• Community-driven siting process
• Need to reach both early EV adopters and those with no EV experience to plan for the future
Process

• Siting meetings with town volunteer committees & leadership
• Surveys to community members
• Importance in finding “next-best” option if ideal site was not feasible
Solutions/Results/Insights

- Sites in each town that are truly focused on year-round residents & expanding access to EV charging
- Siting process as a tool to increase understanding of EV technology & adoption
- Importance of speaking to both enthusiastic adopters and skeptics alike
Session 1/ Growing Public EV Charging Networks

Peter Jamieson, Town Manager, Town of Millinocket
The Challenge

A Barrier to Visitors in Tourism Destination

• Lack of universal EV charging access in region
• Increase in EV visitation
• Who takes action and how?
Process

An open door!

- Introduction to Efficiency Maine EV Charger Program
- Recognize opportunity > Establish plan
- Municipal parking + EM/CDBG/TNC = Solution!
Results/Insights

Importance of Readiness & Education

• Plan ahead for community education – clear message: “Why & How”
• Ongoing needs assessment & “shovel-ready projects”
• Municipally owned, revenue producing infrastructure at ZERO COST!
Session 1/ Growing Public EV Charging Networks

Michael Stoddard, Executive Director, Efficiency Maine Trust

Resource Wrap-Up: Electrification for Vehicles in Your Community
Electric Vehicles
The Opportunity -- Switching to EVs

1. Reduced energy costs
2. Lower maintenance costs
3. Quieter
4. More fun to drive
5. Cleaner
   • No tailpipe emissions of NOx, SOx or CO2
     (no tailpipe at all !!!)
Federal Tax Credit

• Businesses and **tax-exempt organizations** that buy a qualified commercial clean vehicle may qualify for a clean vehicle tax credit of up to $40,000 under Internal Revenue Code (IRC) 45W.

• The credit equals the lesser of:
  • 15% of your basis in the vehicle (30% if the vehicle is not powered by gas or diesel)
  • The incremental cost of the vehicle

• The maximum credit is:
  • $7,500 for qualified vehicles with gross vehicle weight ratings (GVWRs) of under 14,000 pounds and
  • $40,000 for all other vehicles.

• The vehicle or machinery must also either be:
  • A plug-in electric vehicle that draws significant propulsion from an electric motor with a battery capacity of at least:
    • 7 kilowatt hours if the gross vehicle weight rating (GVWR) is under 14,000 pounds
    • 15 kilowatt hours if the GVWR is 14,000 pounds or more; or
  • A fuel cell motor vehicle

FMI: https://www.efficiencymaine.com/additional-ev-financial-incentives/

www.fueleconomy.gov
# Efficiency Maine Rebates for Gov't Entities

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<tbody>
<tr>
<td><strong>New Battery Electric Vehicle (BEV)</strong></td>
<td>$7,500</td>
<td>Requires pre-approval on Efficiency Maine Website.</td>
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<tr>
<td><strong>New Plug-in Hybrid Electric Vehicle (PHEV)</strong></td>
<td>$2,000</td>
<td>Maximum of 5 EV rebates per entity/organization per 12-month period, of which not more than 2 may be for leased EVs.</td>
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<td><strong>Level 2 Charger</strong></td>
<td>$350</td>
<td>FMI: <a href="https://www.efficiencymaine.com/electric-vehicle-rebates/">https://www.efficiencymaine.com/electric-vehicle-rebates/</a></td>
<td></td>
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Personal Electric Vehicle Rebates

- Instant rebate at Maine participating dealers
- Mail-in rebates for Tesla, Polestar, Fisker, and Rivian

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<thead>
<tr>
<th></th>
<th>Any Income</th>
<th>Moderate Income</th>
<th>Low Income</th>
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<td>$1,000</td>
<td>$3,500</td>
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<tr>
<td>New Plug-in Hybrid Electric Vehicle (PHEV)</td>
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<td>$2,000</td>
<td>$3,000</td>
</tr>
<tr>
<td>Used PHEV or BEV</td>
<td>N/A</td>
<td>N/A</td>
<td>$2,500</td>
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FMI: https://www.efficiencymaine.com/electric-vehicle-rebates/
www.efficiencymaine.com/EV

1. Guidebooks
2. Videos
3. Charger Locator
4. Vendor Locator
5. Dealerships Locator
EV Chargers
Types of Chargers

- 3 Levels of Chargers
  - Speed: slow, medium, fast
  - Cost: low, medium, high
- Private (municipality) vs. Public
- Considerations for Public
  - Will payment be required for use of chargers?
  - Will it be accessible 24x7?
  - Will it be ADA compliant?
Level 2 vs. DC Fast Charging

Level 2
- For extended (2-12 hour) charge times
- Best at workplaces, residential, hotels, recreational facilities
- Relatively low cost ($5k-10k per plug)
  - As low as $1k-2k per plug for private use

DC Fast Charging
- Charge in <1 hour
- Serve travelers on long trips
- Serve local businesses and residents needing a quick charge
- Often found at gas stations, highway service plazas, and retail locations
- Higher cost ($100k+ per port)
Available Now – Incentives for Public Level 2 EV Charging

Funding Opportunity Notice (FON) 002-2023

• Local governments and public libraries: 90% of project cost up to $8,000 per port
• Businesses and other organizations: 80% of project cost up to $5,000 per port
• Non-Networked: 90% up to $2,000
• Open to public in rural areas in Cumberland and York counties

Application deadline: June 30, 2023

FMI: efficiencymaine.com/opportunities
Grants for Level 2 EV Charging in Rural Towns

Round 1 - closed January 17, 2023
• 14 northern counties:
  o 49 sites / 119 ports
  o $629,021 awarded by EMT

Round 2 - open March 1 - June 30, 2023
• Cumberland & York Counties

https://www.efficiencymaine.com/opportunities/
COMING SOON: Charging and Fueling Infrastructure (CFI) Grant Program
Priority Locations for Maine CFI Grant Application

1. Communities with a high concentration of MUD
   - Prioritize top 8 towns in the state with the highest number of multi-unit dwellings (MUD)
     - Portland, Lewiston, Bangor, South Portland, Auburn, Biddeford, Augusta, Westbrook

2. Regional Service Centers
   - Service center towns not included in the MUD category above
   - Prioritize service centers serving economically disadvantaged communities

3. Alternative Fuel Corridors (AFC)
   - DC fast charging sites on AFC that will not be funded by the NEVI Formula program

4. Large Workplaces
   - Workplaces with a large hourly/retail workforce

5. Libraries and Other Municipal Buildings
   - WIFI available in charging spaces; Open 5+ days per week
State Plan for Fast Charging

Planned DCFC locations in Maine EV Infrastructure Plan

- 50 miles or less between DC fast chargers along key travel routes
- Key destinations for commerce, tourism and local traffic
- Budget = +/- $47 million
  - Funded by federal grants & NECEC settlement
  - No Maine taxpayer funds; no electricity ratepayer funds

Planned new or upgraded DCFC described in Maine EV infrastructure plan
Special Considerations for Multi-Unit Dwellings (MUDs)

MUDs, such as apartment buildings and condominums, face particular challenges when determining who pays for the electricity used by EV drivers. Traditional networked chargers can ensure that drivers pay the full cost of the electricity they use, but this equipment has higher upfront and ongoing costs than basic chargers, which may result in higher costs for drivers. MUDs may have other options to help costs down:

- If chargers are designated for specific residents and attached to separate meters, users can be charged directly for the amount of electricity they use.
- MUDs can use basic chargers and include EV charging in the rent as an amenity or a surcharge for residents that use the chargers.

One objective of publicly funded EV programs is to facilitate EV ownership by low- and moderate-income Mainers, including those who rent apartments and do not have a practical way to charge an EV on their personal electric utility account. Projected help advance this objective if property managers of MUDs that serve such tenants choose to keep the cost for EV charging affordable so that tenants can benefit from the operating cost advantage of EV ownership.

Purchasing EV Charging Equipment

Many companies sell charging equipment that is certified for commercial use. Efficiency Maine maintains a list of EV Charging Service Providers that are certified by the state of Maine.

Project Management Companies

Some companies will provide oversight of the entire process, including permitting, electrical upgrades, and procuring the chargers. This can be helpful for large installations with multiple chargers. Efficiency Maine maintains a list of some of these service providers that can be found at the back of this guide.
EVSE Website Resources

1. Guide to Installing Level 2 EV Chargers for Commercial and Public Properties
2. Video series on installing public EV chargers for property owners
3. List of EV charging service providers in Maine
4. Links to resources from the US Department of Energy and other states on workplace charging, MUD charging, and more
5. Charging Station Locator
6. Vehicle Cost Calculator
7. Background on Efficiency Maine’s Electric Vehicle Initiatives

efficiencymaine.com/ev
Small Group Discussion Instructions (until 10:45am)
See instructions and prompts on the pink sheet of paper at your table.

Discussion Prompts

1. **Introductions**: Introduce yourself to your tablemates.

2. **Quick round robin**: Share what your town is working on related to the panel topic. Where are you in the process? What’s going well? Where are you stuck? If this topic is new to you, what opportunities come to mind?

3. **Funding resources**: Reflect on the funding resources presented. If you have used this resource, please share your experience. What other resources, technical assistance, grant programs, or tools are you using or exploring?

4. **Learning partners**: I wish I could have a thought-partner to work through _________ in our project.

5. **Community engagement**: How are you engaging your community with your project? What input do you need from the community to make this project a success? What do you want the community to know?