

Meeting #3 Agenda

Project: Transportation Electrification Infrastructure Needs Analysis (TEINA)

Subject: Advisory Group Meeting #3

Date/Time: Tuesday, March 09, 2021
8:00 a.m. – 10:30 a.m.

Location: WebEx Link: [Click here](#)
Join by phone: +1-408-418-9388
Meeting number: 146 744 2916
Meeting password: WmZFPUJK844

Inv itees: **AG Members**

Amanda Pietz, ODOT
Greg Alderson, PGE
Thomas Ashley, Greenlots
Philip Barnhart, Emerald Valley EV Assoc.
Chris Chandler, Central Lincoln PUD
Marie Dodds, AAA
Judge Liz Farrar, Gilliam County
Ingrid Fish, City of Portland
Stu Green, City of Ashland
Jamie Hall, General Motors
Zach Henkin, Cadeo Group
Joe Hull, Mid-State Electric Cooperative
Juan Serpa Muñoz, Eugene Water and Electric Board
Vee Paykar, Climate Solutions
Cory Scott, PacifiCorp
Jairaj Singh, Unite Oregon
Charlie Tracy, Oregon Trail Electric Co-op
Dexter Turner, OpConnect

Project Team

Mary Brazell, ODOT
Zechariah Heck, ODOT
Jessica Reichers, ODOE
Wayne Kittelson, Kittelson and Associates
Stacy Thomas, HDR
Alexander Nelson, HDR
Britta Gross, RMI
Chris Nelder, RMI
Lynn Daniels, RMI
Shenshen Li, RMI
Rhett Lawrence, Forth

Meeting Purpose:

- Review and discuss initial modeling results
- Review and discuss input from Listening Sessions
- Introduce policy framework
- Gather feedback on initial policy recommendations

Time	Topic	Lead
8:00 a.m.	Welcome <ul style="list-style-type: none"> • Welcome and team introductions • Agenda review • AG roll call 	Amanda Pietz
8:10 a.m.	Modeling Results Highlights <ul style="list-style-type: none"> • Review initial set of use cases • AG questions/discussion 	Chris Nelder, Shenshen Li
8:45 a.m.	Listening Sessions Summary <ul style="list-style-type: none"> • Five Key Themes • Session highlights • AG questions/discussion 	Stacy Thomas, Alexander Nelson
9:10 a.m.	Break	
9:15 a.m.	Policy Orientation	Rhett Lawrence
9:35 a.m.	Small Group Breakout Session	Team
10:00 a.m.	Small Group Report Outs	Team
10:15 a.m.	Public Comment	Amanda Pietz
10:25 a.m.	Next Steps	Amanda Pietz
10:30 a.m.	Adjourn	

HECK Zechariah

From: Lauren Davis <lariatlaur@icloud.com>
Sent: Thursday, March 4, 2021 10:26 AM
To: HECK Zechariah
Subject: EV charging needs in rural Oregon

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

The Office of Innovation suggested I forward my comments about EV charging stations in rural Oregon to you. I hope they are helpful!

We live near Sisters, Oregon and own a 2017 Ford Focus EV. We love this car! It suits our needs perfectly for transportation in the Bend area but because of its 115 mile range we have never been able to easily travel anywhere else. We need to be able to connect up with the electrified highway systems to our east, south, and west with fast chargers. Please install charging stations on Highway 97 between Bend and Klamath Falls, and Highway 20 between Bend and Burns, and between Burns and Vale.

When we bought this car in 2017 we thought it wouldn't be long until long distance travel was a possibility for us. Four years later we still feel like "early adopters" of an idea that everyone talks about but doesn't implement — at least not for rural people who are the ones faced with long driving distances in a climate that taxes EV batteries. Please help us out!

Thanks,

Lauren Davis
Sisters, Oregon

HECK Zechariah

From: Anatta Blackmarr <anatta.blackmarr@icloud.com>
Sent: Monday, March 1, 2021 10:21 AM
To: HECK Zechariah
Subject: advisory group comment

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Dear TEINA Advisory Group members,

I was musing about the Willamette and the Columbia, and how they can be called rivers or they can be called waterways. In the greater Portland region, the rivers are a special source of beauty and recreation, but they are also a valuable opportunity: waterways available for transportation. As our region transitions to electric transportation, one element on the horizon is the land-based set of EVs and electric public transit. The other is the regional innovation of a river-based electric transit system.

Converting to EVs on our roads will reduce CO2 emissions but not congestion. For that we need more transit options than we currently have. A bike/pedestrian electric ferry system will help with both: reducing CO2 emissions and reducing congestion by getting cars off the roads. The need for this additional transit option will only increase as the population of our area increases.

Regarding ferries, the Metro region is late to the game—being one of the last major river cities in the U.S. to be without a ferry system. Being positioned now to get a ferry system means it will be a cutting edge system at a time when battery technology is making rapid advances and the need to convert to electric transportation is well recognized. In the U.S. and other parts of the world, ferries are considered to be a best practices transportation mode.

With Frog Ferry poised to roll out its pilot program between Cathedral Park and South Waterfront, and in due course to link Oregon City and Vancouver, the time is perfect for installing electric charging infrastructure along the riverfront. Including shoreside charging infrastructure in your plans will prepare our region for a more diversified, resilient set of transportation modes. The ferry system will serve a broad demographic of commuters and other travelers who would welcome the river experience as they make their way to their destinations.

Thank you very much for considering my views.

Sincerely,
Anatta Blackmarr
14207 SE Fair Oaks Ave., Oak Grove, OR 97267

HECK Zechariah

From: Charlie Botsford <charlieb@evcs.com>
Sent: Thursday, January 28, 2021 6:10 PM
To: BRAZELL Mary
Cc: John Schott; durstenergy@gmail.com; jaime@evequity.co;
eric.smith@semaconnect.com; Andrew.Dick@electrifyamerica.com;
sara.rafalson@evgo.com; Cannon, Joseph; gustavoo@evchargingsolutions.com; Ian
Vishnevsky; cwimer@tesla.com; Erick Karlen; JScofield@blinkcharging.com; Amy
Hillman; Stacy; Rhett Lawrence; adam.mohabbat@evgo.com; HECK Zechariah; Wayne
Kittelson; Alexander
Subject: Follow up from TEINA Listening Session: Link to Great Plains Institute study

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Hi Mary,

The Great Plains Study Institute study is in large part very good. The focus on demand charges as the major economic barrier to DCFC station financial viability fits well with our experience. However, the study omitted a large cost: property taxes. In Oregon, a 50kW station can be assessed \$500 to \$2,000/year in property taxes. While not quite as much a business case killer as demand charges, property taxes pile on to an already dim situation. For larger power multi-port DCFC stations, property taxes will be substantial in Oregon, and presumably other states.

Best Regards,
Charlie Botsford, PE



Draft list of potential TEINA Policy Recommendations

Policy Categories

1. Enable: Policies that remove barriers to deployment of electrification infrastructure with the **lowest difficulty** of execution and implementation for the State of Oregon and other entities in the **near term**. This will enable local jurisdictions and key stakeholders to implement charging infrastructure.

2. Accelerate: Policies that could speed up the deployment of electrification infrastructure with **medium difficulty** of execution and implementation for the key players over the **medium term**. This will allow the State to put in place a conducive environment for charging infrastructure deployment and give other entities the time to develop the appropriate systems.

3. Drive: Policies that **might take longer or be more difficult** to implement, but could rapidly accelerate the deployment of electrification when done. This will allow the State to influence charging infrastructure deployment at specific areas that local jurisdictions and the market will not be able to provide for.

Policy Recommendation Descriptions

1. Enable

- **Investigate and develop standards for consistent EVSE user experience, reliability, and redundancy**

The State should investigate ways to develop standards on Electric Vehicle Supply Equipment (EVSE) interoperability to allow easy charging and convenient roaming of electric vehicle (EV) drivers across different charging network platforms. There should be reliability and redundancy requirements developed to ensure the availability of and confidence in EVSE.

- **State directs Public Utility Commission (PUC) and public utility governing bodies to enable and encourage utilities to:**
 - ***Invest in EV make-ready investments using rate-payer funds***

EV make-ready funding should be made available to provide adequate electrical infrastructure up to and past the meter to install EV charging at places such as workplaces and multi-unit-dwellings (MUDs).

- ***Create appropriate rates for EV charging activities***

Depending on various charging profiles, charger types, and user groups, utilities should be encouraged to create specific rate cases for EV charging by altering existing rate schedules or creating new ones.

- ***Enable DC-Fast Charger (DCFC) deployment through innovative rate design that mitigates demand charge impacts***

The PUC should direct Investor Owned Utilities (IOUs) to investigate and create a DCFC specific rate schedule that adequately mitigates the current impact of demand charges through methods such as deferred demand charges, Time of Use (TOU) demand charges, tiered rates, and more by 202x. For public utilities, incentivize innovative solutions that can either mitigate the impact of demand chargers or provide technical support in the creation of a DCFC rate to help deploy a new rate schedule by 202x.

- ***Set standards for IOU rebate programs for EV chargers and charger installation to incentivize low-to-moderate income EV drivers***

Direct PUC to set standards for the utility-funded incentive programs for EV charging infrastructure to have a minimum or enhanced incentive for low or moderate income drivers to encourage and facilitate EV adoption.

- ***Encourage and incentivize public utilities to use Clean Fuels revenue to fund public DCFCs and Level 2 EVSE in areas with relatively high population densities***

Encourage utilities to leverage the Clean Fuels revenue to help fund public chargers in areas without adequate access to home charging to create a more balanced distribution of available charging infrastructure and avoid expensive construction or retrofits at locations not suitable for EVSE.

- ***Encouraging on-bill financing for EV chargers and installation costs to mitigate upfront cost barriers***

Utilities could leverage on-bill financing or other financing methods for both residential and commercial customers to ease the initial costs of EVSE purchase and installation.

- **Encourage or incentivize corridor charging through low-interest state loans**

State could provide funding to create a long-term low or no-interest rate program to attract developers and utilities to install DCFC along corridors identified by the state and ensure adequate charging capacity.

- **Streamline EVSE permitting at local jurisdictions**

State directs local jurisdictions to develop or follow State-developed guidelines to streamline EVSE permitting processes across EVSE installation project types.

- **EV charging education**

State should develop EV charging education programs to improve the general public's awareness of this infrastructure and enhance the user experiences at EV charging stations.

- **Building Developer, Manager, and HomeOwner Association education**

State Building Codes Division or local jurisdictions should develop and implement general education on EV charging best practices. This education should include but is not limited to siting, charging program design and development, permitting processes, and the final construction and commissioning.

- **Uniform and Prominent Signage**

State should develop uniform and prominent guidelines on EV charging signage and placement.

- **Micromobility Public-Private Partnership**

State and local jurisdictions should coordinate to develop public-private partnerships to advance opportunities for charging for electric bikes and scooters.

2. Accelerate

- **State incentives on public EVSEs (Level-2 chargers & DCFC)**

State provides incentives or funding opportunities for publicly available EVSEs at designated areas where EVSE investment is unlikely. This should expand the availability of publicly available EV charging infrastructure to serve more populations that would not otherwise have access to charging.

- **State adoption of EV-readiness requirements and Reach Codes for local municipalities**

State adopts EV-readiness requirements to provide minimum electrical capacity built-in for all new development and a series of Reach Codes to enable local jurisdictions to adopt stricter requirements.

- **State support for municipally-owned utilities to enable urban DCFC hub projects**

State directs and encourages municipally-owned utilities to invest in DCFC charging hub projects. This will expand charging access in dense urban areas with limited off-street parking options and provide a conducive environment for electrified Transportation Network Companies.

3. Drive

- **State funds deployment of infrastructure at State-owned properties**

State funds efforts to deploy EVSE at State-owned properties such as state parks or workplaces.

- **State to require certain % of parking spaces to be EV-ready by 202x**

State to require EV-readiness across *all* building construction activities, including retrofitting existing structures. Such policies should be paired with funding or grant opportunities for such retrofits.

- **State collaboration with Federal agencies on EVSE deployment**

State collaborates with Federal agencies administering Federally-owned lands to deploy EVSE at these locations.

- **Workforce Development**

State invests in and incentivizes workforce development for light-duty and medium-heavy duty vehicles.