



USDN EV Renter Access Project

Ingrid Fish & Marty Stockton

Portland Bureau of Planning & Sustainability

April 29, 2020

Agenda

- Welcome, Meeting Purpose, BPS
Shared Ground Rules
- **Community Data Gathering and Understanding** – Framing
Presentation and Group Discussion
- **Education and Outreach Targeted towards Multi-Dwelling (MUD) Building Owners** – Framing
Presentation and Group Discussion
- Next Steps

Meeting Topics



Anticipated Meeting Topics

Jan. 29, 2020

Meeting 1

- Introduction to project and participants
- Review Preliminary Analysis findings
- Discussion and refinement of barriers

Feb. 26, 2020

Meeting 2

- Discussion and selection of 1-3 strategies to ground truth

Mar. 18, 2020

Meeting 3

- Workshop each strategy's implementation pathway, stakeholders, challenges, budget needs, and other details

Apr. 18, 2020

Meeting 4

- Workshop each strategy's implementation pathway, stakeholders, challenges, budget needs, and other details

Community Data Gathering and Understanding

Community Data Gathering & Understanding



Description: Establish contextual baselines through the compilation of data and geospatial analysis to better understand renter population, differentiated needs among disparate populations, the specific barriers they need to address, and to track the equitable distribution of EVSE. Additionally develop a program to collect data on rental property locations and level of access to EV charging for each location to determine priority areas for EVSE deployment.

Role of the City: Gather data and conduct analysis

Barriers Addressed through this Strategy:

- Equity Barriers - Community Uniqueness
- Policy Barriers - Local Sensitivities; Rental Data

This action will provide valuable insight for the city on the individual needs for communities, including the location of rental properties and the availability of parking.

Challenges with Implementation:

- Requires significant staff time to gather, organize, and analyze data in a meaningful way.
- Data may be difficult to attain.

Key Examples:

While this analysis could take many forms, the city could consider sourcing data from the American Communities Survey, American Housing Survey, National Household Travel Survey, and Alternative Fuels Data Center to develop information on the density of existing charging and to create an index to identify the most suitable locations for future charger installations.

- Berkeley: As part of its Electric Mobility Roadmap, the City of Berkeley conducted a comprehensive Needs Assessment to understand its current state and how to move forward. This Needs Assessment involved conducting an online survey of residents, interviewing representatives from underserved communities, scanning existing EV initiatives at all governmental levels, and creating a technical model with scenario analyses/geospatial analysis.
- Contra Costa EV Readiness Blueprint: To analyze current EV infrastructure landscape, Contra Costa Transit Authority mapped existing conditions and charging gaps/demographic gaps and conducted an electricity demand analysis, which involved scenario modeling to estimate EV adoption, forecasting out to 2050. The three scenarios that were modeled were the EIA Annual Energy Outlook for the Pacific Region, 80x50, and Carbon Neutral.






This type of data gathering can focus on MUDs for renters, affordable housing, and communities of color.

CADMUS




April 20, 2017

Draft Citywide EV Charging Infrastructure Location Strategy - Commercial Zones




*This map has been created for discussion purposes only and is subject to change.

-  Area within 3 miles of Central City
-  Central City
-  City Boundary

EV Fast Chargers

-  1
-  5
-  10

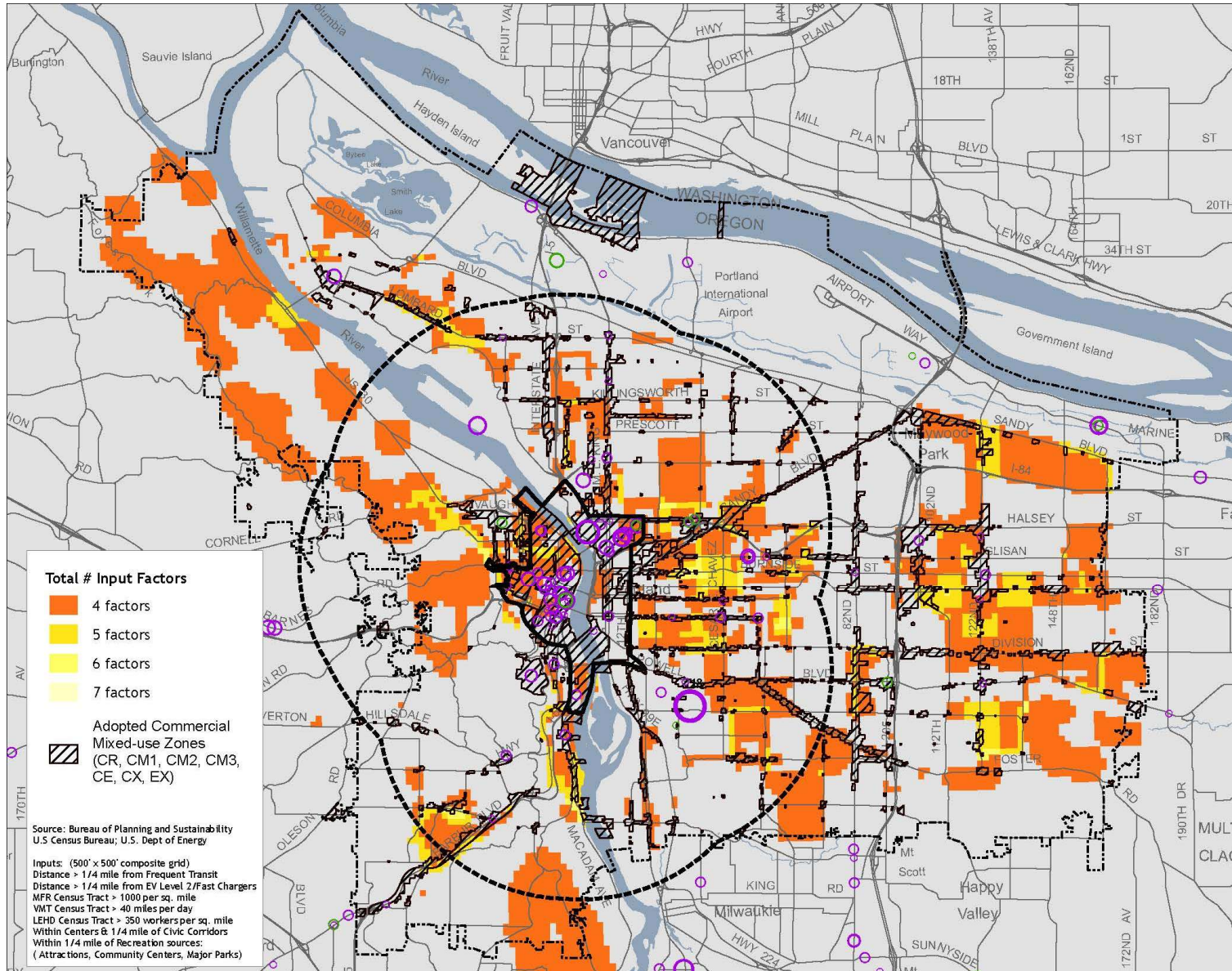
EV Level 2 Chargers

-  1
-  5
-  10




0 5,000 10,000 Feet

City of Portland, Oregon
Bureau of Planning & Sustainability
Geographic Information System



Total # Input Factors

-  4 factors
-  5 factors
-  6 factors
-  7 factors

 Adopted Commercial Mixed-use Zones (CR, CM1, CM2, CM3, CE, CX, EX)

Source: Bureau of Planning and Sustainability
U.S. Census Bureau; U.S. Dept. of Energy

Inputs: (500' x 500' composite grid)
Distance > 1/4 mile from Frequent Transit
Distance > 1/4 mile from EV Level 2/Fast Chargers
MFR Census Tract > 1000 per sq. mile
VMT Census Tract > 40 miles per day
LEHD Census Tract > 350 workers per sq. mile
Within Centers & 1/4 mile of Civic Corridors
Within 1/4 mile of Recreation sources:
(Attractions, Community Centers, Major Parks)

Community Understanding Resources

- PSU & OPAL's 2018 Community-based assessment of Smart Transportation needs in the City of Portland study:
 - Digital Divide
 - Smart Phone Findings
 - Relationship with Banks
 - Generational differences
- PSU's Oregon Transportation Research & Education Center (OTREC) 2018 Study: Environmental & Equity Scenarios for Alternative Fuel Vehicle Ownership and Use in the Portland Region
- Greenlining Institute's Electric Vehicles For All: An Equity Toolkit Website/Resource: <https://greenlining.org/resources/electric-vehicles-for-all/>
- City of Portland Convened EV Equity Meetings and Targeted Outreach

EV Charging Access Strategy

Group Discussion – **Questions include (Slide 1 of 2):**

- If you were one of the people who choose this strategy, why did you choose it?
- What is your vision for this strategy?
- How should this strategy idea be refined to fit the context of our city?
- Who does this strategy serve? How can it be equitable and tailored to serve additional renter demographics?

EV Charging Access Strategy

Group Discussion – **Questions include (Slide 2 of 2):**

- What partners would we need to gather to implement this strategy?
- What are the key steps to implementation, either as a pilot or city-wide strategy?
- What challenges must the city overcome to implement the strategy?
- What would it cost to implement this strategy? How could it be funded, either as a pilot, or long-term?

Education and Outreach Targeted Toward Multi-Dwelling (MUD) Building Owners

Outreach Targeted at Building Owners



Description: Develop an outreach program that is tailored to the needs and perspective of MUD Owners. The program would cover a wide range of topics (e.g., recommended vendors list, opportunities in peer-to-peer EV charging matching programs, benefits and added value of energy management systems, business trainings to help MUD owners find value in EVSE, training on emerging business models, and low cost methods of facilitating on-site charging).

Role of the City: Identify impactful outreach venues, generate educational materials, and conduct stakeholder engagement.

Barriers Addressed through this Strategy:

- Technology Barriers – Electrical Capacity
- Equity Barriers – Community Awareness, Community Uniqueness
- Financial Barriers – Upfront cost/split incentive

The outreach program will provide valuable information to building owners about how to install and maximize use of EV chargers, making it more financially appealing for them.

Challenges with Implementation:

- There will be staff time involved in the development and delivery of the program.
- Building owners may be reluctant to participate in outreach activities.

Key Examples:

- Both Eversource and Pacific Gas & Electric have developed preferred vendor lists for EVSE installations.
- The California Plug-in Electric Vehicle Collaborative developed a EV Charging Guide for Property Owners, Managers and Homeowners Association of Multi-unit Dwellings. See: https://www.veloz.org/wp-content/uploads/2017/08/MuD_Guide_1_final.pdf
- EVMatch is a peer-to-peer network for sharing and renting private EV stations. Members can reserve nearby charging stations to get extra charge around town, near their travel destination, or at home. EVSmart also has an app that allows members to find and reserve charging stations.



This strategy can target affordable housing and MUD owners in low-income communities and help raise awareness and find value in EVSE deployments in their buildings

EV Charging Access Strategy

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Next Steps

- **City of Portland** finalize an actionable plan or roadmap for implementing one or more strategies that answer the question, “what would it take to implement this strategy here?” (**May/June 2020, check this timing with Cadmus**)
- **Cadmus** finalizes Playbook of 6-10 strategies to enable EV charging for tenants that describes the applications and pathways to implementation for each approach (**Update Timeline**)
- **City of Portland** developing a plan for keeping this group updated
- **Communicate City Staff work plan** for next 18 months

Thank you