



ELECTRIC VEHICLE READY CODE PROJECT

PSC Work Session
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**PLANNING &
SUSTAINABILITY**

EV Ready Code Work Session Agenda

- Proposal Overview
- Testimony Highlights
- PSC Questions Issues
 - Chargers/Equipment in Landscaping
 - E-Bike Charging
 - Staff Technical Amendment
- Discussion
- Direction for Staff
- Next Steps



Background – Local / State Direction

- Climate Emergency Work Plans / Declarations/ Strategy
- 2035 Comprehensive Plan / TSP
- HB 2180 / State Building Code
- DLCD Climate Friendly & Equitable Communities Rulemaking

We are living in a **climate emergency**.
It's time for Portland to act like it.



The City of Portland's 2022-2025
Climate Emergency Workplan
July 2022 Exhibit A



INTRODUCTION

Portland's Climate Action Plan strives to reduce carbon emissions 40 percent by 2030 and 80 percent by 2050. Land use planning and transportation policies and investments are among the most important opportunities to address climate change. In Portland, the transportation of goods and people accounts for nearly 40 percent of local carbon emissions. Shifting from gasoline and diesel to lower-carbon transportation fuels, like electricity, is a key strategy to achieving Portland's climate action goals.

Portland's approach to personal mobility prioritizes safety, health, affordability and environmental quality. The City of Portland (COP) is working to create a healthy, connected city that enables safe and convenient walking, biking and transit use (see Figure 1). This Electric Vehicle Strategy focuses on converting the remaining vehicles on the road to electric vehicles, which is one of many strategies the City is taking to reduce carbon emissions from the transportation sector. This strategy also seeks to maximize the benefits of air quality and affordability to low-income residents and parts of Portland that are the most dependent on private vehicles.



Figure 1. Portland prioritizes transportation options that reduce congestion and carbon emissions.

NOVEMBER 2016 - DRAFT

www.portlandoregon.gov/transportation



Climate Emergency Declaration
One-Year Progress Report (Resolution No. 37494)
July 29, 2021

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Project Key Proposals

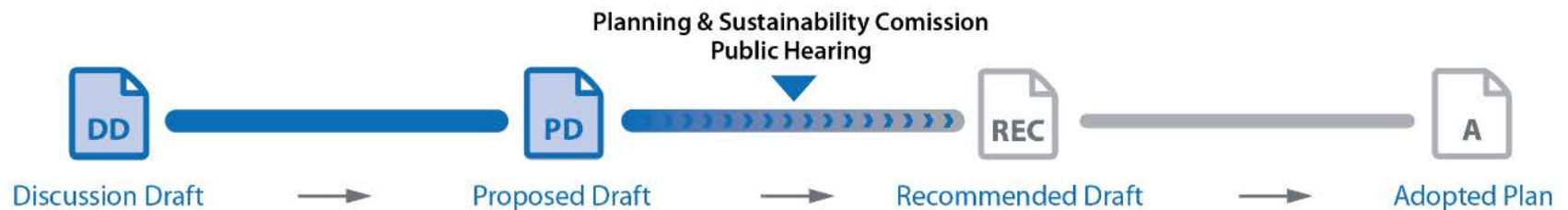
5 amendments highlighted at 9/13 hearing

1. Minimum EV-ready requirements for new development that has 5 or more dwelling units (50%, up to 100% for smaller parking lots)
2. Development Standards for chargers and equipment
3. Clarify when charging is accessory or primary use
4. EV incentive for structured parking
5. Non-conforming threshold exemption

What's the State's deadline?

Portland has until **March 31, 2023**, to adopt necessary changes into our zoning code.

Cities that do not meet the deadline must apply the State requirements directly.



Testimony Highlights

Testimony: 3 “in person”, 9 via MapApp

1. General support for proposal
2. Flexibility for charger/equipment placement in parking lot landscaping
3. Consideration for E-bike charging as part of project (support and concern)

PSC Q & A

Staff released Q & A for PSC review

1. Why a higher percentage than state?
2. Impacts on minimum parking
3. Impacts on spatial layout of parking/landscaping
4. Accommodation for E-bikes
5. Impacts on the cost of housing/affordable housing
6. Consideration for ADA accessibility

PSC Discussion Topics

Potential Discussion Items

1. Electric Vehicle (EV) chargers and equipment in perimeter landscaping areas
2. Electric Bike (e-bike) charging issues – minimum requirements and other issues
3. BPS Technical Amendment re: car sharing bonus

EV Chargers & Equipment perimeter landscaping

Not an issue in structured parking



EV Chargers & Equipment perimeter landscaping

Surface parking alternatives



EV Charging & Equipment perimeter landscaping

Accessory equipment options



EV Charging & Equipment perimeter landscaping

Outside required perimeter – BDS implementation



PSC Discussion

Electric vehicle chargers and equipment in perimeter landscaping areas

	Charger	Equipment
Staff Proposal	Charger not allowed in perimeter landscaping setback. Can be adjusted.	Equipment not allowed in perimeter landscaping setback. Can be adjusted.
Option	Charger allowed in perimeter landscaping setback or partially project into setback (2-ft)	Equipment not allowed in perimeter landscaping setback. Can be adjusted.



Electric Bike (e-bike) Charging:

Relevant Background Info:

- Proposal focus has been on automobiles.
- Long-term bike parking code recently updated to include outlets (2020).
- Outlets not required in current project.
- Project intent: avoid expensive after construction costs.
- Testimony focus: short-term e-bike parking.

Electric Bike (e-bike) Charging:

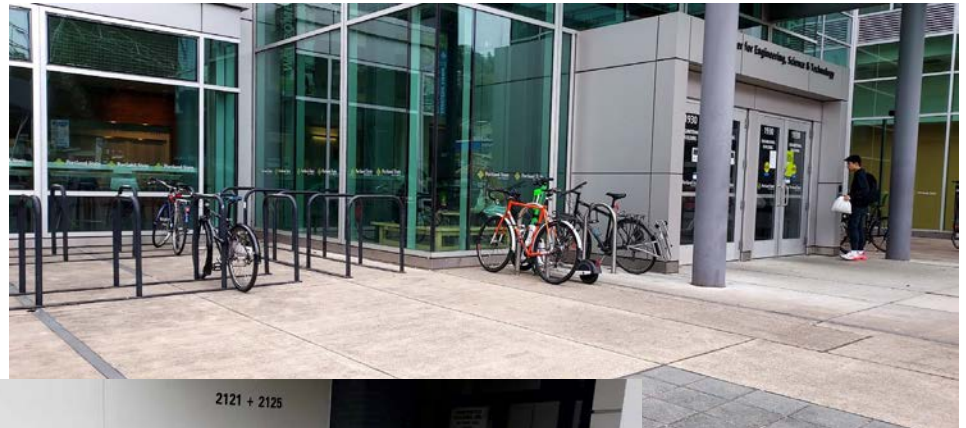
Differences between EV charging and E-bike charging

Issue	Auto EV Charging Equipment	E-bike Charging Equipment
Engagement / Outreach	Outreach and communication was done at state and local level for EVs (HB, Building Code, DLCDC, local engagement)	No outreach at any level to stakeholders or businesses. Impact to businesses is unknown
Infrastructure	Complicated electric capacity and infrastructure considerations	Doesn't generally require additional electrical capacity or conduit
Expense	Future retrofits expensive	Future retrofits not expensive and based upon specific situation
Voltage	240 V	120 V
Battery	Batteries stay with vehicle, not easily removable.	Batteries often removable / swappable
Parking Location	In standard parking lots	Variety of bicycle parking areas including the public ROW
Theft risks	Cord generally attached to charger.	Short-term not secure need to bring cord and charger.



Electric Bike (e-bike) Charging:

Short-term bike parking placement – range of options



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Short-term bike parking placement – range of options



PSC Discussion

Electric Bike (e-bike) charging issues – addressing other issues

- Non-conforming exemption for e-bike charging nested within EV charging (note bike parking is a listed upgrade, but EV charging is not)
- Conditional use clarification to include E-bike chargers w/ bike parking to not trigger review. (note exemption already applies generally to bike parking improvements)

PSC Discussion

BPS Amendments re: car sharing parking exemption

Staff suggests removing proposed language to minimum parking exemption that adds an EV requirement to the current car sharing provision.

This entire section is planned for removal to comply with DLCD's Climate Friendly and Equitable Communities rulemaking that encourage removal of all parking minimum mandates.

f. → Car-sharing parking spaces may substitute for required parking if all of the following are met:¶

(1) → For every car-sharing parking space that is provided, the motor vehicle parking requirement is reduced by 2 spaces, up to a maximum of 25 percent of the required parking spaces;¶

(2) → The car-sharing parking spaces must be shown on the building plans;¶

(3) → The car-sharing parking space must provide at least a Level 2 electric vehicle charger; and¶

(4) → A copy of the car-sharing agreement between the property owner and the car-sharing company must be submitted with the building permit.¶



Recap

PSC Direction

Direct Staff on any of these amendments for consideration

On October 25: Staff is requesting that the Planning and Sustainability Commission:

Approve any amendments from today, and

Recommend that City Council:

- Adopt this report.
- Amend Zoning Code Chapter 33.266, Parking and Loading, and other sections of Title 33 as listed in the Proposed Draft.

Portland EV Ready Code Project Timeline/Next Steps

Milestones	Dates
Proposed Draft Release and Notice	8/09/22
PSC Briefing and Hearing	9/13/22
PSC to close written testimony	9/16/22
PSC Comments Due	9/21/22
PSC Worksession	10/11/22
PSC Worksession #2 and Recommendation	10/25/22
Recommended Draft release and notice	December 2022
City Council Hearing	January 2023

Note: These dates are estimates and are subject to change.



E-bike short-term parameters

- Threshold (# of short-term spaces) to trigger requirement?
- Plug requirement or conduit w/ future plug access?
- Percentage of spaces that should have access to plug or conduit
- Does this apply to new construction only or to retrofits too?
- If retrofits, what would be the threshold?
 - General nonconforming upgrade amount like general short-term bike parking?
 - Major remodel projects (a similar threshold applies to nonconforming long-term bike parking)
- Security, compliance or access provisions?

State Definition of “EV-Ready Infrastructure”

State’s compliance options include the following:

- Newly constructed buildings identified in section (2) are required to install electric vehicle charging station infrastructure consisting of a conduit system and at least one of the following options:
 - (a) Provision of building electrical service, sized for the anticipated load of electric vehicle charging stations, that has overcurrent devices necessary for electric vehicle charging stations or has adequate space to add overcurrent devices;
 - (b) A designated space within a building to add electrical service with capacity for electric vehicle charging stations; or
 - (c) A designated location on building property, in or adjacent to a landscaped area, for installing remote service for electric vehicle charging stations.

Electric Bike (e-bike) Charging:

E-Bike Requirement Considerations:

- Less expensive to add outlet for e-bikes post construction
- Batteries often detached or swapped to charge.
- Many businesses pay into the bike fund and do not provide short-term bike parking on site.
- Outreach has not been done to businesses/stakeholders so the impact on businesses management of outlets is unknown.
- Short-term bike parking is not secure, and chargers/cords are at risk of being stolen.