



## Memo

Date: September 30, 2022

To: Planning and Sustainability Commission

From: Ingrid Fish and Phil Nameny

cc: Patricia Diefenderfer and Sandra Wood

Re: Electric Vehicle (EV) Ready Code Project Follow-up Questions

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On October 11, 2022, the PSC will continue discussing the Electric Vehicle (EV) Ready Code Project. Commissioners identified the following issues for discussion:

1. Electric Vehicle (EV) chargers and equipment in perimeter parking lot landscaping
2. Electric Bike (e-bike) charging (minimum required and triggers for nonconforming upgrades and conditional use reviews)
3. BPS Technical Amendment re: car sharing spaces providing EV chargers.

In addition, this memo answers initial questions that were raised by PSC members.

### **Why should Portland choose the EV-ready percentages at 50% (or 100% when 6 or fewer spaces are provided)?**

Staff's proposal chose a higher rate than the State's new 40% requirement, based on evidence of a higher rate of EV ownership within Multnomah County. See the [Oregon EV dashboard](#) for information on EV ownership in the state. Multnomah and Washington Counties have the highest rate, and Multnomah's EV ownership has increased 243% since 2018.

These percentages meet the recent Climate Friendly and Equitable Communities Rulemaking completed by Oregon's Department of Land Conservation and Development (DLCD), which will require 40% of parking spaces for multi-dwelling and mixed-use development with 5 or more units to be EV-ready. Other jurisdictions along the West Coast have, or are proposing, EV-ready percentages for new parking similar to staff's proposal. Since the requirements only apply to new development, the number of spaces that are EV-ready will continue to be a small percentage of overall spaces, even at these higher



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rates. It should be noted that private commercial buildings will be subject to the state building code requirement to provide 20% EV-ready spaces if they provide accessory parking.

### **How does this impact minimum parking requirements?**

These standards do not impact or add any minimum parking requirements. Many developments are already exempt from providing parking if they are close to transit. The EV-Ready project only applies in cases where an applicant is providing parking but doesn't force an addition of parking spaces.

### **How do chargers and equipment impact the spatial layout of parking lots and landscaping?**

The proposal is for EV chargers to be located within or adjacent to the parking spaces they serve. Electrical equipment/cabinets could be located further away from the chargers, but installers generally prefer them near the chargers for maintenance. So, the location of the equipment and chargers could impact the number of parking spaces or the size of the parking lot.

The PSC received testimony requesting that chargers and/or any other equipment be allowed in required landscape areas. Staff's proposal does not allow these to be placed in the perimeter parking lot landscaping areas, but applicant could ask for an Adjustment to the standard and propose alternative landscaping as mitigation. Parking lot landscaping serves a range of purposes, including visual screening, providing stormwater infiltration opportunities, and reducing the heat island with the tree planting requirements. Placing the chargers and equipment in the landscaped area reduces their effectiveness at serving those purposes.

Staff feels that a better solution is to restripe the parking areas so that the chargers can be placed adjacent to the spaces without infringing on the perimeter landscaping. Most areas in Portland already don't have minimum parking requirements, so restriping shouldn't impact other zoning regulations. Equipment may have some additional options for placement, depending on where the electrical service is sourced from.

### **What is the City doing to accommodate E-bikes?**

There was testimony provided requesting that there be a parity for E-bike charging with EV charging.

#### *Differences between EV chargers and E-bike charging*

The state bill and subsequent Climate Friendly rulemaking focused on providing a minimum amount of infrastructure in new buildings to accommodate future EV chargers. E-bike chargers do not draw large amounts of current, in comparison to EV chargers, and it could be possible to charge multiple bikes from a single outlet with extension cords. EV capability requires much more planning and building considerations, and results in a greater cost savings if those considerations are made during new construction, whereas it can be easier to retrofit long-term bike parking rooms to have more outlets. In addition, many E-bike batteries are portable and can be taken from the bike to charge within a residence or place of business. This same flexibility is not available to EVs.

#### *Long-term bike parking*

The City has already adopted E-bike charging requirements for long term bike parking when at least 20 spaces are provided. Five percent of the spaces must have access to an outlet. Long-term bike parking



is generally in secured rooms or covered areas where bikes are anticipated to be stored for longer periods of time.

### *Short-term bike parking*

That leaves the consideration of providing charging access to short-term bike parking. Since short-term bike parking is provided in unsecured, easily accessible area for visitors, the benefits of charging may be minimal since the bikes are not expected to stay long. These areas tend to be outside and not necessarily in areas where electrical access is achievable. In addition, many developments choose to pay into a fund administered by PBOT to place short-term bike parking in the street/sidewalks instead of onsite. Lastly, there is concern that having privately supplied, but publicly accessible electrical outlets on the exterior of buildings could invite a variety of uses other than e-bike charging, making it difficult for building owners and tenants to manage their use. This may eventually become a compliance issue if the plugs are disconnected. The EV-code project scope did not include additional E-bike accessibility provisions so more research and outreach into this idea is needed to develop a solution that has value, can be implemented, and with owner compliance.

### **Do these code amendments impact the cost of housing or providing affordable housing?**

BPS commissioned a consultant report from Johnson Economics stating that “the expected percentage impact of this mandate on rent levels is expected to be below 1.0% for new construction.” Johnson Economics agrees that this is an overestimate at this point due to the electrical capacity not being a requirement, which was thought to be the case at the time the economic analysis was completed. Since the time of this study, other state rules have now mandated a minimum threshold for EV capability of 40% of new mixed-use and multi-dwelling developments of 5 or more units. While overall cost increases to install this remains the same, the cost from the city regulation is only the incremental cost to provide EV capability to more than 40% of the parking spaces.

Several programs are being considered by area utilities to provide gap funding or other grants to facilitate the installation of EV infrastructure and chargers, focusing on affordable housing developers. It is anticipated that new Federal funding will also play a role in reducing development costs.

### **How does this project consider ADA accessibility?**

Generally, ADA requirements are stated within the building code and are in conformance with federal standards. They are not referenced in the Zoning Code. The ADA requires certain numbers of accessible spaces based on the parking provided. We have noticed that several commercial EV charger installations have included ADA accessibility for the spaces and chargers. Additional rules and guidance can be viewed at the [US Access Board website](#). We anticipate that this work will result in future code ensuring an equitable inclusion of EV chargers that are accessible to ADA spaces.

