



Planning Commission

Electric Vehicle Ready (EV Ready) Parking - Briefing

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Title

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Recommended Action

Information only. No action requested.

Report

Issue:

Discussion on the options and issues regarding EV Ready parking.

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Background and Analysis:

Charging and/or charging-readiness for electric vehicles (EV or EVs) will soon become a requirement for most new development and redevelopment, as part of the State building codes.

EV-ready codes establish infrastructure requirements for new buildings, such as electrical capacity, pre-wiring, and any design features that are necessary for the installation of future EV charging stations.

EV-readiness is an important strategy to future-proof new buildings. It ensures that new buildings will be able to accommodate the anticipated rapid growth of electric vehicles, without requiring expensive and complicated retrofits in the future.

Electric Vehicle (EV) Readiness

Access to convenient charging is frequently cited as one of the most important factors influencing EV purchasing decisions. However, installing the necessary infrastructure to support EV charging after a building has been constructed can often be cost prohibitive. Ensuring that buildings are designed

and built with the capacity to provide future EV-charging is known as EV-readiness.

Analyses of EV-infrastructure costs consistently report that it is more cost-effective to plan for future EV parking in new construction, than it is to retrofit buildings and parking lots to accommodate EV charging in the future. EV-readiness requirements can range from providing a minimum electrical panel capacity to support future charging, to the installation of fully operational EV-charging equipment.

The 2021 Washington State Building Code identifies three levels of EV-readiness:

- EV-Capable - A parking space provided with a conduit, electrical panel, and load capacity to support future installation of EV charging equipment.
- EV-Ready - A parking space provided with a receptacle outlet allowing charging of electric vehicles.
- EV-Charging Station - An EV-ready parking space with installed EV-charger.

In 2020, King County completed an assessment of EV charging infrastructure (Electric Vehicle Charging Options Report), reporting that previous studies have estimated the cost of a fully wired, level 2, EV-ready space in new construction to be:

- \$150 to \$375 per space for single-family homes and duplexes
- \$1,330 to \$1,380 per space for multifamily and commercial buildings

They also found that EV-readiness retrofits can be up to eight times more expensive than new construction, increasing costs by \$900 to \$5,000 per space. Increased costs for retrofits are attributed to breaking and repairing walls, parking surfaces, and sidewalks, as well as electrical service upgrades, more expensive methods of conduit installation, and additional permitting and inspection.

Electric Vehicle (EV) Readiness - Current Requirements and Options

In April 2022, the State Building Code Council approved amendments to the International Building Code, which establish statewide requirements to provide EV charging infrastructure in new construction, effective July 2023. The approved EV infrastructure requirements include:

- For single-family, duplex, and dwelling units with private garages: 1 EV-ready parking space per unit.
- For all other residential parking spaces: 10% EV-charging, 25% EV-ready, and 10% EV-capable.
- For all non-residential parking spaces: 10% EV-charging, 10% EV-ready, and 10% EV-capable. (Note: applies only to employee designation parking for assembly, educational, and mercantile occupancies).

To increase access to EV-ready parking, Olympia could adopt EV charging codes that set EV-ready standards beyond the state minimum. Several jurisdictions in Washington (e.g., Seattle, Lacey, and King County) have taken similar actions to establish local EV-readiness and EV-charging standards through land use and zoning requirements.

Consistency with the Thurston Climate Mitigation Plan

Transportation and the built environment are the two largest sources of emissions in Thurston County, making up more than 90% of regional greenhouse gas emissions. In 2019, the built

environment, which includes the energy used to power, heat, and cool buildings, contributed 62% of regional emissions, while transportation contributed 31% of emissions.

Requiring EV-ready construction is consistent with the strategies and actions of the Thurston Climate Mitigation Plan.

EV-ready requirements support:

- Strategy T3: Increase the adoption of electric vehicles.
- Action T3.1: EV parking new construction. Require large commercial and residential buildings to dedicate a percentage of parking spots for electric vehicle charging.
- Action T3.5: EV ready building code. Require all new residential construction to be built EV ready.

Land Use and Environment Committee direction

In June 2022, staff briefed the Land Use and Environment Committee on policy options to support electric vehicle charging in new construction. During the briefing, the Committee also received relevant background information on existing EV charging requirements under the Washington State Building Code, example policies from other jurisdictions, and recommended best practices for EV charging. After a brief discussion, the Committee directed staff to develop a proposal for a local EV readiness policy to achieve the recommended best practices for EV charging and readiness.

Neighborhood/Community Interests (if known):

Since the acceptance of the Thurston Climate Mitigation Plan in February 2021, community members have continued to urge the City to take immediate action to address climate change. EV-ready development supports community priorities of reducing barriers to EV adoption.

However, more community input is needed to understand concerns associated with any requirements the city may consider beyond adopting the minimum state requirements. City staff will conduct focus group meetings to understand comments and concerns from a variety of those who would be directly impacted by such actions, such as property managers, developers, low income/affordable housing developers, and climate advocates. In addition, public meetings and outreach will be provided to include members of the public in the decision-making process.

Options:

None at this time. Briefing only.

Financial Impact:

None at this time. Future actions to require EV-ready or solar-ready development may increase construction costs for new buildings.

Attachments:

None.