### Impacts Assessment to Prepare for Future Transportation System

<table>
<thead>
<tr>
<th>Impact Area: Electric Vehicle Charging</th>
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<tbody>
<tr>
<td><strong>Description</strong></td>
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<tr>
<td><strong>Certainty/potential time horizon</strong></td>
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The question of whether public agencies should provide EV charging to prepare for AV deployment is complicated by the fact that AVs could be deployed in shared fleets rather than being individually owned. If so, it may be more appropriate for fleet operators to invest in EV charging infrastructure rather than for public agencies to make investments that primarily benefit private companies.

### Co-benefits/advancing established goals
Providing EV charging could help to meet Oregon’s climate goals as established in House Bill 3543, as well as Executive Order 17-21, which calls on the state to significantly increase the number of EVs on the road. However, there is no conclusive evidence that providing increased access charging outside the home makes a meaningful difference in increasing the number of EVs on the road.

### Barriers
The main barriers to investing in EV charging are high uncertainty (see above) and high costs (see below). In addition, several agencies in Oregon have been adopting more aggressive policies to make equity a guiding factor in transportation investments. This can make it harder to justify investment in EV charging since the EV owners are wealthier than average.

### Impact to infrastructure owner/operator
The cost of installing EV charging varies widely depending upon the location, site characteristics, and existing electrical infrastructure. Many residents can plug their EV into an existing garage outlet for free, whereas Level 2 chargers cost $6,000-9,000 per charger and Level 3 chargers cost $100,000-150,000 per charger, with costs tending toward the higher end of the range for public installations, which often involve complex sites without existing electrical infrastructure. Maintenance costs range from $300-2,000 per year. Private companies typically operate charging stations at no additional costs to public agencies. There are currently no estimates of statewide EV charger needs for Oregon, which means that we cannot estimate the total costs of providing charging in the state.

### Relevant national guidance/key decision makers
N/A

### Next steps
Potential next steps include:
- Amend the state building code to include requirement that new developments include charging or pre-wire parking

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2 [https://olis.leg.state.or.us/liz/2007R1/Downloads/MeasureDocument/HB3543](https://olis.leg.state.or.us/liz/2007R1/Downloads/MeasureDocument/HB3543)
3 [https://www.usatoday.com/story/money/cars/2015/05/04/truecar-study-electric-cars-richer/26884511/](https://www.usatoday.com/story/money/cars/2015/05/04/truecar-study-electric-cars-richer/26884511/)
4 [https://www.greenbiz.com/blog/2014/05/07/rmi-whats-true-cost-ev-charging-stations](https://www.greenbiz.com/blog/2014/05/07/rmi-whats-true-cost-ev-charging-stations)
areas, which greatly reduces the cost of installing EV chargers in the future.

- Conduct an analysis of statewide EV charging needs, including under different AV deployment scenarios
- Dedicate additional funding, such as VW settlement funds or cap-and-invest revenues, to EV charging.
- Continue or expand existing state EV charging initiatives, such as the West Coast Electric Highway.