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<td>Description</td>
<td>S1. 1 Tiffany Hoang CEC</td>
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SB 1000 Electric Vehicle Charging Infrastructure Deployment Assessment

Tiffany Hoang, Air Pollution Specialist
IEPR Charging Infrastructure Workshop
August 4, 2020
Agenda

• SB 1000 Background
• Preliminary Findings
• Next Steps
• Q&A
Background

**TASK**
Assess light-duty charging station infrastructure annually to identify whether deployment, including distribution and access, is disproportionate by geographical area, population density, or population income level (low-, middle-, and high-income levels)

**GOAL**
Identify where California Energy Commission Clean Transportation Program investments can be allocated to increase charging access to all California communities and ensure equitable distribution of electric mobility benefits
State Distribution of Charging Infrastructure

Plug-In Electric Vehicle Density

Public Level 2 & DC Fast Charging Stations

Residential Population Density

Sources: Alternative Fuels Data Center July 2020 station counts, California Department of Motor Vehicles PEV counts, U.S. Census Bureau ACS 2014-2018 5-Year Survey
Preliminary Findings: Land use contributes to fewer public chargers in high population density areas

Sources: Alternative Fuels Data Center July 2020 charger counts, U.S. Census Bureau American Community Survey 2014 – 2018 5-Year Estimates census tract median household income
State Distribution of Charging Infrastructure

Public DC Fast Charging Stations

Low-Income Communities

Public Level 2 Charging Stations

Sources: Alternative Fuels Data Center July 2020 station counts, U.S. Census Bureau ACS 2014-2018 5-Year Estimates
Preliminary Findings: The positive correlation between income level and public charger distribution is modest.

Public Level 2 & DC Fast Charging Port Distribution

<table>
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<th>Income Level</th>
<th>Level 2 ports per capita</th>
<th>DCFC ports per capita</th>
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<tbody>
<tr>
<td>Low-Income</td>
<td>51</td>
<td>11</td>
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<tr>
<td>Middle-Income</td>
<td>56</td>
<td>14</td>
</tr>
<tr>
<td>High-Income</td>
<td>64</td>
<td>9</td>
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Sources: Alternative Fuels Data Center July 2020 charger counts, U.S. Census Bureau ACS 2014 – 2018 5-Year Estimates census tract median household income and population.
Next Steps

• Analyze housing stock data to identify where public chargers can fill gaps where residential charging is lacking
• Continue evaluating land use to identify where people live and are likely to charge
• Work with stakeholders to identify key charging access indicators
• Continue analyzing disproportionality

The SB 1000 staff report will be published in Quarter 4 (2020) and as an appendix to the AB 2127 staff report and Clean Transportation Program Investment Plan
Thank you!

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Appendix Slides
Definitions for Income Level

Low-Income
- 120% of State Median Income
- State Median Income
- 80% of State Median Income

Middle-Income
- HCD’s moderate-income threshold

High-Income
- HCD’s moderate-income threshold
Low-, Middle-, and High-Income Communities

Low-Income, 55.50%
Middle-Income, 22.90%
High-Income, 21.30%
No Data, 0.30%

Total Population

Sources: U.S. Census Bureau American Community Survey 2014-2018 5-Year Estimates