Electric Vehicles and Building Codes

Mike Salisbury
How Building Energy Codes Can Support Your Sustainability Goals
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78% Reduction in Smog Forming Pollutants

<table>
<thead>
<tr>
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<th>Grams per Mile</th>
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<tbody>
<tr>
<td>EV</td>
<td>0.08</td>
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<tr>
<td>Gasoline</td>
<td>0.35</td>
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28% Reduction in Greenhouse Gases

- EV: 289 grams per mile
- Gasoline: 401 grams per mile
Electric Vehicle Ready
Building Codes

- At a minimum level, the idea is to require new construction to have:
  - Conduit or wiring from panel to parking area
  - Panel capacity to handle future EV load

- This makes it incredibly easy and much less expensive to install a charging station at a future date
Avoided Costs: Trenching
Avoided Costs: Panel Upgrades
Three Areas to Target

Single Family

Multi Family

Commercial
Single Family
Multi-Family Housing
Commercial
Variables to Consider

- Level of Readiness
  - Conduit and Panel Capacity
  - Wiring and Circuits
  - Stations

- Percentage of EV Ready Spaces
  - 2%-25%

- Minimum Size of Building/Parking Lot

- Cost
Municipalities with EV Ready Building Codes
California Statewide Code

- New 1 and 2 family homes:
  - Conduit and panel capacity for future 240V/40A circuit
    - Labeled “EV Capable”
- Multi-family
  - Applicable to 17 or more units
  - 3% of spaces, but at least 1 will have conduit and panel capacity for a future 240V/40A circuit
- Commercial
  - Applicable to new parking lots with 10 or more spaces
  - 5-6% of parking spaces
Thanks!

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