EV Infrastructure Corridor Development Workshop

AeroVironment

The West Coast Electric Highway

Jonathan Oakley
Director of Sales – EV Solutions

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AeroVironment – Decades of Innovation & Market Leadership

1989

The car that started it all
GM Impact, AV’s Concept which inspired a revolution

Industrial revolution
#1 line of Industrial Fast Chargers

2015

World’s Smallest, Lightest and Most Versatile EVSE

First UL certified Fast Charger in N.A.
Most Fast Chargers Shipped in N.A.

The system of champions
The brains behind the most lauded Hybrids, PHEVs, and BEVs

Best-in-Class Installation Service
Nationwide network of Installers

Auto Makers’ Most Favorite EVSE
Walmart, Plug-in, Pedestal, Indoor, Outdoor

World’s Most Innovative Workplace & Commercial Charging Solution

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West Coast Electric Highway
Public – Private Partnership Between WSDOT / ODOT and AV

- Long term commitment

- Develop, own and operate
  - EV Charging Equipment
  - Installation Services
    - Site Selection & Acquisition
    - Permitting/Design
    - Construction
    - Commissioning
  - Networking and back office
  - Operations and maintenance

- Many lessons-learned
  - Site Selection – Environment issues; Host education; Extensive location criteria
  - Site host lease agreements – longest lead time
  - Steep utility hook-up fees
  - Utility demand charges are expensive
  - Extensive government documentation required
WCEH Status

- 56 Total Stations – WCEH Complete
  - 44 Oregon State Department of Transportation (ODOT)
  - 12 Washington State Department of Transportation (WSDOT)
Multiple Venues

- City properties (convention centers, visitor centers, parks, parking lots) – 10
- Grocery stores – 9
- Restaurants – 8
- Miscellaneous (country stores, office buildings, transit centers) – 8
- Hotels and motels – 7
- Gasoline Stations – 6
- Casinos – 5
- Shopping Malls – 3
- Rest Stops – 2 (Level 2 only)
# 22 Electric Utilities

<table>
<thead>
<tr>
<th>Utility</th>
<th>State</th>
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<tr>
<td>Pacific Power</td>
<td>Oregon</td>
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<td>Central Lincoln PUD</td>
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<td>City of Monmouth</td>
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<td>City of Ashland</td>
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<td>Consumers Power Inc.</td>
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<td>Portland General Electric</td>
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<td>Central Electric Cooperative</td>
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<td>Douglas Electric Coop</td>
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<td>Lane Electric</td>
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<td>Springfield Utility Board</td>
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<td>Clatskanie</td>
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<td>City of Cascade Locks</td>
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<td>Emerald People’s Utility District</td>
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<td>McMinnville Water &amp; Light</td>
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<td>Snohomish County PUD</td>
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17 Partners and 2 FHWA Awards

**Partners**
- Oregon Department of Transportation (ODOT)
- Washington State Department of Transportation (WSDOT)
- AeroVironment, Inc.
- Cascadia PM
- Advanced Electrical Solutions (AES)
- Columbia-Willamette Clean Cities Coalition
- Federal Highway Administration
- U.S. Department of Energy
- Oregon Department of Energy
- Washington State Department of Commerce
- Rogue Valley Clean Cities Coalition
- Western Washington Clean Cities Coalition
- Business Oregon
- Drive Oregon
- Energize Oregon Coalition
- Oregon Electric Vehicle Association
- Seattle Electric Vehicle Association

**Federal Highway Administration Awards to WCEH Partners**
- 2012 – Exceptional Environmental Stewardship – WCEH partners
- 2013 – Excellence in Air Quality Improvement and Climate change