



EV Infrastructure Corridor Development Workshop

AeroVironment

The West Coast Electric Highway

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AeroVironment – Decades of Innovation & Market Leadership

1989

2015
and beyond



Industrial revolution
#1 line of Industrial Fast Chargers

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

World's Smallest, Lightest and Most Versatile EVSE

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



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

West Coast Electric Highway

Public – Private Partnership Between WSDOT / ODOT and AV



- Long term commitment

- Develop, own and operate

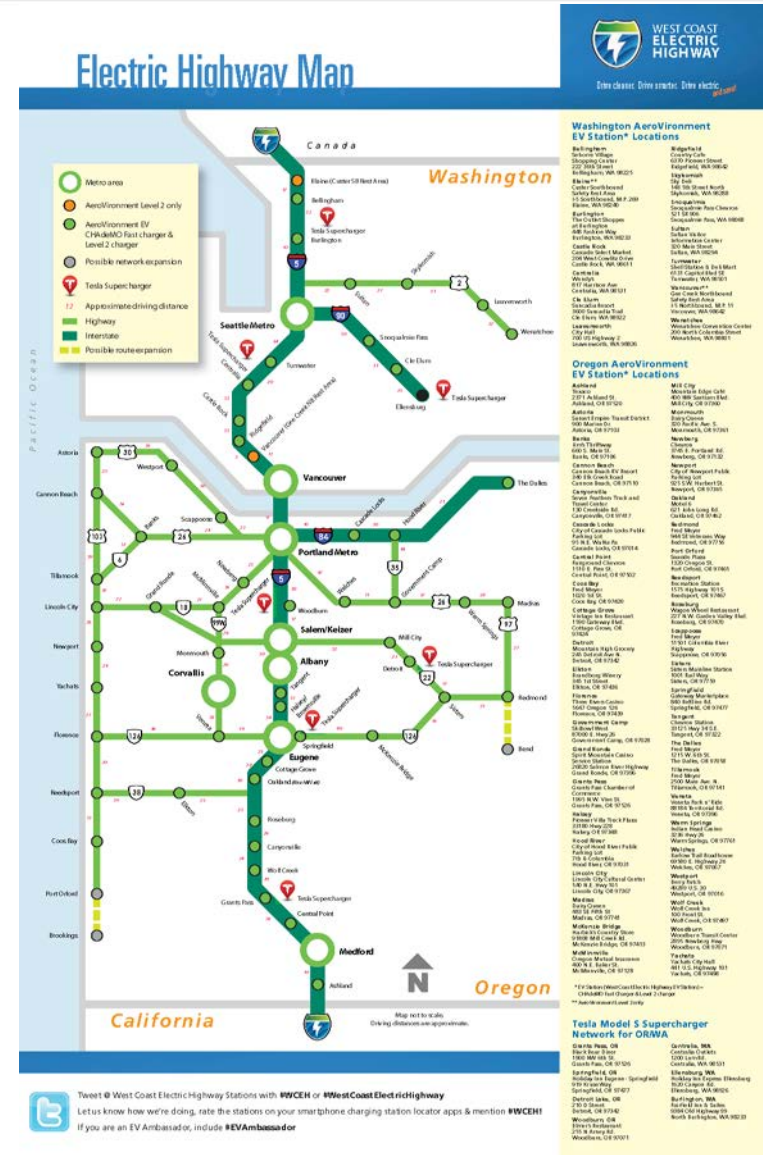
- EV Charging Equipment
- Installation Services
 - Site Selection & Acquisition
 - Permitting/Design
 - Construction
 - Commissioning
- Networking and back office
- Operations and maintenance



WEST COAST ELECTRIC HIGHWAY

- 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)



WCEH Charging Station Construction



Hood River WCEH Charging Station



Mount Hood WCEH Charging Station

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



Utility	State
Pacific Power	Oregon
Central Lincoln PUD	Oregon
City of Monmouth	Oregon
City of Ashland	Oregon
Consumers Power Inc.	Oregon
Portland General Electric	Oregon
Central Electric Cooperative	Oregon
Douglas Electric Coop	Oregon
Lane Electric	Oregon
Springfield Utility Board	Oregon
Clatskanie	Oregon
City of Cascade Locks	Oregon
Emerald People's Utility District	Oregon
McMinnville Water & Light	Oregon
Coos-Curry Electric	Oregon
Umpqua Indian Utility Cooperative	Oregon
City of Centralia	Washington
Chelan County Power	Washington
Clark Public Utilities	Washington
Cowlitz PUD	Washington
Puget Sound Energy	Washington
Snohomish County PUD	Washington



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