Jennifer Harper, Business & Programs Developer

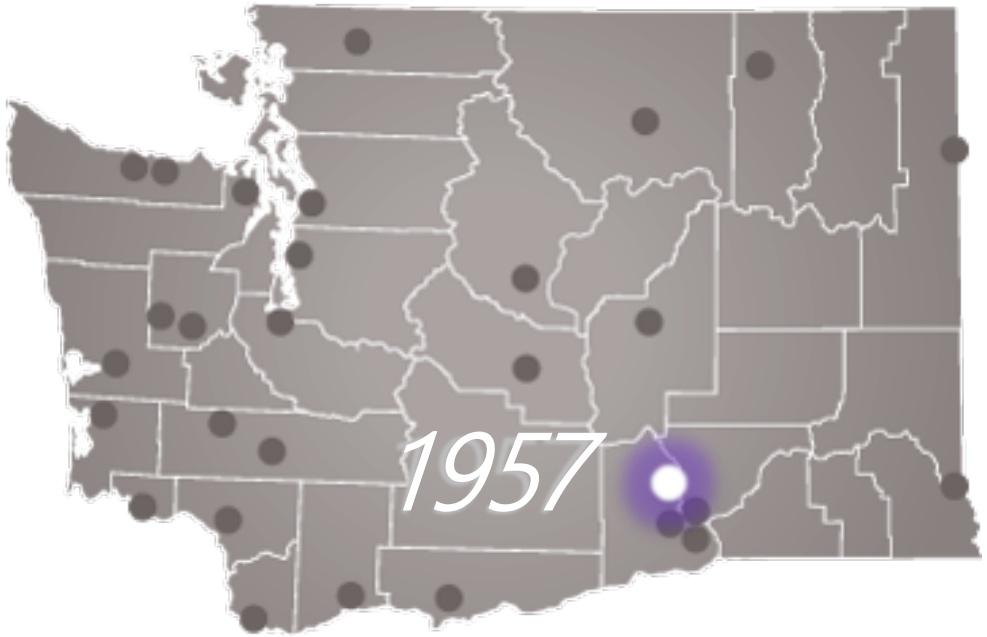
Notice:

Agenda

- Energy Northwest overview
- Washington utilities: EVITA
- Current and future projects
- Opportunities for collaboration

Energy Northwest

A not-for-profit Municipal Corporation



Asotin County PUD
Benton County PUD
Chelan County PUD
City of Port Angeles
City of Richland
City of Centralia
Clallam County PUD 1
Clark Public Utilities
Ferry County PUD
Franklin County PUD
Grant County PUD
Grays Harbor County PUD
Jefferson County PUD
Kittitas County PUD
Klickitat County PUD
Lewis County PUD
Mason County PUD 1
Mason County PUD 3
Okanogan County PUD
Pacific County PUD
Pend Oreille County PUD
Seattle City Light
Skamania County PUD
Snohomish County PUD
Tacoma Public Utilities
Wahkiakum County PUD
Whatcom County PUD

ENERGY NORTHWEST

Washington State EV landscape

- Utility perspective
  - Declining load-growth rates due to energy efficiency and customer generation
  - Electric sales from charging of EVs present an opportunity for utilities to preserve and/or grow loads
  - While most customers primarily charge at home, installation of charging infrastructure helps relieve range anxiety and provides publicly available charging for those who aren't able to charge at home and/or are traveling
  - Utilities currently have the ability to shape the growth by preparing for more adoption ahead of time

Washington State EV landscape

- Legislative position on public utility incentives was unclear until recent session
  - State constitution prohibits agencies from gifting of public funds
  - Public utilities had concerns that this prohibition prevented publicly owned electric utilities from supporting electrification outside of “pilot projects”
  - Public utilities needed clear authority to engage in and promote electrification
    - Customer assistance for financing installation of materials and equipment
    - Offer programs, services, or investments in electrification for customers in a way to benefit ratepayers

Washington State EV landscape

- **Green Transportation Adoption effective 7/28/19**
  - Recognizes that electrification of transportation programs may provide cost-effective energy efficiency, and more efficient use of the electric delivery system, and may result in cost savings and benefits for all ratepayers
  - Authorizes the governing bodies of municipal utilities or public utility districts to adopt an electrification of transportation plan that establishes that utility outreach and investment in the electrification of transportation infrastructure does not increase net costs to ratepayers in excess of .25 percent
  - Upon approval of the plan, the governing body of the municipality or PUD may offer incentive programs in the electrification of transportation for its customers

Electric Vehicle Infrastructure Transportation Alliance (EVITA)

- **What is EVITA?**
  - **The Electric Vehicle Infrastructure Transportation Alliance (EVITA) is a group of consumer-owned utilities and community organizations which aligned for the purposes of supporting and developing electric vehicle charging infrastructure in central and eastern Washington**
  - **Energy Northwest's continuing transportation electrification initiatives continue to be referred to as "EVITA"**

Initial Collaboration

ENERGY NORTHWEST

BENTON P·U·D

FRANKLIN PUD
THE POWER IS YOURS

greenlots

TRIDEC
Tri-City Development Council

evita
ELECTRIC VEHICLE INFRASTRUCTURE TRANSPORTATION ALLIANCE

Richland
Washington

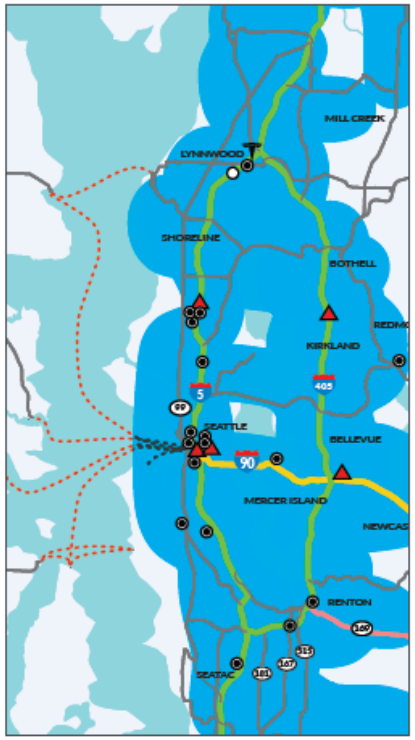
EV

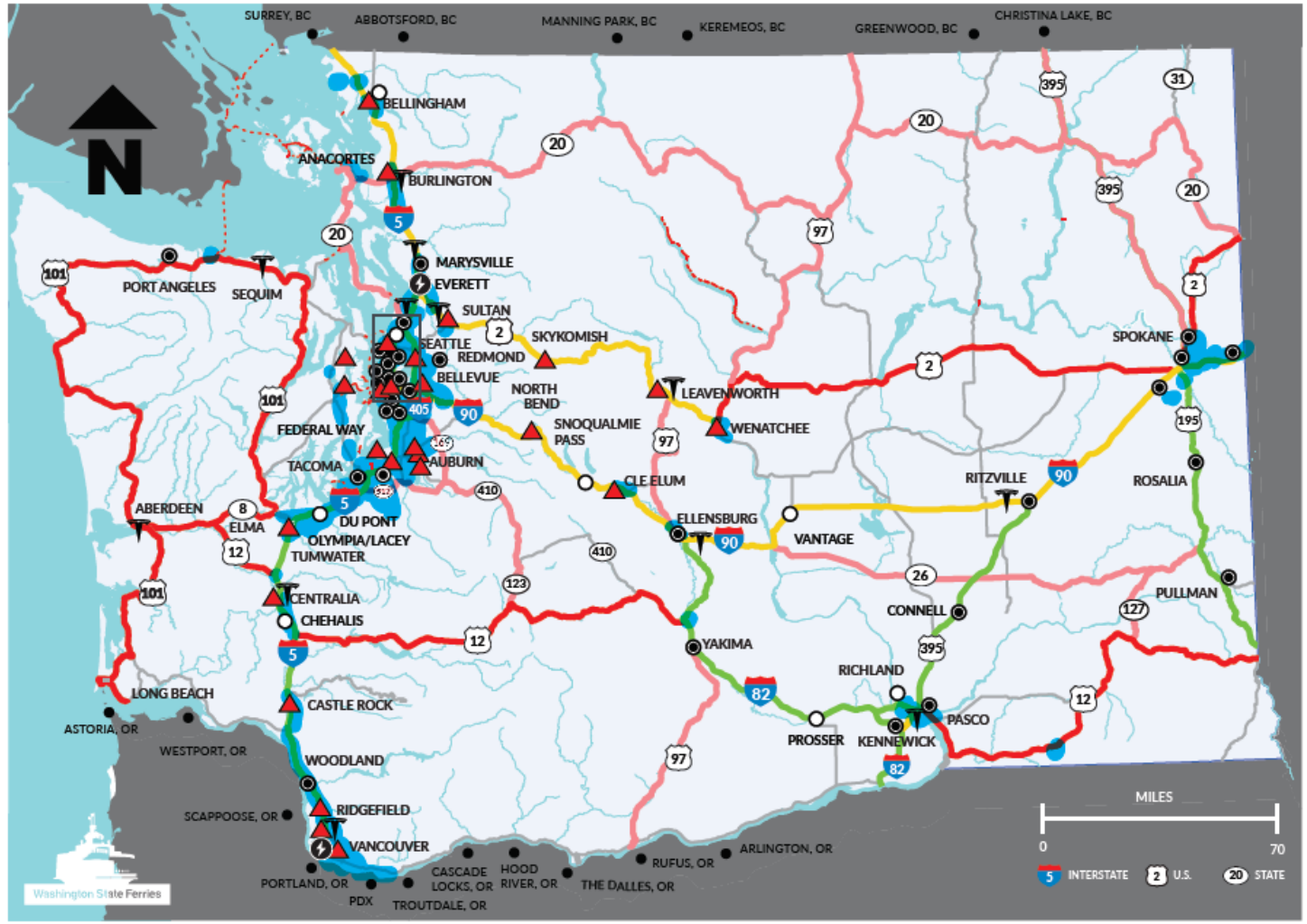
WEST COAST ELECTRIC HIGHWAY

Benton REA
Benton Rural Electric Association
Your Touchstone Energy® Cooperative

City of Ellensburg
WASHINGTON

WSDOT Electric Vehicle Highway Corridor Charging Gap Map





- No or insufficient charging - high priority
- No or insufficient charging - medium priority
- Weak charging/needs retrofitting
- Adequate existing and funded fast charging
- Ferry routes
- High NOx Emissions Areas

Public Charging (not including dealerships)

- Existing CHAdeMO only (needs upgrades)
- EVIPP planned CCS/CHAdeMO
- Existing CCS/CHAdeMO
- Public fast charging near border
- Electrify America CCS/CHAdeMO
- Tesla Superchargers

18-08-0326

EVITA

- Utilities agreed to set rate schedules for duration of project to include waiving demand fees
- Participating utilities provided up to $15,000 per station towards line extension/infrastructure
- WSDOT grant provided $45,000 per station reimbursement
- Project includes various ownership models
  - Greenlots (network provider) owned
  - Site host owned
  - Energy Northwest owned

EVITA

- Participating utilities are able to view charging station data from Greenlots' platform
  - Data includes details on charging sessions, kWh consumed, revenue received, pounds of CO2 saved, and gallons of gasoline diverted
  - EVITA utilities believe EV adoption can increase utility asset utilization, spread fixed costs over a larger base of energy sales, and ultimately reduce utility rate pressures

EVITA

- Available technologies
- Each station in EVITA project includes one DC Level 3 fast charger and one AC Level 2 charger
- All stations use industry standard, non-proprietary electric vehicle supply equipment
  - Level 3 connectors: CCS Combo and CHAdeMO connectors
  - Level 2 connector: J1772
  - All stations employ open communication protocol standards

Benefits to site Host

- Increased traffic to nearby businesses
- Positive media attention
- Business will be shown on EV maps: Plugshare, Department of Energy map, Greenlots app, auto manufacturers' on-board navigation maps
- Encourages tourism, economic growth
- Load preservation
- Charging for EV owners without dedicated outlets

Benefits to site Host

Beyond EVITA

- Strategic build-out of Tri-Cities Level 2 chargers, educational outreach, managed charging programs, dealership engagement, and study to aid with future system modeling
- Collaboration among EVITA utilities, cities, ports, Pacific Northwest National Laboratory, Washington State University, Tridec and others
- Energy Northwest working with several communities and utilities to electrify corridors along underserved corridors in Washington state
- Project(s) will be submitted for funding from potential Washington State grant opportunities


Lynden
Ferndale
Bellingham
Friday Harbour
Anacortes
Concrete
Mount Vernon
Oak Harbor
Coupeville
Darrington
Arlington
Marysville
Everett
Mukilteo
Edmonds
Shoreline
Mountlake Terrace
Redmond
Bellevue
Seattle
Issaquah
Renton
Burien
Des Moines
Kent
Federal Way
Auburn
Tacoma
Lakewood
Carbonado
Aberdeen
Westport
Oakville
Centralia
Winlock
Toledo
Long Beach
Castle Rock
Cathlamet
Longview
Kelso
Kalama
Woodland
Yacolt
Battle Ground
Vancouver
Camas
Washougal
Stevenson
Index
Skykomish
Leavenworth
Cashmere
Wenatchee
East Wenatchee
Entiat
Waterville
Chelan
Mansfield
Grand Coulee
Pateros
Brewster
Bridgeport
Coulee City
Almira
Ephrata
Quincy
Moses Lake
Ellensburg
Kittitas
Royal City
Othello
Mattawa
Yakima
Wapato
Toppenish
Mabton
Goldendale
Oroville
Tonasket
Conconully
Winthrop
Twisp
Okanogan
Riverside
Nespelem
Republic
Northport
Metaline
Ione
Kettle Falls
Colville
Chewelah
Cusick
Springdale
Deer Park
Creston
Davenport
Airway Heights
Spokane
Harrington
Cheney
Spangle
Wilson Creek
Odessa
Sprague
Ritzville
Malden
Latah
Oakesdale
Saint John
Garfield
Endicott
Colfax
La Crosse
Washtucna
Pullman
Hatton
Warden
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Mesa
Kahlotus
Starbuck
Waitsburg
College Place
Walla
Richland
US Highways
Interstate Highways
0
50 KM
50 Miles
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Best Practices

- Leverage public and private funding to create a sustainable business model
- Consider indirect benefits, such as increased business for site hosts and surrounding businesses due to EV charging
- Create partnerships with other utilities to strengthen network, including municipalities, and investor and consumer owned utilities
- Stations can be privately or publicly owned, with both private and public investors
- Site hosts can vary: city parks, gas stations, retail businesses, restaurants


ELECTRIC VEHICLE INFRASTRUCTURE PARTNERSHIP PROGRAM (EVIPP)
ENERGY


adidas

Questions?

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