Oregon Citizens' Utility Board

# TE Portfolio Approach

Bob Jenks

July 28, 2021

# Elements of CUB's Portfolio Proposal

- Portfolio Approach
  - Broad set of charging services
- Utility has an Obligation to Serve Load
- Budget developed based on Distribution Revenues
  - Similar methodology to Line Extension Allowance

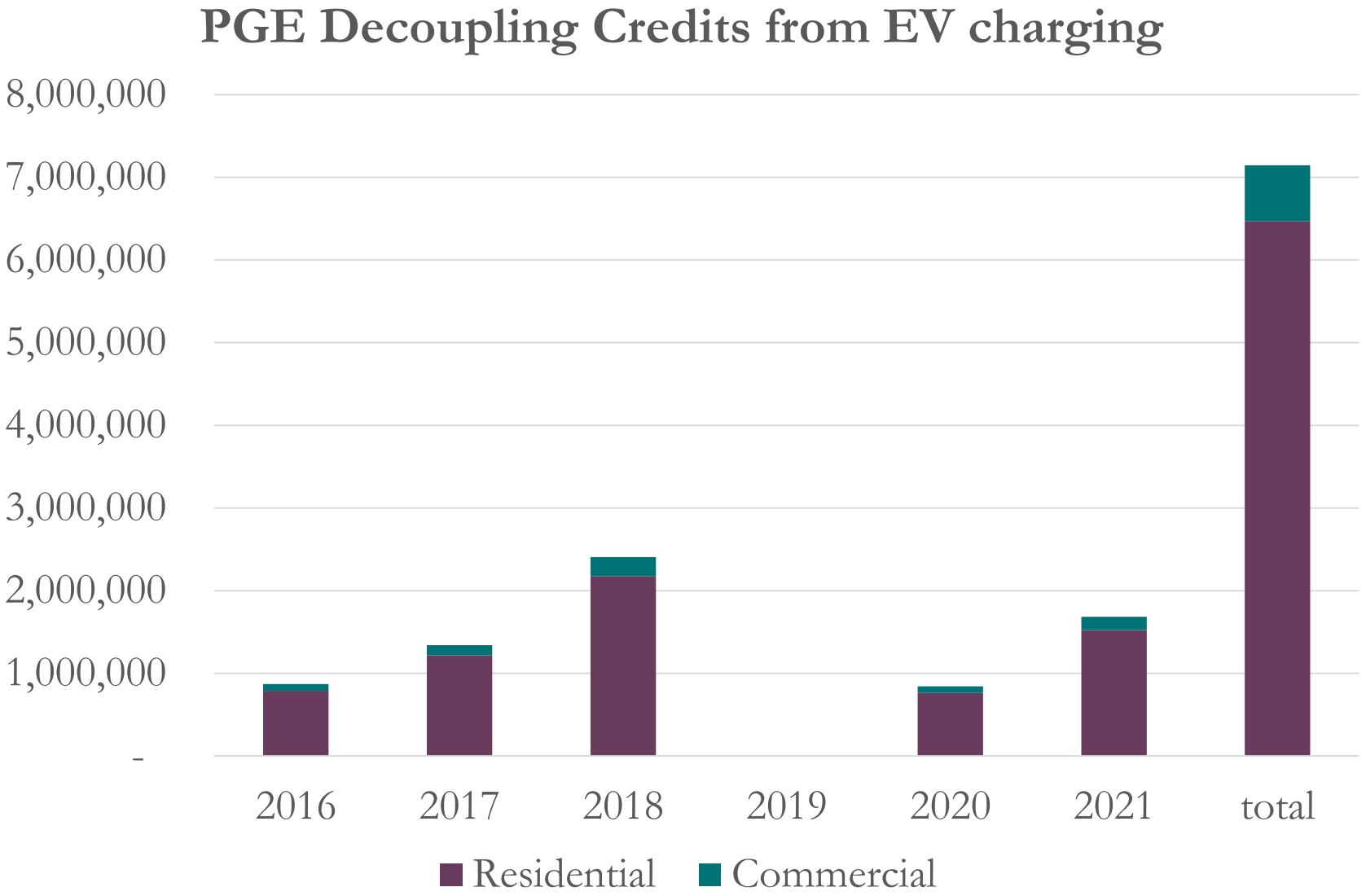
# Context – EVs Per 1000 Residents

| | |
|---|---|
| 3.1 | United States |
| 10.7 | California |
| 8.4 | Oregon |
| 7.5 | Hawaii |
| 6.6 | Washington |

# Context: If PGE was a State

| | |
|---|---|
| 3.1 | United States |
| **11.1** | **Portland General Electric** |
| 10.7 | California |
| 7.5 | Hawaii |
| 7.5 | Oregon |
| 6.6 | Washington |

# PGE Decoupling Benefits



# Context: PUC

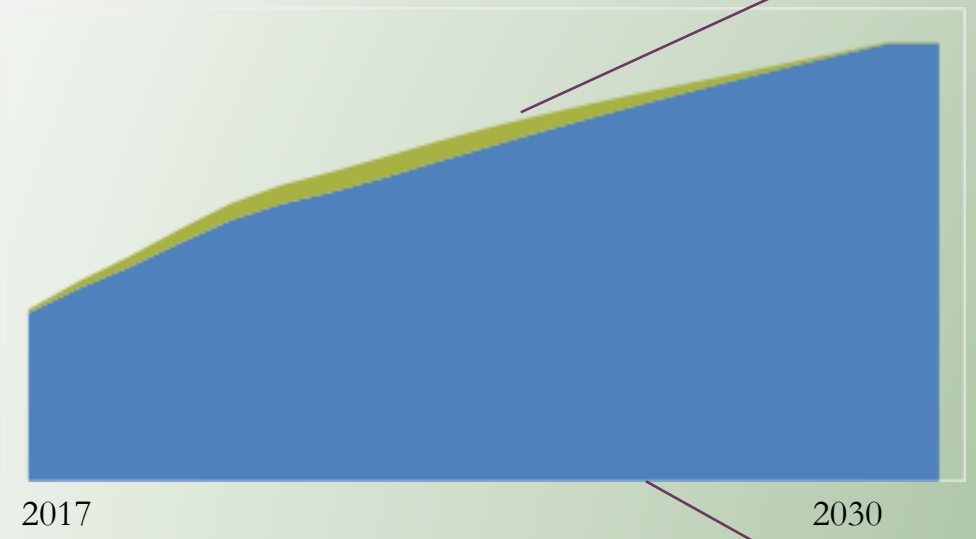
- Order 12-013:
  - Net Benefit Test: “beneficial to ratepayers not just the public generally”
  - Charging station is essential at that location
  - No competitive supplier is available
  - Utility has a separate EV rate class

- SB 1547
  - Allows investments which accelerate TE

# Context: PUC

- Net Benefits Test
- Attribution Methodology (incremental increase in new vehicles caused by investment)
- Measurement and Evaluation

# Focusing on Incremental Increase in EVs




**This represents the EVs that are attributable to utility action**

**This represents the EVs that will be added to the service territory without utility action**

# Adding Load

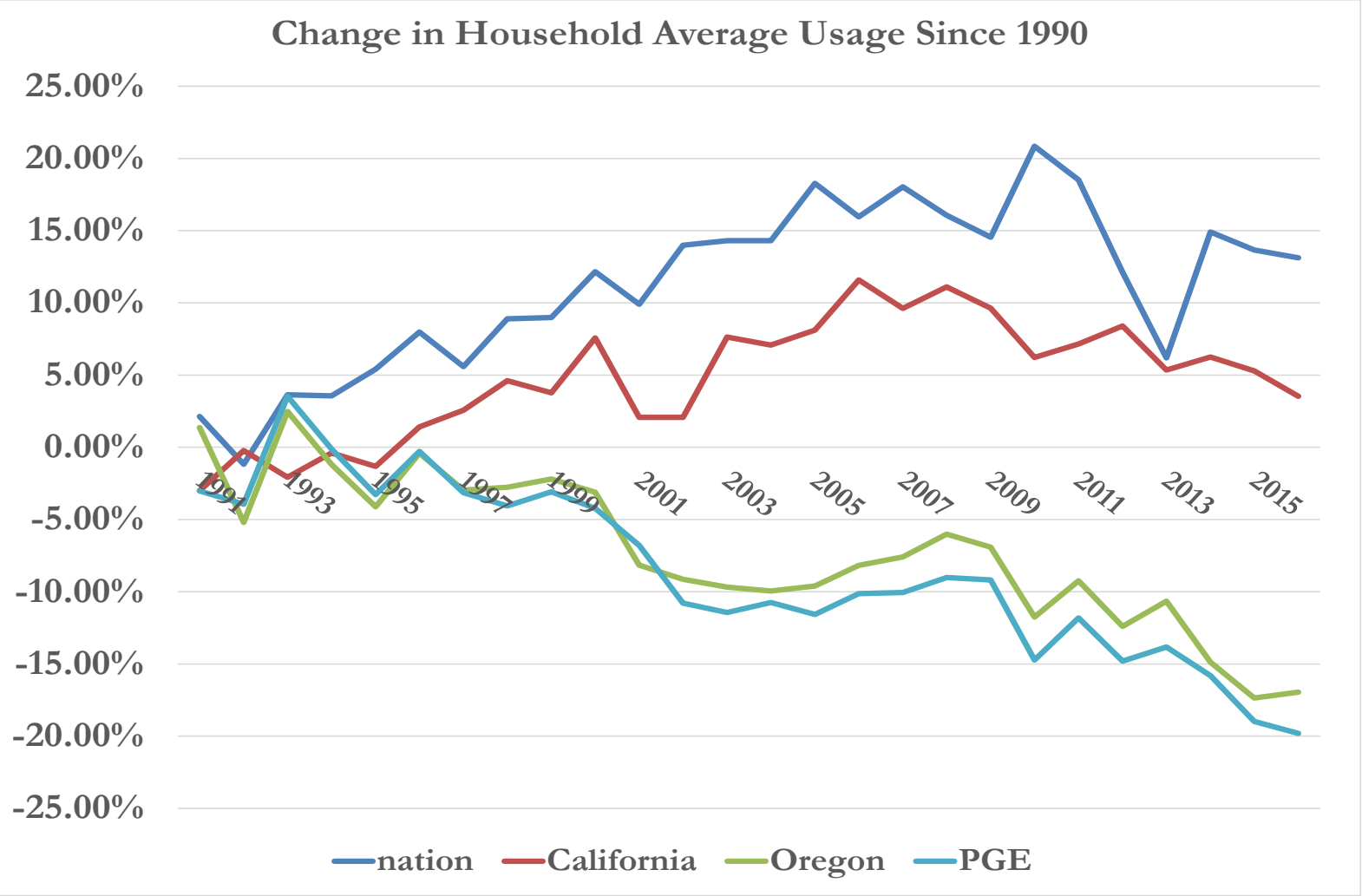
# Line Extension Allowance

Residential LEA:

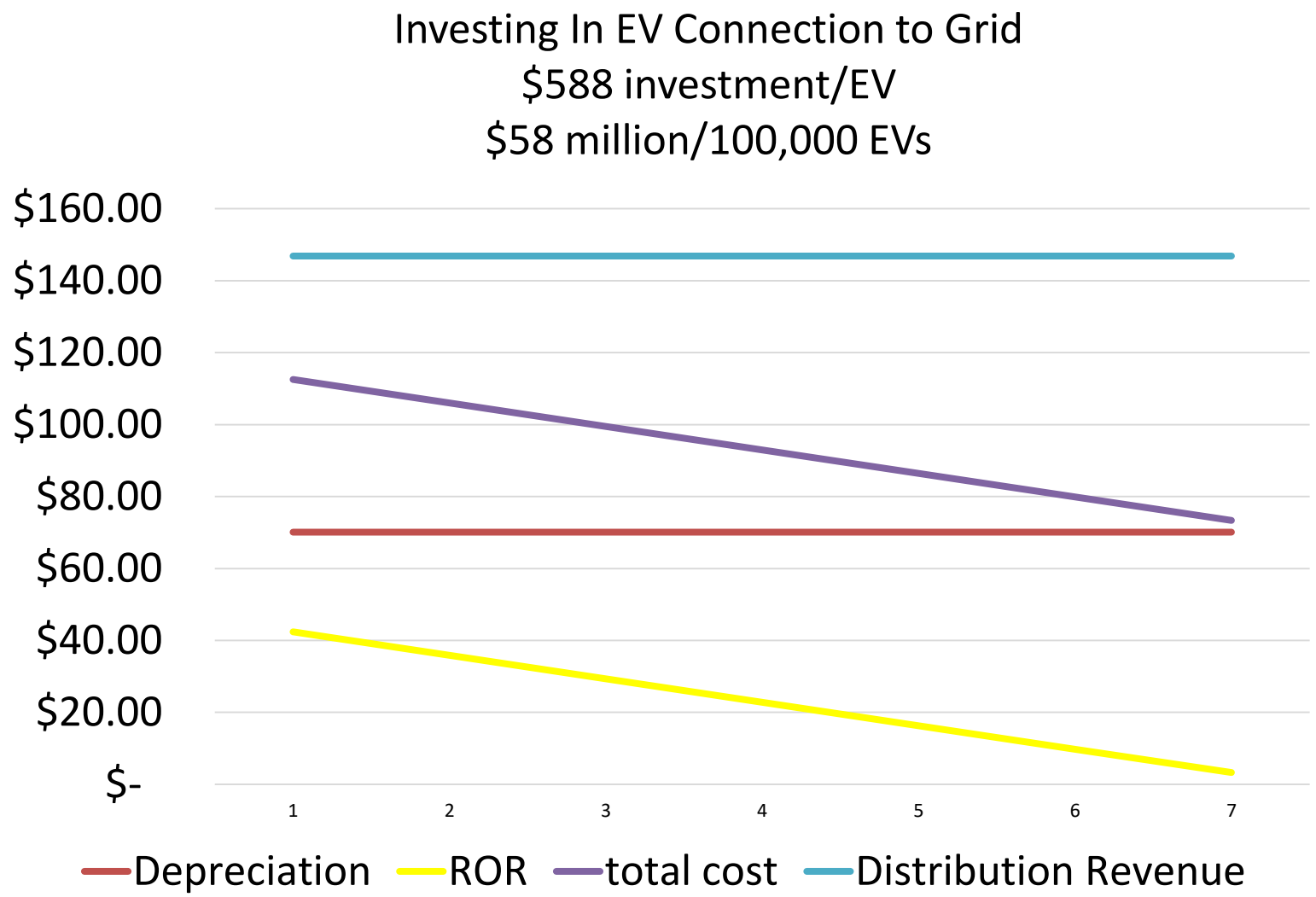
4 years of distribution revenue invested in poles, wire, line drop, meter

Because investment is recovered over years, distribution revenue is greater than cost recovery

# PGE's Distribution System



# Line Extension Allowance Methodology



# Portfolio Budget

- Forward Looking – 5 years ahead
- Form budget based on distribution revenues
- Invest in portfolio of charging services
- Revisit in 2 years
- Doesn't include energy benefits – justify additional programs

# Portfolio of Light Duty Charging

- Multiple programs : Workplace, Multi-family, Public Charging, Fleets
- Recognize that some programs are not cost effective by themselves: public charging
- Allows for non-discriminatory pricing – don't need a driveway for retail rates equivalency.

# CUB's Reflections

- Basing the budget on distribution revenues is somewhat arbitrary, but need a way to set a budget for a portfolio programs
- Need a cost test/evaluation tool that allows multiple on-going programs that go beyond pilot programs
- Application of that test cannot become a significant barrier to program investments

# Thank You


EV
PARKING FOR
ELECTRIC VEHICLES
ONLY WHILE
CHARGING
VIOLATORS SUBJECT TO FINE
AND TOW UNDER ORS 811.587
COP

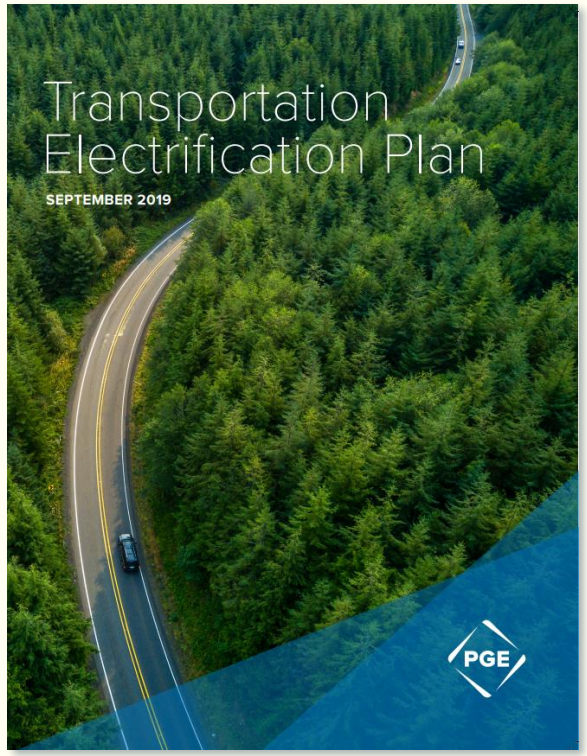
# Transportation Electrification

PGE's Transportation Electrification Portfolio

July 2021

# Recent Developments: 2020-2021

- OPUC accepted PGE's 2019 TE Plan
- Transportation Electrification Team formed (10+ FTE)
- Program approvals and launches:
  - Right-of-Way Charging Pilot (ADV 20-01 and 20-32)
  - Residential Smart Charging Pilot (ADV 20-18)
  - Business EV Charging Rebate Pilot (ADV 20-19 and 21-15)
  - Fleet Partner Pilot (ADV 21-09)
  - Heavy-Duty EV Charging Pilot (ADV 21-03)
- Flagship Clean Fuels Program activities:
  - Distributed first and second round of Drive Change Fund grants ($4.6M total)
  - Supported first electric school buses on Oregon's roads
  - Began Vehicle-to-Grid (V2G) research
  - Launched Oregoin' Electric statewide campaign with partners



# Pillars of PGE's TE Portfolio

## Rates and Billing

- Reduce total cost of ownership
- Encourage grid-supportive charging
- Make EV fueling easier to understand
- Ensure fair customer pricing for EV charging

## Infrastructure

- Build range confidence
- Support charging reliability
- Encourage infrastructure that is right-sized and future-proofed
- Ensure infrastructure is optimally located to meet customer needs and minimize integration costs

## Programs

- Increase awareness
- Encourage adoption of EVs and chargers
- Create new customer value streams
- Ensure efficient grid integration

## Clean Fuels Program

- Meet the needs of residential customers, no matter how they travel
- Address equity and the needs of underserved communities
- Flexibly test new technologies and approaches

# Customer Segment: Residential / Multifamily


| | Rates and Billing | Infrastructure | Programs |
|---|---|---|---|
| **Today** | EV-Only / Whole Home Time of Day Rate<br>Whole Home Time of Use Rate<br>Public Charging Subscription and Point of Sale Pricing | PGE Public Charging:<br>• Electric Avenues<br>• Right-of-Way Charging<br>• Oregon Electric Byways | Residential Smart Charging Program<br>Dealership Engagement<br>Web-Based Tools and Content |
| **Near-Term Vision** | Residential Rate and Billing Solutions<br>Multifamily Rate and Billing Solutions | Expand Right-of-Way Charging<br>Charging Solutions for Multifamily | Programs for Underserved Communities |

# Customer Segment: Business / Commercial

| | Rates and Billing | Infrastructure | Programs |
|---|---|---|---|
| **Today** | Demand Charge Free Rate | | Business EV Charging Rebates<br>Technical Assistance for Public Charging |
| **Near-Term Vision** | Public Charging Rate and Billing Solutions | Charging Solutions for Public/Workplace | Energy Partner (DR) for EV Charging |

# Customer Segment: Fleets


| | Rates | Infrastructure | Programs |
|---|---|---|---|
| **Today** | Demand Charge Free Rate | Electric Mass Transit Pilot<br>Fleet Partner Build<br>Electric Island Demonstration Site<br>Public MD/HD Vehicle Charging | Fleet Partner Plan<br>Business EV Charging Rebates<br>Web-Based Tools and Content |
| **Near-Term Vision** | Fleet Rate and Billing Solutions | Expand Fleet Partner Build | Expand Fleet Partner Plan<br>Energy Partner (DR) for EV Charging |

# Clean Fuels Program


| | Infrastructure and Grants | Education and Outreach | Emerging Technology |
|---|---|---|---|
| **Today** | Drive Change Fund<br>Electric School Bus Fund<br>Oregon Electric Byway DCFC Upgrade | Oregoin' Electric statewide campaign<br>School Engagement<br>Workforce Development | Smart Charging Pilot<br>Vehicle-to-Grid |
| **Near-Term Vision** | Continue existing activities<br>Infrastructure in Underserved Communities | Continue existing activities<br>Central State Website<br>Mobility Hub(s) | Continue existing activities<br>New activities as technology trends evolve |

# Questions?

Transportation Electrification

Elizabeth Turnbull, Senior Product Portfolio Manager
Elizabeth.Turnbull@pgn.com

# TE Investment Framework Workshop
# Pacific Power TE Portfolio

July 28th, 2021






PACIFICORP

POWERING YOUR GREATNESS

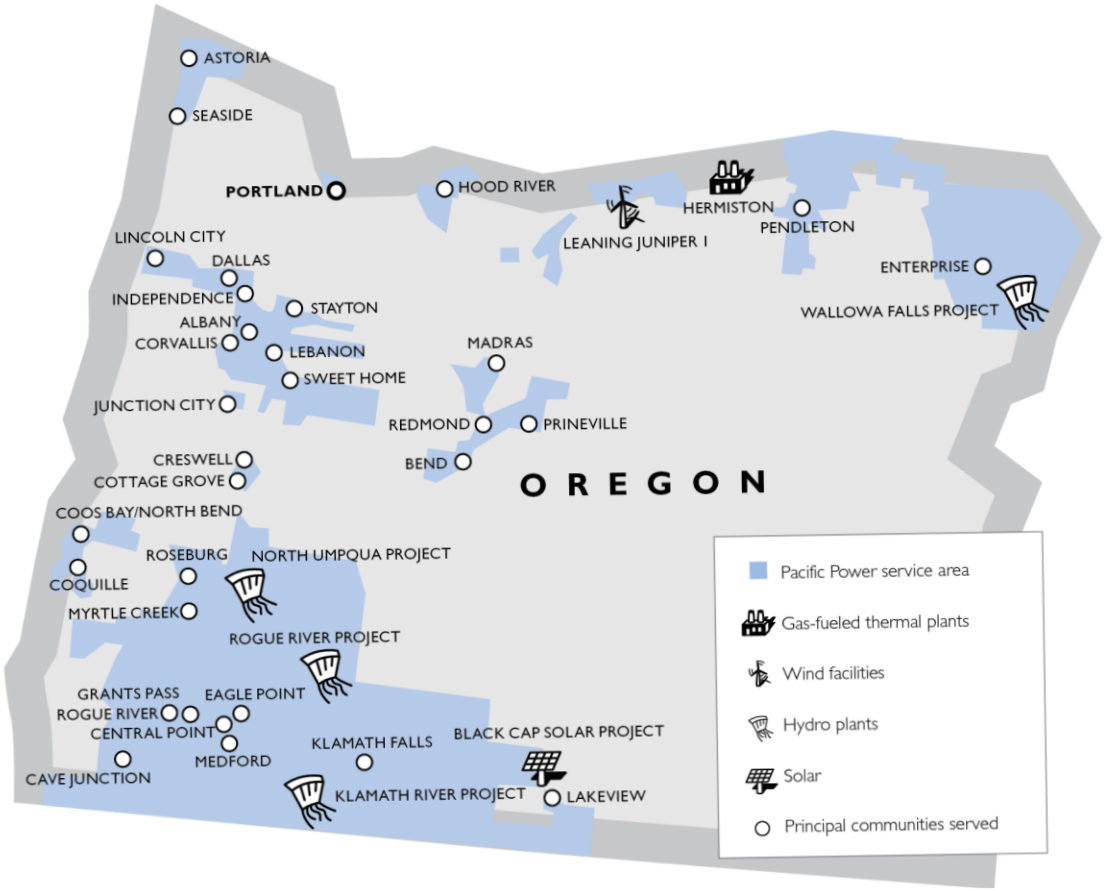
# Agenda


Overview of TE Portfolio


TE Investment Impact


TE Portfolio Next Steps

# Who We Serve




- Important Highway Corridors
- Rural Communities
- Significant Vacation Destinations

PACIFIC POWER
A DIVISION OF PACIFICORP

As of July 2021

# Oregon Transportation Electrification Portfolio

## Pilot Programs

### Phase I: Ended 2021

**Public Charging Stations**

**Pacific Power Stations**
Fast charging stations in: Bend, Klamath Falls, Madras, Mill City, and Otis

**Infrastructure Grant**

**Competitive EVSE grants**
All funding awarded

**Outreach and Education**

- Wattplan Online Tool
- Ride and Drives
- Beacon Deployment
- Technical Assistance

### Phase II: Filed 2021

**EVSE Residential Rebate**

Residential rebate for EVSE Level 2 charging, includes low-income adder

**EVSE Nonresidential Rebate**

Nonresidential rebate for EVSE Level 2 charging, includes multifamily adder

**Outreach and Education**

- Decision Making Support
- High Quality EV Experiences
- Planning and Studies

## Clean Fuel Credit Programs
## Program Renews Each Year

**Outreach and Activation**

**Communication and Enhanced Outreach**

**Electric Mobility Grants**

**Competitive EV partnership grants**
To support projects that advance electric transportation in underserved areas

**Matching Funds**
To organizations and communities applying for external grants

## Other Key Initiatives

**Supporting Tariff Design**

- Demand charge transitional rate
- TOU Pilot Rates
- Expansion of line extension allowance
- Tier Flattening

**Planning Studies**

**Regional Coordination**

**Customer Engagement**

**WestSmart 2.0 Grant**

# TE Investment Impact
# Pilot Year 2018-2020

- Public Charging
  - Installed DCFC and Level 2 charging pods in Madras, Otis, Bend, Klamath Falls and Mill City
- Outreach and Education
  - 87 Technical Assistance Studies completed
  - 2,000 instances of the WattPlan use
  - 6 Community Events Hosted
- Demonstration and Development
  - 49 Applications Awarded and 34 Project Completed to Date



# TE Investment Impact
# Oregon Clean Fuels 2020 Grants

- Electric Bus Support
  - Bend-LaPine Schools
  - Central Oregon Intergovernmental Council
- Electric Agricultural
  - Crook County Fairgrounds
  - Oregon Environmental Council
- Charging Infrastructure
  - North by Northwest
  - Hacienda CDC
- Electric Bikes Ecosystem
  - Corvallis-Benton County
  - City of Mosier
- Outreach & Education
  - The Environmental Center


# Current TE Portfolio Overview

| | Residential and Nonresidential EVSE Rebate | Outreach and Education | E Mobility Grants & Matching Funds |
|---|---|---|---|
| **Objective** | To improve customer access and economic viability of home charging and commercial charging | To provide positive impressions of EV technology to accelerate the adoption of EVs and EVSE charging infrastructure. | To reduce the average carbon emissions from transportation fuels in Oregon by 10% below 2015 levels by 2025 |
| **Description** | • Rebate via check or bill credit<br>• Residential and small nonresidential participants must enroll in TOU rate<br>• Income eligible residential customers have the options to enroll in TOU rate<br>• Income eligible and multifamily dwelling units can receive additional incentive dollars | • Decision Support. Providing technical assistance, online tools, marketing campaigns and dealer engagement<br>• High Quality EV Experiences. Partner and support ride & drive, EV showcase tours, etc.<br>• Planning & Studies. Provide support for EV Ready, EV market potential and fleet potential studies. | • Competitive grant process with one yearly cycle starting June 30th and closing August 31st<br>• Off cycle opportunity for communities within Pacific Power territory to apply for matching funds<br>• Must benefit residential customers as a class |

# Key Supporting Initiatives

- Supporting Tariff Changes
  - Encouraging off-peak usage
  - Facilitating charging station buildout in underserved areas through alternative rate structures
  - Modernizing residential rates to improve charging economics
- Updated TE Oregon Plan
  - February 2022

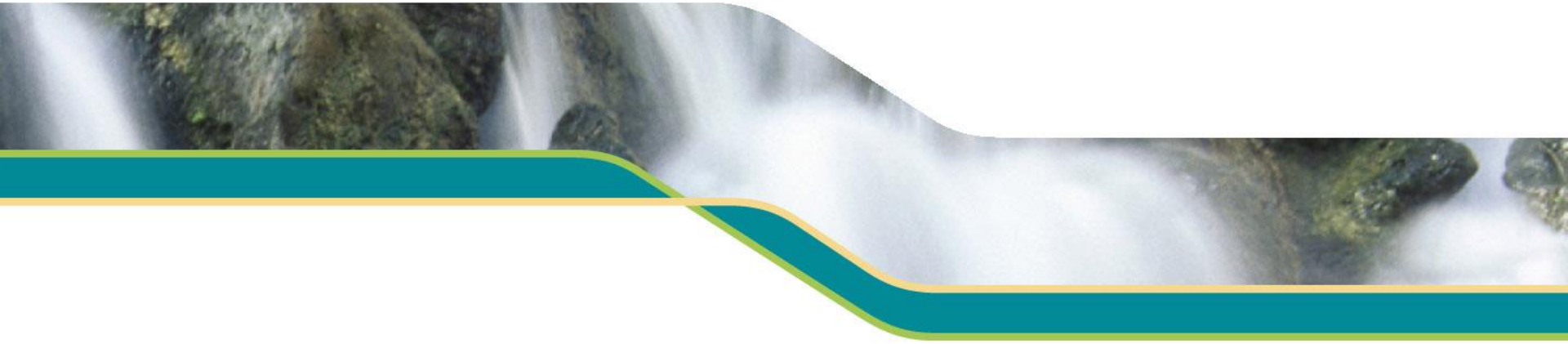
Planning Studies

Regional Collaboration

Customer Engagement

WestSmart 2.0


Questions



# Transportation Electrification in Idaho Power's Oregon Service Area

Matt Larkin

July 28, 2021

# Idaho Power's Oregon Service Area

- 4,744 square miles
- ~19,000 customers
- Largest Towns:
  - Ontario, population ~11,000
  - Nyssa, population ~3,000
  - Vale, population ~2,000
- Closest Metropolitan Areas:
  - Boise, Idaho ~56 miles
  - Bend, Oregon ~260 miles

# Current State of TE Market

- **23** EVs registered in Idaho Power's Oregon Service Area
- **2** DC Fast Charging Stations (1 generic, one Tesla)
- **45%** of surveyed Oregon customers are "not very familiar" or "not familiar at all" with EVs
- **55%** of those "familiar" or "somewhat familiar" have "never been in or seen an EV" or were "unsure"

# Market Barriers

- EV Availability
- Range Concerns
- Public Charging
- Price Concerns

| Median Household Income | |
|---|---|
| Ontario, Oregon | $36,922 |
| Portland, Oregon | $71,005 |
| Boise, Idaho | $60,035 |

Malheur County has 3 high poverty hotspots:

- Ontario
- Nyssa
- Vale

70% of the county's residents live below the poverty level and 75% of the county's SNAP recipients live in these three towns.

# Market Barriers

- Power / Towing Capacity
- Perception:

"Can't pull a boat or trailer with an electric car."

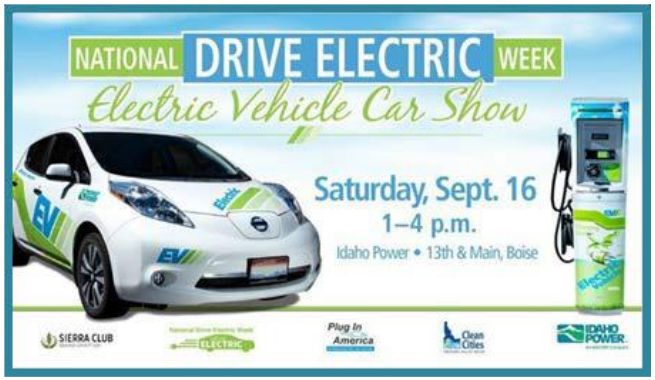
"EVs make no sense at all in the rural west."

"You can't take EVs into the mountains."

"Not interested in off-roading in an EV."

# Current TE Efforts

- Idaho Power's EV fleet and charging station allowance
- Workplace Charging Incentive
- EV Website
- Customer Support
- EV Education & Awareness Program




# Questions?