Transportation Electrification

Discussion of alternative transportation user fees

James Campbell
PacifiCorp Overview

- Two divisions – Rocky Mountain Power and Pacific Power
- Approximately 4,800 Employees
- 2 million electricity customers
- 141,503 square miles of service territory in six states
- 17,770 miles of transmission
- 11,597 MW owned generation capacity
- 13,195 MW 2022 peak system load
PacifiCorp Projected Energy Mix

2022

- Coal: 42%
- Natural Gas: 19.1%
- Wind: 12.4%
- Hydro: 4.3%
- Hydrogen: 0.1%
- Biomass: 0.1%
- Geothermal: 0%
- Nuclear: 0%
- Other: 0.1%
- Market Purchases: 11.9%
- Unspecified: 7.4%

2030

- Solar: 21%
- Wind: 30%
- Natural Gas: 21%
- Coal: 9%
- Nuclear: 3%
- Hydro: 5.0%
- Hydrogen: 0.1%
- Geothermal: 0%
- Biomass: 0%
- Other: 0%
- Market Purchases: 3%
- Unspecified: 8%

Energy without RECS is classified as unspecified.
The changing energy landscape

EMISSIONS REDUCTION

25% IN 2022
70% BY 2030
100% BY 2050

MILLION METRIC TONS (CO₂E)

% OF 2005 BASE

PACIFICORP EMISSIONS (MILLIONS MT)  2005 BASE EMISSIONS

Forecast represents PacifiCorp six-state system from the 2023 RP. Emissions reduction rate by state may be different based on clean energy policies of each state.

WIND AND SOLAR CAPACITY**

NAMEPLATE MWs

** Resources acquired through customer partnerships, used for renewable portfolio standard compliance or used for third-party sales of renewable attributes are included in the total figures quoted.
Advanced Nuclear Technology
Wells to Wheels - Who’s Cleaner?

Source: Argonne National Laboratory Study 2022
EV Charging Basics

**Level 1**
- **VOLTAGE:** 120V 1-Phase AC
- **AMPS:** 12-16 Amps
- **CHARGING LOAD:** 1.4-1.9 kW
- **CHARGING TIME:** 3-5 Miles per Hour

**Level 2**
- **VOLTAGE:** 208V or 240 V 1-Phase AC
- **AMPS:** 12-80 Amps
- **CHARGING LOAD:** 2.5-19.2 kW (Typ. 6.6 kW)
- **CHARGING TIME:** 12-60 Miles per Hour

**DC Fast Charge**
- **VOLTAGE:** 208V or 480V 3-Phase AC
- **AMPS:** >100 Amps
- **CHARGING LOAD:** 50-350 kW
- **CHARGING TIME:**
  - 100 Miles in 40 min (50 kW)
  - 100 Miles in 12 min (150 kW)
  - 100 Miles in 5 min (350 kW)
Ownership Models

• Municipal/government: Parks, libraries, city halls

• Private (Site owned): Property owner owns charging equipment

• Private (Third-party owned): Property owner is a site-host but equipment is owned by operator

• Utilities: Able to deploy large amounts of infrastructure must have Utility Commission approval
DC Fast Charge Layout
Innovating for a thriving future

Today

Tomorrow

POWERING YOUR GREATNESS
Thank you