

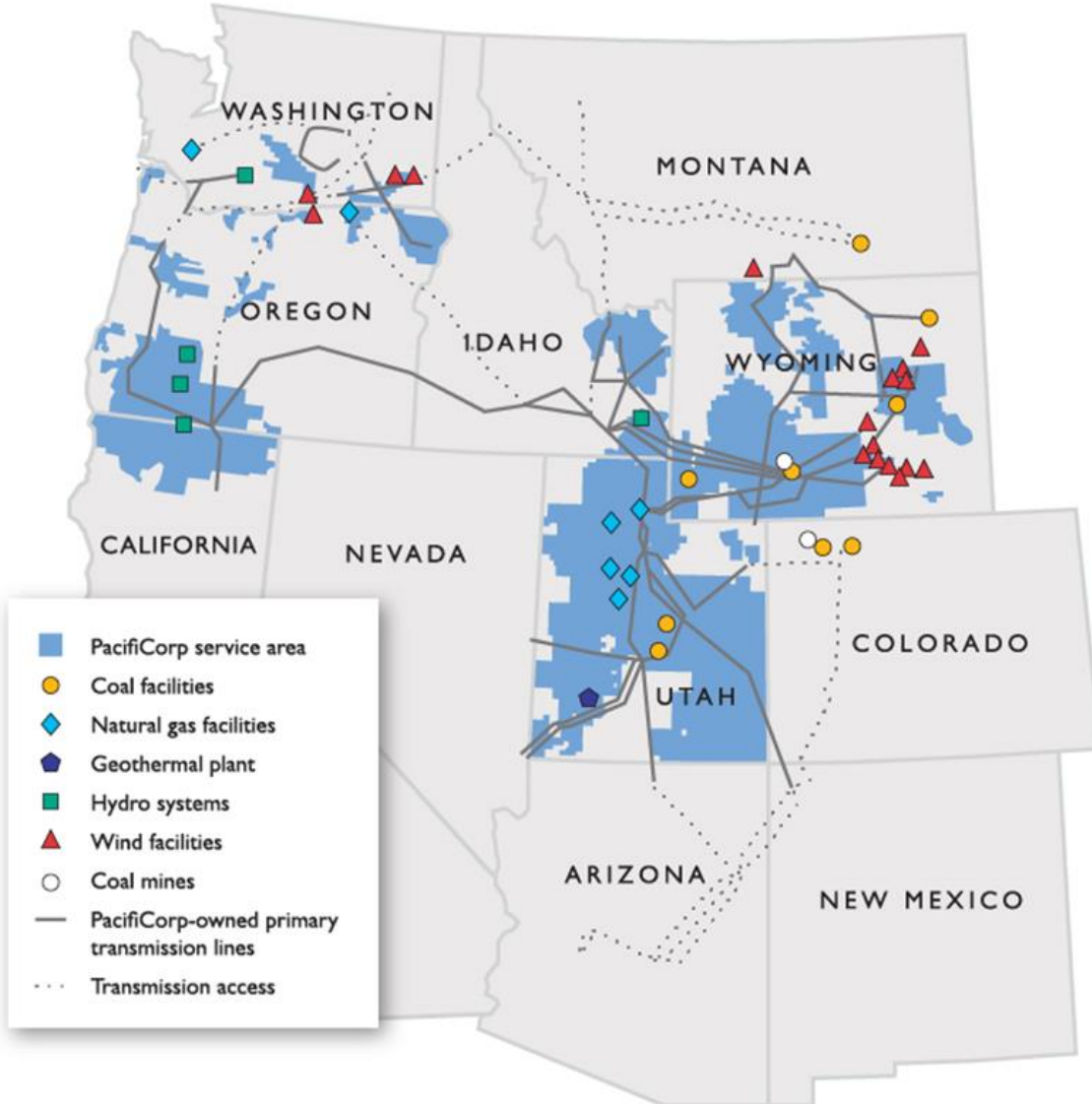
# Transportation Electrification

*Discussion of alternative transportation user fees*

*James Campbell*



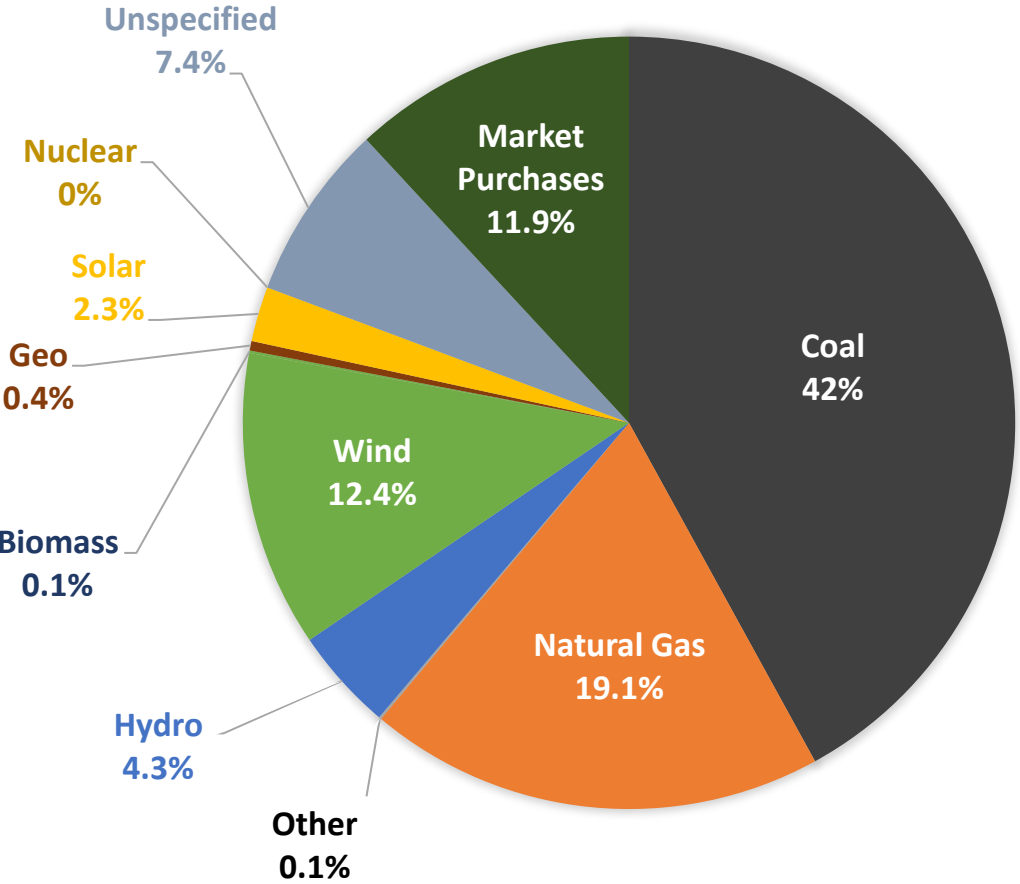
# PacifiCorp Overview



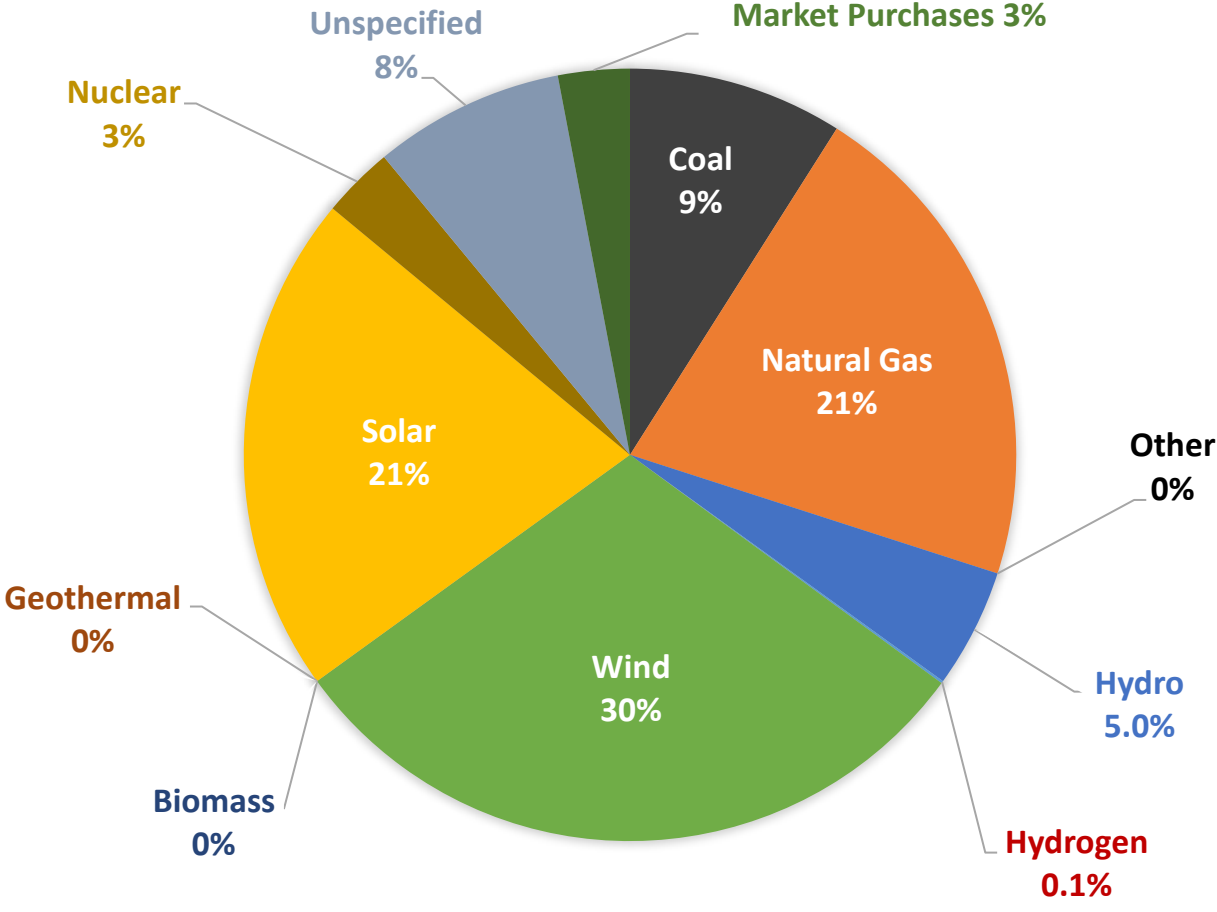
- Two divisions – Rocky Mountain Power and Pacific Power
- Approximately 4,800 Employees
- 2 million electricity customers
- 141,503 square miles of service territory in six states
- 17,770 miles of transmission
- 11,597 MW owned generation capacity
- 13,195 MW 2022 peak system load

# PacifiCorp Projected Energy Mix

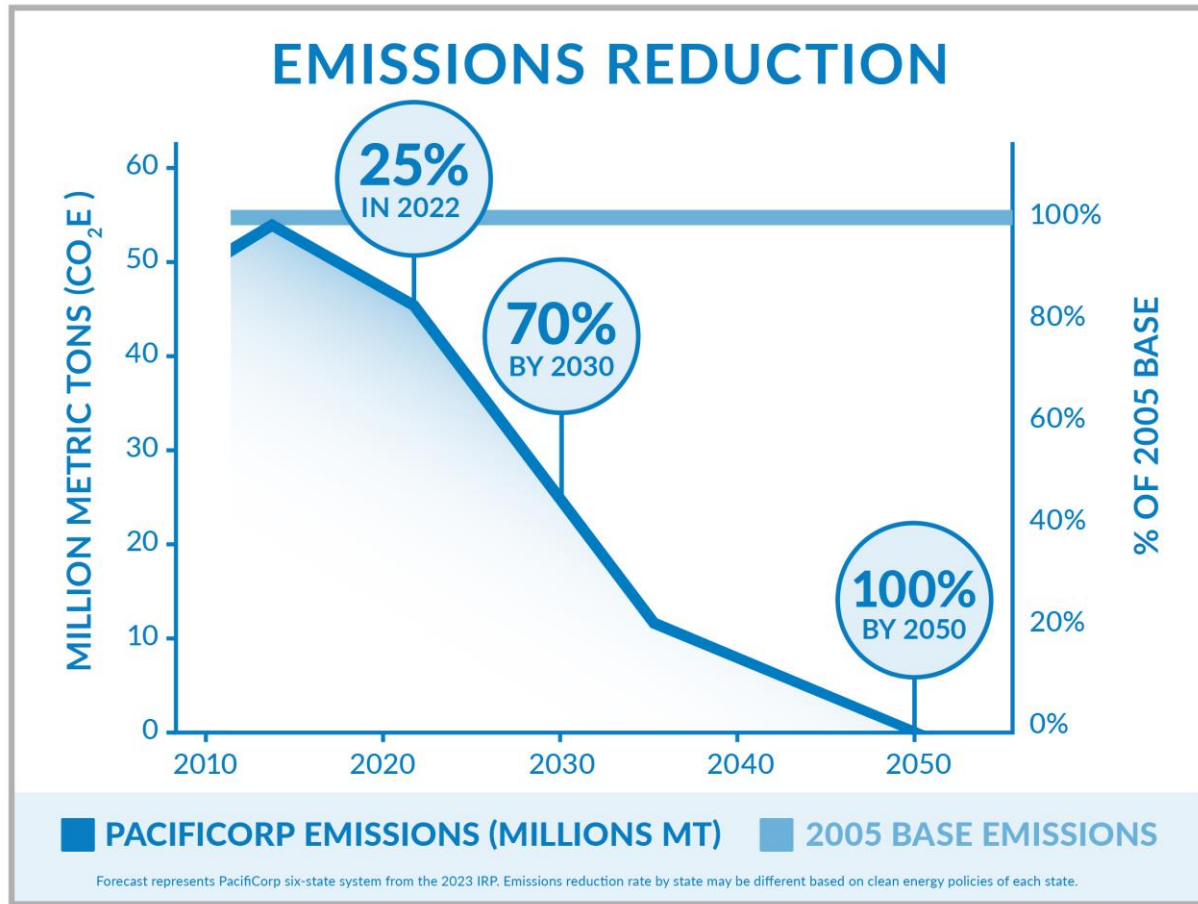
2022



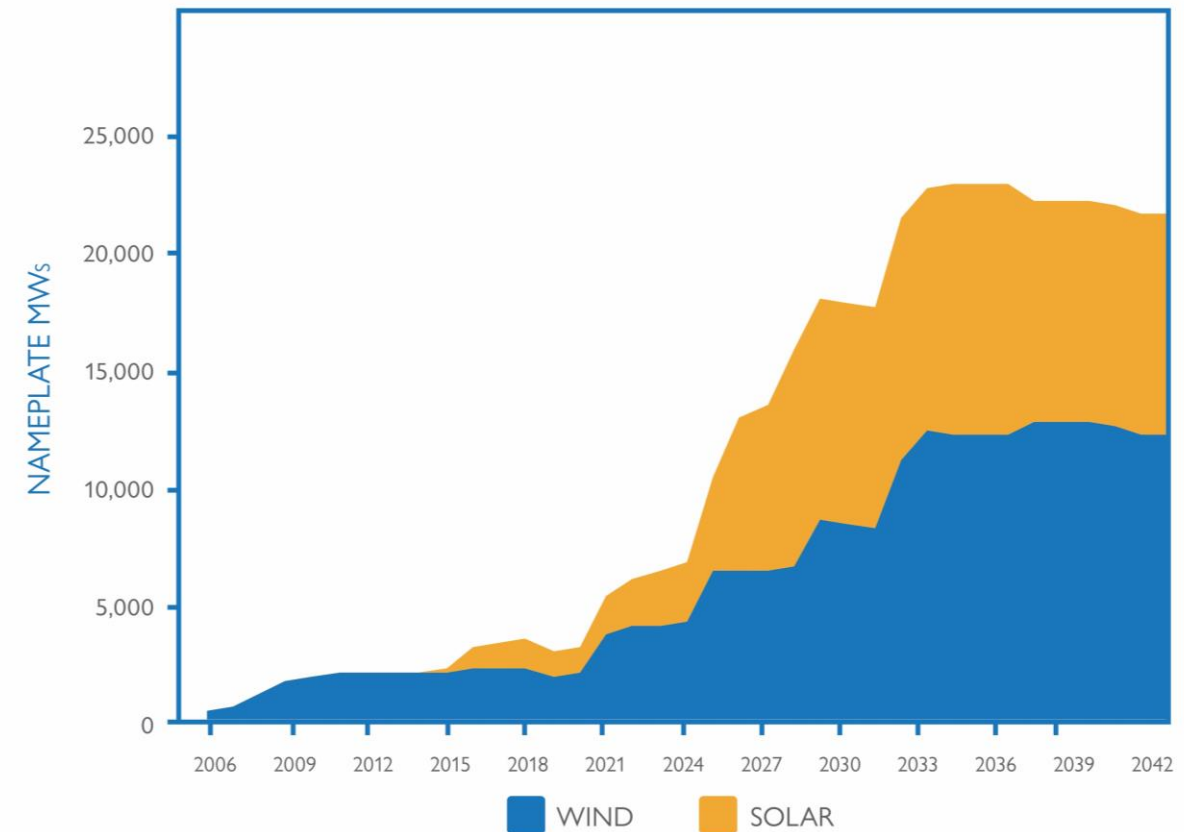
2030



# The changing energy landscape



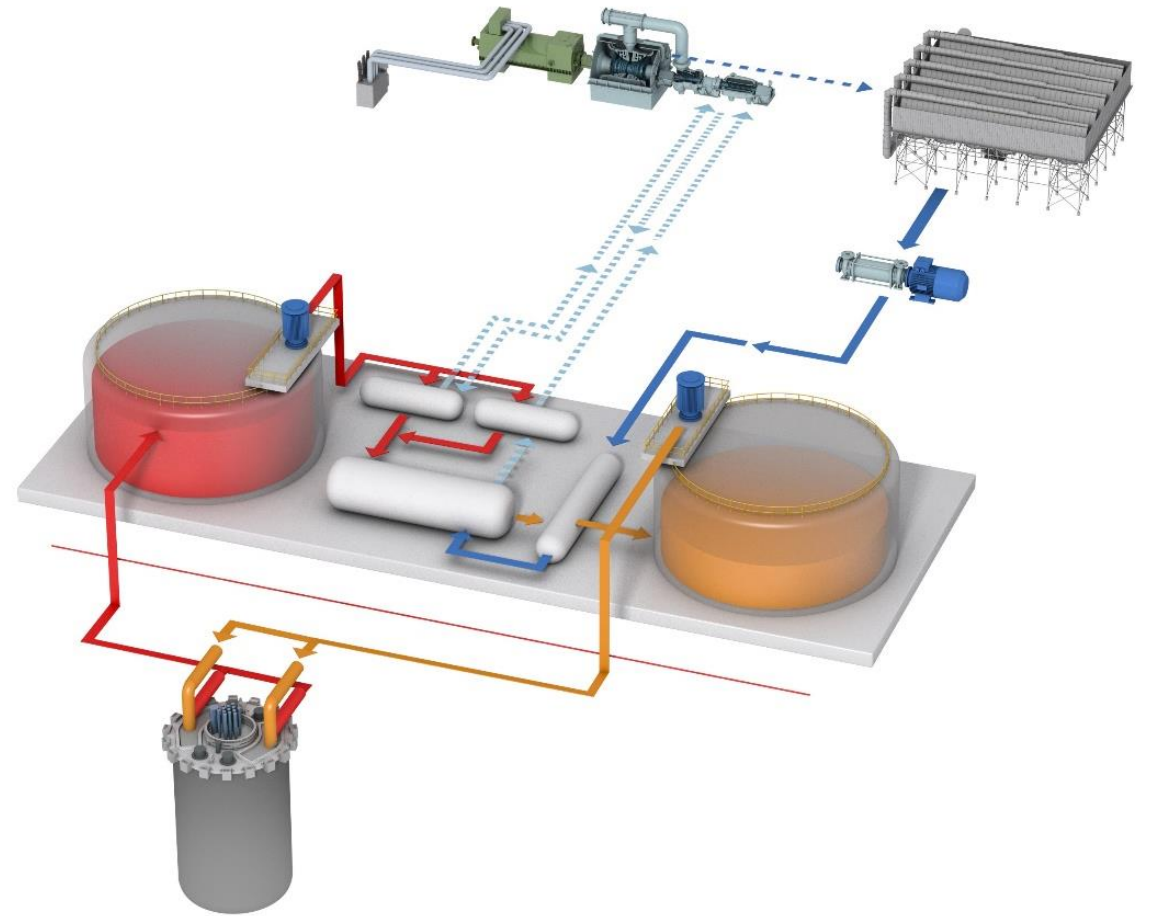
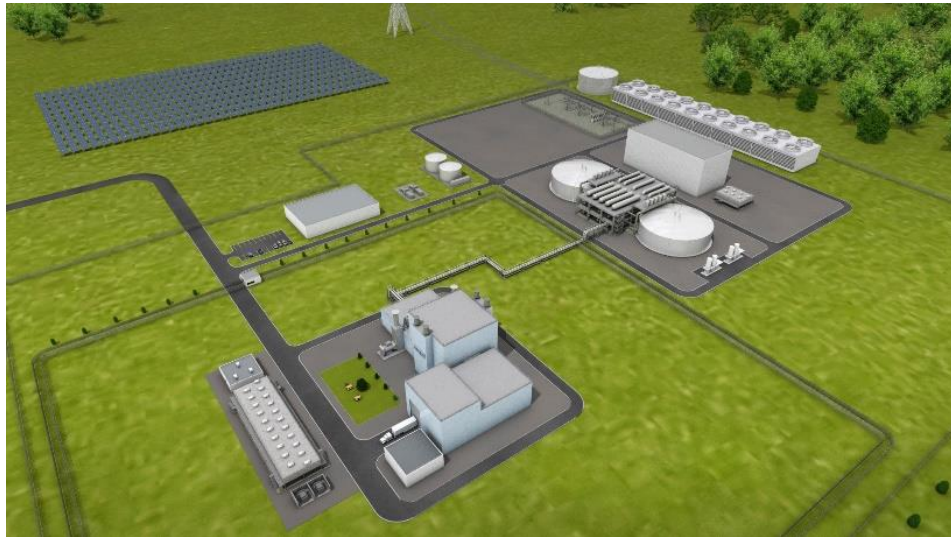
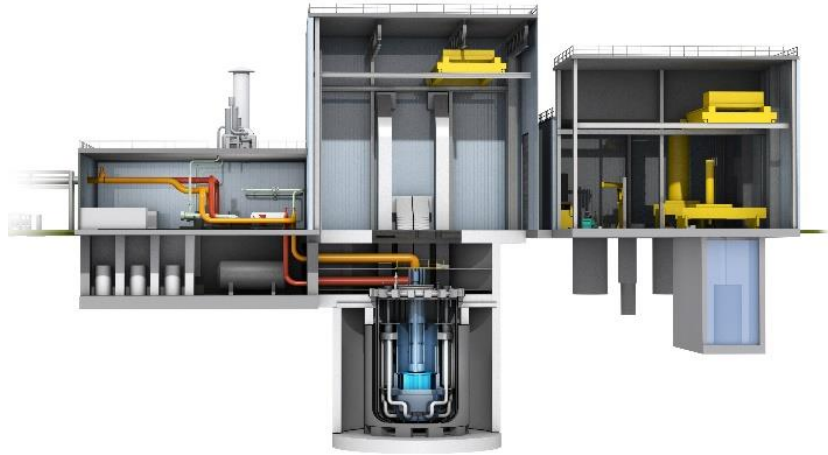
WIND AND SOLAR CAPACITY\*\*



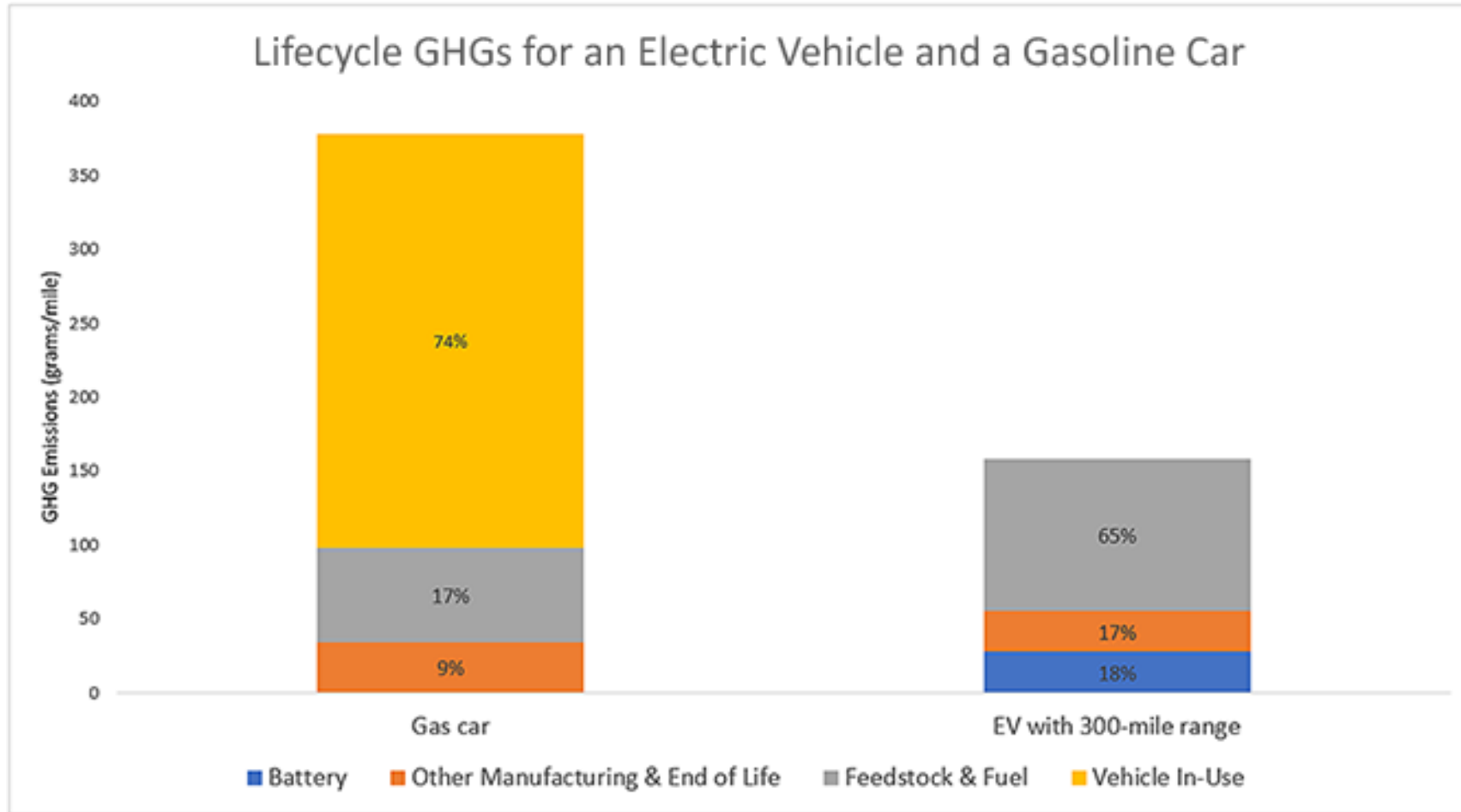
\*\* Resources acquired through customer partnerships, used for renewable portfolio standard compliance or used for third-party sales of renewable attributes are included in the total figures quoted.



# Advanced Nuclear Technology



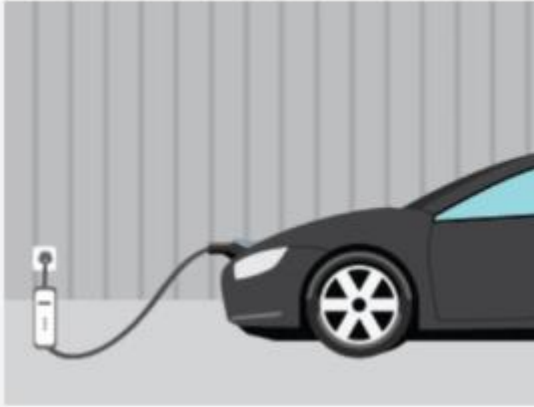
# Wells to Wheels - Who's Cleaner?



Source: Argonne National Laboratory Study 2022

# EV Charging Basics

## Level 1



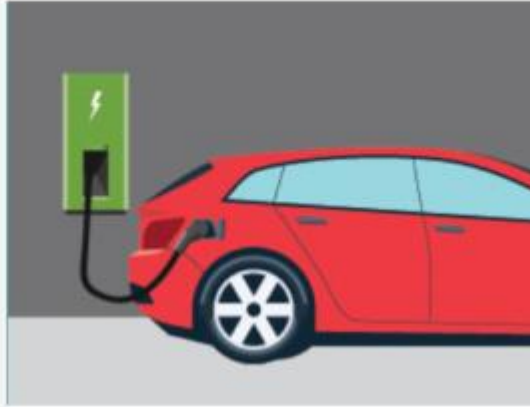
**VOLTAGE;**  
120V 1-Phase AC

**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



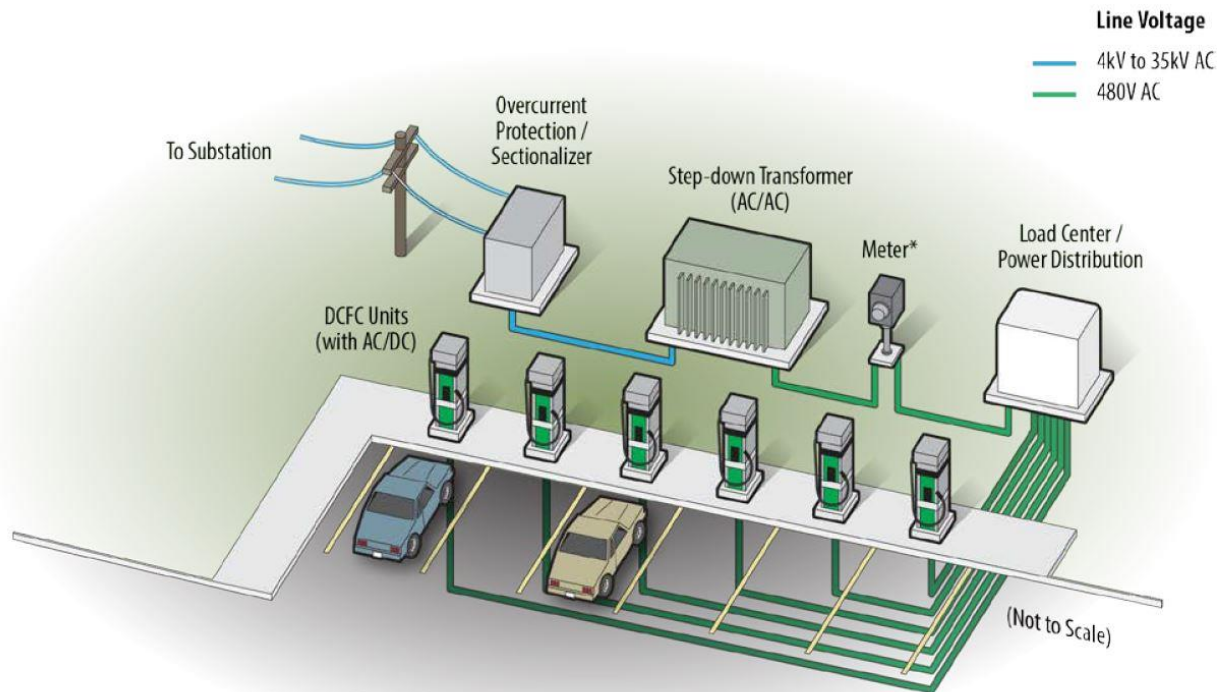
# DC Fast Charge Layout





# Innovating for a thriving future

## Today



\*Meter may be located on the other side of the transformer

## Tomorrow





A photograph of two white wind turbines standing in a field of tall, dry grass. The sky is a clear, deep blue. In the foreground, the grass is out of focus, creating a sense of depth. To the right, a portion of a power line tower is visible.

Thank you

