

Tacoma Power, Power Management
Planning for Electrification

# What is Electrification?

Powering things with electricity – replacing an existing nonelectric fuel





# **Buildings:**

- Heating/cooling
- Water heating
- Cooking
- Clothes drying



# Commerce & Industry:

- Heating/cooling
- Water heating
- Drying
- Curing
- Specific machinery
- Cooking
- Port operations



## Transportation:

- Cars
- Busses
- Trucks
- Fleets



**ELECTRIC VEHICLES** 

#### Buckle up: Climate law to turbocharge sales of electric trucks and buses

The Inflation Reduction Act's tax credits, grants and loans could accelerate commercial EV adoption and boost U.S. manufacturing.

**Cumulative global public charging connectors** 

Bloomberg

Green Hyperdrive

# EV Sales Will Triple by 2025 and Still Need More Oomph to Reach Net Zero

The window to get the world's road emissions to carbon neutrality by 2050 is 'closing quickly,' BloombergNEF says in its latest Electric Vehicle Outlook.

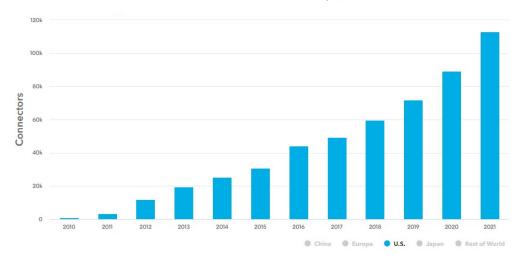
# Washington State Signs Nation's Earliest Gas Car Ban Into Law

March 31, 2022 By Sam Anderson

now: f

### Washington legislators again mandate 100% electric new car sales by 2030

Published March 14, 2022



Codes and Standards

#### Washington First State to Require Electric Heat Pumps

Construction interests oppose change to state's energy code

# Washington state moves to electrify new buildings by requiring heat pumps

New commercial buildings in Washington will have to conform to what are now the country's strongest electrification standards for the sector.

# Climate law could spur 'market transformation' in home electrification

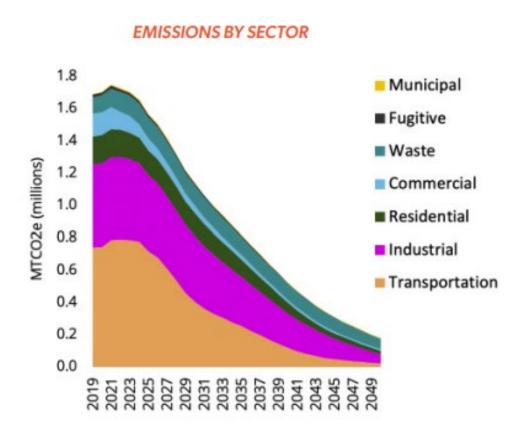
The Inflation Reduction Act has tax credits, rebates and loans to make homes more efficient and move them from fossil fuels to electricity.

# West Coast Climate Partnership Sets Sights on Port Electrification and Maritime Decarbonization

By: AJOT | Oct 07 2022 at 06:21 AM | Ports & Terminals

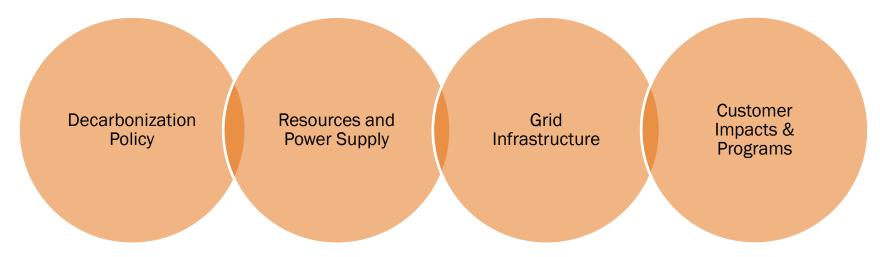
Pacific Coast Collaborative Announces Shipping and Port Decarbonization Commitmen

# City of Tacoma Climate Action Plan: 2050 Net Zero Scenario



# Planning for an Electrified Future

Planning for electrification is important because it impacts all aspects of our grid.



"The goal of forecasting is not to predict the future but to tell you what you need to know to take meaningful action in the present."

- Paul Saffo

# Electrification Impacts in Tacoma

Recently, Tacoma Power has been analyzing the impacts of electrification impacts:

- Residential Electrification Potential (2020)
- Commercial Electrification Potential (2021)
- 2022 Integrated Resource Plan Sensitivity Analysis
- Electrification Futures Assessment (2022 2023)

# Electrification Futures Assessment: Scope of Work



Buildings, transportation, & industrial electrification



Identify scenarios: policies, technologies, and adoption

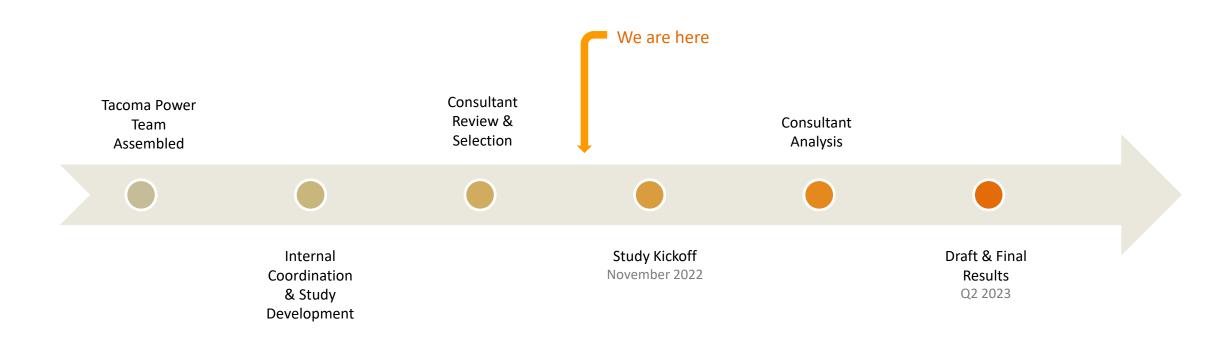


Estimate location, time, weather impacts



Model utility programs which could help minimize cost

# **Electrification Futures Assessment Study**



# Questions?

Thank you.