



Strategic Directive 11

Decarbonization

Update to the Tacoma Public Utility Board

October 12th 2022



●●● Purpose

“Tacoma Public Utilities seeks to be a leader in decarbonization of the electric utility system and transportation electrification and to promote Tacoma Power’s renewable and nearly carbon free generation portfolio as a driver of economic development and a competitive advantage for existing customers.”

Legislative/Regulatory

2022 decarbonization rules to be established and implemented Jan. 2023

- In 2021, the Washington Legislature passed the Clean Fuel Standard, which will require fuel suppliers to reduce the carbon intensity of their fuels 20% by 2034. The final rule is expected to be released in October and the program starts January 2023.
- IN 2021, the Washington Legislature passed the Climate Commitment Act (or CCA) which establishes a comprehensive, market-based program to reduce carbon pollution and achieve the greenhouse gas limits set in state law. The final rule was released on September 29, with final adoption on November 1. The program will start January 2023, and the first emissions allowance auction will take place in mid-February, 2023.
- SB 5192 – EVSE Interoperability Standards. Establishes requirements for public charging stations. No recent action on the draft rule. Proposed rule adoption date is October 18, 2022. Effective date January 2024.

●●● Federal Legislation Passed

Bipartisan Infrastructure Law (Nov. 2021)

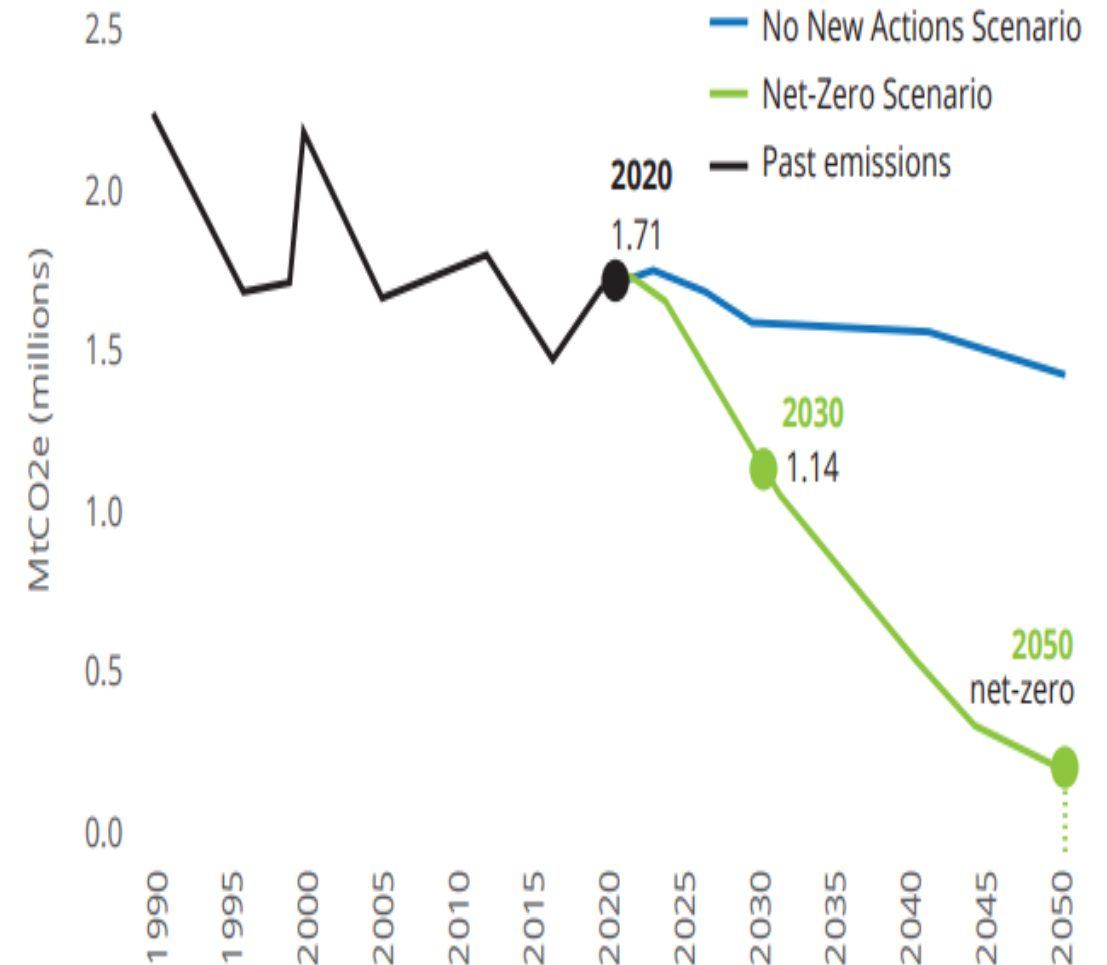
- New spending - \$550 billion
- Over five years - FY22-26
- \$7.5 billion for alternative fuel and charging infrastructure
- \$8 billion for regional hydrogen hubs
- \$5 billion for clean school buses

Inflation Reduction Act (Aug. 2022)

- Nearly \$370 billion to climate and energy provisions
- Tax incentives for
 - Electric vehicles
 - EV charging
 - Energy efficiency
 - Clean hydrogen production

Climate Action Plan (CAP)

- **The 2030 CAP was adopted November 30, 2021**
- Progress is tracked and reported to Senior Leadership quarterly, and General Government annually.
- TPU is responsible for leading 36 actions, 10 of which have begun and one is complete. (Departmental Plans)
- \$1.5 MM in new state funding and \$1 MM in new federal funds have been secured for ER&D projects.



●●● Rail Electrification

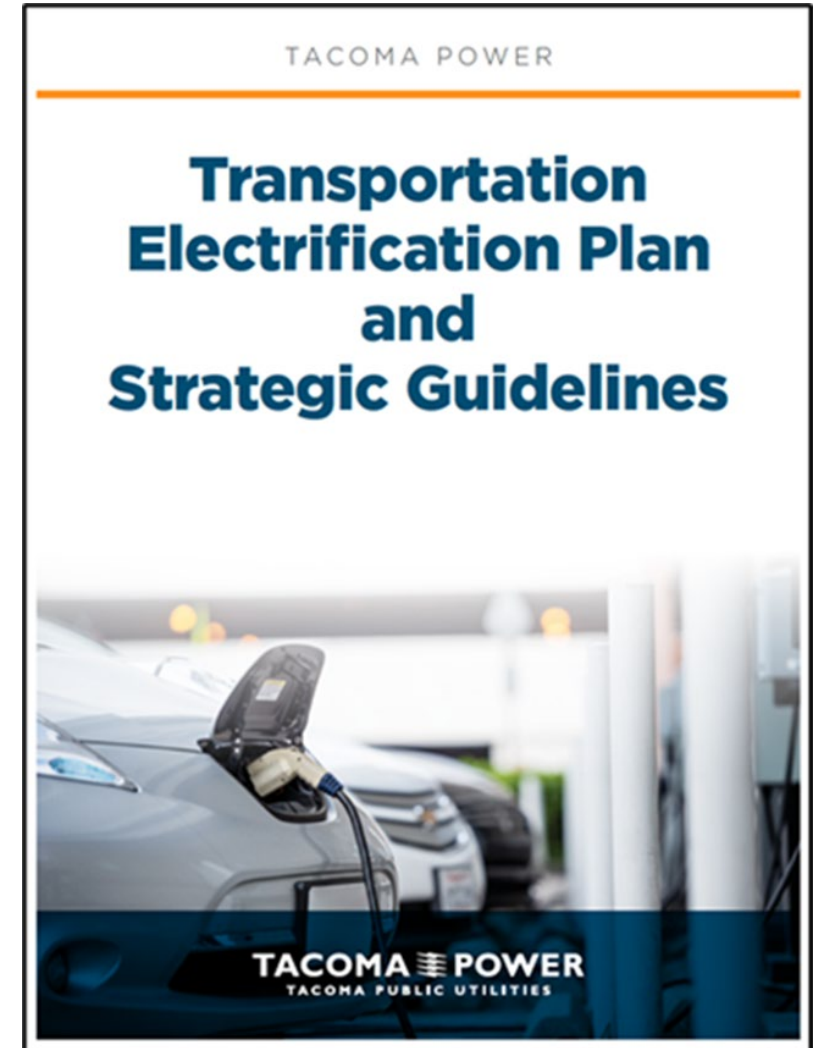
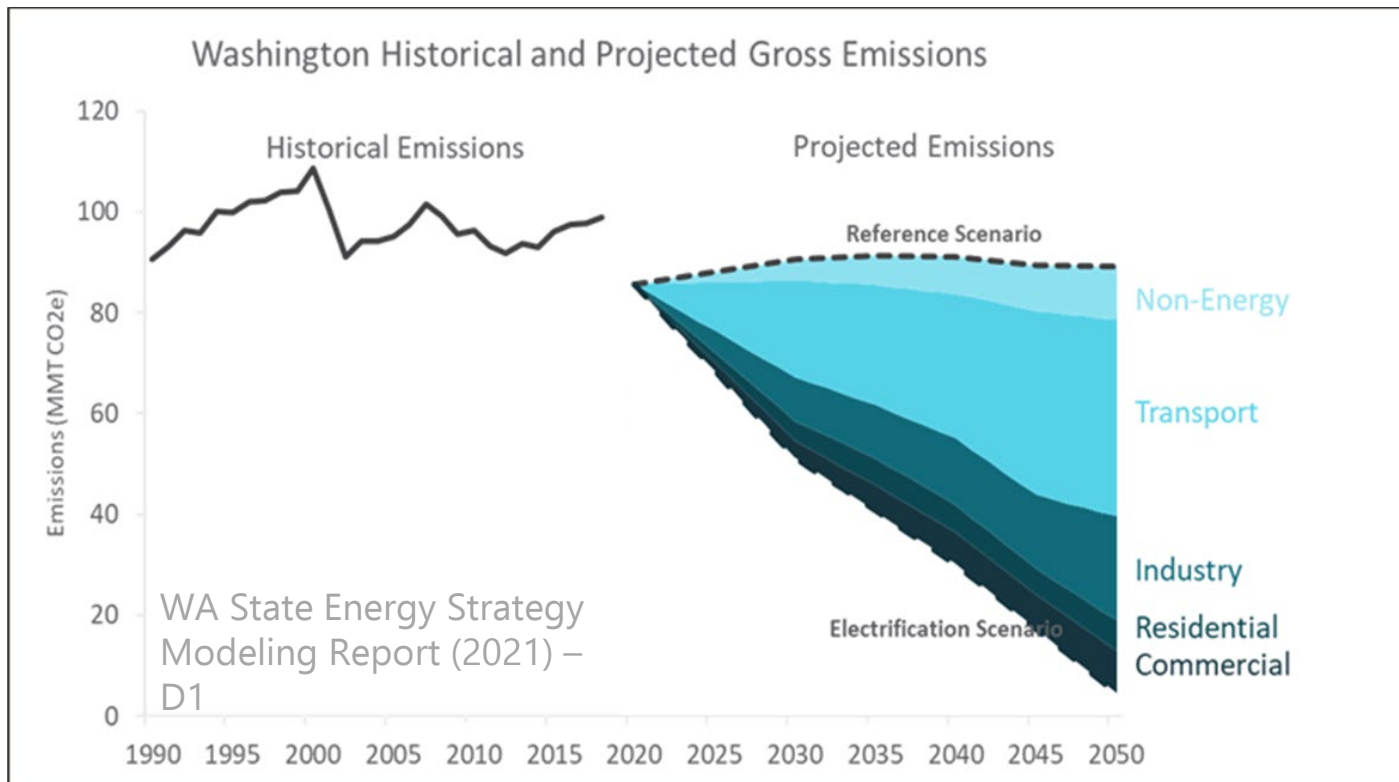
Battery Electric Locomotives

- Awaiting official award announcement for battery electric locomotives grant through CMAQ.
- Submitting for additional grant funding later this year through the CRISI grant program.
- Working with Power for design and layout options for charging stations.
- Tacoma Rail positioning to be the first shortline railroad in the Northwest to have battery electric locomotives.

●●● Transportation Electrification (TE)

Why TE is important to decarbonization

- Transportation is an important contributor to GHG accumulation
- Tacoma Power's clean, affordable electricity can be a fuel that reduces carbon and saves money and is produced in our region



●●● Transportation Electrification (TE)

New programs launched

Home EV Charging pilot – provides flexible options to help overcome challenges to accessing Level 2 charging. Paves the way to future managed charging programs. Nearly 300 signed up!

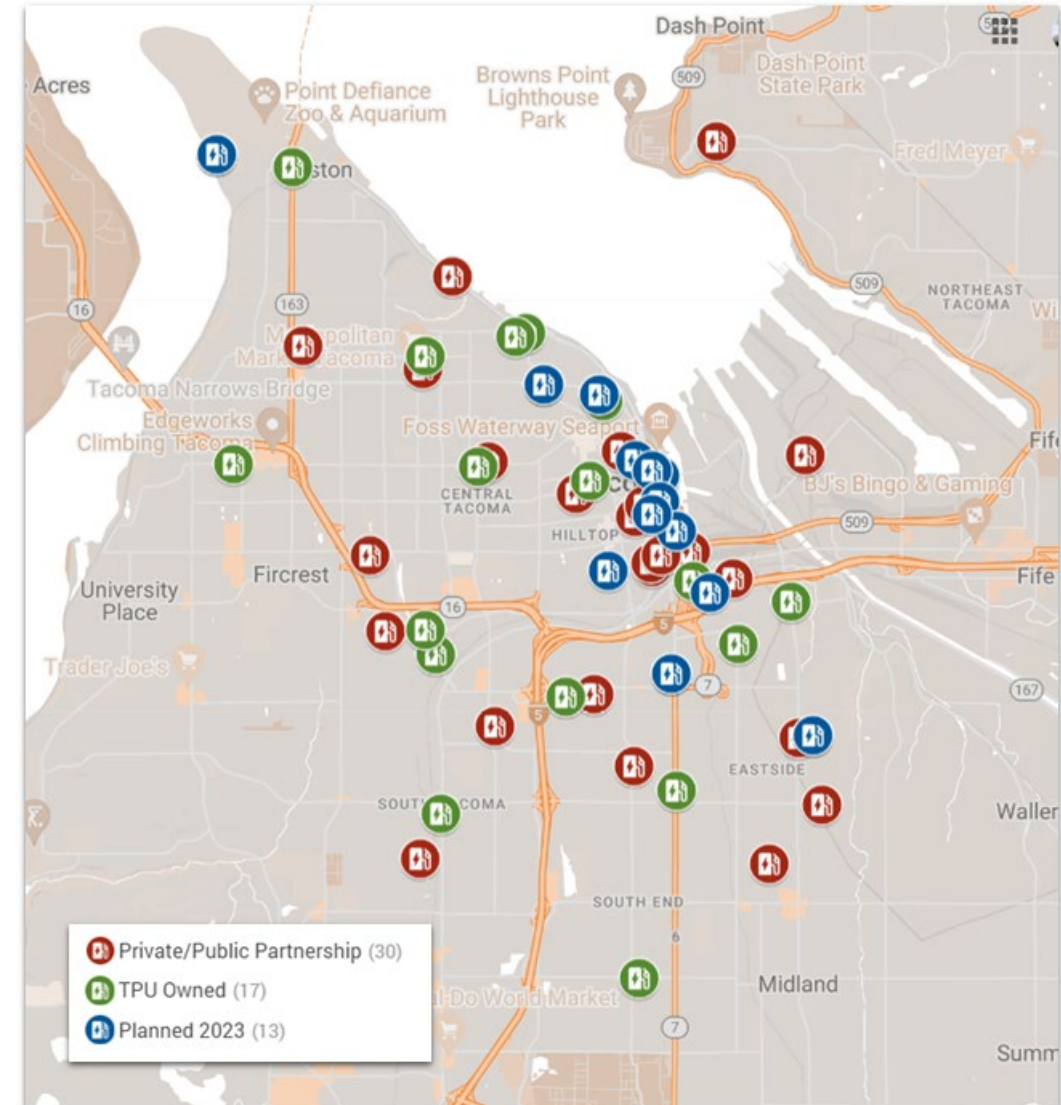
Smart Water Heater Controller pilot – a study to test grid benefits of utility managed electric water heaters through a controller. 240 customers are participating.



Transportation Electrification (TE)

Lots of new chargers installed

| | <u>2022</u> | <u>2023</u> |
|------------------------------|-------------|-------------|
| Customer owned public | 39 | ? |
| Downtown Parking Lots | 0 | 34 |
| TPU owned public | 35 | 30 |
| <u>Multi-family property</u> | <u>41</u> | <u>6</u> |
| TOTAL | 115 | 70 |



●●● Transportation Electrification (TE)

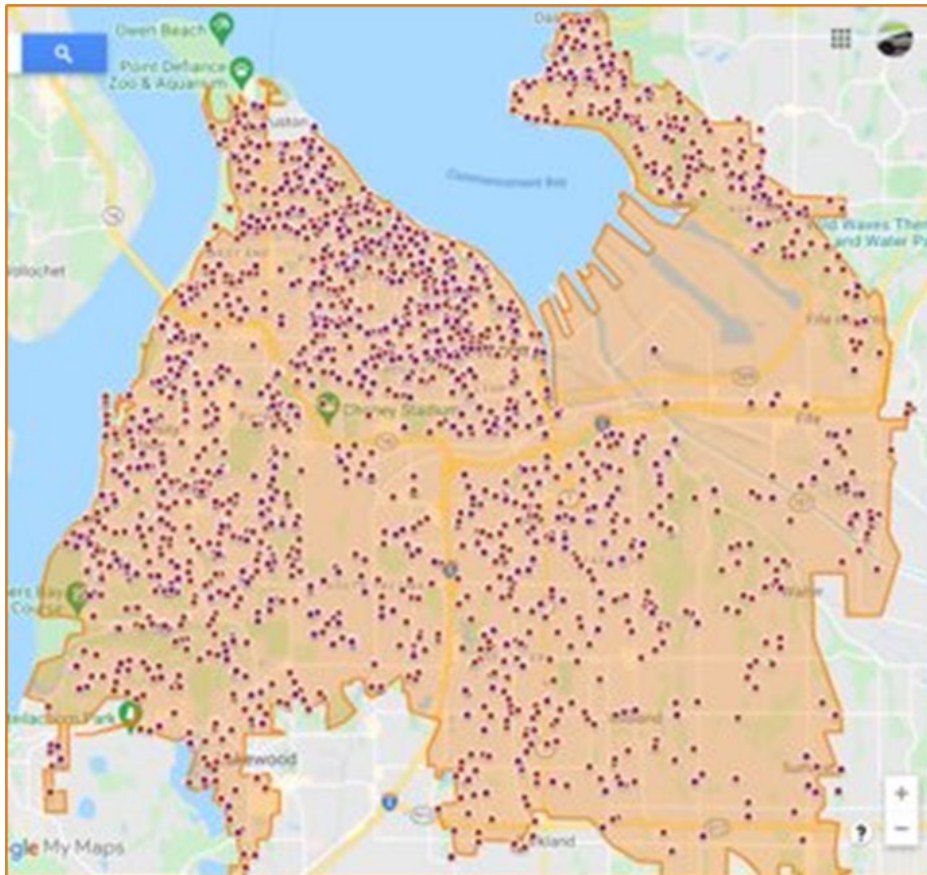
Coming soon - EV charging programs re-funded

- Thanks to Senator Murray and the congressional delegation, \$1M in federal funding has been secured to extend public and multifamily EV charging programs
- No decrease in customer incentives or eligibility
- Address the dozens of waitlisted projects first
- Continue to prioritize projects in low-opportunity areas as identified by Pierce County Equity Index Map
- Streamline programs to reduce administration and improve customer experience
- Extend programs to applicants outside the City of Tacoma
- The Clean Fuel Standard law comes into effect in 2023 and will provide millions in new funding for transportation electrification programs every year

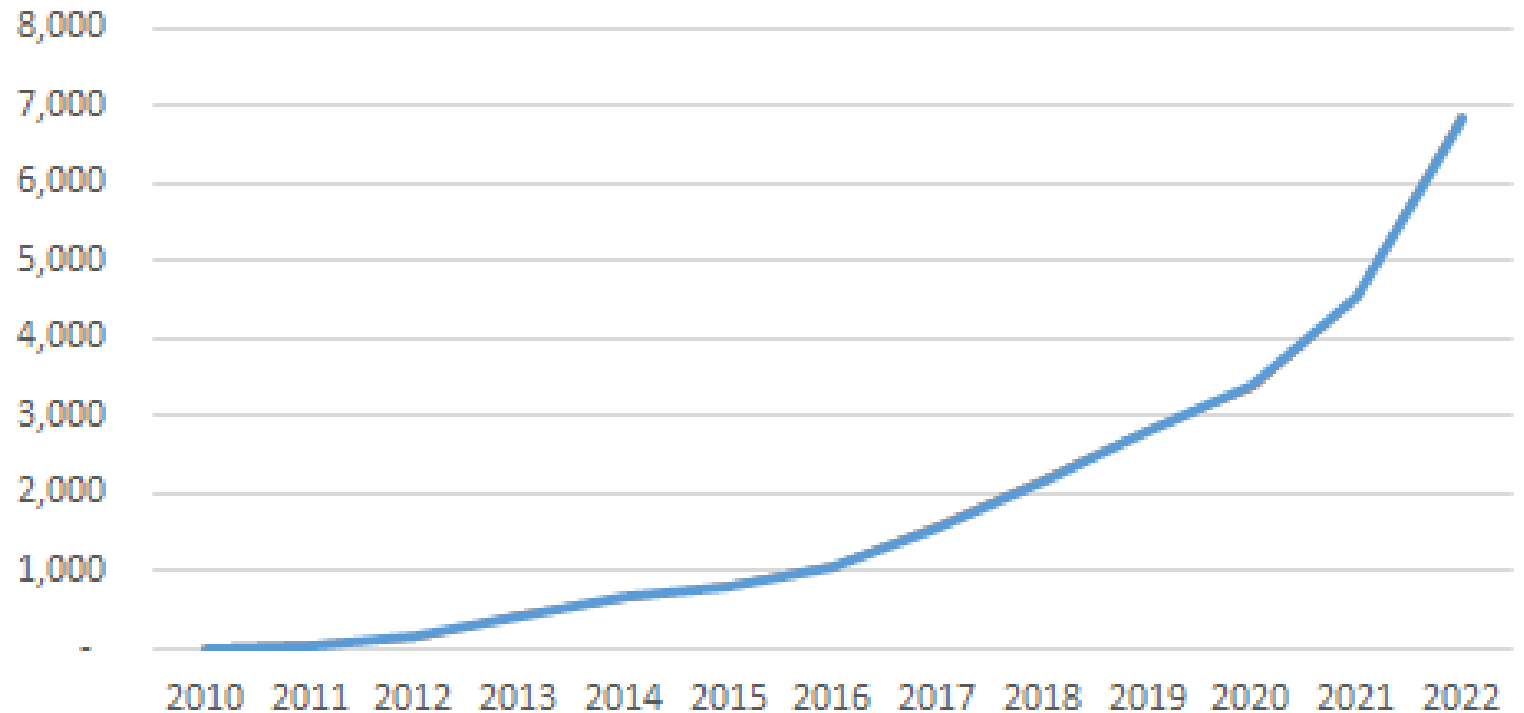


●●● Transportation Electrification (TE)

How is the market transformation going?

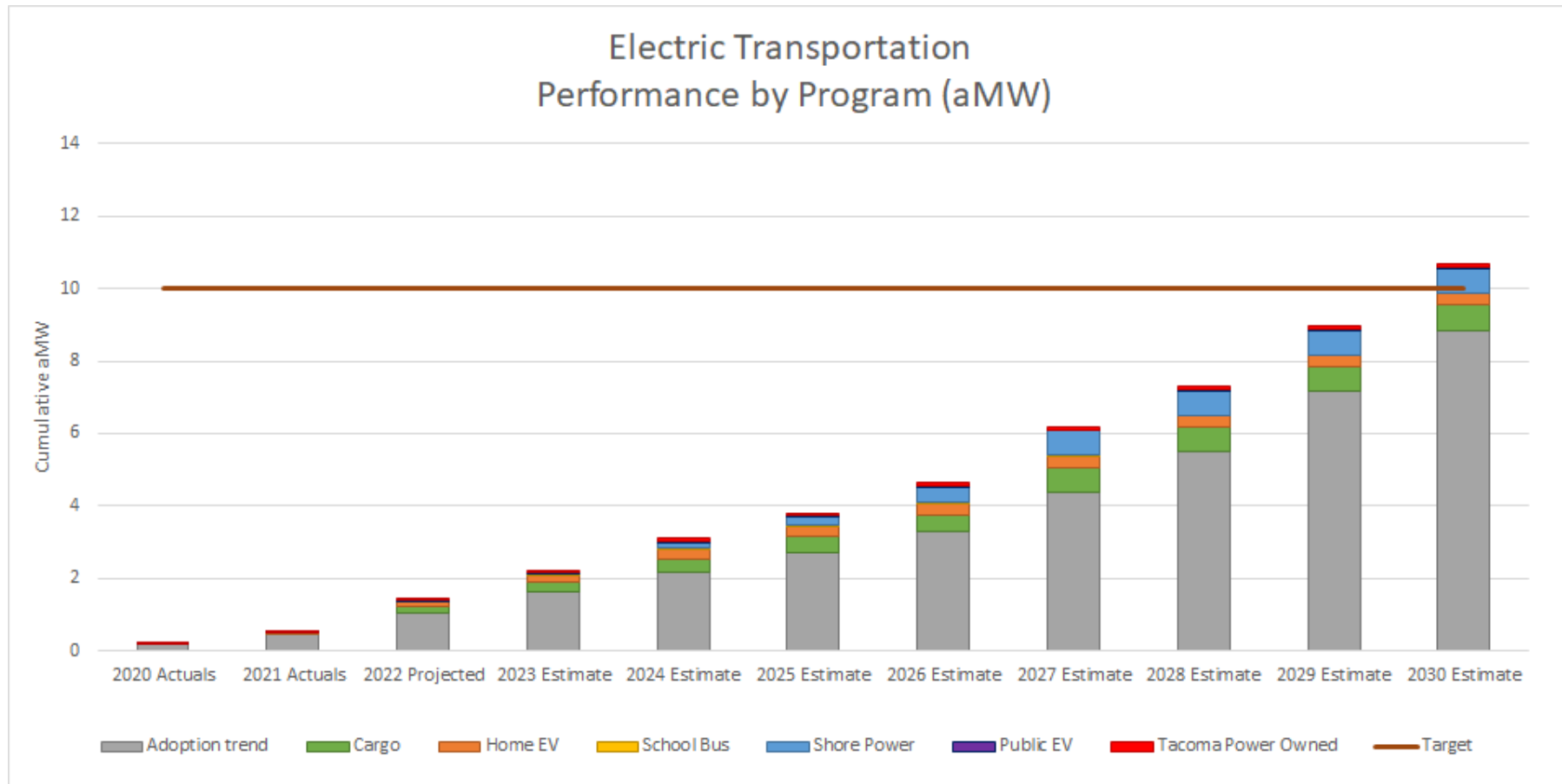


EV ownership
Tacoma Power Service Territory



●●● Transportation Electrification (TE)

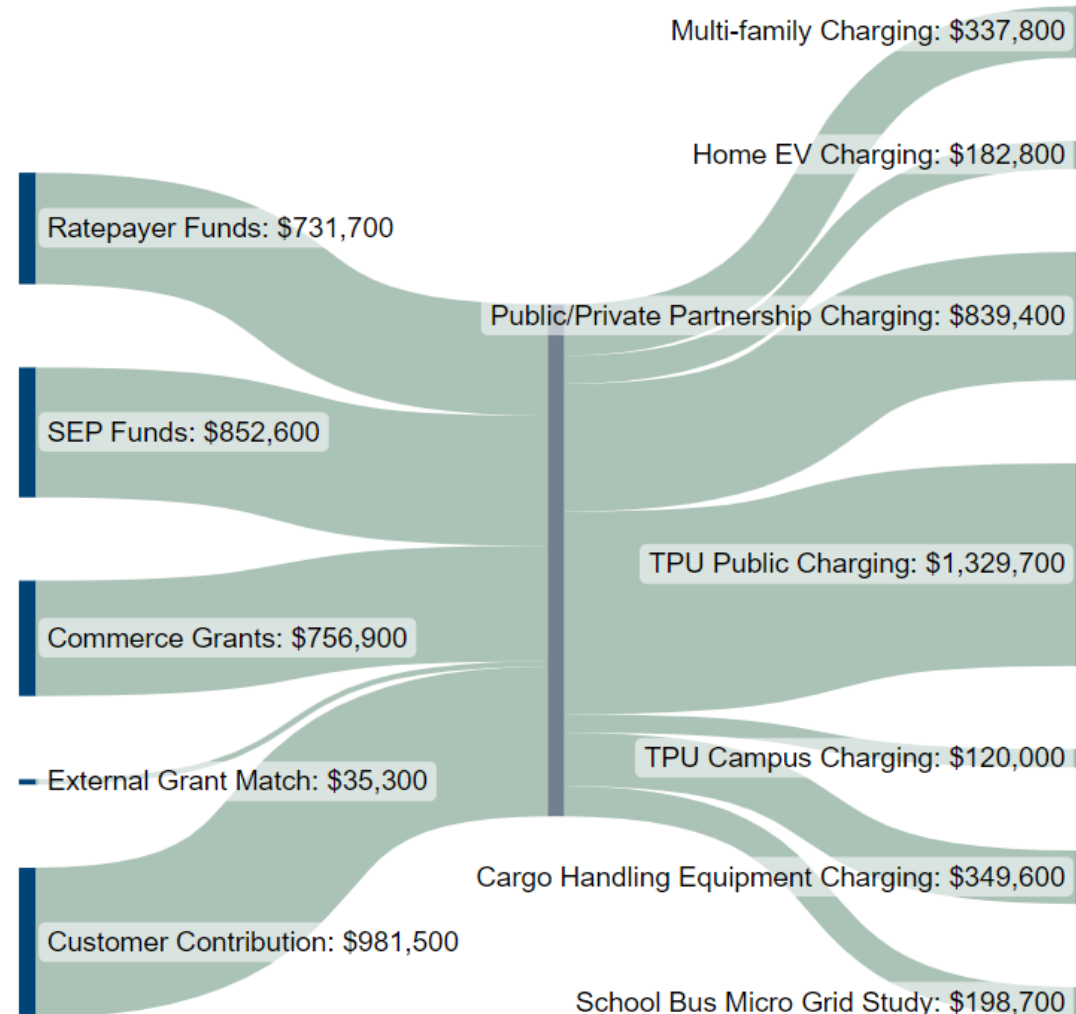
How do we compare to the 2030 goal?



Transportation Electrification (TE)

How is this being paid for?

Sources of funding



Uses of funding

●●● Transportation Electrification (TE)

Projects in Progress

- Public outreach and education - 2022 Seattle Auto Show
- School bus electrification and microgrid study at FPHS
- Co-op EV carshare program
- Supporting a revised retail EV charging rate (\$0.22/kWh)
- Participate in regional efforts to promote the production and use of green electrolytic hydrogen for heavy-duty vehicle decarbonization
- Working with the Port of Tacoma on planning efforts and seeking opportunities to electrify cargo equipment, drayage, and shorepower
- Construction of a Portable Clean Energy Generator



●●● Transportation Electrification (TE)

Future Efforts

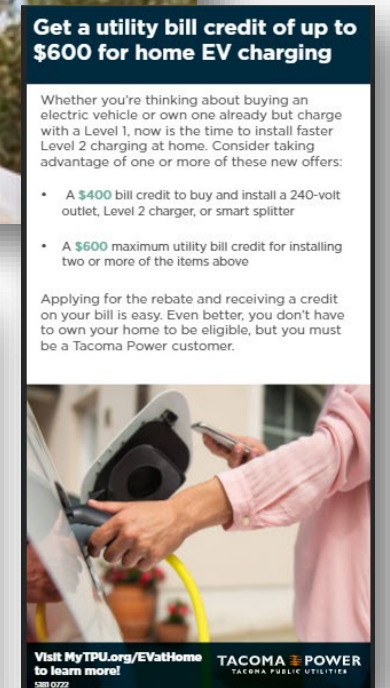
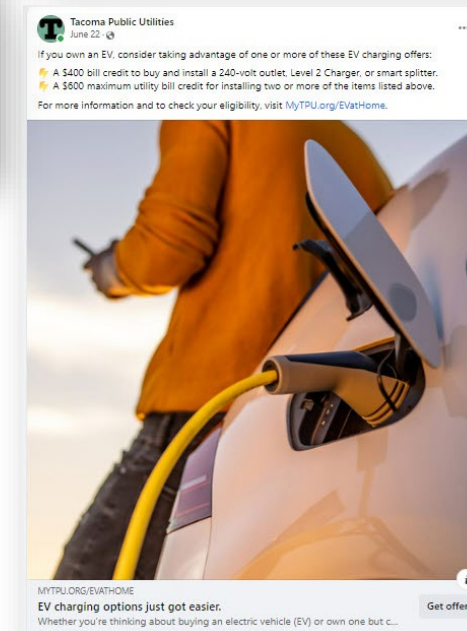
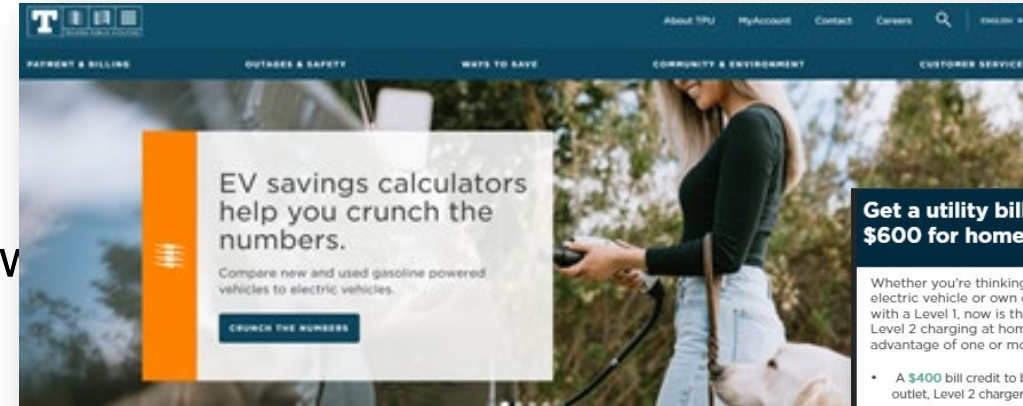
- Development of a commercial fleet electrification program
- Study potential of home and commercial fleet managed charging programs
- Re-scope public engagement in a post-Covid environment
- Research projects:
 - Utility benefits of customer owned battery storage systems
 - Zero-emission alternatives for ferry boats/water taxis
 - Grid modernization technologies to help shift peak electrical demand
 - Micro-mobility



Communication Activities

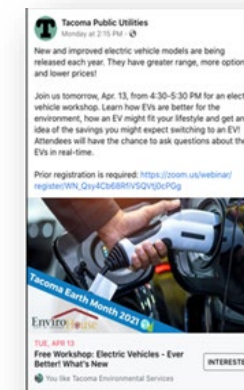
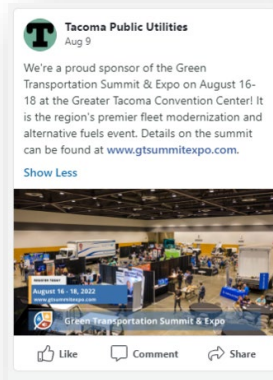
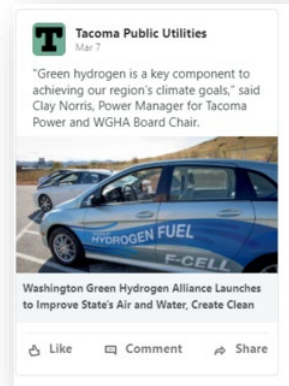
Home charging rebate promotions

- Nearly 300 applications received
- Website is primary information resource (5k+ views)
 - Online searches
 - Direct from materials
 - Referrals from other sites
 - Email newsletter clicks
- Rainiers Campaign
- Paid social media – 60k impressions, 439 clicks
- Organic social media – 8k impressions, 115 engagements
- Print distribution – 875k
 - Bill insert/message
 - Direct mail newsletters



Communication Activities

Awareness of decarbonization efforts and milestones



QUESTIONS

