



Seattle City Light

Transportation Electrification Briefing
March 8, 2023

Today's Update

- Transportation Electrification Strategic Plan (TESIP) background
- 2021 & 2022 Transportation Electrification activities and goals
- 2023 look ahead



Seattle City Light

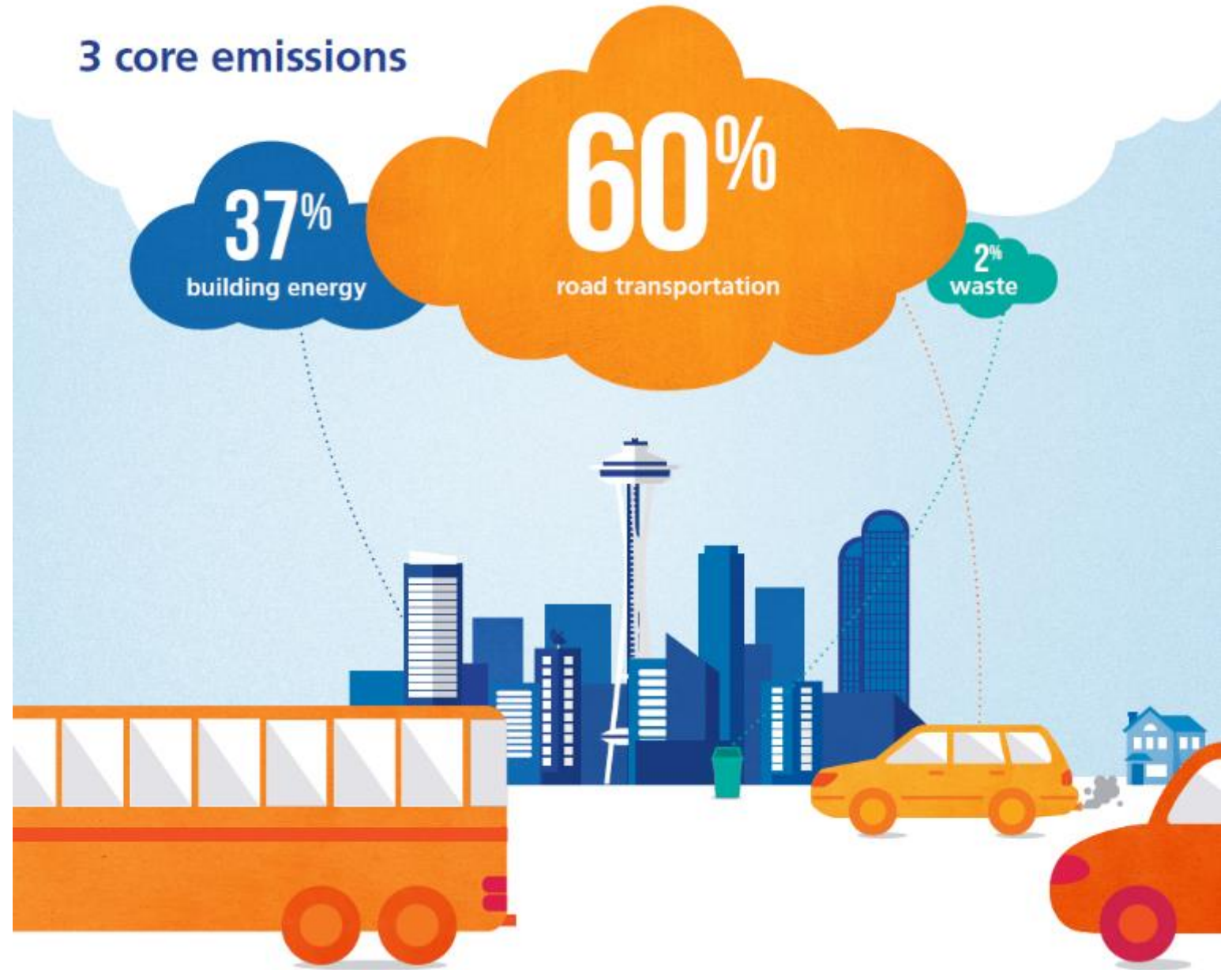


Creating Our Energy Future

An equity-focused approach to
transportation electrification



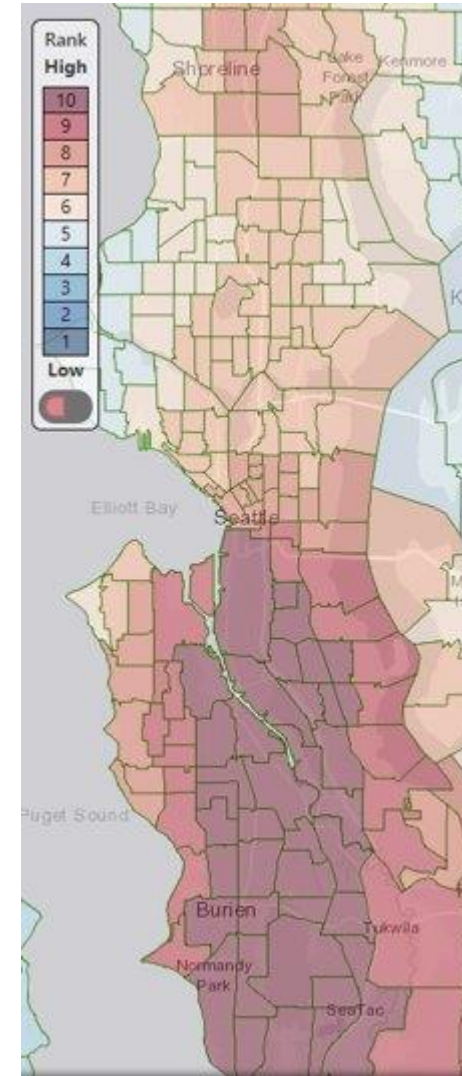
Decarbonization through electrification



Transportation Electrification (TE) and environmental justice

Transportation electrification offers an opportunity to address environmental, social, and economic inequities

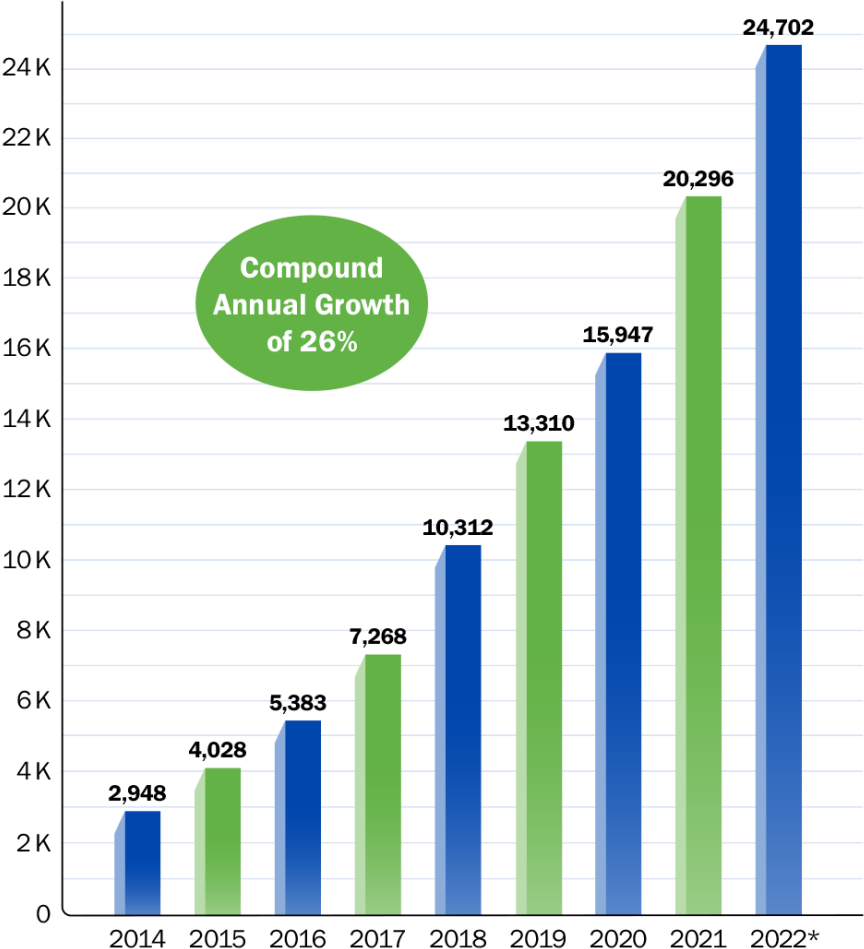
- + Focus on communities along transportation routes who are most negatively impacted
- + Adverse health effects: asthma, heart disease, cancer, low birth weights
- + Results from our investments: a more equitable future where everyone can thrive



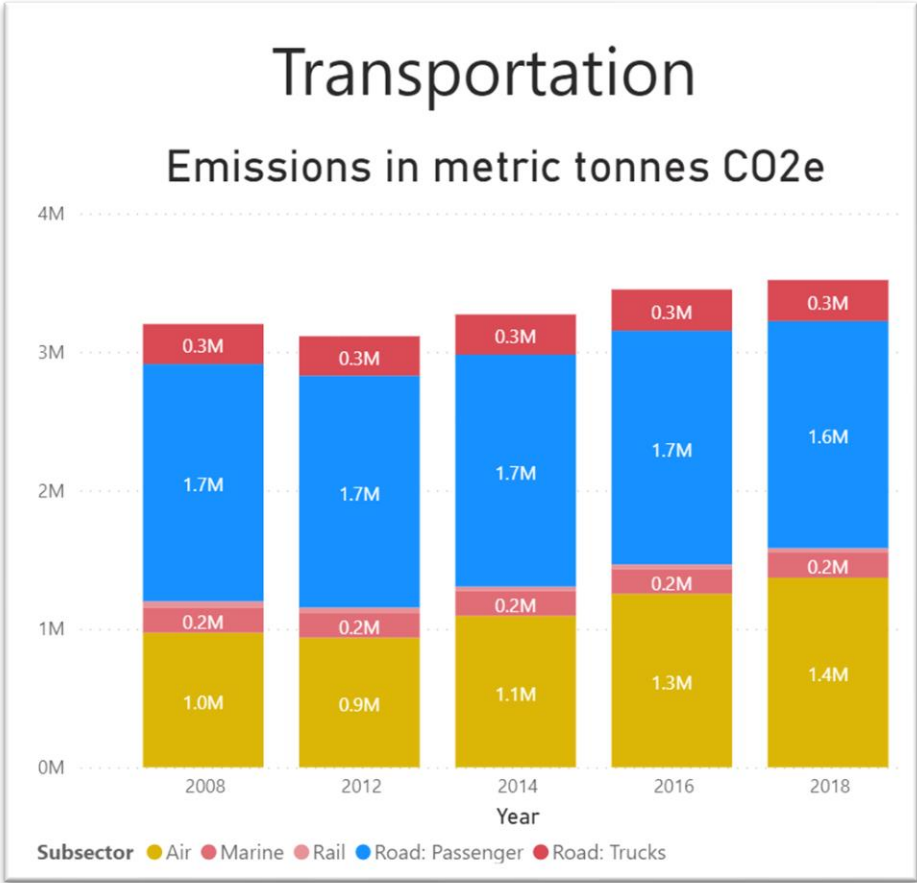
Map shows PM 2.5 concentrations (air quality)

Local TE demand and adoption is growing fast

EVs IN SEATTLE CITY LIGHT'S SERVICE TERRITORY



*Number reflects January through September only.
Data provided by Electric Power Research Institute. Includes plug-in hybrids and battery-electric vehicles.



Creating our energy future

GRID MODERNIZATION

TRANSPORTATION



BUILDINGS



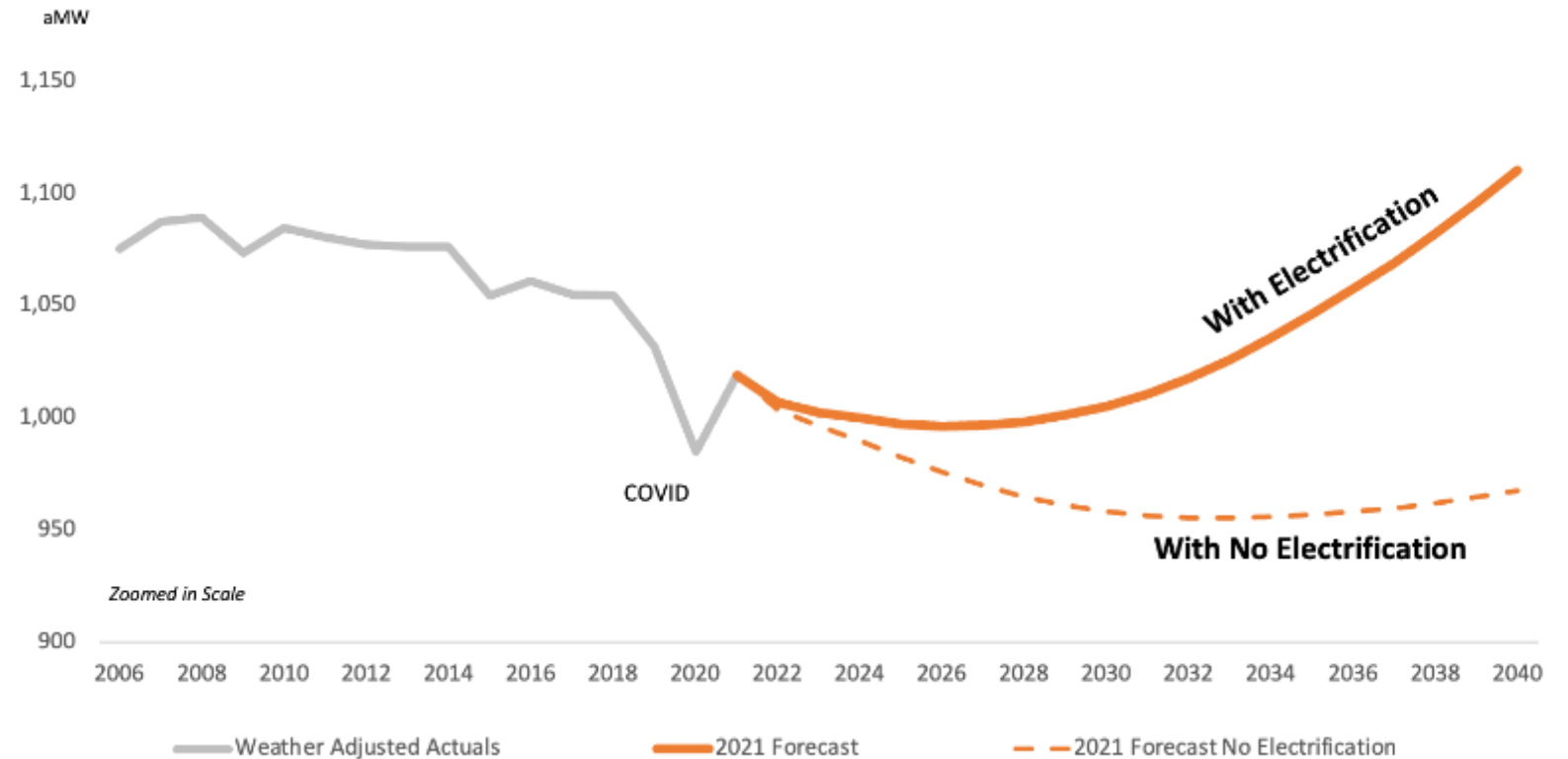
UTILITY



NEXT

TE expansion requires a modernized grid

- + Expanding TE increases electricity demand
- + Preparing for existing grid to scale for future load growth
- + Investing in 'smart grid': flexible, reliable, and resilient
- + Increasing electrification provides for utility revenue and affordable rates



One City and statewide policy alignment



WA OBJECTIVE:

2050

NET ZERO

EMISSIONS

Transportation Electrification

TESIP in action



Seattle City Light



TESIP development background

2015

- + City Light begins analysis of TE market and potential utility impacts

2017

- + Drive Clean Seattle Initiative aligns us as One City towards TE

2019

- + WA State Legislature passes HB 1512, enabling transportation electrification
- + City Light begins outreach and engagement to inform Transportation Electrification Strategic Plan

2020

- + City Council approves the Transportation Electrification Strategic Plan (TESIP)

TESIP activity areas



Community and Stakeholder Collaboration



Public Transit



Fleets



Personal Mobility



Electrification Enablement



Community feedback on their TE priorities



- + **Public Transit.** Minimize air pollution in highly impacted communities.



- + **Commercial, Government and Nonprofit Fleets.** Reduce tailpipe emissions and noise impacting local air quality and public health along key transportation routes.



- + **Personal Mobility.** Expand EV charging access for personal vehicles: emphasis on universal access; expanding access in environmental justice communities.



- + **Outreach and Awareness.** Raise awareness about the customer, the grid, and the community benefits of TE; ensure that environmental justice community priorities are heard and inform programs.

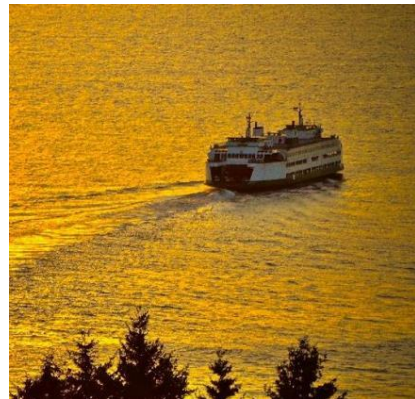
TESIP IN 2021

- Creating teams and partnerships
- Focusing on community



Community priorities through partnerships and teams

- + Public transit project partnerships with King County Metro & WSDOT
- + Partnership with Northwest Seaport Alliance & the Port of Seattle to decarbonize port operations
- + Supporting private sector – especially major customers and high-emission commercial routes – through targeted incentives and project support



Deeper engagement with community

- + Partnership with trusted messengers to increase reach of EV information and benefits of TE
- + Contract with CBOs serving environmental justice communities
- + Trained and onboarded initial community partners
- + Made early community infrastructure investments including new EV fast chargers



TESIP impact milestones in 2021

- + Convened multiple partners to prioritize planning and together, developed innovative solutions
- + Established partnership with UPS and Kenworth to test new electric freight charging
- + Began developing King County's first electric bus charging test base with KCM



TESIP IN 2022

- Implementing programs
- Launching pilots
- Focusing on community



Supporting Seattle's first battery electric bus fleet

- + Building and powering electric bus charging hubs with King County Metro; first South Base location opened spring 2022
- + New base located in a neighborhood disproportionately affected by vehicle exhaust
- + Innovative technology capable of charging 9 buses at once



Reducing emissions through fleet electrification

Multiple initiatives launched for fleets and medium- and heavy-duty vehicles

- + Focus on high-emission freight routes that impact EJC air quality
- + Fleet electrification program advises and incentivizes public/private fleets to transition
- + Building charging depot + rebates to speed MD/HD and drayage transition; focus on independent owner-operators



Photo source: [Bahnfrend](#), Wikimedia Commons

Expanding EV personal mobility access

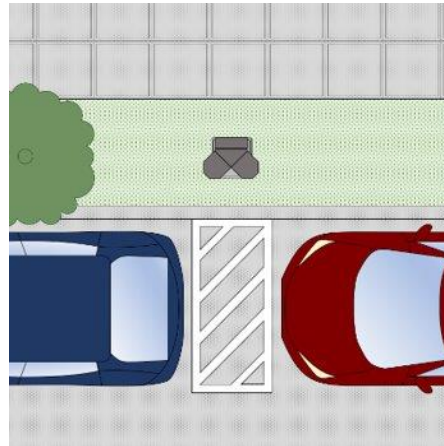
Multi-Family Housing Program

- + Expanding at-home and near-home charging for multi-unit dwelling residents
- + Equity focus: 52% of SCL customers are renters



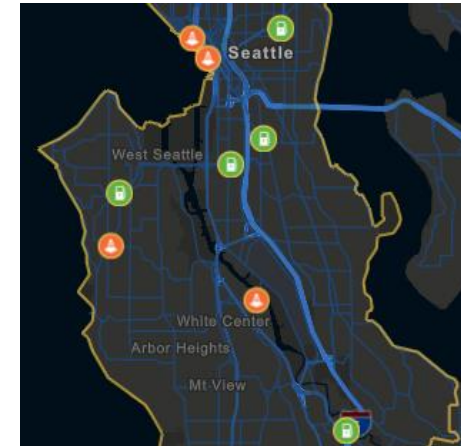
Curbside Level 2 Pilot

- + Building 30 curbside EV charging stations
- + Increasing accessibility for residents who don't have off-street charging



Public Charging

- + Filling in gaps that the private market is leaving behind
- + 37,000+ unique charging sessions at City Light chargers alone over the past four years



Supporting future electrification

Managed EV Charging

- + Exploring technology and behavioral programs like TOU rates and active managed charging that can result in new demand from EVs best serving our customer and the grid



Source: [PNNL](#)

Strategic Planning Partners

- + Collaborative research with external utility, gov, customer, academic partners
- + Looking down the road, how will infrastructure, policy, systems be managed in the future?



Source: [Wikimedia Commons](#).

Food Truck Electrification

- + Testing new electric pedestal technology at Denny Park
- + Demonstration project provides future outreach opportunities to operators and small businesses



Building on community relationships

- + Strengthening community presence and education
- + Learning from youth about clean energy workforce development needs
- + Supporting public charging expansion through contract with a WMBE-owned business, ChargerHelp!
- + Inviting community partners to test drive electric vehicles for hands-on experience



Environmental Coalition of South Seattle (ECOSS) and Transportation Electrification Portfolio Manager Angela Song meet with Environmental Protection Agency Administrator Casey Sixkiller at the GTSE conference.

TESIP impact milestones in 2022

- + Cross-city engagement on Transportation electrification Infrastructure Master Plan
- + Built high-reach outreach/ education partnerships in private sector, CBOs
- + Focused on customer needs through personal mobility research, EJC focus groups, interviews
- + Scaled up our infrastructure investments + customer incentives and support for growing TE adoption



TESIP IN 2023

- Prioritizing One Seattle climate initiative
- Implementing Clean Fuels Program
- Focusing on community



Recap and closing

Transportation Electrification Strategic Plan



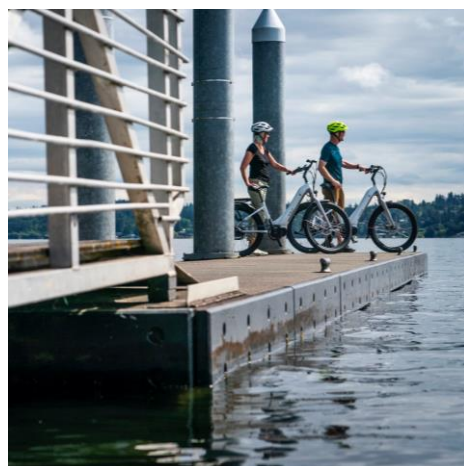
TESIP benefits focus areas

Decarbonization



Source: [MPCA Photos, Flickr](#)

Multi-modal transportation



Source: Evelo

Equitable investments and outcomes



Source: ChargerHelp!

Public and private partnerships



Q&A

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THANK YOU



Seattle City Light

POWER SEATTLE



Mission, Vision & Values

Mission

Seattle City Light provides our customers with affordable, reliable and environmentally responsible energy services.

Vision

Create a shared energy future by partnering with our customers to meet their energy needs in whatever way they choose.

Values



Customers First



Environmental Stewardship



Equitable Community Connections



Operational and Financial Excellence



Safe and Engaged Employees

APPENDIX

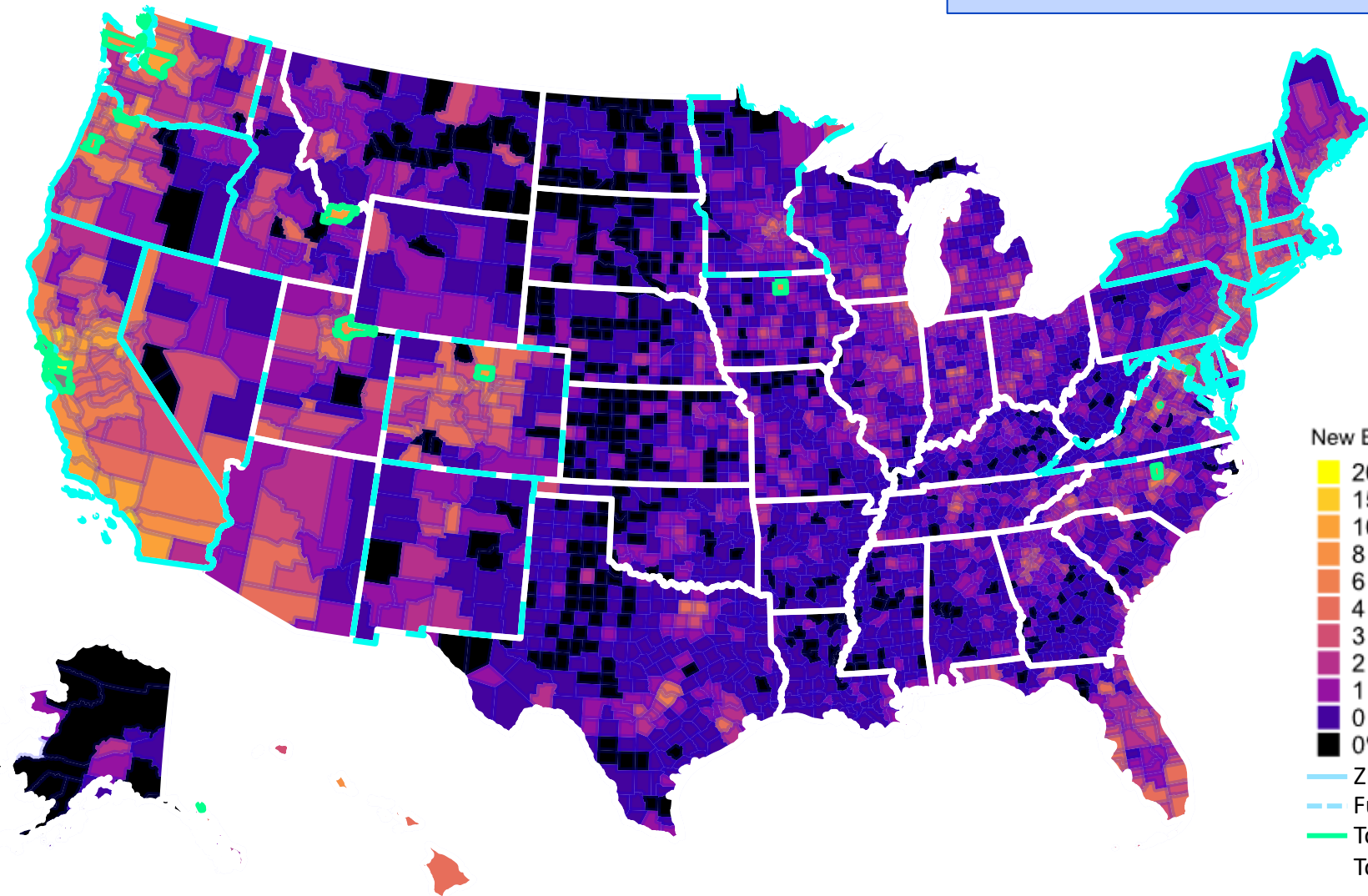


US Nationwide New EV Market Share in 2021

Nationwide avg new EV market share: 4.3%
 Number of counties exceeding avg: 200
 Number of states with counties exceeding avg: 35

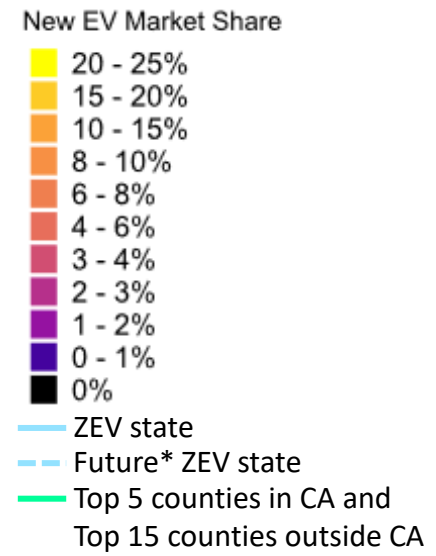
Top 5 counties in CA and Top 15 counties outside CA

Santa Clara, CA	25%
Marin, CA	25%
San Francisco, CA	21.4%
Alameda, CA	21.1%
San Mateo, CA	19.3%
Boulder, CO	14.6%
King, WA	11.9%
Falls Church City, VA	11.4%
Charlottesville City, VA	11.3%
Clark, ID	10.7%
San Juan, WA	10.4%
Washington DC	10.4%
Summit, UT	10%
Arlington, VA	10%
Benton, OR	9.9%
Orange, NC	9.9%
Jefferson, WA	9.9%
Multnomah, OR	9.6%
Skamania, WA	9.3%
Skagway, AK	9.1%



New EV market share =

$$\left[\frac{\text{Sum of EV sales}}{\text{Sum of LDV sales}} \right]$$



*CO will become a ZEV state in 2022. WA and MN will become ZEV states in 2024. NM, NV, and VA have announced that they intend to become ZEV states in the future.