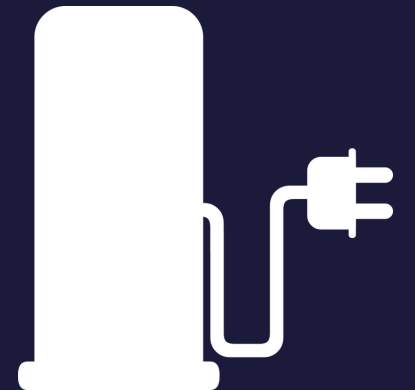


GREATER SEATTLE
PARTNERS

Charged Up About Electric Buses



INTRODUCTION

New investments in battery-electric buses and electric charging infrastructure have elevated the greater Seattle region as the next landing spot for leading battery-electric vehicle technologies.

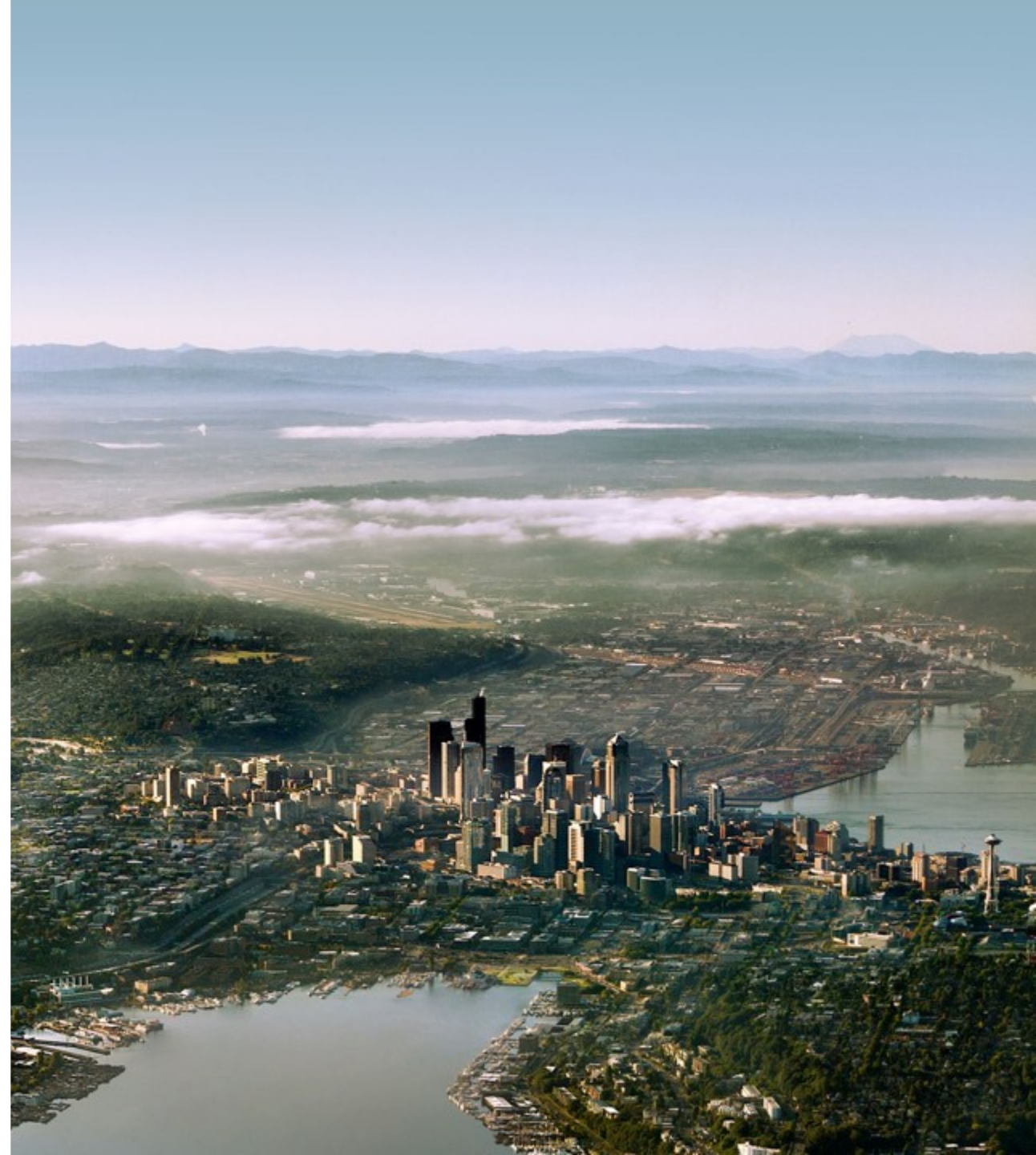
Greater Seattle's hub of R&D, advanced manufacturing, renewable energy, and clean technology has been fueled by the success of our homegrown companies which include Microsoft, Amazon, Boeing, Paccar, Weyerhaeuser, Expedia, and Alaska Airlines.


With a population of nearly 4 million people and 221 million transit boardings annually, efficient and environmentally-friendly transit options are a top priority for regional leaders.

Significant investments at the state, federal, and local levels are transitioning bus fleets and gearing up our infrastructure for a future driven by battery-electric technology.

Manufacturers of battery-electric vehicle technologies in the greater Seattle region enjoy the following benefits:

MARKET POTENTIAL	3,450 buses to be replaced in WA by 2040
WORKFORCE	94K skilled workers in jobs related to EVs
INFRASTRUCTURE	90% of electricity is renewably sourced
INCENTIVES	New programs for EVs available





“This is a transformational investment in our clean energy future and continues to push Washington toward zero-emission transportation technology,” said Governor Jay Inslee. “Getting 50 more all-electric buses on the road is a big step forward, and it will pay off in better air quality across our state.”

– **Governor Jay Inslee**

“We are committed to greening our Metro fleet, and operating a zero-emission bus base in South King County will provide cleaner air to a part of the region where residents have historically experienced a greater share of pollution from cars and trucks.”

– **King County Executive Dow Constantine**

“Seattle must continue to take bold action on many fronts to reduce carbon pollution and address the negative impacts of climate change. We need to do more to reduce the number of vehicles on our roads and to move to electric vehicles, especially in transit.”

– **Mayor Jenny Durkan, City of Seattle**

Washington state is aggressively pursuing a zero-emissions future for transportation.

- In 2019, the Washington State Legislature passed an 100% clean-energy bill that supports carbon-neutral electricity by 2030. This is the strongest clean energy policy in the nation and established some of the most ambitious environmental goals of any state.
- To further facilitate fleet electrification and electric charging infrastructure, the Green Transportation Capital Grant Program and the Alternative Fuel Vehicle Technical Assistance and Education Program were signed into law in 2019.
- Since 2015, all State agencies must, to the extent practicable, use 100% biofuels or electricity to operate all publicly owned vehicles. Agencies must prioritize all-electric vehicles when leasing or purchasing new vehicles.
- The Clean Alternative Fuel Charging and Refueling Infrastructure Program, passed in 2015, was designed to drive privately-backed electric infrastructure investments into key geographic corridors.
- King County is taking action to confront climate change, and Metro is playing a major role by reducing transportation-related greenhouse gas emissions.
- Metro is a national leader in adopting diesel-electric hybrid buses, and recently deployed a new fleet of zero-emission electric trolley buses.
- Seattle’s Climate Action Plan is creating more green buildings, ensuring fair treatment of workers, providing free transit to young and lower-income individuals, electrifying our City vehicle fleet, expanding access to transit, creating a city with fewer cars and more safe routes for walking, biking, and rolling.
- Seattle’s Drive Clean initiative is an aggressive fleet emission reduction strategy to help the city achieve a carbon-neutral goal by 2050.
- The American Council for an Energy-Efficient Economy named Seattle 3rd in the nation for their 2019 Clean Energy Scorecard.

MARKET POTENTIAL

Washington state is a 3,450 electric bus market.

Thirty-two transit agencies in Washington operate over 3,400 buses. A total of \$22.7 million in VW Settlement funds have been awarded to seven different transit agencies in Washington, enabling imminent purchase of 69 buses in 2020.

The largest of these transit agencies are clustered in greater Seattle region: Community Transit, Everett Transit, King County Metro, and Pierce Transit.

King County Metro procuring 240 EV buses in 2019/2020.

As one of the largest fleet operators in North America, King County Metro (KCM) is positioned to be a significant purchaser of electric-battery buses in the near term. It operates 1,600+ buses and has an aggressive plan to transition all hybrid-electric and diesel vehicles to battery-electric before 2040.

As the region continues to grow, KCM plans to add an additional 500 buses to its fleet, reaching a total 6.5 million bus hours annually. To achieve this commitment, KCM has issued an RFI for 120 buses, with additional procurement opportunities expected.

Washington state is a 12,588 electric school bus market.

A total of \$12 million in funds was awarded to 83 school districts to purchase 336 low emission school buses. Franklin-Pierce School District is piloting the first all-electric school bus in Tacoma, WA.

3,450

Total Transit Buses in Washington State

102

Electric Transit Buses Are Already Procured by Transit Agencies in Washington

155

Electric Transit Buses Planned for Procurement by Transit Agencies (including 120 KCM RFP)

\$9.4 million

First VW Settlement Funds Awarded to Seven Transit Agencies in Washington

19

Electric Buses Will Be Purchased With Funds in 2020

\$13.3 million

Second VW Settlement Funds Awarded to Six Transit Agencies in Washington

50

Electric Buses Will Be Purchased with Funds

\$12 million

VW Settlement Funds to be Awarded to 83 School Districts in Washington

336

Low-Emission School Buses Will Be Purchased with Funds

WORKFORCE

Greater Seattle is a hub for top talent in Electric Vehicle R&D and manufacturing.

Clean, zero emission buses offer good-paying jobs that achieve healthier air and stronger communities. The region has 94,100 + workers with relevant skills.

8,754

Post-secondary degrees and credentials related to jobs in electric vehicle development & manufacturing were awarded by schools throughout the greater Seattle region in 2017.

3,575

Post-secondary degrees and credentials in engineering were awarded by schools in greater Seattle in 2017.

Top Schools

Shoreline Community College
 University of Washington
 Green River College
 Seattle University
 Edmonds Community College
 Everett Community College

	<i>EMPLOYMENT</i>	<i>ONLINE JOB ADS</i>	<i>AV. ANNUAL WAGE</i>
Electric Vehicle Design, Development, & Manufacturing Regional Talent	94,161	9,478	\$101,500
Software Developers, Applications	41,560	7,534	\$133,600
Team Assemblers	10,895	55	\$38,900
Machinists	6,772	168	\$54,800
Mechanical Engineers	5,663	228	\$102,400
Industrial Engineers	5,609	446	\$111,600
Welders, Cutters, Solderers, and Brazers	4,346	62	\$53,000
Electrical Engineers	4,025	378	\$117,600
Electrical & Electronic Equip. Assemblers	2,931	84	\$43,700
Electronics Engineers, Except Computer	2,637	68	\$126,000
Industrial Production Managers	1,878	151	\$137,500
Computer-controlled Machine Tool Operators, Metal and Plastic	1,693	62	\$69,400
Mechanical Drafters	1,227	74	\$90,100
All Other Occupations	4,925	148	\$72,841

Source: BLS, 2018 – Occupation Snapshot of Electric Vehicle Design, Dev & Manufacturing in greater Seattle

INFRASTRUCTURE

State, local governments, and utilities are preparing for electric vehicles and zero-emissions buses.

\$16 million is available over 10 years through the State VW Settlement funds for light duty electric vehicle charging infrastructure.

Additional State funds are helping to install a total of 15 new charging locations near highway exits about 40 miles apart along major highways.

King County Metro is installing its second fast-charging station for electric buses deployed at its Tukwila South Base.

KCM and local utilities completed an assessment of local power supply and identified strategies to support future demand.

Washington has the lowest energy cost in the U.S. and ranks second among all states in total electricity generated from renewable energy sources.

90%

of electricity generated by Seattle City Light is sourced from hydroelectric power so electric buses will be charged from a renewable energy source.

Puget Sound Energy generates electricity from solar and wind energy.

Washington state is on the West Coast Electric Highway, an effort to promote fuel-efficient and electrically fueled vehicles with public charging stations every 20 to 50 miles.

850 public charging stations

2,200 public charging outlets



INCENTIVES

- **Alternative Fuel Commercial Vehicle and Fueling Infrastructure Tax Credit** Businesses are eligible to receive tax credits for purchasing new alternative fuel commercial vehicles and installing alternative fueling infrastructure.
- **Alternative Fuel Vehicle (AFV) and Hybrid Electric Vehicle (HEV) Emissions Inspection Exemption** Dedicated electric, natural gas, and propane vehicles are exempt from state emissions control inspections.
- **Alternative Fueling Infrastructure Funding Program** Expands the West Coast Electric Highway network by deploying direct current fast charging infrastructure along highway corridors in Washington.
- **Electric Vehicle Infrastructure, Battery, and Fuel Cells Sales Tax, Leasehold Tax Exemption** is available for purchases of zero-emissions buses, the sale or use of batteries and fuel cells for electric vehicles and buses, the sale or charge made for labor and services rendered in the installation or improvement of electric vehicle infrastructure, and the sale or use of tangible personal property that will become a component of battery or fuel cell electric vehicle infrastructure.
- **Retail Sales Tax Exemption** Effective August 1, 2019, the retail sales tax of 6.5% does not apply to the sale or lease of new passenger vehicles, light-duty trucks, and medium-duty passenger vehicles that are exclusively powered by an alternative vehicle fuel or are capable of running solely on electricity for at least 30 miles.
- **New Employee R&D and Manufacturing B&O Tax Credit** A \$2,000/per position B&O credit for new employees making less than \$40,000 annually and a \$4,000/per position B&O credit for new employees making more than \$40,000 annually. Credit eligible to manufacturers, R&D laboratories, and commercial testing facilities located within Community Empowerment Zones.
- **Retail Sales and Use Tax deferral/waiver for Corporate Headquarters** Businesses with a corporate headquarters locating within a Community Empowerment Zone are eligible for a sales tax deferral on costs associated with the construction of the corporate headquarters.
- **Governor's Strategic Research Fund** Funds specifically designed to assist companies with legislatively-allowable expenses related to business recruitment, retention and expansion in Washington State with a focus on clean energy.
- **Multiple Activities Tax Credit (MATC)** When a business performs more than one taxable activity for the same product, it reports each activity under the proper classification, but takes the MATC credit so B&O tax is not paid twice on the same amount.
- **Hiring Unemployed Veterans - B&O Tax Credit** Available to businesses who hire an unemployed veteran for at least two consecutive calendar quarters - 20% of the wages and benefits paid to the qualified employee not to exceed \$1,500 per employee.
- **Job Skills Program** Businesses participating in the Job Skills Program receive training with a college and provide a dollar-for-dollar match.
- **Customized Training Program** Provides businesses with employee training that is delivered at the local community college, technical center or private career college level.
- **Work Start** Training for new business activities and expansion strategies or are expanding their operations into Washington State and need employees with specific skill sets or competencies.



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