



WA State Infrastructure & Incentive Program Design for MHD ZEVs

WA State Legislature Joint Transportation Committee

October 9, 2023

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Introductions



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Project Partners



Project lead



**Leader in clean
transportation
acceleration**



**Experienced
regional
collaborator**



**Transportation
electrification
strategic planner**

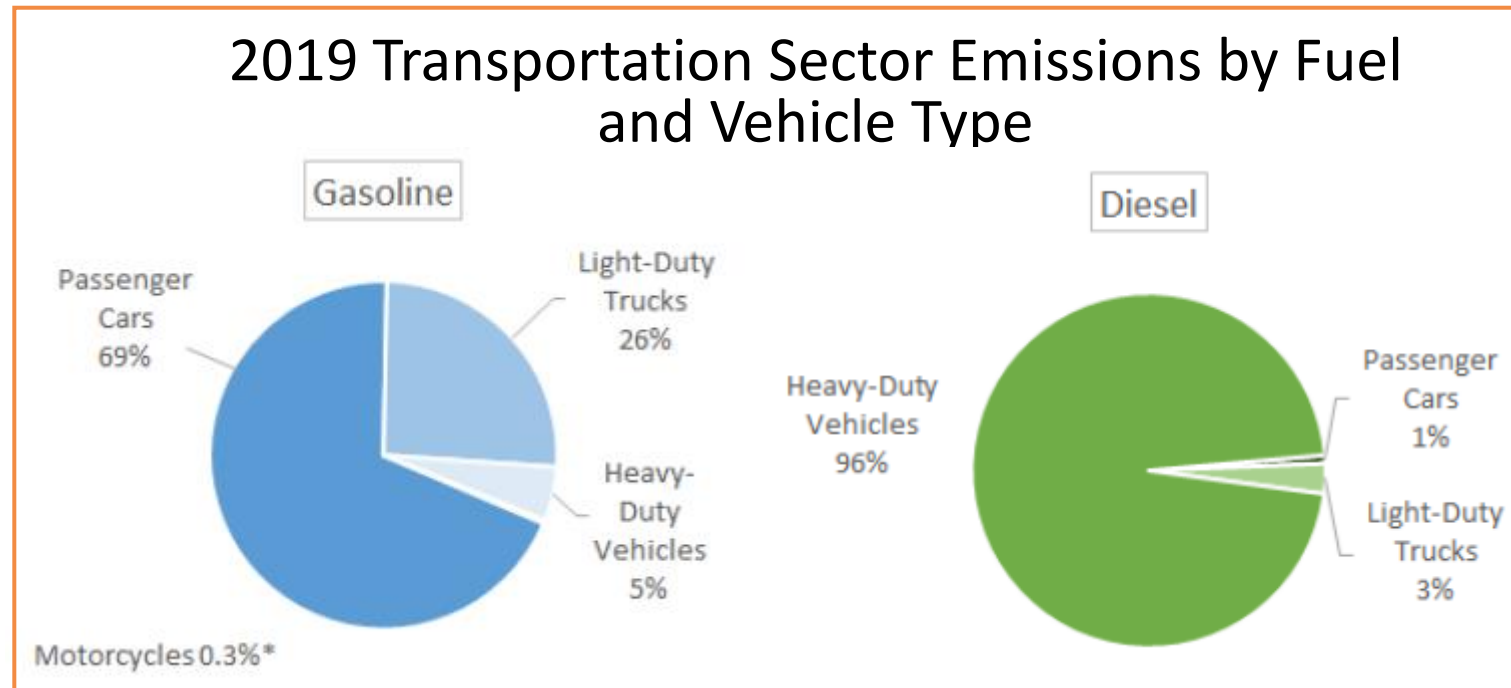
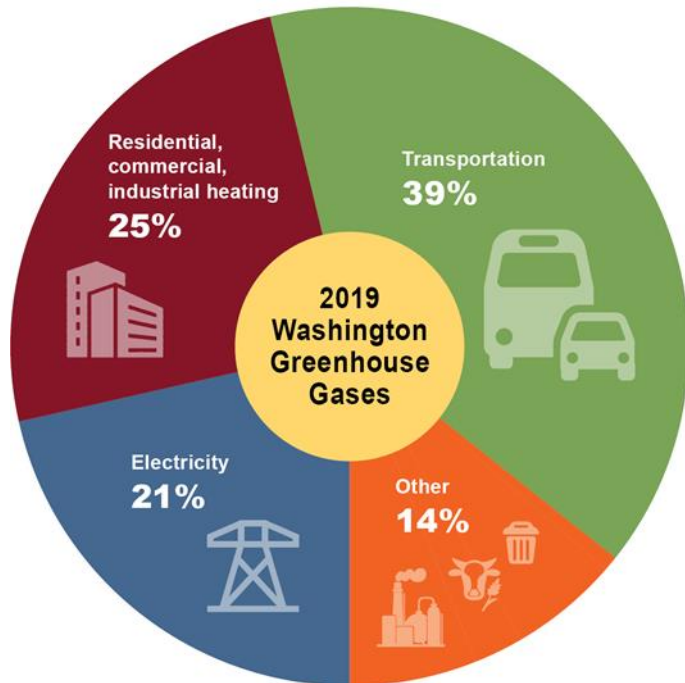


Medium & Heavy-Duty Vehicles

Why MHDVs matter for Washington State

Transportation Sector Emissions

- In Washington State, trucks and buses represent 10% of vehicles, but are responsible for:
 - 30% of Washington's GHG Emissions
 - 59% of nitrogen oxide (NOx) Emissions
 - 53% of particulate matter pollution



Source: WA Department of Ecology (Dec. 2022)

Available ZEV Vehicles

- **Medium- and Heavy-Duty Zero Emission Vehicles are on the market**
 - They're not ready for *all* current MHDV use-cases, but they are available
- **Cost of zero emission vehicles are higher than internal combustion engine counterparts**
 - Magnitude of cost differential depends on technology



Why MHD Incentives Matter in WA

- **WA has legislative commitment to reduce GHG emissions by 95% by 2050**
 - Medium and heavy-duty vehicles need to transition from internal combustion engine to zero emission technologies to make this happen
- **MHD ZEVs are going to states with incentives**
 - Especially true for commercial-use medium and heavy-duty vehicles
- **Private companies need additional assistance making this transition**
 - Federal programs are primarily designed for public sector fleets
 - Private sector companies are ineligible for federal incentive programs, except for \$40,000 Commercial Clean Vehicle Tax Credit



Project Overview

Creating a successful infrastructure and vehicle incentive program based on best practices

Developing the WA Incentive Strategy

- **2023 – 2025 Fiscal Biennium:**

- (7) \$120,000,000 of the carbon emissions reduction account—state appropriation is provided solely for implementation of **zero-emission commercial vehicle infrastructure and incentive programs** and for the replacement of school buses powered by fossil fuels with zero-emission school buses, including the purchase and installation of zero-emission school bus refueling infrastructure.
 - (a) Of this amount, \$20,000,000 is for the department to administer an early action grant program to provide expedited funding to zero-emission commercial vehicle infrastructure demonstration projects. The department must contract with a third-party administrator to implement the early action grant program.
 - (b) The office of financial management shall place the remaining \$100,000,000 in unallotted status until the **joint transportation committee completes the medium and heavy-duty vehicle infrastructure and incentive strategy** required under section 204 of this act. The director of the office of financial management or the director's designee shall consult with the chairs and ranking members of the transportation committees of the legislature prior to making a decision to allot these funds.

Developing the WA Incentive Strategy

- **Design an infrastructure and vehicle incentive strategy to drive medium- and heavy-duty zero emission vehicle adoption**
 - Flexible roadmap to lower MHDV emissions with zero emission as end goal
- **Considerations**
 - Hybrid & Near Zero Technologies
 - On and Off-Road Vehicles
- **Our biggest opportunity?**
 - Leverage lessons learned from other incentive programs

In Progress



- **Research of other incentive programs**
 - What have other states done well?
 - How can WA build a program that works?
- **WA Medium- and Heavy-Duty vehicle assessment**
 - What's happening in WA related to ZEVs?
- **Evaluation of the Clean Fuel Passenger Sales Tax Exemption**
- **Stakeholder engagement**

Stakeholder Engagement

- **Focus Groups**

- Evaluate draft incentive, provide direct feedback

- **Working with Existing Efforts**

- NWSA Puget Sound Zero Emission Truck Collaborative
- Close coordination with WSDOT, WA Dept. of Commerce, WA Dept of Ecology

- **Survey**

- Assess how MHDV owners and operators feel about Zero Emission technologies in 2023

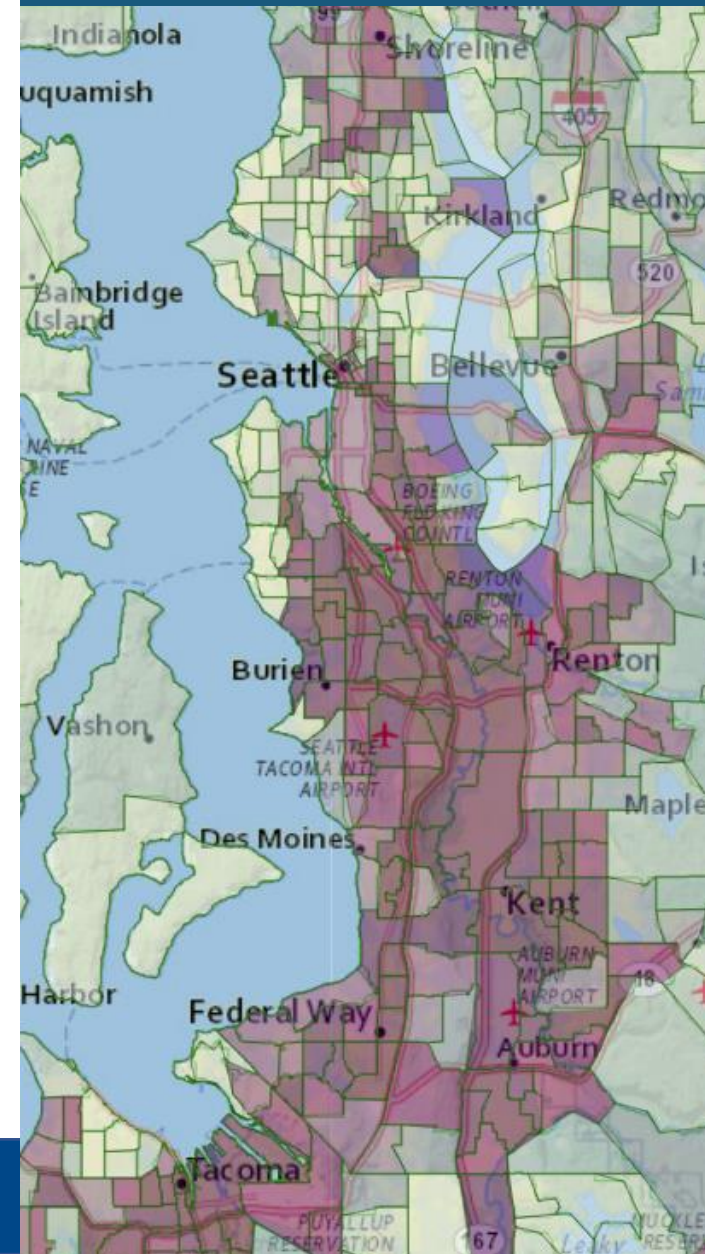
Stakeholder Engagement

- **Cargo handling and off-road equipment**
- **Tractor trucks**
- **Box trucks**
- **Drayage trucks**
- **Refuse trucks**
- **Step and panel vans**
- **Heavy and medium-duty buses**
- **School buses**
- **On and off-road terminal tractors**
- **Transport refrigeration units**
- **Forklifts**
- **Container handling equipment**
- **Airport cargo loaders**
- **Railcar movers**
- **Agriculture and Farming Equipment**
- **Dealerships – Medium-Duty, Heavy-Duty, & Off-road Vehicles**
- **Commercial Vehicle Insurance Providers**
- **Commercial Vehicle Finance**
- **Off-Road Equipment - Port / Airport**
- **Off-Road Equipment - Railroad**
- **Utilities**
- **Drayage → Puget Sound Zero Emission Truck Collaborative**
- **OEMs & Transportation Policy Experts → Clean & Prosperous Washington's MHD ZEV Work Group**

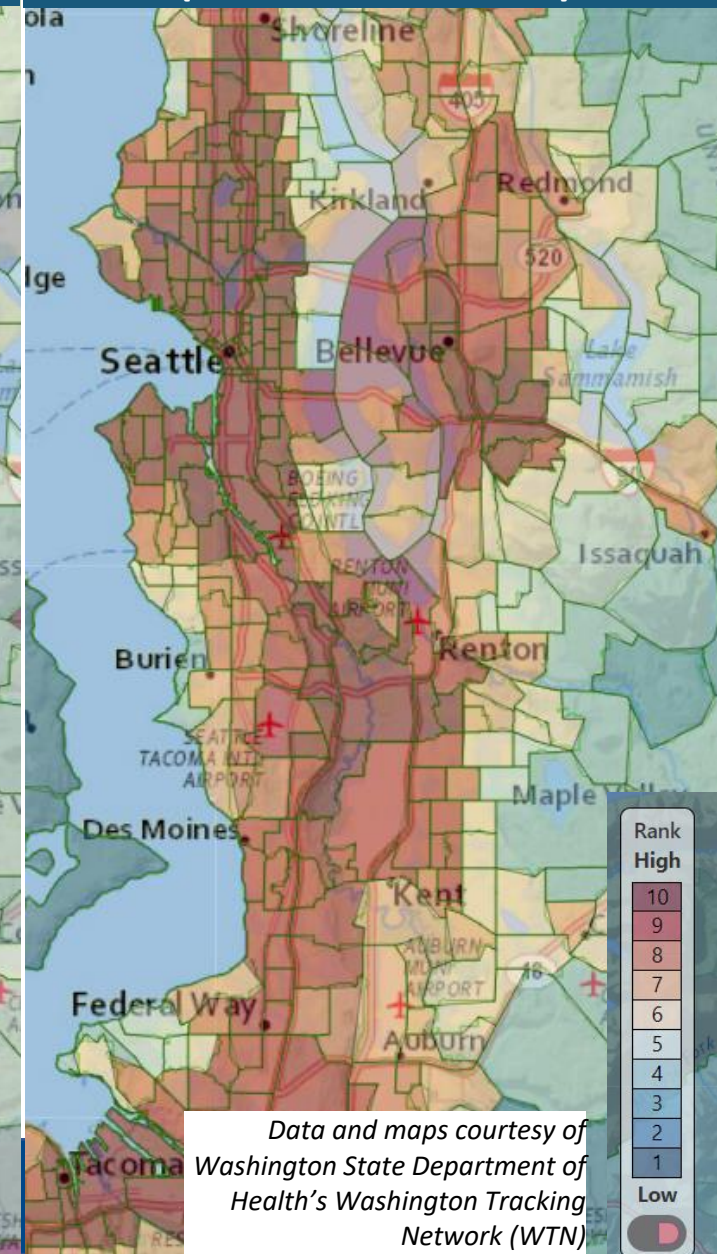
Equity is Top of Mind

- **Climate Commitment Act requires:**
 - at least 30% of funds invested in projects that benefit overburdened communities
 - a minimum of 10% go to projects with tribal support
- **Seattle Latino Chamber of Commerce**
 - Stakeholder engagement partner to help reach small businesses & fleets in WA
 - Translating survey into Spanish
 - Hosting focus group in Spanish

Priority Populations as Defined
the by Washington State
Department of Health



Diesel Pollution Burden
NOx-Diesel Emissions
(Annual Tons/Km2)



Data and maps courtesy of
Washington State Department of
Health's Washington Tracking
Network (WTN)

Goals of the Project

- Provide the Legislature with study results **by January 2, 2024**
- Ensure the study's recommendations **align with WA's Transportation Electrification Strategy**
- Design an incentive program that helps **build a medium- and heavy-duty zero-emission vehicle market** in WA State
- Design an implementation plan that **enables smooth integration into State agency operations** for incentive program deployment in early 2024
- Incorporate **stakeholder feedback** from across WA State to ensure the proposed program will work well in WA



Questions & Next Steps

We want your feedback

Next Steps

- Host Focus Group discussions and one-on-one listening sessions to get stakeholder feedback
- Consultation with legislators
- Consultation with Staff Work Group
- Draft final report
- Presentation to JTC on Dec. 14
- Final Report due January 2, 2024
- Presentation to WA State Legislators January 2024



Thank you!