Clean & Prosperous Washington

SMART CLIMATE INVESTMENTS FOR A CLEAN ECONOMY

The Climate Commitment Act (CCA) generates funding to invest in carbon reduction solutions while capping total carbon pollution in the state. Washington is a top-ranked state for Best Economy, Best States to Live In, and Top States for Business. With smart public policies and investments, our state can continue to lead the way in building a clean economy that outpaces other states. This *Smart Climate Investments for a Clean Economy* series highlights projects that achieve cost-effective benefits for Washington communities, including those most economically-stressed, pollution-impacted, and under-served.

ZERO-EMISSION TRUCKS

WHAT

Transportation is the biggest source of carbon pollution in Washington state, and it will be the primary source of revenue available under the Climate Commitment Act to reinvest in a cleaner, more efficient economy. According to the state GHG inventory, transportation is both Washington's largest and fastest-growing emissions source relative to 1990, while diesel used by trucks is one of the largest sources of local air pollutants.[2,3] Trucks burn more fuel per mile and tend to drive many more miles per year, creating a larger pollution impact per vehicle than a personal or light-duty vehicle.

There are over 300,000 class 3-8 vehicles in Washington.[4] Between 30% and 50% of new sales need to be zero-emissions by 2030 to meet state goals, equivalent to roughly 30,000 vehicle purchases by the end of this decade. Clean & Prosperous Washington recommends that zero-emission truck and infrastructure incentive levels be consistent with this ambition.

WHY

Investing in zero-emission MHD vehicles is a smart climate move for our state to achieve mandated pollution reduction, improve public health, spur job creation and lower compliance costs. While zero-emission trucks have an advantage in running cleaner and costing less to fuel and maintain, upfront cost premiums remain high. Although those premiums, and the resultant total cost of owning a zero-emission vehicle, are expected to decrease over time, current support is needed to catalyze the market and return benefits to businesses and communities.[5]

COST

-$130 to $460

per tCO_2e and dropping

CaPWA Decisive Decade report case study range[1]

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[1] Use-case dependent and expected to fall over time as battery costs become cheaper. Our Decisive Decade report included case studies for electrifying port Drayage Trucks and Motor Coaches. Aggregate data under California's MHD incentive program (HVIP) estimates $259/tCO$_2$e. The HVIP incentives are not designed to achieve maximum cost-effectiveness but to accomplish multiple aims. Another data point is the EDF "MAC Curve 2.0", from a 2021 report with Evolved Energy Research, that shows average abatement cost projections for the year 2030 of $57/tCO$_2$e and $76/tCO$_2$e for heavy-duty fuel-cell and electric vehicles, respectively, and $113/tCO$_2$e and $148/tCO$_2$e for medium-duty fuel-cell and electric vehicles, respectively.

[2] According to the latest GHG Emissions Inventory for the state, transportation is the fastest growing emissions source with an increase of 3.9 million metric tons of carbon dioxide equivalents (2017-19 average) since 1990 (base year for the inventory). Nearly 95% of statewide emissions growth over that time period is associated with transportation - with on-road diesel emissions (96% of which is heavy-duty trucks) nearly doubling and accounting for over 80% of the increase in transportation emissions.

[3] https://ecology.wa.gov/Air-Climate/Reducing-Emissions/Diesel-emissions/Health-impacts and https://www.pscleanair.gov/162/Air-Toxics

Zero-emission trucks leverage cleaner transportation fuels, such as Washington's low-carbon power grid and lower-carbon liquid fuels that may emerge under the Clean Fuel Standard program, to reduce pollution and keep more money in local economies. As Washington's power grid and fuels get cleaner coupled to a more robust refueling infrastructure, the net impact of accelerating the transition to cleaner trucks will be an increasingly cleaner and stronger economy.

Currently, many zero-emission MHD vehicles are manufactured in Washington state, including at a union factory, but are sent to other states that have robust point-of-sale voucher programs. By not incentivizing the clean transportation market in the state, Washington is losing out on air quality benefits, on good job opportunities associated with vehicle charging and refueling infrastructure, and creating economic benefits from lifetime cost-of-ownership savings associated with an increasing set of zero-emission MHD vehicle uses.

During the Clean & Prosperous Institute led 2022 study mission to California, our delegation learned about efforts in transportation decarbonization that have helped spur California to be the dominant market for zero-emission vehicles.

We learned from California's real-world experience with low-carbon transportation programs across vehicle types and refueling infrastructure that:

- According to research by California's Office of Environmental Health Hazard Assessment (OEHHA) titled, *Benefits and Impacts of Greenhouse Gas Limits on Disadvantaged Communities*, reduced emissions driven by California's Cap-and-Trade program have major health benefits, including for disadvantaged communities.
- California sees their incentive program, HVIP, as a great success and continues to leverage their cap-and-invest dollars to provide incentives for a range of zero-emissions MHD vehicles. The program works to support private innovation and grow the green economy with point-of-sale vouchers to make advanced vehicles more affordable.

HOW

Climate Commitment Act revenue should prioritize robust investments in MHD vehicle and infrastructure deployment to ensure our state's transportation decarbonization goals are met -- bringing both air quality improvements and job growth. The prioritization should be consistent with the requirement that a minimum of 35% of funds are invested in projects that benefit overburdened communities, including consideration of the owners and operators of the vehicles, as the pollution from MHD vehicles is concentrated in these communities. The aim of the zero-emission truck programs is to measurably reduce air pollution and greenhouse gas emissions while ensuring that Washington's truck owners and fleets can cost-effectively accelerate the transition to zero-emission vehicles.

It is important, within this program, to include specific considerations based on learned experiences from similar programs in other jurisdictions, such as:

- Multipliers and set-asides for recipients that meet certain characteristics (e.g. small businesses, lower income, operating in an overburdened community)
- Availability to private businesses as well as public entities and non-profits
- Streamlined incentives through an overarching program rather than spread across agencies

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[4] *West Coast Clean Transit Initiative Interstate-5 Corridor Report (June 2020), available at: https://westcoastcleantransit.com/#resources-section*

[5] *A January 2023 report by The International Council on Clean Transportation (https://theicct.org/publication/ira-impact-evs-us-jan23/) details both the evolving retail price difference between conventional and zero-emission vehicles and the projected impact of incentives, namely those from the Inflation Reduction Act, on vehicle sales by engine type across 6 truck and 4 bus categories.*