

Possible Economic Impacts of Washington's Cap & Trade Program

Independent analysis of estimated cost impacts highlights importance of transparent rulemaking, stakeholder input to minimize adverse impacts

The Washington Climate Commitment Act (SB 5126) signed into law by Governor Inslee in May 2021, mandates the implementation of a cap and trade system by January 2023, with the stated purpose of helping Washington achieve its goal of net zero greenhouse gas (GHG) emissions by 2050 – the most aggressive standard in the U.S.

This mandate requires the adoption of a statewide cap on GHG's that steadily decreases over time, along with the creation of a system for auctioning GHG emissions allowances. The revenue collected from the auction, estimated at about \$500 million per year¹ is expected to fund GHG-emissions reducing initiatives, climate mitigation measures and air quality monitoring programs.

California is the only other state with a similar cap and trade program. In place since 2013, it is linked to Quebec's cap and trade system, known as the Western Climate Initiative (WCI). Washington's cap and trade program, however, is significantly more aggressive than California's (a 7% annual GHG cap reduction versus California's initial 1.9% reduction) and also must reduce criteria pollutants in overburdened communities impacted by air pollution.

Overview: Cap & Trade System will initially cover 75% of state's GHG emissions

- Entities that emit over 25,000 metric tons (MT) of GHG emissions per year will be subject to the cap and trade system, which initially will include industrial facilities, in-state electric generation companies, electricity importers, natural gas utilities and transportation fuel suppliers.
- The Washington Department of Ecology (Ecology) will auction allowances equal to one MT of GHG's until the cap is reached. Some utilities and industries will be issued free allowances.²
- A facility that emits more than its budgeted allowances must purchase additional allowances from other entities or purchase offset credits (from projects that reduce GHG emissions). Entities that emit less than their annual number of allowances may keep the extra allowances for future use, or they may sell them.
- To minimize allowance price volatility, Ecology will set a price floor (minimum) and price ceiling (maximum) every year. The allowance floor price will increase by a predetermined amount each year. The aim of the price ceiling is to provide cost protection for facilities obligated to comply and will be set at a level sufficient to facilitate investments to achieve emissions reductions.
- The Climate Commitment Act also requires Ecology to determine whether Washington should enter into a linkage agreement with other jurisdictions with established allowance-based GHG reduction programs (WCI being the only one to date) to broaden emissions reduction opportunities and reduce compliance costs. A potential linkage decision would be made only after program rules are in place.

¹ Washington SB 5126 Fiscal Note Summary, May 12, 2021, based on a starting allowance price of \$22.78 in 2023.

² Emissions-Intensive Trade-Exposed industries will be allocated cost-free allowances to prevent them from moving out of state. Electric and natural gas utilities will also be allocated free allowances to avoid passing costs onto ratepayers.

Analysis Shows Compliance Costs Influenced by Allowance Prices, Program Linkage

Washington Research Council: Adoption of California’s Allowance Floor Price³

The Washington Research Council (WRC) estimated compliance costs to transportation fuels based on the allowance floor prices contained in the SB 5126 Fiscal Note (similar to California’s). According to that analysis, the estimated added compliance cost to manufacture gasoline would be 20 cents/gal in 2024 and 31 cents/gal in 2030. The estimated added compliance cost to manufacture diesel would be 23 cents/gal in 2024 and 36 cents/gal in 2030.

In addition to the WRC analysis, NERA Economic Consulting modeled the possible cost impacts of a Washington cap and trade system under various program planning scenarios using its NewERA model. NERA’s modeling showed that compliance cost impacts could be significantly higher than in other jurisdictions such as California because Washington has more stringent emissions reduction goals, cleaner electricity generation and different climate policies.

NERA: No WCI Linkage, Adoption of California’s Allowance Ceiling Price⁴

The NERA modeling analysis showed that with no linkage to WCI (the scenario which is expected initially), and California’s ceiling prices, the estimated possible cost per household in 2024 would be \$660, increasing to \$790 in 2030. The estimated added compliance cost to manufacture gasoline would be 58 cents/gal in 2024 and 77 cents/gal in 2030 and the estimated added compliance cost to manufacture diesel would be 66 cents/gal in 2024 and 88 cents/gal in 2030. An unlinked program would retain the value of allowance permits within Washington’s economy (which would result in lower household costs).

NERA: Linkage to WCI with Cost Containment⁴

If linked to WCI, NERA’s modeling assumed Washington’s allowance price would be \$49 in 2024, increasing to California’s ceiling price by 2030 due to the stringency of Washington’s program and the additional demand for allowances in the WCI market. The lower allowance price in 2024 was assumed to be a consequence of an adequate number of allowances available initially.

Under this scenario, Washington would be a net importer of permits – which means the majority of allowance dollars would go out of state. The estimated possible cost to Washington households in 2024 would be \$810 and \$1,020 by 2030. The estimated added compliance cost to manufacture gasoline would be 37 cents/gal in 2024 and 77 cents/gal in 2030 and for diesel would be 42 cents/gal in 2024 and 88 cents/gal in 2030.

NERA: No WCI Linkage, No Cost Containment⁴

If unlinked to WCI without a cost containment mechanism (ceiling price), NERA’s modeling shows that Washington’s allowance price would be \$184 in 2024 and \$246 in 2030. The estimated possible cost to Washington households in 2024 would be \$1,110 and \$1,260 in 2030. Under this scenario, the possible estimated added compliance cost to manufacture gasoline would be \$1.38/gal in 2024 and \$1.84/gal in 2030. For diesel it would be \$1.58/gal in 2024 and \$2.10/gal in 2030.

Estimated Possible Compliance Cost Impacts of a Washington Cap & Trade System Under Various Scenarios (for 2024 and 2030)*								
Economic Impact	WRC Analysis CA Floor Price ¹		NO WCI linkage CA Ceiling Price ²		WCI Linkage Cost Containment ²		No WCI Linkage, No Cost Containment ²	
	2024	2030	2024	2030	2024	2030	2024	2030
Added Household Cost	Not Calculated		\$660	\$790	\$810	\$1,020	\$1,110	\$1,260
Added Cost to Gasoline	\$0.20/gal	\$0.31/gal	\$0.58/gal	\$0.77/gal	\$0.37/gal	\$0.77/gal	\$1.38/gal	\$1.84/gal
Added Cost to Diesel	\$0.23/gal	\$0.36/gal	\$0.66/gal	\$0.88/gal	\$0.42/gal	\$0.88/gal	\$1.58/gal	\$2.10/gal
Allowance Price (\$/MT)	\$22	\$35	\$76	\$103	\$49	\$103	\$184	\$246

Sources:
 1 Washington Research Council Memo to WSPA on SSB 5126, January 5, 2022
 2 NERA Economic Consulting, “Assessing Value of Adding Flexibility to Washington State’s Greenhouse Gas “Cap and Invest” Program,” January 2022, prepared for WSPA.

*The data in this table shall not be construed as a forecast of fuel prices. The basic rules of supply and demand have an impact on the price of gasoline and diesel. Additionally, inflation and taxes also account for the cost of gasoline and diesel to consumers.

3 Washington Research Council Memo to WSPA on SSB 5126, January 5, 2022.

4 NERA Economic Consulting, “Assessing Value of Adding Flexibility to Washington State’s Greenhouse Gas “Cap and Invest” Program,” January 2022, prepared for WSPA.