

WASHINGTON

- *WCI Partner (non-participant)*
- *RPS: 15% by 2020*
- *1.35% of US carbon emissions*
- *2.5% of US GDP*

Washington State has a long history of commitment to its environment and a clean economy. Among the State's many strengths are its established policies that reduce greenhouse gas emissions; support renewable energy, green buildings and clean transportation; promote green economy jobs growth; and, address economic and social goals.

In 2008, the state established statewide limits on greenhouse gas emissions for 2020, 2035 and 2050; and set goals to increase jobs in the clean energy sector by 25,000 (above 2004 levels) by 2020, reduce annual per capita vehicles miles traveled by 18 percent by 2020, 30 percent by 2035, and 50 percent by 2050 (from the baseline of 75 billion vehicles miles

traveled), and reduce the state's expenditures on imported fuels.

Strong and well implemented building codes, a combined portfolio of renewable energy and energy efficiency standards, strict emissions performance standards for fossil-fuel generated electricity, cleaner cars and less carbon intensive fuels, and high levels of investments in renewable electricity, energy efficiency, and electric vehicle charging infrastructure are some of the strengths that are reducing Washington's emissions and make it a leader on clean economy. In addition, the State is home to companies on the cutting edge of clean energy technology – including wind, solar and advanced composites manufacturing, the development of advanced biofuels and low-impact hydropower, and energy-efficiency services.

FINANCE

- *The Washington State Clean Energy Fund* – Established by Governor Inslee in 2013, the CEF is designed to expand clean energy projects and technologies statewide. Funded projects provide a benefit to the public through development, demonstration, and deployment of clean energy technologies that save energy and reduce energy costs, reduce harmful air emissions or otherwise increase energy independence for the state. To date, \$80 million has been invested, leveraged by an additional \$200 million in federal and private funds, in a number of areas including: Energy Revolving Loan Fund Grants that support the widespread use of proven building energy efficiency and renewable energy technologies now inhibited by lack of access to capital; Smart Grid Grants to Utilities to advance renewable energy technologies by public and private electrical utilities; Research, Development and Demonstration Matching Funds for public and private investments in RD&D that will drive the future of energy efficiency, energy storage, and clean energy technology; Credit Enhancement for Renewable Energy Manufacturing Funds which provide reimbursement of up to 80 percent of interest payments for qualifying loans backed by the Washington Economic Development Finance Authority.
- *Meter-Based Financing* – The 2012 Washington State Energy Strategy identified meter-based financing, also known as on-bill financing, as a promising alternative to traditional ways of paying for energy efficiency and renewable energy projects. It reduces or eliminates the up-front investment for a consumer or business, and it allows for repayment from the reduction in energy cost savings. Meter-based financing is especially promising in situations where tenants are responsible for utility bills, since the property owner is not required to make an investment. Washington engages nonprofit lenders to develop and implement on-bill repayment mechanisms for Seattle City Light. Commerce supported this program with grant funds from the Clean Energy Revolving Loan Fund. The Seattle City Light program allows customers to finance energy efficiency projects and repay the loan as part of their electric bill. Residential customers can use on-bill financing even if they are replacing non-electric equipment, such as conversion from oil heat or installation of a more efficient natural gas furnace. The program allows customers to rely on their utility bill payment history to establish creditworthiness. Since inception the program has completed 574 loans for a total \$6.7 million using the on-bill repayment mechanism.
- *Weatherization Plus Health* – The Legislature in 2015 expanded its investment in healthy, safe and energy efficient low-income weatherization to include improvements that help children and adults combat asthma. Weatherization Plus Health combines energy and cost saving weatherization improvements in low-income homes with measures that reduce health risks and health costs for vulnerable families. It is targeted to improve the home environments for children and adults with asthma. Washington state is investing \$15 million from 2015-2017 to provide weatherization in all counties of the state through its Matchmaker program. Matchmaker matches state dollars with utility and other programs' investments in weatherization. This biennium \$4.3 million is being reserved in Matchmaker for the new Weatherization Plus Health initiative.

- *Renewables Leadership* – Washington leads the nation in electricity generation from renewable resources. The state generates more than 75 percent of its electricity from renewable resources, mostly hydroelectric power. Washington produces nearly one-fifth of all renewable electricity produced in the United States.
- *Washington Clean Air Rule* – Established by rule under the authority of the state clean air act in 2015, the CAR sets a declining cap on GHG emissions from major sources including stationary facilities, electricity generators, natural gas and transportation fuels. The CAR covers roughly 65% of the state’s emissions, allowing covered entities to demonstrate compliance via various actions including lowering on site emissions, reducing the carbon intensity of industrial processes and purchasing credits from approved projects that can demonstrate reduced GHG emissions.
- *Washington’s Renewable Portfolio Standard* – In 2006, Washington voters, seeking energy independence, required large utilities to obtain an additional 15% of their electricity from renewable resources (in addition to the existing hydroelectricity production) by 2020 and to undertake all cost-effective conservation. The state is on target to meet these required renewable energy targets. In 2013, wind energy provided 6.2% of all in-state electricity production. The state ranked 7th for installed wind capacity. Investments in wind totaled \$5.3 billion and created close to 4,000 green jobs. Actions taken by utilities to meet the state’s accompanying conservation standard will yield enough energy savings to meet 85 percent of projected energy demand through 2029.
- *Coal Decommissioning* – Washington’s only coal-fired power units, with a capacity of about 1,200 megawatts, will be decommissioned, with the first closing in 2020, and the other closing by 2025. In addition, the state is seeking agreements with key utilities and others to reduce the use of coal-fired electricity generated in other states and consumed Washington. These two efforts will make the state’s electricity virtually coal-free by 2026.
- *University of Washington Clean Energy Institute* – Governor Inslee established the CEI in 2014 through funding provided by the legislature. Situated in one of the nation’s premier research institutions and structured to leverage partnerships with nearby national labs, the Clean Energy Institute is focused on supporting the commercialization of cutting edge technologies in renewables integration, energy systems management and materials science.
- *Solar Incentives Program* – In 2017, the Governor signed legislation that reforms and extends the state’s solar incentives program, providing \$150 M in tax incentives over 10 years to help households recover installation and operation costs of rooftop solar.

- *Washington's Electric Vehicle Incentive Program* – With its uniquely low carbon grid, Washington has emerged as one of the leading states for deployment of electric vehicles. In 2014 Washington set a goal of putting 50,000 electric vehicles into use by 2020. New state actions to drive this deployment include four important measures:
 - 2016 Reauthorization of the state sales tax incentive for electric vehicles (EV)
 - Commitment that 20 percent of annual agency passenger vehicle purchases are EVs
 - Funding of a state EV infrastructure pilot program with the Washington State Department of Transportation (WSDOT)
 - Efforts to direct funding from the Volkswagen diesel vehicle settlements to additional electric vehicle infrastructure.

In addition, Washington collaborates closely with Oregon, Washington and British Columbia to deploy charging infrastructure along the West Coast Electric Highway, ensuring high frequency access to fast charging stations along 1800 miles of highway between the Canadian and Mexican borders. Innovative pilots currently underway include assessments of the opportunity for high speed rail between Seattle and Vancouver, BC, the potential to electrify Washington's passenger ferry system, the largest in the nation, and approaches to encourage so called ACES technology - autonomous, connected, electric and shared vehicles in urban areas of the state.

- *Public Vehicles Alternative Fuels Program* – May 2013, Commerce adopted rules regarding alternative fuel and vehicle procurement by state agencies and institutions of higher education. To support procurement decisions based upon total cost of ownership, Commerce developed analytical tools to allow agencies to determine the life-cycle costs of vehicles, including the social cost of carbon. The tool has demonstrated that electric vehicles are the least expensive option amongst the passenger vehicles available through the state procurement process. Commerce also formed the Alternative Fuels and Vehicles Technical Advisory Group (AFV-TAG) in 2013 to support rule implementation through joint purchasing programs, technical assistance, and fleet management strategies. The AFV-TAG is comprised of the agencies and institutions that represent nearly all of the state's fuel consumption. In October 2016, Commerce adopted similar rules for local governments, including cities, counties, public utilities, rural fire districts, ports, and school and transit districts. Beginning June 1, 2018, local governments are expected to use purchasing guidelines based upon the total cost of vehicle ownership and cost-competitiveness of alternative fuels. The 65 largest fuel users will be asked to file annual reports detailing their vehicle procurement needs, experiences with alternative fuels and vehicles, and plans for compliance with the new rules.

- *Green Building Standards* – Washington was the first state in the country to adopt high-performance green buildings standards for state-funded buildings. Washington has a long history of implementing energy efficiency in residential, commercial and industrial buildings. The state is on course to ensure all new buildings are energy-neutral by 2030, building on the state’s aggressive energy code, with advanced envelopes, efficient appliances, on-site generation, smart controls, and other features. The 2013 State Energy Efficiency Scorecard, published by the American Council for an Energy Efficient Economy, ranked Washington one of the top three states for energy codes.
- *Building Energy Consumption Disclosure* – In Washington, large building owners are required to disclose energy use to prospective clients at time of sale, lease or when applying for a loan. Commerce has staff dedicated to advancing commercial building energy benchmarking in Washington State. Funded primarily by the U.S. Department of Energy, Commerce manages an effort with the states of California, Oregon, Washington and British Columbia to advance benchmarking policies at the local and state level. Project funding continues through 2017. This collaboration has:
 - Developed a model benchmarking and disclosure policy for state and local government, including coordinated efforts to establish uniform practice in the implementation of policies.
 - Developed internal expertise in the energy offices of California, Oregon, Washington, and British Columbia.
 - Developed reporting on the benefits of benchmarking building performance.
 - Provided outreach and policy support to local government interesting in benchmarking policy adoption.

- *Ocean Acidification Policy and Management* – In December 2011, Governor Gregoire convened a Blue Ribbon Panel of leading tribal, state, federal and local policy makers; scientific experts; public opinion leaders; and industry representatives. The Blue Ribbon Panel has focused on documenting the current state of scientific knowledge, ways to advance our scientific understanding of the effects of ocean acidification, and recommend actions to respond to increasing ocean acidification, reduce harmful effects on Washington’s shellfish and other marine resources, and adapt to the impacts of acidified waters. Today, Washington’s work to address acidifying marine waters is led by The Marine Resources Advisory Council which has the following powers and duties:
 1. To maintain a sustainable coordinated focus on ocean acidification;
 2. To advise and work with the Washington Ocean Acidification Center on the effects and sources of ocean acidification;
 3. To deliver recommendations to the Governor and Legislature on ocean acidification;
 4. To seek public and private funding resources to support the Advisory Council’s recommendations; and to assist in conducting public education activities regarding ocean acidification.

Together with California and Oregon, Washington helped stand up the Alliance to Combat Ocean Acidification, an international coalition of states.

- *Floodplains by Design* – FbD is an innovative program that combines the goals of restoring freshwater systems critical for recovery of endangered salmon with efforts to protect farmland and better manage growing flood risk across Washington’s extensive watersheds and floodplains. More than \$80 M in state funds have been allocated since 2012 and more than \$100 M more leveraged from public and local sources. The program has restored miles of continuous floodplains while protecting more than 500 acres of critically productive farmland.

- *Washington State Climate Leadership Act* – In 2009, the Washington State Legislature required state agencies to reduce emissions and develop an integrated climate change response strategy. The act required the departments of ecology, agriculture, community, trade, and economic development, fish and wildlife, natural resources, and transportation to collaborate to develop a strategy in order to support the efforts of state and local agencies, businesses, NGOs, and individuals in preparing for and addressing climate change impacts. Climate adaptation planning is now a part of local land use and growth management plans as well as numerous funding programs such as the state’s salmon recovery funding efforts
- *Climate Impacts Vulnerability Assessment Report* – Washington’s Department of Transportation systematically evaluated the state’s transportation infrastructure to climate impacts. The assessment and resulting guidance is used by planners across all modes and regions to reduce the vulnerability of infrastructure investments to long range climate related threats.