

Under 2 MOU: APPENDIX

Washington State

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.

Washington is recognized nationally for its success in implementing innovative approaches to achieving the GHG limits and the goals of a low carbon economy. 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.

Specific actions and commitments:

I. Greenhouse Gas Emissions Limits

By 2020 Washington State is required by law to limit emissions of greenhouse gases to the 1990 level; by 2035 emissions must be limited to 25 percent of the 1990 level; and by 2050 emissions must be limited to 50 percent below 1990 or 70 percent below the state's expected emissions that year. Since 2009, Washington has been driving down its GHG emissions, which are now relatively flat even as the state's economy grew by 2 percent. In 2008, the state committed to review its limits based on the most recent global, national and regional climate science. The review was completed in December 2014. The conclusion was that Washington State's existing limits should be adjusted to better reflect the current science, and that the limits need to be more aggressive in order for Washington to do its part to address climate risks. The state will recommend new limits after the UN climate conference negotiations are concluded in December 2015, using the results to inform how Washington's limits should be adjusted.

II. Clean Electricity

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. 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 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. The state is also expanding the use of solar energy. Washington, as a forestry state, is a substantial producer of energy from carbon-neutral biomass, primarily wood and wood waste. The state is also a national leader in integration of nutrient management and energy production (waste-to-energy) through research and development of anaerobic digesters. The largest landfill renewable energy producers in the U.S. Bio Energy Washington, gas-to-energy plant, generates over 15 million kilowatt hours of electricity from the landfill gas, reducing greenhouse gas emissions by about 82,300 metric tons per year. Washington still has room to expand its abundant wave ocean, geothermal, and other renewable energy resources.

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.

III. Energy-neutral buildings

Washington's achievement in building energy efficiency is a great clean energy success story. 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.

The state's electric utilities are required to undertake all cost-effective energy conservation. Actions taken, which are part of a regional effort, will yield enough energy savings to meet 85 percent of projected energy demand through 2029.

Washington offers significant incentives for energy efficiency investments and to support research and deployment of new technologies. In 2013 a new Clean Energy Fund was created providing \$40 million to support building energy efficiency and renewable energy, advance renewable energy technologies and make Washington more competitive.

IV. Clean Transportation

Washington's greenhouse gas emissions are dominated by the transportation sector, contributing 45% of emissions in 2012. The state is taking concrete actions to drive down these emissions by supporting cleaner cars, clean fuels and reduction in miles travelled. With its clean and low cost electricity, Washington has emerged as one of the best places to own and drive an electric vehicle. Washington is on target to achieve its goal of 50,000 electric cars by 2020. The state is investing in EV charging infrastructure to support the increase of sale and use of electric vehicles. Also, the state is committed to join with other states in adopting zero emission vehicles.

Washington is prepared to partner with neighboring jurisdictions on a West Coast clean fuels program, building on its state renewable fuel standard. In addition, the state is collaborating with the aerospace industry, airlines, several universities, federal partners and others to advance research and technology related to aviation biofuels being done under the Federal Aviation Administration Center of Excellence in Alternative Jet Fuels and Environment. Washington's largest airline included the use of biofuels in its 2020 sustainability goals and plans to start using biofuels in some of its flights in 2018.

The state is making meaningful investments in multimodal transportation in communities of all types and sizes across the state, and it's working with its local governments to promote transit oriented development and other low-carbon transportation solutions. Washington was the first state to formally adopt reduction goals for vehicle miles travelled, and the above actions support that commitment.

V. Emission Trading

Washington State has completed an extensive evaluation of the benefits of an emission trading system to implement the state's greenhouse gas emission limits from all major sources, and provide a price on carbon and a market program to ensure those limits are met. In January 2015, the Governor proposed legislation to create a carbon pollution market program for Washington State that, if and when enacted, would be linked to emission trading programs in other jurisdictions.