

Group Project: Thurston County Confronts Climate Change

Department of Commerce

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Global Meltdowns: Winter 2013

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ABSTRACT:

We found that the Department of Commerce plays a crucial role in formulating the environmental and energy policy of Washington State through its programs, mainly the State Energy Office. When it comes to climate change, the DOC is most active in regulating and cutting down on greenhouse gas emissions by making public utilities more energy efficient, promoting the use of renewable energy, implementing state biodiesel requirements, and replacing coal energy with more efficient natural gas. They also promote various public works projects which help the state adapt to a more sustainable energy future. The DOC does very little to mitigate climate change. Despite the advances the DOC has made on the climate change front, there are still many barriers within the state government to maximizing Washington's renewable energy capabilities.

We interviewed Tony Usibelli, who is the Director of the State Energy Office in the Washington State Department of Commerce, and we looked at the 2013 Biennial Energy Report and various websites. The State Energy Office analyzes energy issues and provides energy policy information and support to the Legislature, Governor, and other energy decision makers. It also works to help Washington State improve energy efficiency and encourage the use of renewable energy (Weed, 2012). Mr. Usibelli told us

that greenhouse gas emission has to be 50 percent less than present levels by 2050 and that the state is pushing to strengthen the energy code.

In our interview, Mr. Usibelli told us that Washington State has an abundant energy supply right now. He said that 60 to 70 percent of our energy comes from renewable hydroelectric resources, however the vast majority of our fuel for transportation comes from fossil fuels. Of course this is a concern for a few reasons: gas prices are volatile and there's very little Washington State can do about it, fossil fuels are ultimately a limited resource, and burning them contributes to climate change. So the Department of Commerce is trying to encourage alternatives for transportation like electric vehicles and vehicles that run on renewable fuels.

Due to unconventional methods of extracting natural gas, horizontal drilling and hydraulic fracturing (fracking), prices for natural gas have gone down significantly since 2007. Washington State has infrastructure in the form of pipelines from British Columbia, Alberta and Wyoming to take advantage of low-cost natural gas. At the present rate of consumption natural gas reserves may last 75 to 150 years (Weed, 2012, pp. 36-38). Natural gas has many negative environmental impacts: contamination of fresh/drinking water, spills of drilling mud, wastewater disposal, road traffic and environmental disturbance. In addition, natural gas contains methane, which is a powerful greenhouse gas that is a significant contributor to climate change. The current low prices and large quantities available may be affected by government regulations placing tight controls on it. In the future, environmentally preferable gas certifications may become available, so that gas customers have the option to buy a "greener" product (Weed, 2012,

p. 43).

According to Mr. Usibelli, the best way to utilize natural gas is to displace coal-fired electric generation. Electricity generated from natural gas produces less greenhouse gas than coal. Compared to natural gas "...even a modern, pulverized coal plant emits nearly twice the carbon dioxide for the same amount of electric generation" (Weed, 2012, p. 46). So we need to encourage the displacement of coal by natural gas. However, because natural gas is so inexpensive right now, there is a concern that fuel customers in Washington will choose it over other more environmentally friendly options that may cost more and that utilities will quit investing in efficiency improvements: "In the Pacific Northwest, utility funding of customer energy efficiency programs is at risk because of low wholesale natural gas prices...Already, one of the state's four regulated gas utilities has filed with UTC a request to suspend their natural gas energy efficiency programs" (Weed, 2012, p. 46).

Especially for transportation, we need to avoid investing in significant infrastructure (like filling stations for compressed natural gas) that people would be unwilling to give up and instead keep on course with electric vehicles and biofuels (Weed, 2012, p. 52).

Tony Usibelli said that the DOC is encouraging electric vehicles, since they make so much sense for Washington State. Washington has some of the lowest electricity rates in the country. We have clean hydro-electricity in abundant supply, and the cost of fueling electric vehicles is about one-third the cost of a gas powered vehicle. He pointed out a number of challenges posed by electric vehicles. They're expensive right now and

they have a low range of miles they can travel with the current batteries. As battery technologies improve, the range of the vehicles will increase and become more energy efficient, so they will become a more viable option going forward.

Washington State already has the second largest electric vehicle charging network, second only to California. The State installed a dozen fast charging stations for electric vehicles along the entire length of Interstate 5 and parts of Interstate 90 and Highway 2.

In 2012 the governors of Oregon, California, Washington, and the premier of British Columbia signed the Pacific Coast Collaborative *West Coast Action Plan on Jobs*. The Action Plan “ included commitments to fully energize the West Coast Green Highway from Whistler B.C. to Baja California, develop a West Coast green fleets initiative, and work on coordinated purchases of clean vehicles, especially electric vehicles” (Weed, 2012). Washington State is going to purchase electric vehicles to help fulfill their obligations to purchase alternative fueled vehicles. The State is also going to install 45 level 2 charging stations at public agencies.

Mr. Usibelli told us that there is a B20 (20 percent biofuels) goal for state ferries and diesel trucks. Currently state ferries use 18 million gallons of biodiesel per year which has greatly cut back on emissions from the ferry system. Unfortunately the current renewable fuels standard (RFS) is considered unenforceable. One of the problems Mr. Usibelli pointed out are that farmers who grow crops like canola get better prices selling them for food than for fuel.

Efforts to change the current unenforceable B2 (2 percent biodiesel) requirement

to a universal B5 requirement were unsuccessful during the 2012 legislative session. Oregon has a B5 renewable fuel standard and if Washington had B5 too it would “provide a uniform regional policy framework that recognizes current fuel distribution channels and allows biodiesel to be more efficiently blended into the diesel supply” (Weed, 2012, p. 13). Oregon relies on Washington for most of its fuel supply. The 2013 Biennial Energy Report talks about tax incentives, like a sales tax credit or business and occupation tax rate reduction to help pay for necessary investments in blending infrastructure by biofuel distributors.

In the interview, Mr. Usibelli talked about the need for a price on carbon which he said was a high priority for Governor Inslee. He talked about the possibility of modeling it after the British Columbia carbon tax of \$30 per ton. In B.C. the carbon tax revenue is rebated to the people through income tax and business taxes. Mr. Usibelli said that some of the challenges to a carbon tax are the legislature doesn’t want to propose any unpopular taxes and there are climate deniers in the Washington State Congress who would never vote for such a provision on principle. He said that Governor Inslee is going to push hard for a carbon tax and hopefully Washington will have one within the next five years.

Page 25 of the 2013 Biennial Energy Report talks about a possibility of beginning the carbon tax at \$10 a ton and increasing in \$5/Ton steps until we reach \$30/t. “By 2035, the \$30/t tax would generate roughly \$2.1 billion in revenues for the state, sufficient to offset some 52 percent of state property tax revenues, 8 percent of state retail sales tax, or 68 percent of business and occupation tax revenues” (Weed, 2012, p. 25).

Mr. Usibelli talked about the Growth Management Act (GMA). He said that although the DOC is more concerned with emissions reduction than mitigation and/or adaptation to climate change, the GMA does help Washington adapt to climate change. Some of the things he mentioned were the possibility of increasing forest fires, flooding, storms and less availability of water. He said the GMA tries to plan for these things by looking at growth, adjustments to infrastructure, transportation, guidelines for creating green, affordable housing, and making culverts bigger.

The Department of Commerce created the Evergreen Sustainable Development Standard, which is a set of green building criteria that any affordable housing project the is applying for state funds through the Washington State Housing Trust Fund is required to meet. It focuses on water conservation, energy efficiency, renewable energy technologies, and environmentally-conscious construction practices among other things (DSIRE).

Mr. Usibelli also talked about the I-937 Code. Under the code, all electric utilities with 25,000 customers or more have to meet the requirements of the Energy Independence Act. There are 17 utilities that are that large in Washington and all of them met the target of 3 percent renewable energy for 2012 (Weed, 2012, p. 30). The eligible renewable resources reported to meet the 3 percent requirement by the 17 utilities included: water 21%, wind 51%, biomass energy 4%. He told us that ocean energy is currently too expensive and only Snohomish Public Utility is looking at trying it around Deception Pass. Washington State law also requires all 17 utilities with 25,000 or more customers to offer a “green power” electricity product. This is a product produced by

renewable resources like wind, solar, landfill gas, and others (Weed, 2012, p. 33).

Overall, the DOC and the State Energy Office have had many successes improving energy efficiency of Washington's public utilities and integrating more renewable energy sources into the grid. However, transportation remains a huge problem. Biodiesel requirements are unenforceable, electric vehicles are not yet sufficient to serve as a viable replacement for gasoline vehicles, and natural gas threatens the viability of electric vehicles due to the lower cost of energy. Efforts to integrate more renewable energy have produced mixed results. Ocean energy is completely viable from a technological standpoint, but will not be implemented at any time soon due to cost. Washington also has yet to establish a tax on carbon emissions. Washington has done a pretty good job overall, but it must do more to control emissions, adapt, and mitigate climate change given all the looming uncertainty surrounding the future of our climate.

Works Cited

DSIRE. (n.d.). Retrieved from dsireusa.org

Weed, R. (2012). *2013 Biennial Energy Report*. Olympia: Washington State Department of Commerce.