

**RE: Testimony on SB 1507 and HR 4001, Clean Energy Jobs Bill
February 7, 2018**

Oregon urgently needs to act to address climate pollution and its many harms to people and the planet. We must put on cap climate pollution and achieve rapid reductions in that pollution as quickly as possible. Currently Oregon has notable goals to reduce greenhouse gas emissions but no real policy in place to achieve those reductions. In addition, we need to put a price on climate pollution and then invest the monies raised to ensure a just energy transition – one that enables further reductions in climate pollution, promotes clean energy, and reduces harms to disadvantaged communities.

There are so many harms that result from climate pollution that where to begin is challenging. I will focus on just a couple. With global warming more precipitation is falling as rain in the Cascades rather than snow. Our snow pack is decreasing - currently the snowpack in the Oregon Cascades is one third of normal. According to the EPA, average annual temperature increases in the Northwest have been about 1.3F over the past 100 years and are projected to increase by 3 – 10F by the end of this century. The result of these changes will be a less reliable supply of water for hydro power, agriculture and the health of our eco-systems as spring snowmelt will occur earlier and summer stream-flows decline. On a personal note, I love to cross-country ski. My opportunities to ski in the Cascades will inevitably decrease. And the trends are such that when my adult daughters reach my age, they likely will have to drive far north into Canada to cross-country ski.

Another harm that result from these changes in snowpack will be on our salmon. Salmon are especially sensitive to changes in stream temperatures. Studies by EPA show that roughly one third of current habitat for salmon and other cold-water species in the Northwest will be too warm for them to tolerate. Of course, salmon also have seasonally timed migrations up our rivers and streams to breed. With earlier and higher stream-flows that result from climate change comes damage to spawning nests. It is quite magical to watch salmon spawning in near-by streams. We risk losing this icon of the Northwest.

The last harm I will mention is the impact on oysters and our fisheries. Our oceans are becoming more acidic and one of the results here in the Northwest has been the die-off by the billions of oyster larvae – the seawater is so corrosive

that it eats away the young oyster shells before they can form. Of the two trillion tons of CO2 released into the atmosphere over the past 200 years, about a quarter of that has been absorbed by the oceans. The effect of this corrosiveness is akin to osteoporosis, which causes bones to become brittle. With increased acidity shells become thinner, growth slows down and death rates rise. This is and will continue to be a significant challenge to both shellfish harvesters and commercial fisherman, and the nearly \$500 million value that represents here in the Northwest.

I strongly support passage of HR 4001. At the same time I encourage this bill to be strengthened by:

- Minimizing free allowances
- Keeping offsets to no more than 2% and keeping them in Oregon, and
- Ensuring strong representation by under-represented communities throughout the process and especially in relevant committees

Sincerely,

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