

Date: 2.28.2017

To: Senate Environment and Natural Resources Committee; House Energy & Environment Committee  
RE: SB 557, SB748, HB2468, HB2135

As a 70 year old Republican voter, let me say that climate change should not be a partisan issue. My family has Republicans back to Lincoln and my Grandfather was a Republican Governor of Oregon. It discourages me that many Republican legislators fail to grasp the science or the risks inherent in Oregon's changing climate. As an owner/manager of 800+ acres of Western Oregon forest land, my ground-based observation and examination of the scientific research reveals that conifer forests, especially Douglas fir territory in our region will likely decline by 50% within the next hundred years. Risks to many other facets of Oregon are similarly dire.

I've heard it often said by those who resist policy action that Oregon is too small a state to make a difference. This lack of logic appalls me, such thinking denies that individuals or groups can make a difference. Why vote when my vote is one in a million? Why put my money in the collection tray when my donation is too small to make a difference? Oregon citizens should accept both the role of responsibility for being part of the problem and part of the solution if we are to pass something of value on to our Grandchildren. Failure to do so is abdication of both personal responsibility and leadership.

SB 557 or HB2468 is the best policy option available. The evidence shows that there would be a net economic benefit of at least three times the cost of the measure to Oregonians. To one who worries about "cost" of this policy, a policy should be evaluated the same as any good business decision, the relation of cost to benefit as well as the cost of inaction. If adopted, this policy will benefit Oregon by about a billion dollars per year while lack of action will cost a similar amount, thus a net difference in benefit to cost of two billion dollars (see reverse).

Either SB557 or HB 2468 (Cap and Trade Market Based Mechanism) currently is the best pathway to moderating the inevitable damages already baked into the system from our continuing and past actions. It joins with other jurisdictions who have already figured out the hard policy stuff, jointly the fifth largest economy of the world. The policy already working elsewhere demonstrates: 1) strong economic benefit, 2) reinvestments which reduces emissions and creates net gain in high quality jobs, and 3) caps and reduces harmful emissions.

I offer several suggestions for any of the Cap bills under consideration:

1. Lack of progress on 2007 Leg. targets means 2050 targets should be more like HB 2468.
2. Insure periodic updates, not longer than every five years, based on best available science, are built into the law.
2. Consolidate the three to five advisory committees into one, for the sake of efficiency and functionality.
3. Consider distributing proceeds from sale of allocations directly to the cities and counties. This would empower local government buy-in and confidence that emission reduction investments are addressing needs of the communities across all of Oregon.

A carbon tax is sometimes mentioned as an alternative. The tax is inherently infeasible because it both requires a 3/5 majority vote and it lacks the majority public favor of the Cap based market mechanism and investment policy. For those favoring a carbon tax, three elements would be necessary at minimum: 1) starting at least at \$100/ton CO<sub>2</sub>e; 2) minimum of \$25/ton/year increase increments; and 3) instead of revenue neutral, some significant portion, like 25%, investment in reducing emissions, adaptation and research.

I urge you to give affirmative consideration to SB557 and HB 2468 to begin Oregon's proper response to climate disruption. It is impossible to write a perfect bill for everyone although we must get started now and make adjustments as we learn by doing. This will be a work in progress for a long time but procrastinating isn't the answer.

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## How much would Cap/Trade/Invest SB557 cost Oregonians?

Tom Bowerman, 1.29.17 v8

**How much would the a Cap and Trade program cost Oregonians?** This question was asked by Oregon Senator Olsen in a recent legislative hearing. The question is important although it has more than one answer depending on how "cost" is computed. "Cost" is often defined differently, such as: initial cost, net cost, and cost-benefit. When risk factors are accounted, there may also be a cost of failure to act. Not to get lost in semantics, let's probe the question of how much would it cost:

**1. Sixty-two dollars cost per Oregon resident yearly is one reasonable estimate of simple out-of-pocket" cost," if measured at year three of implementation.** However, This \$62 annual per Oregon capita is based on an estimate that the gross estimated revenue at the third year of full implementation of \$250 million by proportional assignment of direct experience of California's similar policy. This figure is based on the proposed implementation method of the policy, using a current WCI allocation price of \$13/ton of CO<sub>2</sub>e, 53% of allocations being given away for program, fairness and economic stability purposes, based on Oregon's current 64 million metric tons of CO<sub>2</sub>e emissions.

**2. We expect at least a 3:1 return on the "cost". By the third year, we can estimate more than \$186 economic benefit per capita per \$62 cost per capita.** The HCA up-front cost is a fee paid by entities which emit more than 25,000 tons CO<sub>2</sub>e per year (comprising less than 100 Oregon companies) for the privilege of polluting our common air-shed . The pollution fee is rebated to Oregon residents and businesses in the form of targeted investments to reduce negative pollutant impacts. The rebate includes low-income support to offset price increases that the emitters would pass through to the public, as well as investments in renewable energy, conservation, adaptation measures, and research. These targeted investments yield returns, which more than offset the costs incurred. Analysis of evidence finds a **net-positive economic benefit ranging from 3:1 to 50:1**<sup>1</sup> above the initial cost. Partly this is because our consumption of CO<sub>2</sub> emitting products (e.g. fossil fuels) are almost exclusively purchased from outside Oregon, while the investments will be made inside Oregon, yielding a positive benefit.

**3. Not addressing climate change has a bigger cost to Oregon's economy.** "Based on a leading aggregate damage estimate in the climate economics literature, a delay that results in warming of 3° Celsius above preindustrial levels, instead of 2°, could increase economic damages by approximately 0.9 percent of global output. To put this percentage in perspective, 0.9 percent of estimated 2014 U.S. national Gross Domestic Product (GDP) is approximately \$150 billion nationally per year. The incremental cost of an additional degree of warming beyond 3° Celsius would be even greater. Moreover, "these costs are not one-time, but are rather incurred year after year because of the permanent damage caused by increased climate change resulting from the delay."<sup>2</sup> Proportionally, not taking action will cost Oregon over \$1 billion per year. This may be understating it.

The Pentagon released a study in 2014 stating climate change is placing immediate costs on US defenses and threats to low elevation installations, potentially running into hundreds of billions of dollars.<sup>3</sup> Worldwide, populations in low-lying areas are facing displacement of hundreds of millions of people, a catastrophe of unheard-of dimension. There are other costs of inaction.

Conclusion: Addressing climate change smartly will yield a strong net positive benefit immediately. Applying a conservative net benefit ratio, near term benefit could exceed \$1 billion per year. Not taking action has a future cost to Oregon of over \$ 1 billion per year, expressed in current value of money. Delaying action cancels benefits and increases long-term costs. Faster action has far stronger benefits.<sup>4</sup> **The spread between our collective action or non-action in addressing climate change translates to at least two billion dollars per year to Oregonians.**

Also see the [DEQ study of the program](https://www.oregon.gov/deq/FilterDocs/ghgmarketstudy.pdf): <https://www.oregon.gov/deq/FilterDocs/ghgmarketstudy.pdf>

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<sup>1</sup> <http://www.policyinteractive.org/OreStudiesCalAB32JobsEconomyFinal.pdf>

<sup>2</sup> [https://www.whitehouse.gov/sites/default/files/docs/the\\_cost\\_of\\_delaying\\_action\\_to\\_stem\\_climate\\_change.pdf](https://www.whitehouse.gov/sites/default/files/docs/the_cost_of_delaying_action_to_stem_climate_change.pdf) (p.2)

<sup>3</sup> <http://registerguard.com/rg/news/32285528-76/climate-change-will-challenge-u.s.-military-defense-secretary-says.csp>

<sup>4</sup> [https://www.whitehouse.gov/sites/default/files/docs/the\\_cost\\_of\\_delaying\\_action\\_to\\_stem\\_climate\\_change.pdf](https://www.whitehouse.gov/sites/default/files/docs/the_cost_of_delaying_action_to_stem_climate_change.pdf) (pp5-7)