## Testimony in Support of HB 2020

I am writing to submit testimony in support of the Clean Energy Jobs Bill (HB 2020). My name is Randy Bluffstone. I am an environmental and natural resource economist, professor of economics and director of the Institute for Economics and the Environment at Portland State University. I live in northeast Portland in Oregon House of Representatives District 45.

I am very proud that Oregon is considering such a bold, innovative, but also appropriately measured policy mechanism by which to offer us the opportunity to fulfill our commitments to reduce climate change. We are all experiencing the initial effects of climate change. We notice changes in how other species behave, more 100+ degree days in the summer, more erratic weather and more frequent extreme weather events. We also know from the Intergovernmental Panel on Climate Change (IPCC) and other sources that these effects are only the beginning and will accelerate, potentially making our planet very difficult to inhabit easily within a human timescale. Urgent and immediate actions are therefore required, which is why the IPCC is calling for a global 45% reduction in CO<sub>2</sub> emissions by 2030 and full decarbonization by 2050. They estimate that this will keep the increase in global average surface temperature to 1.5 degrees Celsius (about 2.7 degrees Fahrenheit), which maybe, just maybe will allow the world to escape the very worst effects of climate change.

We are all responsible to chip in to achieve the reductions necessary to slow and ultimately stop climate change, and, of course, the richer parts of the world, such as Oregon, have a special obligation. To quote, I believe, from the scholar Hillel, if not now, when? If not us, who?

HB 2020 is a very important and clever tool for fulfilling our obligations, because it relies on price incentives through a cap-and-trade mechanism to steer our economy in a less carbon-intensive direction. The current price of emitting an extra ton of  $CO_2$  (or other greenhouse gas) into the atmosphere is zero. There may be constraints on emissions, because of regulations on other gases emitted along with  $CO_2$ , but we face no direct price for emitting carbon. The flip side – which is at least as important – is that we also get no reward for *not* emitting carbon; zero is clearly not the right price for emitting a ton of  $CO_2$  into the atmosphere when we are facing the terrible effects of carbon emissions outlined by the IPCC and other bodies. When resources are free, people tend to overuse them and right now our atmosphere is effectively a free place to dump our  $CO_2$ . HB 2020 will change this dynamic in what seems to me to be a sensible and measured fashion.

There are justifiable concerns about the economic effects of HB 2020, but I can say with confidence that experience around the world with direct pricing of air pollution is very positive. My understanding of experience in other US states, as well as Canada and Europe, is that direct pricing creates incentives to reduce emissions, which spur changes in investments that allow businesses and consumers to avoid paying the costs of emitting carbon; legislation such as HB 2020 allows a huge amount of flexibility through trade, which gives all of us the opportunity to avoid paying those costs. We don't know for sure how strong will be the behavioral response, but in other settings responses have been very strong and economic costs typically come in much lower than initially expected.

A key reason cap-and-trade and carbon taxes can attract attention and controversy is because, in contrast to other forms of regulation, costs are explicit and easily identified. Other policy instruments like renewable energy standards, which we also have in Oregon, have less explicit costs. They may therefore not attract as much fire, but they are also blunter instruments, because it is harder for us to react to them.

My understanding is that HB 2020 may result in explicit costs per ton of CO<sub>2</sub> emitted of about \$16.77 per ton in 2021, rising to approximately \$26.00 in 2030. Energy sellers and buyers will face these costs based on the CO<sub>2</sub> content in fuels. A recent article in The Oregonian (NW Natural: Carbon Policy Means Rate Hikes 2/8/19) focuses on increased natural gas prices and says that NW Natural residential prices will initially rise by 11% or \$74 per year. At the average residential use of 53 therms per month and a CO<sub>2</sub> price of \$16.77 per ton, I estimate the additional cost to be a bit less at about \$4.72 per month (\$57/year). In other words, those of us using natural gas will on average give up the equivalent of a slice of pizza and a soda each month to do our part to stop catastrophic global warming.

Initially, we will be stuck with this price increase, but evidence suggests that over time we will figure out ways to adjust, probably by being more energy efficient. This means that average bills will go up by even less than 4.72/month. Those who like me heat with natural gas will insulate, add storm windows, cover gas water heaters, put on sweaters and increase furnace efficiency. It will, of course, be more important than ever that tenants who pay gas bills have accurate estimates of energy costs before signing leases. Energy Trust of Oregon will be available to help us and the Bill itself targets revenues to a Climate Investments Fund that will finance reduced  $CO_2$  emissions, including helping lower-income people who may be most affected by increased energy costs. These moneys generated by the legislation itself will help us move to a low carbon future.

The issue of who gets exemptions is a contentious one, and it is understandable that NW Natural would seek them, but this should not obscure the point that we need to price carbon and \$16.77 per ton of  $CO_2$  or even \$26 is manageable. Initially, each of us will shift what for many (though not all) is a fairly small amount of money each month to climate protection. Over time, though, we will adjust in other ways, becoming more energy efficient and helping to save the planet in the process. This is, of course, the point of HB 2020.

Sincerely yours,

Randy Bluffstone Professor of Economics Director of the Institute for Economics and the Environment Portland State University