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From: Evan Pierce <pierce.evan@gmail.com>
Sent: Monday, April 17, 2017 12:23 PM
To: HEE Exhibits
Subject: 4 Points In Support Of HB 2135

I have 4 points I'd like to make in support of HB 2135.

1) This bill is the most thoughtful and economically responsible way to ensure that we meet our existing commitments to reducing carbon emissions. In 2007, the Oregon legislature committed to reducing emissions below 30% of what they are today by 2020. Our current policies won't get us there, we need to change course in order to meet our existing obligations.

2) (Fermi's Paradox) Physics tells us we have ~ 1 in 50 million chance of surviving the next few thousand years, due to issues like climate change. I used to be a physics professor, specializing in cosmology, which is where I came across Fermi's Paradox. The universe is 14 billion years old. Human civilization went from picking berries to landing on the moon in just a few thousand years (0.0001% the age of the universe). Our galaxy has hundreds of billions of stars and solar systems, many of which have been around for billions of years longer than ours has. Even if the odds of an Earth-like planet generating intelligent life are minuscule, with the sheer numbers we should expect tens of millions of intelligent civilizations all throughout the galaxy, most of which will have been around for hundreds of millions of years longer than we have.

Where do you think we'll be in 100 million years (< 1% the age of the universe)? Even our existing space technology is advanced enough to carry us throughout the galaxy in that time. So by now, our galaxy should be rich with tens of millions of other intelligent civilizations which got their start long ago. But we've been watching the stars for hundreds of years, and there is no evidence of even a single civilization with significant space technology. So where are they? What happened to them? How could not even a single civilization have made it that far by now? That's Fermi's paradox.

The most common answer is that there is a robust mechanism which destroys these civilizations before they are able to expand -- a mechanism such as global nuclear war or climate change. Their silence is deafening. It tells us that our civilization has a 1 in 50 million chance of surviving the next few thousand years, before we can really expand into space. It tells us that every single time a civilization reaches a certain technological maturity, they lack the wisdom to find sustainable solutions while they grow, and they end up killing themselves because of it. And that this has already happened millions of times over. The odds against us are simply too great to not do everything we can to help our chances.

It should by now be easy for us to see how politics and perceived self-interest may well keep us from listening to our scientists warning of catastrophic consequences of climate change until it's too late, and we've irreparably destroyed our climate. If we refuse to listen to our scientists about the consequences of our actions, then we can instead listen to the deafening silence of the millions of other intelligent civilizations just like us throughout the galaxy who were never able to make that jump, due to mechanisms just like climate change.

People aren't used to thinking in these terms, dealing with the possibility of making choices which significantly impact our whole civilization's ability to survive or else face total extinction. But that's exactly what we're dealing with here.

3) Climate Change is a "Tragedy of the Commons" issue, which can only be solved by leadership and building coalitions. There are hundreds of nations and thousands of companies which produce large amounts of greenhouse gas emissions. As individuals, every country and business knows that their individual action won't solve the problem, and are therefore tempted to not do anything about it. That's not an acceptable outcome, as the consequence of that is the total extinction of human life within a few thousand years. We cannot even entertain that approach. The only approach that can be acceptable is one that can realistically avoid the catastrophic consequences of climate change. The only way to solve a tragedy of the commons issue is to build coalitions with leadership and act as a larger group.

That necessary action is exactly what Oregon's Clean Energy Jobs bill would do. Oregon's role in this conversation is much greater than the sum of its carbon emissions. Oregon is seen as an environmental leader, both domestically and abroad. If we take a stand to meet our previously-set carbon goals, and join with the WCI coalition, it will send a strong signal for others that this is the way forward. On the other hand, if Oregon fails to hold ourselves accountable to our own carbon goals, it sends an even stronger message to the world: "if Oregon can't do it, we shouldn't even bother trying."

4) Given that we must act, the Cap and Invest model proposed by HB 2135 is the most economically sound model, for both Oregon as a whole, and the industries who could be significantly impacted by any responsible carbon legislation. Even the voices against HB 2135 have not been arguing for a different approach to applying a carbon cap -- they've been hoping to avoid any kind of responsible carbon legislation. The fact is, a Cap and Invest system, as is being worked out for HB 2135, is the best model out there. We have the advantage of not being among the first few generations of trying to enact a carbon cap system. That has allowed us to let others discover what works and what doesn't work.

The WCI model simply works, for the whole economy. California's populations and economy has been booming even as their carbon emissions have steadily decreased in the past decade. This is not a choice between responsible climate policy vs. economic prosperity. Renewable jobs currently make up over 2x the amount of jobs in the fossil fuel industry throughout the US. You don't even really have to care about the existentially-necessary benefits of reducing carbon emissions in order to support this bill. If you're a fan of prosperity in your communities, you should be supporting this bill, because that's what this bill will do. I have attended every public work session available for HB 2135, and in all that time, after hearing from so many different perspectives, I never once heard a voice dissenting from HB 2135 which suggested there could be a better approach to capping carbon emissions. It's simply the best, most thought-out, most economically-sound and time-tested approach that there is.

As a scientist, family man, and nature-loving Oregonian, I urge the committee to support HB 2135.

Thank you for your time,
Evan Pierce

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