

Thanks for the opportunity to offer written testimony in support of SJM5. I am professor of environmental biochemistry and law at Portland State and Oregon Health & Science Universities, and I have been a volunteer with Citizens' Climate Lobby for the past six years – where I presently serve as the liaison to Senator Ron Wyden's office. I am an expert on the provisions of the Energy Innovation and Carbon Dividend Act (EICDA), and I will very briefly outline how the law works and why it deserves your endorsement.

First, the law specifies an aggressive pricing plan that starts low but escalates to over \$100 per ton of carbon dioxide emitted within ten years – and then keeps rising. Energy-economy modeling studies from Columbia University show that total US emissions decrease 35-40% by 2030, on the way to a target 90% reduction by 2050. Other studies show that this rate of carbon taxation is consistent with America doing its share to stabilize the climate, by limiting temperature increases to under 2 degrees Centigrade as compared to preindustrial times. I emphasize that an aggressive carbon price like that in the EICDA is in a class by itself in the overall world of climate policy, because it provides the foundation to make all other policies more effective. Crucially, because low-cost carbon-free alternatives are available now, the escalating price will first catalyze sharply reduced carbon dioxide emissions from the electricity sector – to the tune of 80-85% within ten years. This creates a green grid for electric cars, trucks, and buses – a crucial advance, since transportation emissions are the single large source of global warming in Oregon.

Because the EICDA contains a credit for carbon capture and safe sequestration (CCS), natural gas plants equipped with CCS remain as a significant fraction of electricity generation after ten years. This is important for at least three reasons. First, it delays the retirement of costly infrastructure, helping to keep electricity costs down. Second, natural gas fired power plants can be easily adapted to run on blue or green hydrogen – hydrogen that is produced by natural gas conversion with CCS or by electrolysis using solar or wind power. Ultimately this hydrogen will provide the crucial long-term storage capacity to support a 100% renewables grid. Finally, to stabilize the climate there will be a significant need for industrial scale carbon capture and sequestration to directly draw down atmospheric carbon dioxide via direct air capture. But costs for this process are presently prohibitively high. By investing in CCS, the EICDA provides the opportunity for American industry to innovate and cut costs for the various parts of the process that are common between industry CCS and direct air capture: chemical trapping, liquefaction, and safe geologic sequestration in underground saline aquifers.

Next, under the EICDA all of the revenues are returned equally to American households. Household income analysis shows that 96% of households in the bottom quintile of consumption come out ahead in the first year of the law – the dividend return to them exceeds the increase in energy cost passed on by the fossil fuel companies that are taxed. In Oregon, that number for the bottom quintile is 97%. Thus the policy is progressive in operation, and it achieves this without picking winners and losers. Rather, the highest income families emerge with small (less than 0.2% of income) deficits simply because they can afford to live high-carbon lifestyles. Further, the policy rewards self-reliance and personal innovation – naysayers suggest that the money will be used to buy more fossil fuel, but with the carbon tax steadily increasing, it is predictable that households will find more attractive, greener options.

Finally, the bill contains a border carbon adjustment to level the playing field for American companies. Rebates are given to these companies when they export carbon-intensive products to countries with no tax or a low tax, so they are competitive abroad. Similarly imports from those countries are met with a tariff so they cannot undermine American businesses with lower prices. So this protects our businesses, but it is very important to note that the European Union, China and other important US trading partners have already implemented or are in the process of implementing their own carbon prices. If the US does not implement a national economywide carbon price, this border adjustment policy could be used by those countries against us, making our exports less competitive and hurting our economy and jobs.

The bottom line is that, globally, the carbon pricing train is already leaving the station. The United had better get on board fast, or we will be at a serious disadvantage. The goods that are covered by border tariffs are those that are energy intensive and trade exposed, or those that are highly carbon intensive to produce. Pulp and paper are among those industries, and of course, these industries form a key competitive cluster in Oregon. Oregon has a vested interest in this federal bill.

Finally, in the February 25 public meeting of the Energy and Environment committee, Senator Dembrow commented about whether “little Oregon” could really make a difference. The Senator was correct when he said that no other state legislature has yet endorsed the EICDA. And if Oregon will do so with a bipartisan vote, which may be enabled by the amendment deleting the “doom and gloom” statements at the beginning of the bill, then it will have made a very important statement that Republican Senators in Washington DC are bound to notice. Yesterday, Republican Senator Mitt Romney of Utah stated publicly that the fee and dividend approach of the EICDA is something he could get behind. This is very promising. Please vote to support the EICDA and send a crucial message to Washington.

Thank you very much for the opportunity to comment.