Written Version of Jeff Hammarlund's Oral Testimony in Support of HB 3579

Chair Marsh, Vice-Chair Bobby Levy, Vice-Chair Emerson Levy, and the other members of the Committee,

Since I currently have a rather bad case of COVID, I am not sure if my voice was clean enough when I offered my oral testimony two days ago on HB 3579. I am feeling a bit better today, so I have attempted to convert the notes I had developed for my oral testimony into this written form. I had also promised to include additional information on some of the most potentially relevant funding opportunities available through IRA

My name is Jeff Hammarlund. I am a retired professor of energy, climate and sustainable development policy at Portland State University, where I taught for 30 years (including courses on microgrids). Unfortunately, I finally managed to come down with COVID last might, so I am not at my best. Thank goodness for the virtual testimony option.

I am in the process of preparing written testimony on this bill on behalf of the Consolidated Oregon Indivisible Network (COIN), a network of almost 50 grassroots groups located in every legislative district in the state. However, the verbal testimony I am offering right now is just on my behalf.

As I believe Chair Marsh knows, I served as an advisor to some of the Congressional committee that developed many of the climate and clean energy provisions of Inflation Reduction Act, the Bipartisan Infrastructure Investment and Jobs Act, and the Chips and Science Act over the past two years Earlier, I served on the staff of the US Senate Energy Committee. I am currently a member of a team that is helping state energy offices and other state agencies understand how they might take advantage of the various programs offered by these three Acts. I am also serving on some advisory panels that are helping the US DOE and EPA sort through the details of some of these programs. In those roles, I need to be completely neutral and give every state the best advice I can. However, as an Oregonian, I can't help but root for our state when we do something proactive.

This is why I am so supportive of this bill with the -1 amendment (and some of the other bills the legislature is considering) that will place Oregon in a better completive position compared to other states.

Is Oregon behind some of the other states with bigger staff and resources, and that did not have to worry about transitioning from an outgoing governor to an incoming one? Yes. Can we catch up? I hope so. HB 3579 represents a giant leap forward and can at least get us in the game where we belong.

The IRA and related Acts make substantial investments, of over $60 billion, in boosting clean and competitive American manufacturing, cleaning up high-polluting industrial processes. The full suite of manufacturing and industrial investments would strengthen domestic supply chains, create good jobs, and tackle carbon pollution from one of the hardest to abate sectors.

I understand that your committee has had a briefing on opportunities to secure competitive federal funding for programs such as this. Some IRA-related programs are based on formulas. For example, all states that apply for the Planning Grants associated with the Climate Pollution Reduction Grant Program

will receive funding since the $250 million available for the planning grants go to at least one eligible party in each state. The FOA due date has already passed, and Oregon is one of the states that have submitted their application. However, the Implementation Grants, worth $4.6 to $4.75 billion, are competitive grants. It would be great if Oregon became one of the recipients. It is clear that the committee is aware of the Greenhouse Gas Reduction Fund (Green Bank), and the Environmental and Climate Justice Block Grants.

Here are just a few important programs that target the industrial sector that you may or may not be aware of:

- **The Clean Energy Manufacturing Tax Credits** that are vial for building out domestic clean energy supply chains.
- **The Advanced Industrial Facilities Deployment Program that** includes almost $6 billion for the DOE's Office of Clean Energy Demonstrations to support the installation of equipment that will reduce greenhouse gas pollution at high-polluting industrial facilities
- **The Methane Emissions and Waste Reduction Incentive Program**, one of the few "sticks" in IRA that is dominated by incentive "carrots."
- **Enhanced Use of the Defense Production Act of 1950**. IRA appropriates $500 million to support the manufacturing of several critical clean energy technologies under the DPA, including heat pumps, grid components, and solar panels, among others. The additional funding should back those new DOE initiatives for loans, grants, equipment installations, and other aid for clean tech manufacturers onshoring key elements of their supply chain.
- **Industrial Decarbonization Tax Credits** — Among the tax credits created and extended in the IRA are those supporting clean hydrogen production, and carbon capture, utilization, and sequestration— two credits that could drive decarbonization of industrial processes and facilities. A new Clean Hydrogen Production Tax Credit, estimated at $13 billion, is established to support hydrogen production that meets certain lifecycle greenhouse gas pollution standards. And the existing 45Q Carbon Capture Tax Credit is extended over the coming decade and expanded to support Direct Air Capture technologies.
- **Federal Procurement of Low-Carbon Construction Materials** — The IRA makes $2 billion available via the Federal Highway Administration (FHWA) to incentivize the use of low-carbon materials in transportation projects. Importantly, the EPA and FHWA will rely in part on the determinations of state environmental agencies to identify and label low-embodied carbon construction materials. And in this Act, there are additional clean transportation resources that build upon the Bipartisan Infrastructure Investment and Jobs Act. This funding will help state departments of transportation set and meet ambitious goals to reduce greenhouse gas pollution.

I hope this additional information in written form will be helpful.

Respectfully,

Jeff Hammarlund, retired professor of climate and clean energy policy