Senate Environment and Natural Resources Committee House Committee on Energy and Environment Oregon State Capitol 900 Court St. NE Salem, OR 97301

Chairs Dembrow and Helm and members of the Committees:

Thank you for the opportunity to testify before your committee on such important and necessary legislation. There is no time to lose in shifting Oregon's energy sources to renewables and doing everything we can to reduce CO2 emissions.

Our Farm: Honor Earth Farm, Eugene, Oregon

I am the owner of a 33 acre organic farm in Eugene, OR named Honor Earth Farm. We grow 32 acres of organic hazelnuts, and an acre of organic mixed berries and tree fruit. Our farm is one of less than 10 commercial organic hazelnut farms in Oregon. I am also one of the founders of the Organic Hazelnut Growers Association farmer cooperative working to expand organic hazelnut production in Oregon. We are focused on helping new growers of hazelnuts learn organic practices as well as expand options for organic hazelnut processing in Oregon. You may have noticed an increase in the plantings of filberts throughout the Willamette Valley!

Organic Practices in Hazelnuts consistent with Carbon Sequestration:

In order to be a certified organic farm, the National Organic Program rules require steps to improve organic matter in the soil. Our farm does this through maintaining a mowed grass floor in our orchard along with additions of compost and pellitized manure products in the tree rows. By allowing a grass floor, instead of a dirt floor made possible only by herbicides, we are adding more organic matter to the soil with each mowing pass in the orchard. Oregon State has called the use of herbicides in hazelnuts a "cultural" choice rather than a necessary agricultural practice in filbert orchards. The results of our extra work are rewarded by our customers' compliments of the great taste of our hazelnuts!

Moving more of Oregon's agriculture towards organic practices will dramatically improve the health of soil and its ability to absorb carbon. Increasing production of commercial scale composting facilities to make large quantities of compost available at low prices for agriculture would help increase its use. Providing incentives for farm land to add on compost facilities as an additional income source could be one way to do this.

Additionally, our orchard absorbs roughly 20 lbs CO2/tree which results in 35 tons CO2 removed annually, while producing ~5 tons CO2 in tractor and vehicles emissions, so our farm is a carbon dioxide sink. Hazelnut orchards are an ideal crop to mitigate CO2 in the Willamette Valley, as they are a perennial crop requiring no tillage of the soil and can be integrated with CO2 absorbing low ground cover crops in the aisles.

Solar Energy on Farms and Residences in Oregon:

This year I am also working part time in the Solar industry as a residential solar consultant for Blue Raven Solar in Washington County. We are working to expand home owners taking advantage of the 30% Federal Tax Credit and the Energy Trust of Oregon's rebate to PGE customers around Portland. The loss of the State's Renewable Energy Tax Credit last December will make it harder for areas outside of Portland to adopt residential solar. The timing of the RETC sunset is inconsistent with the currently inexpensive prices of solar panels and will be a real missed opportunity to rapidly expand solar energy installations across the State.

The opportunity to expand solar arrays onto farms is an obvious one. The incentives here should focus on solar being added to roof tops rather than covering valuable farm ground as solar arrays are often done. We need to find ways to be efficient in how we deploy solar panels while working to take advantage of Oregon's #4 rating (<u>www.solarpowerrocks.com</u>) for the state with best incentives for solar energy adoption.

Agriculture as Part of the Solution:

On a personal note, I would like to add my observations of how the warming weather patterns have affected my farm over the last 10 years. Our orchard was planted with no irrigation in the mid-1990's due to cloudier days with occasional rain during summer months. Twenty years later, new plantings of filberts require irrigation to get through the hotter, drier summer months. I have witnessed 2 of 10 summers with many days above 100 degrees that causes filberts to not produce consistently and the trees to stress more than they should. It is obvious to most Oregon farmers that our weather is getting consistently warmer and drier both in the summer and winter seasons.

One of agriculture's major opportunities to help mitigate climate change lies in improving soil management techniques to increase organic content, thereby removing carbon from the atmosphere. Oregon's farmers can be part of the solution by adopting practices that sequester carbon in the soil and reducing energy use. Farms are an important part of the solution to the problem of a changing climate, and this bill recognizes that.

Please do all you can to advance this important legislation in the 2018 Legislative Session. Thank you for your service and your action.

Sincerely,

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