Statement on HB 2020 to the Joint Committee on Carbon Reduction from Dr. Paul Ruscher, PhD, Fellow of the American Meteorological Society • 22 February 2019

Greetings, co-chairs and members of this joint committee. I appear to you today as a private citizen, but well-informed by virtue of my role as science dean at LCC, which followed a long career as an Atmospheric/Climate Science professor at Florida State University. The work that I have done in science and science education spans this nation, particularly in Florida and Oregon, including work that ensures that climate change science is included in state standards in the public K-12 classrooms across our states; it has not always been an easy conversation, as you might imagine.

In carrying out this work, I've been reminded just this week of the loss of Dr. Wally Broecker, professor at Columbia University who wrote one of the first scientific papers that predicted future atmospheric temperature changes due to excess CO₂. I just read his seminal 1975¹ paper from Science again this week, along with Jim Hansen's groundbreaking 1988 work² which led to his <u>testimony to Congress that year</u>³ that was later reported⁴ to have been censored by the administration. That same year I completed my PhD and postdoc at OSU, and moved to Tallahassee for a 25-year stint there, becoming increasingly frustrated about the politicization of environmental and climate change issues over time. I am delighted to have been given an opportunity to return to the Willamette Valley and continue my work in science education at Lane.

The science behind human-caused climate change due to industrialization and fossil fuel use has been established since the mid-1850s, thanks to people like Eunice Foote and John Tyndall. Our federal government is now led by a president and his appointees who are clearly beholden to fossil fuel companies, and it is reversing decades of rational environmental regulation of our air, lands, and waters. This is in spite of the fact that in Massachusetts vs. EPA⁵, the U. S. Supreme Court decided in 2007 that EPA has regulatory authority regarding

¹ Broecker, Wallace S.: Climatic change: Are we on the brink of a pronounced global warming? Science, 189, 460-463 (08 August 1975), doi: 10.1126/science.189.4201.460.

² Hansen, J., I. Fung, A. Lacis, D. Rind, S. Lebedeff, R. Ruedy, G. Russell, and P. Stone, 1988: Global climate changes as forecast by Goddard Institute for Space Studies three-dimensional model. *J. Geophys. Res.*, **93**, 9341-9364, doi:10.1029/JD093iD08p09341.

³ Summarized in the hyperlinked YouTube[™] video by Yale Climate Connections, with interviews by Peter Sinclair; retrieved at <u>https://www.youtube.com/watch?v=UVz67cwmxTM</u>

⁴ Shabecoff, Philip E., 1989: White House Admits Censoring Testimony, New York Times, May 9, 1989, retrieved at https://www.nytimes.com/1989/05/09/science/white-house-admits-censoring-testimony.html.

⁵ Massachusetts et al. v. Environmental Protection Agency et al., 2007: case citation at <u>https://www.oyez.org/cases/2006/05-1120</u>.

greenhouse gases as well as other air pollutants. Yet Congress and lobbyists keep obstructing science-based policy actions on the environment, just as they have stalled science-informed policies for more than two decades.

It is important for states like Oregon, and incumbent upon citizens of all communities, to take a stand to ensure that our children and grandchildren, future citizens, will know that we, at least, took some action to counter the anti-scientific national policy moves of the present and recent past. Now, more than ever, it is time for Science, not Silence, and there are numerous scientists willing to collaborate with policy-makers like yourselves.

When we take the long view on public health issues, which requires an upfront-investment that more than pays for itself in terms of downstream benefits, it gives me hope. Your joint committee, a bipartisan effort, has the opportunity to shape state policy beyond the present biennium, and to act before it becomes too late to succeed. Oregon can demonstrate its leadership, action, resilience, and adaptation strategies that could be model solutions for others, or we can go on with business as usual. As a science educator, I'm also buoyed by the work of another bipartisan group, the Joint Committee on Student Success, that recently reported about the inadequacies of funding in public PreK-20 education in our state, another big challenge for us. One concern I have is the draft legislation's omission of two important bodies and their input: the Oregon Climate Change Research Institute, and the Oregon Global Warming Commission. I urge you to push forward on this and let the science inform your deliberations to get us to the finish line — producing a bill that Governor Brown will sign this spring.

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