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23 March 2021

To: Senate Committee on Energy & Environment

RE: Oregon Senate Bill 360, Exemptions for Small Modular Nuclear Reactors from Oregon's 1980 Voter-Approved Siting Restrictions

Chair Beyer, Vice-Chair Findley, and members of the committee,

Guided by the values and expertise of medicine and public health, Oregon Physicians for Social Responsibility (PSR) works to protect human life from the gravest threats to health and survival. We are an organization of over 2,800 health professionals and public health advocates statewide working collaboratively with community partners to educate and advocate for societal and policy change that protects human health at the local, state, national, and international level. We seek a healthy, just, and peaceful world for present and future generations.

In September of 2020, we released [a report authored by Dr. M. V. Ramana at the University of British Columbia](#) who outlined the many issues facing NuScale's small modular reactor design concept. Dr. Ramana will be able to join this hearing at 2pm and I hope that we can hear from him directly in testimony. I will also be submitting the September 2020 report into the record for this bill. I hope to highlight some of the reasons why advancing a bill like Senate Bill 360 would be ill-advised in any Oregon legislative session.

After releasing our report, a number of UAMPS members dropped out of investing in the Idaho Falls project for NuScale, which was originally targeted to begin by 2016. Seven cities in total, Beaver, Heber, Bountiful, Murray, Lehi, Logan and Kaysville, all in Utah, have suspended their commitment to the project for the time being, while the Idaho Falls City Council voted to cut its commitment in half in 2020. The project has doubled in cost over the past five years from \$3 billion in 2015 to \$6.1 billion in 2020.

It is false to say that nuclear is necessary or cost-effective in a 100% clean energy plan, and work by Mark Z. Jacobson at Stanford University shows that 100% clean energy is possible without nuclear power and that it is cost-effective. NuScale's own cost projections for their electricity cost is \$55 per Megawatt-hour, much higher than all of the renewable options on the table, including those with battery backup for when the wind isn't blowing and the sun isn't shining. We can use microgrids, batteries, and



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demand-response to power our grid with 100% renewable energy, no nuclear needed. Indeed, it is unwise to bet upon an industry that for decades has been unable to meet their smaller, safer promises.

Additionally, it is unwise to predict that the Columbia Generating Station in eastern Washington will be able to remain online for much longer. At 37 years of age, it is approaching the average age of nuclear reactors in the United States, which is 39 years old.

NuScale is not showing any reasons why they would succeed in completing their project in Idaho where so many other conventional and small modular nuclear reactor projects have failed. In regard to climate change, what we are seeing on a broad scale from the nuclear power design industry is a large-scale form of “clean energy grift” from federal subsidy dollars -- a billion dollars of mostly federal subsidies that could have gone to wind and solar plus storage developments that are tried and true proven technologies that are available now to reduce our nation’s carbon footprint in accordance with global climate scientists’ mandate.

With regard to Senate Bill 360, it’s important to remember that NuScale’s reactor design would still create the long-lived, high-level nuclear waste that we still do not have a viable repository for after nearly eight decades of living in the nuclear age. Exempting reactors under 300 MW of capacity from Oregon’s common-sense requirement for statewide voter approval and a federally-licensed nuclear waste repository is not and will never be a responsible course of action. Furthermore, an emergency planning zone of solely the county that would house a small modular nuclear reactor is unwise--there is always the risk of a meltdown or other disaster at any size or design of nuclear fission, and the stories of Fukushima and Chernobyl show that the impact of nuclear disasters are widespread.

March 11th, 2021 marked the 10-year anniversary of the Fukushima nuclear power disaster in Japan, a tragic event that has caused a devastating legacy of radioactive contamination. Throughout the legacy of the nuclear age, communities ranging from Hanford, Three Mile Island, the Navajo Nation, Enewetak Atoll in the Marshall Islands, Fukushima, and Chernobyl have been told that nuclear technology and uranium mining is safe and that accidents have posed little threat to public health and safety. In every case as time has passed, the public has learned that radiation exposure and its health impacts were far more severe than reactor operators and governments disclosed. The lesson to be learned is that even if a nuclear reactor design is marketed as “safer” than a conventional reactor, even a small chance of meltdown poses an unacceptable public health and safety risk of contamination that lasts for thousands of years.

The Affiliated Tribes of the Northwest Indians [passed a resolution in 2019](#) in opposition to any nuclear power exemption bills like SB 360.



Please ensure that no bill like SB 360 ever advances in the Oregon legislature.

Thank you for your time and consideration.

Sincerely,

A handwritten signature in black ink that reads "Damon Motz-Storey". The signature is fluid and cursive, with the first name "Damon" being larger and more prominent than the last name "Motz-Storey".

Damon Motz-Storey, Healthy Climate Program Director
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