To: Senate Committee on Energy and Environment
SB215, SB216, SB635
3/10/25
Greetings Chair Sollman, Vice-Chair Brock Smith, and Members of the Committee,

I am Dr. Theodora Tsongas, an environmental health scientist with a career in epidemiology and public health. I am a member of the Stop Nuclear Working Group Coalition and Oregon Physicians for Social Responsibility.

I strongly oppose SB215, SB216, and SB635 for the following reasons:

First and most important, nuclear energy has been shown to be **harmful to human health**. Newborns, infants and young children are especially vulnerable even when they are exposed to very low doses of radioactivity, resulting in adverse effects on their health including increased risk of cancers and other serious illnesses into adulthood. Furthermore, radiation can induce chromosomal instability that has been linked to leukemia.[1] Aside from accidental releases, we know that nuclear power plants release radioactive materials during normal operations, maintenance and refueling. We need to take this seriously as we consider continuing to add more radioactive contaminants to our environment as byproducts of the false promises of this technology. Further, the **risks of nuclear proliferation, terrorism, and nuclear war** are **increased** as the fuel is very near weapons grade.

Nuclear Power is a **False Solution to Climate Disruption** and as such it is a **threat to health and life.** In addition to concerns about the health of this and future generations, the rush to approve nuclear power as a solution to either climate disruption or our hypothesized increasing power needs is unwise in the extreme, without a real evaluation of its risks.

Nuclear power is **too late and too slow** to be helpful in addressing the climate emergency. Nuclear power is not a solution to climate disruption as it takes too long to build to reduce Green House Gas emissions in time to slow planet warming. Remember? WE ARE IN A CLIMATE EMERGENCY!!

Nuclear power is not a solution to climate disruption because it is **not a clean or non-emitting energy source** (look at the entire life cycle); fossil fuels are used during mining, milling, processing and transportation of uranium for fuel, and during building of power plants and decommissioning. Fossil fuels are needed to supply energy during the long wait from conception to actually production as it takes an average of 10-20 years from design to operation of nuclear power plants in the US.

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[1] Ghirga, G Cancer in children residing near nuclear power plants: an open question. Italian J. of Pediatrics, 2010 36:60.

No Permanent and NECESSARY waste **disposal site**:

There is no permanent nuclear waste disposal site, and the waste must be managed and **isolated** effectively as it remains **deadly** for thousands of years, **to prevent** releases, **contamination** of the environment, and to prevent **harm to human and ecosystem health**. Small modular nuclear reactors (SMRs) are not small, as they are meant to combine several modules. And they still produce **as much or more** nuclear **waste** as current operating nuclear plants.

We need only look at the legacy of nuclear development at Hanford and other weapons sites, to ask "Will all of us downwind or downriver from nuclear plants or temporary waste sites be saddled with the known adverse health impacts suffered by Downwinders, including **birth defects, thyroid cancers, leukemia, and other serious illnesses**?" How will radioactive releases be prevented and managed when they occur? How will the health of the our communities be protected? Why would we want to take this risk?

Most Expensive way to generate power as well as cost of lost opportunity:

Nuclear power is extremely expensive and the cost is left to the ratepayers, not the utilities or the companies getting government subsidies to build them. Because of its dangers it is not insurable by any but the government, and this causes the loss of funding for necessary programs that address health and livability. The expense of nuclear power development also **takes away funding** for systems that work **now** without the extreme, long-term health risks: wind, solar, geothermal, and efficiency measures.

NOT a **continuous** source of power:

Nuclear power does not stay on-line continuously as stated in the hype from the nuclear industry, as down-times for maintenance and refueling can extend into months. Small Modular Nuclear Reactors are an unproven technology, they are not small, and they are designed to be combined (hence, the name modular). If one module has a malfunction with the cooling of radioactive material, for example, the other modules will likely be at risk and will be taken off-line. How will they be managed, for example, in the event of a wildfire? It is naive to assume that they will provide 24/7 power 365 days a year.

Nuclear Weapons proliferation:

The push to expand nuclear power cannot be separated from its connection to nuclear weapons. Aside from the waste issues, **nuclear fuel** proposed to be used by some models of SMRs is refined very near to **weapons grade** so its use and existence adds significantly to risks of nuclear weapons proliferation, as well as making nuclear power plants **targets** for terrorism. How will unprotected jurisdictions defend against these

threats? We must pay attention to what we are doing as the **risks** today of **nuclear war** are very real and increasing.

In 1980, the people of Oregon made a decision about what they were willing to risk. Now the promoters of this bill and rich corporations are working to undercut the will of the people, at great cost to all of us. The longer we look, the more evidence accumulates of the harmful effects of nuclear energy. Please let us spend our scarce resources on something that does not threaten our health and survival. Nuclear power just delays us from using known and effective ways to address our power needs and the disrupted climate.

Please carefully consider the many disastrous potential consequences of these bills and do not allow them to move forward.

Thank you for your time and consideration of these concerns.