SIERRA CLUB
OREGON CHAPTER

March 6, 2025

Oregon State Legislature
Senate Committee on Energy and Environment
900 Court St. NE
Salem, OR 97301

RE: Oppose Senate Bill 215, Relating to nuclear-fueled thermal power plants, and Senate Bill 216, Relating to nuclear-fueled thermal power plants; providing that this Act shall be referred to the people for their approval or rejection

Dear Chair Sollman, Vice Chair Brock Smith, and Members of the Committee,

On behalf of the more than 55,000 members and supporters of Sierra Club Oregon, we write in opposition of Senate Bill 215 and Senate Bill 216 would repeal Oregon's longstanding moratorium on nuclear power.

The nuclear power industry would like you to believe that new nuclear reactors are a magic bullet to solve climate change and satisfy power-hungry artificial intelligence (AI) and data centers. In reality, nuclear power is a dirty, expensive, and slow-to-build technology and a dangerous distraction from safer, cheaper, and faster solutions to address the climate crisis. Big tech has teamed up with the nuclear industry to fuel their voracious energy appetite for data centers and AI. But recent advancements in the last couple months in AI efficiency and energy curtailment methods are already showing us a way to power data centers that doesn't involve nuclear power negating the need for both SB 215 and SB 216.

Small modular nuclear reactors (SMNRs) have not solved any issues with nuclear waste disposal and in fact have exacerbated the issue. SMNRs produce nuclear waste volumes comparable to conventional reactors. With no permanent repository available, this measure effectively increases Oregon's burden of managing dangerous, long-lived radioactive waste. Managing and disposing of this waste is a critical safety matter since radioactive waste remains dangerous for thousands to millions of years. Oregon would be left holding the bag on storing this dangerous nuclear waste quite literally forever. More nuclear development means more nuclear waste with no safe disposal solution and if that is even truly possible that nuclear energy's carbon footprint is similar to, if not larger than, natural gas plants, nearly double that of wind energy, and significantly greater than solar power.[1] [2] Let's be clear, the main product of nuclear power is nuclear waste.

SMNRs pose significant risks in the event of a catastrophic incident because of the widespread impact of radioactive contamination. We need to ask ourselves if it is worth the risk and the answer has to be no. No

[1] The Ecologist, "False solution: Nuclear power is not 'low carbon'"
https://theecologist.org/2015/feb/05/false-solution-nuclear-power-not-low-carbon
[2] Evaluation of Nuclear Power as a Proposed Solution to Global Warming, Air Pollution, and Energy Security
https://web.stanford.edu/group/efmh/jacobson/Articles/I/NuclearVsWWS.pdf

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reactors are immune to failure and SMNRs are not different. Extreme weather events such as seismic activity and wildfires exacerbate the risk of catastrophic events leaving our environment and the local communities of Oregon in danger. When something goes wrong, a consideration of when not if, the level of public radiation risks depend on implementing appropriate emergency planning zones (EPZs). A reactor meltdown or release could expose communities within a 10-mile radius to dangerous radiation through airborne plumes, endangering public health and requiring mass evacuations. Even more alarming, the 50-mile ingestion exposure zone means that food, water, and soil contamination could persist long after the initial event, affecting agriculture, drinking water supplies, and ecosystems. SMNR's are often proposed in more rural locations and could turn these entire regions into long-term hazardous zones. This is an unacceptable risk for Oregon and the people of Umatilla County.

Nuclear is the most expensive energy source to produce. The failed NuScale project in Idaho, Carbon Free Power Project, had estimated costs in 2015 of $3 billion that rose to $9.3 billion in 2023 before it was canceled. The cost of new SMNR power plants would likely be even higher. Nuclear projects have a notorious history of overruns and long construction periods. SMNRs have never been tested in this country and there are only two operational in the entire world. The cost of construction is not proportionately smaller than SMNRs versus conventional reactors. Despite lofty claims that SMNR parts could be mass-produced on factory assembly lines, no such manufacturing exists and developing that supply chain would be expensive and slow. SMNRS could receive the billions needed for construction from tax payer dollars via the Inflation Reduction Act. Yet even with billions in federal subsidies, individual nuclear power projects regularly double and triple in expected cost in billions of dollars, and energy consumers (everyday people) always end up getting stuck with the bill. Ultimately ratepayers will bear the financial burden of these high costs. Proponents of SMNRs say these facilities will be cheaper because of mass produced power but there is no evidence of this because none of these facilities have been manufactured at scale.

But even with those subsidies it's not clear that SNMRs can compete in the market against cheaper existing technologies such as wind, solar and batteries.The levelized cost is over five times that of power from wind turbines and utility-scale solar plants respectively.[3] The costs of renewables and energy storage are going down rapidly, whereas nuclear construction costs are rising.[4] The most recent nuclear energy plant, Georgia's Vogtle Plant, cost $35 billion and was brought online in 2024 as the most expensive power plant ever built. It is costing ratepayers $10,784 per kilowatt, compared to $900 – $1,500 per kilowatt for wind, solar, or natural gas.[5] And even with the recent NRC approval of one of the many

[3] *Nuclear Is Not The Solution: The folly of atomic power in the age of climate change.* M.V. Ramana, Published by Verso, 6 Meard St. London 2024, pg. 78.
[4] Lazard 2023 Levelized Cost Of Energy+ https://www.lazard.com/media/2ozoovyg/lazards-lcoeplus-april-2023.pdf
[5] Ratepayers First: The Economic Case Against Nuclear's Data Center Dreams, https://www.powermag.com/blog/ratepayers-first-the-economic-case-against-nuclears-data-center-dreams/

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designs, expansion of nuclear energy via SMNR deployment will not happen until the 2030s at the earliest, putting us farther out from our state energy goals. Nuclear is a solution in search of a problem. When it comes to searching for energy sources to meet our energy goals we need to look to tested, available, and affordable sources that already exist and that we can truly call clean.

SB 215 and SB 216 not only clear the path for an SMNR development in Oregon but also ignores longstanding issues related to nuclear waste disposal, catastrophic safety risks, and exorbitant costs. Rather than risking our communities and our environment with another nuclear project, Oregon should focus on investing in proven, clean, and economically viable renewable energy solutions. For these reasons, waste management challenges, unacceptable safety risks, and the heavy economic burden on taxpayers, we must oppose SB 215 and SB 216 and reject any policy that moves Oregon toward a nuclear future.

Respectfully submitted,

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