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Written Testimony Before the House Climate Energy and Environment Committee
House Bill 2410
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Chair Lively, Vice chair Gamba and Vice chair Levy and Members of the House Climate, Energy and Environment Committee.

For the record, my name is Joseph Rogers, and I appreciate the opportunity to testify in support of HB 2410. I grew up in Eugene Oregon and am currently a 4th year student at Oregon State University, studying Nuclear Science and Engineering. I am also involved in the Student Chapter for the American Nuclear Society serving as the President. I have also earned grants from the Nuclear Regulatory Commission and have experience with nuclear core design with Framatome .

I am here today as a student and future Core Design Engineer to encourage support for HB 2410 that provides a narrow exemption from Oregon's restrictions on nuclear energy, specifically, to allow for a small modular reactor (SMR) demonstration project to be sited in Umatilla County. I believe this legislation is critical for Oregon's future for the following reasons:

1. Investment into Higher Education

Oregon State University is a recognized leader in Nuclear Engineering and Radiation Health Physics, with faculty and students contributing to computational neutronic analysis, thermal hydraulics, radiation detection, radiobiology, neutron radiography, and so many more. Supporting HB 2410 would provide hands-on learning opportunities, attract research funding, and strengthen collaborations with industry leaders. This investment would create a pipeline of highly skilled graduates who can lead Oregon in Advanced Reactor Design and Engineering.

2. Advancements in Reactor Design and Safety

Small modular reactors represent a transformative step in nuclear energy technology. For example, NuScale's VOYGR Power Plants are designed to generate up to 924 MWe, offering several key benefits:

- **Natural Air Circulation:** Utilizing air rather than water for primary cooling significantly reduces the risk of system failure and accidents.
- **Enhanced Automation:** Modern reactors are equipped with advanced computer systems that simulate reactor behavior and minimize operator error.

- **Accident-Resistant Fuel:** Fuel designs now incorporate safety measures that ensure stability at temperatures exceeding 2000°C, making catastrophic failures virtually impossible without deliberate interference.
- **Computational Modeling:** Tools like SERPENT, MCNP, and OpenMC allow for sophisticated modeling of reactor physics, enabling proactive identification and mitigation of potential issues.

3. Economic Impacts

While nuclear reactors like the NuScale VOYGR Power Plant entail high upfront costs, they are inexpensive to operate and refuel, yielding long-term profits. Nuclear power plants are designed as long-term investments that reliably produce carbon-emission-free electricity year-round-regardless of weather conditions. Moreover, constructing these facilities will create thousands of high-paying jobs, stimulating the economy in Eastern Oregon, a region that has historically not experienced the same economic output as the western part of the state.

I urge the committee to support HB 2410 as a step toward investment into higher education, advancements in reactor safety and design, and to make a positive economic impact to Oregon. Thank you for your time and consideration.