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

RE: Oppose Senate Bill 635 – Directs Oregon State University to conduct a feasibility study.

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

Please vote NO on Senate Bill 635. The bill will direct Oregon State University to study the "feasibility" of nuclear energy generation in Oregon. However there are concerns regarding bias. In addition, the topics of study do not include nuclear waste or nuclear power's negative effects on climate change.

Bias

There is a concern with SB 635 regarding a conflict of interest. Oregon State University holds an equity share in NuScale, and OSU's nuclear energy department is the alma mater of José Reyes, the founder of NuScale. The following is from OSU's website:

"Over the last decade, Oregon State University and NuScale Power™ have worked together to tackle an important challenge: developing the next generation of nuclear reactors. Clean, reliable and economical nuclear power generation can replace coal power plants, reduce carbon emissions and meet rising demand for electricity in the U.S. and around the world."

Contrary to the claims in OSU's website, NuScale's SMNR has proved not to be "reliable" or "economical." NuScale's attempt to build a SMNR in Idaho fell apart because the Utah utility consortium, UAMPS, dropped out of the project. The utilities found the project too expensive and not reliably on time.

Bias is also reflected in the focus of the study. The bill lists the following study topics: "the use of workers who reside in this state," "workforce development," "job creation," etc. These study topics are positive and aspirational and infer that a nuclear reactor will add jobs and money to our economy. However, the positives of nuclear energy are incomplete without the negatives.

Nuclear Waste

Bias is reflected in the fact that nuclear waste is not a study topic. Nuclear power plants are prohibited in Oregon until a long-term waste facility exists. The main product of nuclear power is nuclear waste, where electricity is just a small blip early on. So nuclear waste is an important topic to study.

Since Measure 7 was enacted in 1980 there is still no clear timeline for federally licensed high level nuclear waste repository. Nevertheless, billions of taxpayer dollars have been spent. This means that any nuclear power plant that gets built and operates will become the de facto permanent site for the toxic

waste. Case in point, the shortly operated and now long closed Trojan nuclear power plant is storing 379 tons of highly radioactive nuclear waste, which will continue to emit radiation for millions of years.

S.B. 635 does request OSU to study "Safety Criteria." However, all nuclear reactors emit radiation, even small ones are at risk for severe accidents, and radioactive waste is part of even routine operations. Hence, nuclear power cannot be safe regardless of the "safety criteria." These risks are multiplied by extreme weather due to climate change, weakening regulations and human fallibility.

Climate Impacts

Bias is also apparent by leaving out the study of nuclear energy's climate impacts. Climate impacts occur from every phase of the nuclear production process. From mining uranium, plant construction, generation of radioactive waste, plant decommissioning, and finally the radioactive waste disposal phase that requires careful management for hundreds to thousands of years. Nuclear energy plants also emit heat and water vapor that exacerbate climate change. And if nuclear reactors are used to mitigate climate change, it means we will need to build thousands of nuclear reactors. The result will be huge amounts of radioactive material that the reactors create.

On the other hand, if SB 635 simply defined Nuclear energy as Einstein did: a "hell of a way" to boil water," OSU could then be directed to study a less expensive, less toxic, less dangerous, and a quicker way to boil water that's less of a climate distraction.

For all of these reasons, please vote NO on S.B. 635.

Respectfully,

Debra Higbee