

Testimony of Jose Reyes, Co-Founder and Chief technology Officer of NuScale Power

Chair Helm, committee members, my name is Jose Reyes, I am a resident of Benton County, Oregon, Co-Founder and Chief Technology Officer of NuScale Power, and co-inventor of the leading Small Modular Reactor technology in the United States. I hold a Ph.D in nuclear engineering. I greatly appreciate the opportunity to participate in this informational session. I am at your disposal should your committee need information for future discussions on the potential for SMRs in Oregon.

If SB990 were under active consideration, I would certainly be a supporter because Oregon would be advancing a technology that not only benefits the state environmentally and economically, it is a technology that has the potential to change the world.

The global reality is that 783 million people do not have access to clean water. Currently, in China 4,400 people are dying per day due to outdoor air pollution. 1 Billion metric tons of food is lost or wasted each year because of insufficient refrigeration during transport. 1.3 Billion people have no access to electricity; 5.9 Billion people live in energy poverty. It is important that the committee recognize that the NuScale SMR is more than just an electrical power producer. We have designed it to be an energy platform that is part of the solution to global energy and water needs.

- A 12 module NuScale plant would produce 600 MWe of carbon free power averting ~ 4 million metric tons of CO₂ per year compared to a coal fired plant of the same power rating.
- A single NuScale power module can produce 50Mgal/day of drinking water through desalination – enough for a city of 300,000.
- A NuScale 8-module plant coupled to an oil refinery eliminates 190 MT/hr of CO₂ emissions.
- A NuScale 6-module plant can produce 190MT/d of hydrogen for use in fuel cells or energy storage.
- The load following capability of the NuScale plant allows greater deployment of wind and solar while maintaining grid stability.

The NuScale SMR, developed in Oregon, is unique in the world. It is “physics-safe.” The reactor can shut itself down and remained cooled for an unlimited period of time without computer or operator actions; AC or DC power or the need to add water. This unique safety feature would allow NuScale plants to have a site boundary emergency planning zone.

Oregon is an “innovation state.” While at Oregon State University, I started NuScale Power with 3 base patents. We now have 350 patents pending or granted in 20 countries thanks in part to the innovation “gene” that resides in our engineers. SB 990 would have sought an exemption to certain siting restrictions established by a narrow margin of voters 37 years ago. This was a generation of voters unaware of climate change concerns. I applaud your committee for being willing to hear from the new generation of scientists and engineers who are here today. They are part of the SpaceX generation - intent on making the world a better place.

Thank you Chair Helm and Committee for allowing this opportunity to provide input and I hope that Oregon will consider the role of SMRs in future legislative sessions.
