Testimony provided by Christopher J. Colbert, NuScale Power
April 12, 2017

SB990

Chair Lee Byer, members of the committee, my name is Chris Colbert. I am the Chief Strategy Officer of NuScale Power LLC, headquartered in suburban Portland, Oregon.

I am here today to testify in favor of Senate Bill 990 that would establish requirements for the siting of Small Modular Reactors in Oregon.

Today, NuScale Power is the leading developer of American Small Modular Reactor (SMR) technology. NuScale has over three hundred staff working in Oregon and well over three hundred patents granted or pending worldwide. We are advancing a unique and innovative SMR design, which offers the safest light water reactor nuclear technology that is near-term deployable.

[Our design is uniquely safe. We have solved one of the most vexing problems of the nuclear industry with what we call the "Triple Crown of Nuclear Safety." In the case of a loss of all sources of electricity at the plant, the NuScale Power Module shuts itself down and self-cools for an unlimited period of time, with no operator action required, no need for additional water, and no electricity. The NuScale Power Module uses simple properties of physics: convection, conduction and gravity, to drive the flow of coolant in the reactor. The thermal-hydraulic properties and capabilities of our technology have been demonstrated through an extensive test program inspected by the U.S. Nuclear Regulatory Commission (NRC), and which are protected by numerous patents. Because our SMR is safe, small and has numerous barriers between the nuclear fuel and the environment, the Emergency Planning Zone for a NuScale plant is expected to be greatly reduced from the 10 mile emergency planning zone for current reactors in the U.S. In fact, we believe it may be limited to the site boundary of the plant, approximately 74 acres.]

In December 2016, after nearly $560 million invested and the dedication of over 600 employees and temporary staff, NuScale submitted a 12,000 page Design Certification Application to the U.S. Nuclear Regulatory Commission. In March 2017, the U.S. NRC notified NuScale that our application had been accepted for review. We expect the US NRC will complete its review and issue our Design Certification approximately 40 months from now. Our first project is expected to be the Utah Association of Municipal Power Systems Carbon Free Power Project, located on the Idaho National Laboratory. Commercial operation of the first NuScale Power Module would begin in 2026.

[The NuScale Power Module is an ideal option for carbon free electricity generation. The NuScale design is dramatically smaller than today's pressurized water reactors and eliminates the need for safety-related electrically-driven pumps, motors and valves necessary to protect the nuclear core. It can be factory-manufactured and transported to a site via rail, truck or barge. The NuScale Power Module can produce 50 MWe and one to twelve modules can be installed in a plant over time to produce up to 600MWe.]

The NuScale Power Module is particularly well-suited to providing reliable, resilient power for mission critical applications, balancing variable renewable energy resources and providing heat and electricity for non-electric applications such as desalination. Importantly, a NuScale SMR is designed to withstand major disasters, natural or man-made, including aircraft impacts, large earthquakes, and cyber and physical attacks. This is an important capability as the availability of electricity in the aftermath of such events is critical to providing emergency services and accelerating a return to normalcy.

With respect to SB 990, we welcome the local voice in siting an SMR as the voice of the local community is critical in confirming buy-in by those most affected by siting an SMR. Unlike today's operating nuclear fleet, the NuScale SMR is designed to have an emergency planning zone that is as small as the plant site boundary.

In summary, we think it is prudent for Oregon to consider the siting of SMRs in Oregon and we support Senate Bill 990. It is important to see continued support for our technology from the State of Oregon to help justify our continued growth and development in Corvallis and Portland. We believe that we can provide clean, affordable and reliable energy to Oregon, home to NuScale and the founding of our technology. NuScale appreciates the opportunity to present to the Committee and we are ready to answer any questions the Committee may have.