Testimony in Opposition to HB 2215 Philip H. Carver, Ph.D. Feb. 21, 2023

To Committee members and staff

My Ph.D. is in Natural Resource and Utility Economics from Johns Hopkins University. From 1980 to 2017 I worked for the Oregon Dept. of Energy and Public Utility Commission mostly as a senior energy policy analyst.

Nuclear fission does not fit well into the evolving electricity grid. Further, the problem of disposal of nuclear waste has not been solved.

Nuclear fission, including the new smaller reactors, is highly capital intensive. Even with huge reductions in costs, it would only be economic only if it ran 80 or 90 percent of the time. It cannot help meet occasional power needs when solar and wind generation is low or when demand is high.

What is needed is electricity storage or resources with low capital costs and high operating costs to balance loads and generation. Such resources, including but not limited to hydrogen storage, will be fully developed long before the new reactors are beyond the pilot stage.

All commercial nuclear waste sits on the site of active or retired reactors, such as the Trojan Plant in Columbia County Oregon. This waste is highly toxic for tens of thousands of years – longer than there has been written language or cities. Civilizations do not last forever. Unless it is permanently stored, it will be subject to release or diversion to make dirty plutonium weapons during times of civil unrest.

It would be completely irresponsible to build new fission reactors until there is a permanent way to sequester the nuclear waste such a plant would produce.

Thank you for your work for Oregon and for the opportunity to submit written testimony