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December 2, 2022

Dear Chairman McColley, Vice Chair Schuring, Ranking Member Martin, and members of the committee:

I ask you to reject Ohio House Bill 434, "The Advanced Nuclear Technology" Act –

I oppose this bill for these reasons:

HB 434 gives no indication as to the length of time nor the overall cost of the project. Bill promoters have not adequately addressed who is being paid; what is being developed; or where radioactive materials are being shipped; and public disclosure is limited and inadequate.

Nuclear research is costly. The federal government is spending billions on nuclear research and development. How can Ohio, with no experience, do a better or adequate job of oversight and operation of research reactors? Why does Ohio need to compete with the federal nuclear research operations?

Other available forms of energy production are less costly:

- According to investment bank Lazard, in 2021 the levelized cost of energy from a new nuclear reactor is 13.1 to 20.4 cents per kWh. This compares with 2.6 to 5.0 cents per kWh for onshore wind and 2.8 to 4.1 cents per kWh for utility-scale solar. Cost estimates for building the NuScale Utah SMR have jumped from \$58/MWh to as much as \$100/MWh.
- Since the proposed Nuclear Development Authority will be a public entity, Ohio would be responsible for all costs associated with the Authority, including reactor decommissioning, dismantling and disposal of waste and damages resulting from spills and accidents.
- There are no provisions in HB 434 that discusses covering the costs of the inevitable spills, leaks, discharges, or accidents causing radioactive contamination; property damage; public health disasters; or remediation of contaminated soil and water. By comparison, those things are addressed in federal legislation covering the Nuclear Regulatory Commission and the Department of Energy. Nor are decommissioning, site cleanup, and nuclear waste disposal considered in this bill.
- West Valley, NY reprocessing operated for 6 years. Responsibility for cleanup – estimated by the Government Accountability Office at up to \$10 billion – is now resting with the state of New York and federal taxpayers. Currently cleanup is far from "complete", with radioactivity moving toward Lake Erie.
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Other forms of energy production are less risky and polluting:

- The bill gives the State of Ohio immunity from any responsibility for accidents and radioactive contamination, but residents living near any Authority facility handling radioactive materials have no such protection. If an accident or spill harmed or contaminated them or their property, they would have no recourse. The same would be true for workers.
- How would this research project be protected from theft or malfeasance? Would it become a target for a terrorist or an opportunist? How many guards would be needed? Guards are not needed for windmills, solar panels, or geothermal units.
- Nothing in HB 434 suggests regulation. The Authority does not have Nuclear Regulatory Commission-defined responsibilities or oversight. The necessary staffing levels and technical expertise required of a regulatory agency would involve expensive personnel – engineers, health physicists, chemists, regulatory lawyers, and more. **Nuclear weapons proliferation safeguards are missing from the bill.**

What about the waste? No state wants ownership or responsibility of nuclear waste. Spreading nuclear research and development from federal to state entities is unprecedented, removing federal public oversight for cost and safety. HB 434 would authorize Ohio to take ownership of high-level nuclear waste allowing the Authority to take high-level radioactive waste from the Davis-Besse and Perry reactors in Ohio and attempt to use it as fuel for a new nuclear reactor. Spent fuel would have to be disassembled under very stringent safety/heat/containment protocols. Zirconium cladding, flammable if exposed to air, must be removed. This was described by HB 434 proponents as “just chopping it up”. Regardless of denials by Ohio legislators, somewhere along the experimental line some type of processing (aka reprocessing) would be needed. Reprocessing has been a disaster wherever it has occurred: West Valley, NY; Sellafield, England; Rokkasho, Japan; La Hague, France; Kyshtym in Russia. This is how high-level nuclear waste is “reduced”. I do not want this in my backyard, or yours.

Recycling of nuclear fuel was banned in the U.S. in 1977 for a reason – expenses, and risks that spent fuel could be used to make nuclear weapons.

Let’s say “No” to HB 434.

Sincerely,

Don Bryant