Chairman Kick, Vice-Chair Lear, Ranking Member Rogers and members of the Ohio House of Representatives Standing Committee on Energy and Natural Resources.

The Green Party of Ohio opposes the designation of nuclear power as "Green" and as the DOE refers to it, "Clean". Nuclear is an extractive industry with thousands of abandoned uranium mines resulting in ongoing human health and environmental damage.

To be Green it must be sustainable. It must not inflict lethal damage on vulnerable populations desperate for jobs, it must not keep secret the multiple safety issues, and it can never degrade the environment; not the air, the water or the soil.

The small modular reactors referenced by the proponents of this will not make our power "more sustainable" as claimed in the Ohio Legislative Service Commission's detailed analysis. There is no such thing as "more sustainable", or slightly sustainable. Either it is or it isn't and in the case of nuclear power it definitely isn't.

The proponents of SMRs want us to believe that they will solve the problem of radioactive waste. There is no solution to the problem of radioactive waste. Any production of radioactive waste is unsustainable. And the SMRs will produce waste that is hotter than the waste they supposedly recycle. All nuclear power creates highly radioactive spent fuel waste that must be securely contained for hundreds of thousands of years. **SMRs will only make the nuclear waste problem worse.** 

To be economically viable, SMRs require HALEU fuel so the fuel can burn longer in the reactor. HALEU fuel has a higher percentage of Uranium 235 (U235). U235 has a half-life of 700 million years! SMRs using HALEU fuel will produce spent fuel waste which is much more radioactive and dangerous than waste from today's nuclear plants.

Nuclear proponents would have you believe that SMRs can solve the waste problem, but reprocessing or "recycling" spent fuel is dangerous, expensive, and does not get rid of the waste. Past attempts at reprocessing, such as at West Valley in New York, ended after only a few years of operation. The site is now highly contaminated into the long-term future, and the waste has nowhere to go.

There is no solution to the radioactive spent fuel waste problem (except to keep it away from all life, air, water and land – forever)

Instead of being influenced by industry lobbyists who "green wash" the nuclear waste boondoggle, elected officials must learn the true costs, harm, and long-term consequences of nuclear and the waste. Nuclear must not be considered green.

There is no plan to compensate victims of contamination.

The U.S. Congress has removed the Radiation Exposure Compensation Act (which will expire in 2024) from the Defense Authorization Act. That is a bad portent for workers and residents of Piketon where Centrus will be producing HALEU on the already heavily contaminated PORTS site.

Nukes aren't clean or green. The nuclear industry will not want to reveal the type or amount of radioactive emissions released into the air, water, and soil and that certainly cancels out the presumed benefits of low carbon emissions. These emissions are part of normal operation with the existing nuclear plants and set a nasty precedent for safety standards for future generations of reactors. "HALEU fuel is needed to offset the smaller size of the reactor core, which results in increased neutron leakage...Smaller reactor sizes can also result in comparatively more waste volume, next to existing large light water reactors."

Most of the claims of the proponents of HB308 are pure speculation unsubstantiated with current data.

In his sponsorship testimony Representative Sean Patrick Brennan states "Due to misconceptions, nuclear power has often been a topic of "hot and energetic" debate..." Available accepted scientific documentation demonstrating the failures of nuclear power is not a misconception.

In his proponent testimony on December 6, 2023 William H. Thesling stated, "MSRs exhibit much improved INHERENT safety characteristics." (Capitalization is his.) The MSRs he is referring to are molten salt reactors which are inherently less safe.<sup>2</sup>

If molten salt reactor technology was "advanced" the waste handing problem at Oak Ridge would have been solved by now.

Nuclear Power can't be considered "Green" because it is fundamentally and profoundly undemocratic. The enriched and concentrated radioactive elements involved in creating sustained nuclear reactions to heat water and make electricity are so toxic, and so dangerous to life on this earth if not managed under strict control that our constitutional Bill of Rights become quaint, obsolete and outdated. The regulations, tight security, and requisite secrecy surrounding nuclear power stations and the facilities that produce, process, and transport their fuel necessarily negate fundamental freedoms that we take for granted.

The potential, and actuality, if one considers the subtle and widespread low-level radioactive contamination and elevated occurrences of disease and cancers surrounding nuclear facilities (at Piketon, Fernald, etc.) of indiscriminate radioactive pollution of the regions around nuclear fuel processing facilities denies each of us, and all Ohioans, the right to clean air, water and the environment.

The escape of radionuclides associated with fuel processing, and their possession and use by malevolent actors pose such a basic threat to the viability of our cities, towns and countryside that their control provides the only rational justification for the permanent imposition of martial law. The technology and the industry cannot be considered to be "Green" because it is so fundamentally contrary to a healthy, peaceful, and democratic environment.

Please vote no on HB308.

Daryl Davis, Chair of the Ohio Green Party Anti-nuclear Organizing Committee

2) Ramana, M. V. "Molten salt reactors are a bad idea" Bulletin of the Atomic Scientists

"Dealing with radioactive salt wastes involves at least two separate concerns. The first, ongoing problem is that managing the radioactive salts that contain the uranium isotopes and the fission products is difficult. In the 1990s, researchers discovered that uranium had migrated and settled in other parts of the facility, leading to the possibility of an accidental criticality.

The second challenge is that of securely storing the uranium-233 from the Molten Salt Reactor Experiment. Although the uranium-233 used in the Molten Salt Reactor Experiment is but a small part of the larger US stockpile of the substance, it occurs in chemical forms that are difficult to manage. Further, urarnium-233 is usable in nuclear weapons, and any loss of this material might lead to security concerns."

<sup>1)</sup> Macfarlane, Allison, "The end of Oppenheimer's energy dream" IAI News