

From: Dirk Dunning, retired professional engineer.

I write today in opposition to House Bill 2038.

The legislature should reject this proposal outright as supporting unwarranted risks to the citizens of Oregon, and as a violation of the trust of the citizens of Oregon, and faith in the policy choice the citizens made via Initiative.

Nuclear fission has no place in the energy makeup of our future.

I have a unique perspective on the proposed actions. I am a retired Registered Professional Engineer, and formerly licensed Nuclear Power Engineer. For the last 25 years of my career, I worked at the Oregon Department of Energy as senior staff doing technical analysis and policy review of nuclear matters and in the cleanup of the nuclear mess at the Hanford Nuclear Reservation in eastern Washington State, as well as for Nuclear Safety and Energy Emergency Response for the State of Oregon. I was on call 24/7 throughout my entire career in that role, principally concerned with the Columbia Generating Station and every conceivable nuclear accident at Hanford or the Columbia Generating Station.

I want to highlight a few areas of particular concern with this bill.

**1. Review by the Oregon Department of Energy**

- Any review if directed to be performed by the legislature must examine ALL aspects of the issues. It must not be a one-sided proponenty.
- It must include the disadvantages and infeasibility of SMRs, economic realities, threats and risks, and history of prior failures.
- It must examine the very changed threat environment since the development of drone warfare in the Ukraine-Russian war.
- It must include a detailed examination of the very particular threats and hazards posed by thorium-based reactors, the historic problems with these reactors, and the ease with which they can be used to fuel Uranium-232 based nuclear weapons.
- And it must be based on broad outreach to the public across the State for input into that analysis.

**2. Alternative Technologies**

- It must include analysis of alternate and competing means to provide energy. These include solar, wind and renewables, and also fusion.

- The approaching viability of fusion, such as systems from Helion, Commonwealth Fusion Systems, and TAE Technologies creates a "valley of death" for SMRs. SMRs are:
  - Too late to fight climate change.
  - Too late to avoid competitive disruption from fusion.
  - Hugely burdened by security costs.
  - Highly vulnerable to rapidly changing energy markets

### **3. Existing Oregon Law Reflects Sound Judgment**

- Oregon's 1970s law requiring both an operating waste repository and voter approval was not arbitrary.
- It recognized fundamental safety and democratic principles.
- These requirements remain valid safeguards, especially given ongoing waste management challenges.

### **4. Democratic Processes**

- Oregon citizens established these protections through democratic processes.
- Any change must require State-wide (not County based) voter approval.
- Doing otherwise subverts public trust.

### **5. Economic Reality Check**

- SMRs cannot obtain full private insurance in commercial markets and require Price-Anderson government backstops
- Long construction timeframes and high capital costs will create stranded assets.
- No special economic advantage should be provided for any fission reactor system.