

Submitter: KATHALEEN PARKER

On Behalf Of:

Committee: House Committee On Climate, Energy, and Environment

Measure, Appointment or Topic: HB2038

HB2038 State Dept of Energy to study nuclear energy, including nuclear waste disposal from nuclear energy.

Requires the Oregon Department of Energy (ODOE) to study the following subjects as related to nuclear energy, including nuclear waste disposal from nuclear energy:

1. Advantages of nuclear energy;

A small amount of nuclear fuel can produce a large amount of energy.

Nuclear fuel can store a lot of energy in a small space.

2. Feasibility of constructing nuclear power plants in Oregon;

Oregon does not have any working nuclear power plants.

The 1154-MW nuclear power plant can typically occupy about 50 acres of land, often with a buffer space of land area of at least 1 square mile. The nuclear plant cooling tower can be up to 200 meters high.

All nuclear power plant applications must undergo an NRC safety review, environmental review and an antitrust review. In order to construct or operate a nuclear power plant, an applicant must submit a Safety Analysis Report.

Environmental damage

Health - Ionizing radiation from nuclear energy can cause cancer, cardiovascular disease, cataracts, and radiation sickness.

3. How the use of nuclear energy may support current energy systems;

>Nuclear energy facilities are emissions-free

>Nuclear facilities produce reliable electricity around the clock, regardless of the weather

>Nuclear facilities help the economy in the surrounding area. They create hundreds of well-paying, long-term jobs, both working at the facility and by supporting community businesses. The nuclear facilities also pay local and state taxes based on their financial activity, which helps support education and public services in the community. Many nuclear facilities are the largest taxpayer in their locality. Nuclear facilities operate for many decades, making them a reliable source of jobs and tax revenue.

4. Economic growth and workforce development potential for Oregon communities;

Accidents at nuclear power plants can release radioactive material into the environment.

The NRC recommends that people living within 50 miles of a plant take action to protect their food and water supplies.

5. Safety of nuclear energy and nuclear waste disposal;

The Department of Energy (DOE) is responsible for the treatment and disposal of nuclear waste.

High-level radioactive waste includes spent (used) reactor fuel and wastes remaining after the spent fuel is reprocessed. Spent nuclear fuel is highly radioactive and stored in specially designed pools or containers. High-level radioactive waste must be stored on-site at each individual nuclear power plant, currently in units called dry cask storage units.

The United States has only two sites for long-term storage of radioactive waste: Yucca Mountain in Nevada and the Waste Isolation Pilot Plant (WIPP) in New Mexico.

6. Reliability of nuclear energy;

The use of nuclear energy for electricity generation can be considered extremely safe.

<https://world-nuclear.org/information-library/safety-and-security/safety-of-plants/safety-of-nuclear-power-reactors>.

7. Use of thorium as an option for producing nuclear energy;

Thorium fuel cycles have several advantages, including less waste generation and lower levels of transuranic elements in waste.

Until we have policies that a conservative vetting will be used regarding the stewardship in nuclear energy, the guardrails below must be used to protect the state of Oregon.

>The U.S. Nuclear Regulatory Commission (NRC)

>The U.S. Environmental Protection Agency (EPA)

>The U.S. Department of Homeland Security (DHS), the Federal Emergency Management Agency (FEMA)

>The U.S. Department of Energy (DOE)

>The States

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We Need Real Solutions Now,

Small Modular Nuclear Reactors are experimental and untested in the U.S, with only three operating worldwide and all underperforming. This technology is not worth the risk.

Thank You