

SENATE BILL REPORT

SB 5129

As of January 20, 2023

Title: An act relating to planning for advanced nuclear reactor technology in Washington.

Brief Description: Planning for advanced nuclear reactor technology in Washington.

Sponsors: Senators MacEwen, Fortunato, Holy, Hunt, McCune, Mullet and Short.

Brief History:

Committee Activity: Environment, Energy & Technology: 1/25/23.

Brief Summary of Bill

- Amends a guiding principle for the development of the State Energy Strategy to include the consideration of the development of advanced nuclear reactor technology in Washington as a cleaner energy source.
- Directs the Department of Commerce to actively seek to maximize federal and other nonstate funding and support for the management of spent nuclear fuel.

SENATE COMMITTEE ON ENVIRONMENT, ENERGY & TECHNOLOGY

Staff: Kimberly Cushing (786-7421)

Background: Washington State Energy Strategy. In 2019, the Legislature directed the Department of Commerce (Commerce) to revise the State Energy Strategy (SES) to align the strategy with the requirements of the Energy Independence Act, the Clean Energy Transformation Act, and the state's greenhouse gas emissions reduction limits. The Legislature established a 27-member advisory committee to review the strategy and provide guidance to Commerce.

State law declares that a successful SES balances three goals:

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- maintaining competitive energy prices that are fair and reasonable for consumers and businesses, and support our state's continued economic success;
- increasing competitiveness by fostering a clean energy economy and jobs through business and workforce development; and
- meeting the state's obligations to reduce greenhouse gas emissions.

To meet these goals the Legislature lays out nine principles to guide strategy development and implementation. One of these nine principles directs the state to reduce dependence on fossil fuel energy sources through improved efficiency and development of cleaner energy sources, such as bioenergy, low carbon energy sources, natural gas, and leveraging the indigenous resources of the state for the production of clean energy.

The Washington 2021 SES references nuclear energy. In particular, it notes that research and innovation efforts might yield efficiency gains or cost reductions for several technologies, including nuclear power generation.

Nuclear Energy. Nuclear energy comes from splitting atoms to produce heat that can be used to generate electricity. As an example, most nuclear reactors operating today heat water and produce steam that is then used to turn a turbine to generate electricity. According to the Pacific Northwest National Laboratory, "small modular reactors and other advanced reactors are expected to reduce economic, security, technical, perceived safety, and regulatory barriers to the accelerated establishment in the United States of the next generation of nuclear power."

Summary of Bill: The Legislature finds that the development of advanced nuclear reactor technology aligns with the goals for a comprehensive energy strategy and this technology is a nonemitting electricity generation resource that can help Washington meet its emissions reduction goals for the electricity sector. The Legislature further recognizes the challenges presented by years of inaction on the management of spent nuclear fuel.

Advance nuclear reactor technology is added for consideration as one of the measures under the SES guiding principle to reduce dependence on fossil fuel energy sources through improved efficiency and development of cleaner energy sources.

Commerce is directed to actively seek to maximize federal and other nonstate funding and support for the management of spent nuclear fuel, in addition to energy efficiency, renewable energy, and emergency energy technologies.

Appropriation: None.

Fiscal Note: Requested on January 16, 2023.

Creates Committee/Commission/Task Force that includes Legislative members: No.

Effective Date: Ninety days after adjournment of session in which bill is passed.