

HOUSE BILL REPORT

ESHB 1584

As Passed House:
February 28, 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: House Committee on Environment & Energy (originally sponsored by Representatives Barnard, Fitzgibbon, Dye, Donaghy, Lekanoff, Slatter, Ybarra, Couture, Fey, Ryu, Riccelli, Berry, Schmidt, Sandlin and Timmons).

Brief History:

Committee Activity:

Environment & Energy: 2/7/23, 2/16/23 [DPS].

Floor Activity:

Passed House: 2/28/23, 91-6.

Brief Summary of Engrossed Substitute Bill

- Modifies a guiding principle for the State Energy Strategy to include the additional consideration of developing advanced nuclear reactor technology, renewable natural gas, and green electrolytic hydrogen to reduce the state's dependence on fossil fuel energy sources, and removes a reference to natural gas.

HOUSE COMMITTEE ON ENVIRONMENT & ENERGY

Majority Report: The substitute bill be substituted therefor and the substitute bill do pass. Signed by 15 members: Representatives Doglio, Chair; Mena, Vice Chair; Dye, Ranking Minority Member; Ybarra, Assistant Ranking Minority Member; Abbarno, Barnard, Berry, Couture, Duerr, Fey, Goehner, Lekanoff, Ramel, Slatter and Street.

Staff: Andrew Hatt (786-7296) and Megan McPhaden (786-7114).

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not part of the legislation nor does it constitute a statement of legislative intent.

Background:

Washington State Energy Strategy.

In 2019 legislation was enacted directing 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. Commerce updated the SES in 2021 and is required to review the SES once every eight years moving forward.

When reviewing the SES, Commerce is required to establish a 27-member advisory committee to provide guidance regarding the review. Members of the advisory committee include representatives from a variety of public and private entities, including investor-owned utilities, consumer-owned utilities, local governments, environmental organizations, and members of the Legislature.

A successful SES must balance three goals:

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

Nine principles have been established to guide the development and implementation of the SES in achieving these goals. 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 to produce clean energy.

Washington's 2021 SES references nuclear energy, noting that research and innovation efforts may 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. Most nuclear reactors operating today heat water and produce steam that is then used to turn a turbine to generate electricity. There are several new types of advanced nuclear reactor technologies currently under development by entities such as the United States Department of Energy, including small modular reactors, advanced water-cooled reactors, non-water-cooled reactors, and fusion reactors. According to the Pacific Northwest National Laboratory, the benefits of small modular reactors and other advanced reactors are expected to help reduce economic, security, technical, perceived safety, and regulatory barriers associated with nuclear power, which could result in the increased establishment of new nuclear power throughout the United States in the future.

Nuclear energy production produces waste which can present public health impacts if it is not stored properly. Currently, there is not a singular, permanent facility for the storage of nuclear waste in the United States.

Summary of Engrossed Substitute Bill:

The guiding principle for the State Energy Strategy focusing on reducing the state's dependence on fossil fuel energy sources is amended, adding advanced nuclear reactor technology, renewable natural gas, and green electrolytic hydrogen to the list of technologies to consider and removing a reference to natural gas.

Appropriation: None.

Fiscal Note: Available.

Effective Date: The bill takes effect 90 days after adjournment of the session in which the bill is passed.

Staff Summary of Public Testimony:

(In support) Advanced nuclear reactor (ANR) technology makes waste-free nuclear energy possible, and is safer and more efficient than traditional nuclear power. As Washington goes net-zero, this bill is a good start to a credible future with renewables and nuclear energy. The biggest concern with nuclear energy is with nuclear waste, but scientists know how to properly dispose of it, and political issues are what have gotten in the way. The State Energy Strategy should include measures that encourage ANR technology, as recent surveys have shown that there is strong support among Washingtonians for using nuclear in the state. Washington's sole nuclear power plant, the Columbia Generating Station, produces 12 percent of the state's electricity by itself with only a 1.7 square mile footprint, avoiding a large amount of carbon that would otherwise be emitted. The State Energy Strategy should pursue an all-of-the-above energy strategy, as ANR technology would help to integrate renewables into the energy grid. Nuclear energy is proven, making it the best solution for the state as it takes the lead on clean energy. Some public utility districts are looking at ANR as a means of getting more clean energy for their customers.

(Opposed) ANR technology remains theoretical and has never been put into practice, and it is wishful thinking to promote this technology otherwise. The costs associated with the technology are unknown, and nuclear energy facilities won't produce energy for 10 years. The history of nuclear energy has been one of rising costs, and this bill does not address the nuclear waste problem. An increase in nuclear waste does not align with a clean energy transition, and uranium extraction and nuclear waste disposal create carbon emissions. ANR technology is already being considered as a part of the State Energy Strategy.

(Other) When updating the State Energy Strategy, the Department of Commerce looks at a

wide range of energy options. During the last update in 2021, nuclear energy was considered, but ultimately did not make the final version of the plan when compared to other forms of clean energy. The Department of Commerce plans on continuing to look at all nuclear energy options in future updates to the State Energy Strategy.

Persons Testifying: (In support) Representative Stephanie Barnard, prime sponsor; Bill Clarke, Grant County Public Utility District; Steven Heninger; Julia Gifford; Josh Lozano, Energy Northwest; Jim Conca, Herbert M. Parker Foundation; and Peter Godlewski, Association of Washington Business.

(Opposed) Roger Lippman, Nuclear Free Northwest; and Cathryn Chudy.

(Other) Glenn Blackmon, Department of Commerce.

Persons Signed In To Testify But Not Testifying: None.