

HOUSE BILL REPORT

ESSB 6039

As Passed House - Amended:

February 29, 2024

Title: An act relating to promoting the development of geothermal energy resources.

Brief Description: Promoting the development of geothermal energy resources.

Sponsors: Senate Committee on Environment, Energy & Technology (originally sponsored by Senators Lovelett, Shewmake, Dhingra, Frame, Hasegawa, Keiser, Liias, Nguyen, Nobles and Saldaña).

Brief History:

Committee Activity:

Environment & Energy: 2/19/24, 2/20/24 [DPA];

Capital Budget: 2/23/24, 2/26/24 [DPA(ENVI)].

Floor Activity:

Passed House: 2/29/24, 96-0.

Brief Summary of Engrossed Substitute Bill (As Amended by House)

- Directs the Washington Geological Survey to compile and maintain a publicly available comprehensive database of state subsurface geologic information.
- Directs the Department of Natural Resources to update its geothermal resources lease rates.
- Directs the Department of Commerce to establish a competitive geothermal exploration cost-share grant program to incentivize and offset direct costs associated with deep exploratory drilling to identify locations suitable for the development of geothermal energy.
- Directs the Department of Ecology, in consultation with other specified state agencies, to engage in a collaborative process to identify

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opportunities and risks associated with the development of geothermal resources.

HOUSE COMMITTEE ON ENVIRONMENT & ENERGY

Majority Report: Do pass as amended. Signed by 15 members: Representatives Doglio, Chair; Mena, Vice Chair; Dye, Ranking Minority Member; Ybarra, Assistant Ranking Minority Member; Abbarno, Barnard, Berry, Duerr, Fey, Goehner, Lekanoff, Ramel, Sandlin, Slatter and Street.

Staff: Robert Hatfield (786-7117).

HOUSE COMMITTEE ON CAPITAL BUDGET

Majority Report: Do pass as amended by Committee on Environment & Energy. Signed by 26 members: Representatives Tharinger, Chair; Callan, Vice Chair; Hackney, Vice Chair; Abbarno, Ranking Minority Member; McClintock, Assistant Ranking Minority Member; Steele, Assistant Ranking Minority Member; Alvarado, Bateman, Christian, Eslick, Farivar, Fosse, Kloba, Kretz, Leavitt, Maycumber, Morgan, Mosbrucker, Orwall, Peterson, Reed, Rule, Sandlin, Shavers, Stearns and Waters.

Staff: Dawn Eychaner (786-7135).

Background:

Department of Natural Resources.

The Department of Natural Resources (DNR), through the appointed State Geologist, is responsible for maintaining the Washington Geological Survey (Survey). The Survey includes examination of economic products, soils, water resources, and road building materials; and preparation of geological and economic maps. The Survey must assess and map volcanic, seismic, landslide, and tsunami hazards in Washington.

According to the DNR, subsurface geology is the study of physical properties and location of rock and soil found below the ground surface.

In 2020 the Legislature updated statewide greenhouse gas emissions reduction limits to 45 percent below 1990 levels by 2030, 70 percent below 1990 levels by 2040, and 95 percent below 1990 levels, as well as net zero emissions, by 2050.

Interagency Clean Energy Siting Coordinating Council.

The Interagency Clean Energy Siting Coordinating Council (Council) is cochaired and costaffed by the Department of Ecology and the Department of Commerce. The Council's responsibilities include, among others:

- identifying actions to improve the siting and permitting of clean energy projects;
- soliciting input from parties with interests in clean energy project siting and permitting; and
- supporting the creation and annual update of a list to be published by the Governor's Office of Indian Affairs containing contacts at federally recognized Indian tribes, applicable tribal laws on consultation, and tribal preferences regarding clean energy project siting and outreach.

Summary of Amended Bill:

Washington Geological Survey.

The Washington Geological Survey (Survey) must compile and maintain a comprehensive database of Washington subsurface geologic information. The Survey must make the database available to the public in a searchable format via the Survey's website. The subsurface geologic information must include, but is not limited to: temperature gradient logs, geothermal well records, high resolution magnetotelluric surveys, geothermal play fairway studies, three-dimensional reflection seismic surveys, and rock properties databases.

The Survey must also:

- coordinate with federal, state, and local agencies, and with tribal governments, to compile existing information;
- acquire, process, and analyze new data and update deficient data using the best practicable technology;
- characterize the hazard of induced seismicity for high-potential geothermal play areas, using available data; and
- provide technical assistance on the interpretation and application of subsurface geologic data and hazard assessments.

State-Owned Land Lease Rates.

The Department of Natural Resources (DNR) must begin rulemaking to update its geothermal resources lease rates by September 30, 2024, to be competitive with geothermal lease rates adopted by the federal government and other western states. The stated goal of the updated lease rates is to optimize attracting geothermal exploration and development projects while balancing the state's obligation to trust beneficiaries and not adversely impacting federally reserved tribal rights and resources including, but not limited to, those protected by treaty, executive order, or federal law.

Competitive Geothermal Exploration Cost-Share Grant Program.

Subject to the amounts appropriated, the Department of Commerce (Commerce) must establish a competitive geothermal exploration cost-share grant program (grant program) to incentivize and offset direct costs associated with deep exploratory drilling to identify Washington locations suitable for the development of geothermal energy.

Commerce must consult with the Survey to develop a method and criteria for allocation of grants. The method and criteria for the allocation of grants are subject to the following requirements, among others:

- proposed exploratory drilling projects should be located in areas of high geothermal potential not impacting federally reserved tribal rights and resources including, but not limited to, those protected by treaty, executive order, or federal law;
- grant applicants should possess, or demonstrate partnership with entities who possess, expertise in successful geothermal exploration;
- grant applicants should meet high labor standards, including family sustaining wages, and providing benefits including health care and employer-contributed retirement plans;
- selection and implementation of exploratory drilling projects should align with equity and environmental justice principles; and
- if any fluid is proposed to be injected as part of the exploratory drilling, the grant applicant must include an analysis of any potential for induced seismicity as a result of the injection, as well as a plan for the management of the risk of induced seismicity, and consult with the Department of Ecology (Ecology) and, if applicable, comply with underground injection control standards and groundwater antidegradation standards.

Grant awards must be available to private, public, and federally recognized tribal applicants. Grant awards to private grant applicants should be for no more than one-half of the overall cost of the project and grant awards to public grant applicants should be for no more than two-thirds of the overall cost of the project.

Commerce must make a reasonable effort to utilize the United States Department of Energy's recommendations and guidelines for geothermal demonstration projects in the western states when administering the grant program.

Geothermal Resources Collaborative Process.

Ecology, in consultation with Commerce, the DNR, the Department of Archaeology and Historic Preservation (DAHP), and the Department of Fish and Wildlife, must engage in a collaborative process to identify opportunities and risks associated with the development of geothermal resources in three locations with the highest geothermal potential in Washington. The DNR must identify the three locations.

As part of the collaborative process, Ecology must engage in meaningful government-to-

government consultation with potentially affected federally recognized Indian tribes by learning from each participating tribe about their communication protocols for consultation, and must seek participation from the DAHP; other state agencies as appropriate; local governments; state research institutions; the electrical generation, transmission, and distribution sector; and environmental organizations. At the request of potentially affected federally recognized Indian tribes, Ecology may include additional participation with independent subject matter expertise.

Subject to the amounts appropriated, Ecology must provide grants to potentially affected federally recognized Indian tribes to provide capacity and to support their evaluation of the impacts of geothermal electricity development and to support participation in the collaborative process.

At a minimum, the collaborative process must address the following topics:

- the potential impacts of geothermal resources development on the rights, interests, and resources of federally recognized Indian tribes, endangered species in Washington, and overburdened communities;
- the development of factors to identify preferable sites for development of geothermal resources, including proximity to electrical transmission and distribution infrastructure, and continuity between groundwater and surface water resources; and
- the capacity for geothermal resources to help Washington meet its clean energy generation requirements and greenhouse gas emissions limits.

Ecology must begin the geothermal resources collaborative process by November 30, 2024. Ecology must provide to the Legislature an update on the status of the collaborative process by June 30, 2026, and must provide a final report on the collaborative process by June 30, 2027.

The Interagency Clean Energy Siting Coordinating Council (Council) must support Ecology during the collaborative process. The Council must consider the findings of the interim update and final report and make recommendations to the Legislature and the Governor on potential actions regarding the development of geothermal energy. Based on the findings of the collaborative process, the Council must identify key factors for consideration in planning and siting of geothermal facilities. These key factors include, but are not limited to, geologic suitability, water resource impacts, impacts to the rights of federally recognized Indian tribes, and proximity to electrical transmission and distribution infrastructure.

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 (Environment & Energy):

(In support) Iceland was one of the poorest nations in the world after World War II, so they embarked on a journey to create a geothermal network that provides hot water, heat, and electricity to the entire country. One public utility district is working on exploring geothermal resources around Mount Baker. This bill is narrowly tailored around three promising areas in the state for geothermal. There is a robust collaborative and consultation process with Washington tribes. Geothermal represents a great way to produce clean, baseload energy.

High quality information about the subsurface is fundamental to geothermal characterization in Washington. This information can be expensive to collect, and often represents a barrier to entering into geothermal production. A single collection point will make this information much more readily available.

Sections 3 and 4 of the bill provide additional tools to jumpstart geothermal development. Geothermal resources are available throughout the state, including Southwest Washington and Central Washington. Geothermal resources development allows the state to add clean, baseload power to the state.

Last month's cold snap in Washington showed how short the Pacific Northwest is on electricity. The Pacific Northwest imported an average of 6000 megawatts per hour during that period, and as a result spent about \$300 million more than usual for power during that period. The state needs more in-state generation of power. Geothermal can help address this deficit.

(Opposed) None.

Staff Summary of Public Testimony (Capital Budget):

(In support) Those who have had a chance to visit Iceland may know that geothermal energy is distributed throughout that country. Iceland was a poor nation around the time of World War II because they had to import nearly all of their fuel. Now Iceland is one of the wealthiest nations in Europe and their geothermal independence is a major factor in that wealth. This policy supports the development of geothermal energy across the state and complements funding in the proposed House capital budget. The bill creates a set of tools that helps move the state forward with finding potential new resources to meet the growing electricity demand.

(Opposed) None.

Persons Testifying (Environment & Energy): Senator Liz Lovelett, prime sponsor; Casey Hanell, Department of Natural Resources; Tim Gates, Department of Ecology; Scott Hazlegrove, Whatcom Public Utility District; and Nicolas Garcia, Washington Public

Utility District Association.

Persons Testifying (Capital Budget): Senator Liz Lovelett, prime sponsor; and Scott Hazlegrove, Whatcom Public Utility District.

Persons Signed In To Testify But Not Testifying (Environment & Energy): None.

Persons Signed In To Testify But Not Testifying (Capital Budget): None.