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## Environment & Energy Committee

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### ESSB 6039

**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, Lias, Nguyen, Nobles and Saldaña).

#### Brief Summary of Engrossed Substitute Bill

- 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 to engage in a collaborative process to identify opportunities and risks associated with the development of geothermal resources.

**Hearing Date:** 2/19/24

**Staff:** Robert Hatfield (786-7117).

**Background:**

Department of Natural Resources.

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*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.*

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 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 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.

#### 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;
- 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.

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 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, and proximity to electrical transmission and distribution infrastructure.

**Appropriation:** None.

**Fiscal Note:** Requested on February 12, 2024.

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