

# Multiple Agency Fiscal Note Summary

<b>Bill Number:</b> 2129 HB	<b>Title:</b> Geothermal energy resources
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## Estimated Cash Receipts

Agency Name	2023-25			2025-27			2027-29		
	GF-State	NGF-Outlook	Total	GF-State	NGF-Outlook	Total	GF-State	NGF-Outlook	Total
Department of Natural Resources	Non-zero but indeterminate cost and/or savings. Please see discussion.								
<b>Total \$</b>	0	0	0	0	0	0	0	0	0

## Estimated Operating Expenditures

Agency Name	2023-25				2025-27				2027-29			
	FTEs	GF-State	NGF-Outlook	Total	FTEs	GF-State	NGF-Outlook	Total	FTEs	GF-State	NGF-Outlook	Total
Department of Commerce	Fiscal note not available											
Department of Ecology	1.2	0	0	1,569,593	1.2	0	0	1,569,593	.0	0	0	0
Department of Ecology	In addition to the estimate above, there are additional indeterminate costs and/or savings. Please see individual fiscal note.											
Department of Natural Resources	2.6	862,400	862,400	862,400	5.2	1,624,000	1,624,000	1,624,000	5.2	1,624,000	1,624,000	1,624,000
<b>Total \$</b>	<b>3.8</b>	<b>862,400</b>	<b>862,400</b>	<b>2,431,993</b>	<b>6.4</b>	<b>1,624,000</b>	<b>1,624,000</b>	<b>3,193,593</b>	<b>5.2</b>	<b>1,624,000</b>	<b>1,624,000</b>	<b>1,624,000</b>

## Estimated Capital Budget Expenditures

Agency Name	2023-25			2025-27			2027-29		
	FTEs	Bonds	Total	FTEs	Bonds	Total	FTEs	Bonds	Total
Department of Commerce	Fiscal note not available								
Department of Ecology	.0	0	0	.0	0	0	.0	0	0
Department of Natural Resources	.0	0	0	.0	0	0	.0	0	0
<b>Total \$</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>

## Estimated Capital Budget Breakout

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**Date Published:**

Preliminary 1/28/2024

# Individual State Agency Fiscal Note

<b>Bill Number:</b> 2129 HB	<b>Title:</b> Geothermal energy resources	<b>Agency:</b> 461-Department of Ecology
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## Part I: Estimates

No Fiscal Impact

### Estimated Cash Receipts to:

NONE

### Estimated Operating Expenditures from:

	FY 2024	FY 2025	2023-25	2025-27	2027-29
FTE Staff Years	0.0	2.3	1.2	1.2	0.0
<b>Account</b>					
Climate Commitment Account-State 26C-1	0	1,569,593	1,569,593	1,569,593	0
<b>Total \$</b>	0	1,569,593	1,569,593	1,569,593	0

In addition to the estimates above, there are additional indeterminate costs and/or savings. Please see discussion.

### Estimated Capital Budget Impact:

NONE

*The cash receipts and expenditure estimates on this page represent the most likely fiscal impact. Factors impacting the precision of these estimates, and alternate ranges (if appropriate), are explained in Part II.*

Check applicable boxes and follow corresponding instructions:

- If fiscal impact is greater than \$50,000 per fiscal year in the current biennium or in subsequent biennia, complete entire fiscal note form Parts I-V.
- If fiscal impact is less than \$50,000 per fiscal year in the current biennium or in subsequent biennia, complete this page only (Part I).
- Capital budget impact, complete Part IV.
- Requires new rule making, complete Part V.

Legislative Contact: Robert Hatfield	Phone: 360-786-7117	Date: 01/23/2024
Agency Preparation: Jessica Moore	Phone: 360-529-7583	Date: 01/23/2024
Agency Approval: Erik Fairchild	Phone: 360-407-7005	Date: 01/23/2024
OFM Review: Lisa Borkowski	Phone: (360) 742-2239	Date: 01/28/2024

## Part II: Narrative Explanation

### II. A - Brief Description Of What The Measure Does That Has Fiscal Impact

*Significant provisions of the bill and any related workload or policy assumptions that have revenue or expenditure impact on the responding agency by section number.*

Under current law, Ecology is involved in various aspects of clean energy siting and permitting. RCW 43.394.010 requires Ecology to co-chair an interagency clean energy siting coordination council. The council is responsible for identifying actions to improve siting and permitting of clean energy projects. RCW 43.158.100 requires Ecology to lead a coordinated process for clean energy projects.

This bill would require Department of Natural Resources (DNR), Commerce, and Ecology to work on efforts to support the exploration and development of geothermal resources.

Section 1 would add a new section to chapter 43.92 RCW (Geological Survey) that would require DNR to compile and maintain a database of geologic information. DNR would be required to coordinate with federal, state, and local agencies to compile existing subsurface geologic information, analyze new subsurface geologic data and update deficient data, characterize the hazard of induced seismicity for high-potential geothermal areas, and provide technical assistance.

Section 2 would amend RCW 79.13.530 (Land Leases) to require DNR to begin rulemaking by September 30, 2024 to update geothermal resources lease rates.

Section 3 would add a new section to chapter 79.02 RCW (Public Lands Management) to require Commerce, in consultation with DNR, to implement a competitive cost-share grant program for geothermal exploration.

Section 4 would require Ecology, in consultation with Commerce and DNR, to identify opportunities and risks associated with the development of geothermal resources with engagement and consultation with Tribes, local governments, state research institutions, environmental organizations, and participants in Washington's electrical generation, transmission, and distribution sector. This process would be required to begin by November 30, 2024. Ecology would be required to provide interim legislative reports by June 30, 2025, and November 30, 2025, and a final legislative report by June 30, 2026. Furthermore, Ecology would be required to provide grants to potentially affected federally recognized Indian Tribes to support their evaluation of cultural, natural resource, and other impacts of geothermal electricity development and to support their participation in the collaborative process.

### II. B - Cash receipts Impact

*Cash receipts impact of the legislation on the responding agency with the cash receipts provisions identified by section number and when appropriate, the detail of the revenue sources. Description of the factual basis of the assumptions and the method by which the cash receipts impact is derived. Explanation of how workload assumptions translate into estimates. Distinguished between one time and ongoing functions.*

### II. C - Expenditures

*Agency expenditures necessary to implement this legislation (or savings resulting from this legislation), with the provisions of the legislation that result in the expenditures (or savings) identified by section number. Description of the factual basis of the assumptions and the method by which the expenditure impact is derived. Explanation of how workload assumptions translate into cost estimates. Distinguished between one time and ongoing functions.*

The expenditure impact to Ecology to run a collaborative process required under section 4 and to identify factors, impacts and analysis on a state-wide basis under this bill is estimated to be greater than \$50,000 in Fiscal Year (FY) 2025 and 2026. The cost of a consultant contract to complete data gathering necessary to identify factors for developing sites and potential impacts from new technologies on a state-wide basis as well as the grant funding for federally recognized Indian Tribes is indeterminate.

#### Section 4

Ecology, in consultation with DNR and Commerce, would be required to engage in a collaborative process to identify opportunities and risks associated with the development of geothermal resources. Ecology would be required to engage in

meaningful government-to-government consultation with potentially affected federal recognized Indian Tribes, local governments, state research institutions, participants in Washington’s electrical generation, transmission, and distribution sector, as well as environmental organizations.

The process would be required to address potential impacts of geothermal resources development on

- The rights, interests, and resources, including Tribal cultural resources, of potentially affected federally recognized Indian Tribes
- State or federal endangered species
- Overburdened communities

The process would be required to develop factors to identify preferred sites for development and the capacity of geothermal resources to meet generation requirements and GHG emission limits.

Ecology would be required to provide grants to potentially affected federally recognized Indian Tribes.

Ecology would be required to start the process by November 30, 2024. Ecology would be required to submit interim reports to the Legislature by June 30, 2025, and again by November 30, 2025. Ecology would be required to submit a final report by June 30, 2026.

Section 1 would require the Department of Natural Resources to gather and make available data on geological resources. Ecology assumes DNR will participate in the collaborative process as the source of information about emerging technologies for geothermal energy development and will provide all information necessary to identify the capacity of geothermal resources to meet clean energy generation requirements. Ecology assumes DNR will provide the expertise to identify all required information on factors for developing sites and potential impacts and any other technical analysis to support the collaborative process.

Ecology assumes the collaborative process required by this bill would require work like the approach taken by Washington State University (WSU) in exploring solar energy in 2021 and pumped storage in 2024. These processes were used to identify risks and opportunities in a collaborative manner.

Ecology assumes that we would contract with WSU to lead the collaborative process. WSU spent \$500,000 to lead a collaborative process for solar energy. However, that process was not state-wide and was only focused on the Columbia Plateau. Furthermore, there was limited Tribal participation. Therefore, Ecology assumes that the cost of leading a collaborative process for geothermal energy that is state-wide with Tribal participation would be much higher. Based on the WSU process and on previous experience at Ecology with clean energy contracting work, Ecology estimates that the cost of this work would be \$2,500,000, split between FY 2025 and FY 2026, shown in contracts.

Ecology estimates that 2.0 FTE Environmental Specialist 4 in FY 2025 and FY 2026 would be required to manage consultant teams for field data and expertise, to identify factors, impacts, and analysis on a state-wide basis, lead the collaboration process, and write the legislative reports.

Ecology assumes that the amount of funding required for the grant program would be dependent on the number of potentially affected federally recognized Indian Tribes. According to the Washington State Governor’s Office of Indian Affairs there are 32 federal recognized Indian Tribes with lands and territories in Washington state. Because Ecology has no way to estimate the number or location of areas with potential geothermal resources, it is difficult to determine which of the 32 federal recognized Indian Tribes would need or want to receive funding to participate in the process. In addition to the grants themselves, staff resources would be required to develop guidelines, outreach materials, complete the agreements. Ecology assumes that as part of the grant program, an Environmental Justice Assessment would be completed in FY 2025 as required under the HEAL Act, chapter 70A.02 RCW. Because we don’t know the size of the grant program, it is not possible to estimate staff costs currently. Therefore, the amount of grant funding and staff resources necessary to implement this bill is indeterminate.

SUMMARY: The expenditure impact to Ecology under this bill is \$3,139,186 to run a collaborative process and identify factors, impacts, and analysis on a state-wide basis. The cost of a consultant contract to complete fieldwork, exploratory drilling, and other data gathering necessary to identify factors, impacts, and analysis on a state-wide basis as well as the grant funding for federally recognized Indian Tribes is indeterminate.

Section 4 is estimated to require:  
 FY 2025: \$1,569,593 and 2.3 FTEs  
 FY 2026: \$1,569,593 and 2.3 FTEs

Notes on costs by object:

Salary estimates are current biennium actual rates at Step L.

Benefits are the agency average of 34.1% of salaries.

Contracts includes \$2,500,000 split between FY 2025 and FY 2026 for WSU to lead the collaborative process required under section 4.

Goods and Services are the agency average of \$6,048 per direct program FTE.

Travel is the agency average of \$2,205 per direct program FTE.

Equipment is the agency average of \$1,286 per direct program FTE.

Agency Administrative Overhead is calculated at the federally approved agency indirect rate of 29.8% of direct program salaries and benefits, and is shown as object 9. Agency Administrative Overhead FTEs are included at 0.15 FTE per direct program FTE, and are identified as Fiscal Analyst 2 and IT App Development - Journey.

**Part III: Expenditure Detail**

**III. A - Operating Budget Expenditures**

Account	Account Title	Type	FY 2024	FY 2025	2023-25	2025-27	2027-29
26C-1	Climate Commitment Account	State	0	1,569,593	1,569,593	1,569,593	0
<b>Total \$</b>			0	1,569,593	1,569,593	1,569,593	0

In addition to the estimates above, there are additional indeterminate costs and/or savings. Please see discussion.

**III. B - Expenditures by Object Or Purpose**

	FY 2024	FY 2025	2023-25	2025-27	2027-29
FTE Staff Years		2.3	1.2	1.2	
A-Salaries and Wages		172,648	172,648	172,648	
B-Employee Benefits		58,873	58,873	58,873	
C-Professional Service Contracts		1,250,000	1,250,000	1,250,000	
E-Goods and Other Services		12,096	12,096	12,096	
G-Travel		4,410	4,410	4,410	
J-Capital Outlays		2,572	2,572	2,572	
9-Agency Administrative Overhead		68,994	68,994	68,994	
<b>Total \$</b>	0	1,569,593	1,569,593	1,569,593	0

In addition to the estimates above, there are additional indeterminate costs and/or savings. Please see discussion.

**III. C - Operating FTE Detail:** *List FTEs by classification and corresponding annual compensation. Totals need to agree with total FTEs in Part I and Part IIIA*

Job Classification	Salary	FY 2024	FY 2025	2023-25	2025-27	2027-29
ENVIRONMENTAL SPEC 4	86,324		2.0	1.0	1.0	
FISCAL ANALYST 2			0.2	0.1	0.1	
IT APP DEV-JOURNEY			0.1	0.1	0.1	
<b>Total FTEs</b>			2.3	1.2	1.2	0.0

**III. D - Expenditures By Program (optional)**

NONE

**Part IV: Capital Budget Impact**

**IV. A - Capital Budget Expenditures**

NONE

**IV. B - Expenditures by Object Or Purpose**

NONE

**IV. C - Capital Budget Breakout**

*Acquisition and construction costs not reflected elsewhere on the fiscal note and description of potential financing methods.*

NONE

**IV. D - Capital FTE Detail:** *FTEs listed by classification and corresponding annual compensation. Totals agree with total FTEs in Part IVB.*

NONE

**Part V: New Rule Making Required**

*Provisions of the bill that require the agency to adopt new administrative rules or repeal/revise existing rules.*

# Individual State Agency Fiscal Note

<b>Bill Number:</b> 2129 HB	<b>Title:</b> Geothermal energy resources	<b>Agency:</b> 490-Department of Natural Resources
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## Part I: Estimates

**No Fiscal Impact**

### Estimated Cash Receipts to:

**Non-zero but indeterminate cost and/or savings. Please see discussion.**

### Estimated Operating Expenditures from:

	FY 2024	FY 2025	2023-25	2025-27	2027-29
FTE Staff Years	0.0	5.2	2.6	5.2	5.2
<b>Account</b>					
General Fund-State 001-1	0	862,400	862,400	1,624,000	1,624,000
<b>Total \$</b>	0	862,400	862,400	1,624,000	1,624,000

### Estimated Capital Budget Impact:

NONE

*The cash receipts and expenditure estimates on this page represent the most likely fiscal impact. Factors impacting the precision of these estimates, and alternate ranges (if appropriate), are explained in Part II.*

Check applicable boxes and follow corresponding instructions:

- If fiscal impact is greater than \$50,000 per fiscal year in the current biennium or in subsequent biennia, complete entire fiscal note form Parts I-V.
- If fiscal impact is less than \$50,000 per fiscal year in the current biennium or in subsequent biennia, complete this page only (Part I).
- Capital budget impact, complete Part IV.
- Requires new rule making, complete Part V.

Legislative Contact: Robert Hatfield	Phone: 360-786-7117	Date: 01/23/2024
Agency Preparation: Zoe Catron	Phone: 360-902-1121	Date: 01/24/2024
Agency Approval: Brian Considine	Phone: 3604863469	Date: 01/24/2024
OFM Review: Lisa Borkowski	Phone: (360) 742-2239	Date: 01/28/2024

## Part II: Narrative Explanation

### II. A - Brief Description Of What The Measure Does That Has Fiscal Impact

*Significant provisions of the bill and any related workload or policy assumptions that have revenue or expenditure impact on the responding agency by section number.*

Section 1: Adds a new section to RCW 43.92 that mandates the Survey to compile and maintain a comprehensive publicly facing subsurface database to support geothermal exploration. The Department of Natural Resources (DNR) must coordinate with other agencies to compile subsurface information, and the survey must acquire new subsurface information where needed. Further, DNR must assess and publish the hazards from induced seismicity within high-potential geothermal play areas and provide technical assistance on the interpretation of both subsurface information and hazard assessments. Additional resources are required to meet these requirements.

Section 2 will determine the revenue received from geothermal leasing on DNR land. The costs associated with rule making are already figured into our positions so there will be no change in funding right now. If the rule making associated with this legislation makes it more appealing for geothermal leases in the future, then DNR may need to look at how we manage that work, but it can still be handled with current staffing levels.

The survey will use existing resources to meet the relevant requirements stated in Sections 3 and 4.

### II. B - Cash receipts Impact

*Cash receipts impact of the legislation on the responding agency with the cash receipts provisions identified by section number and when appropriate, the detail of the revenue sources. Description of the factual basis of the assumptions and the method by which the cash receipts impact is derived. Explanation of how workload assumptions translate into estimates. Distinguished between one time and ongoing functions.*

Cash receipts are indeterminate. The annual rate of revenue generated will be driven by the number of leases that are developed from the formula in this legislation. Currently we have one application in for a geothermal proposal. The rule making that comes out of this legislation will dictate how much revenue is received.

### II. C - Expenditures

*Agency expenditures necessary to implement this legislation (or savings resulting from this legislation), with the provisions of the legislation that result in the expenditures (or savings) identified by section number. Description of the factual basis of the assumptions and the method by which the expenditure impact is derived. Explanation of how workload assumptions translate into cost estimates. Distinguished between one time and ongoing functions.*

Section 1: To meet the requirements within Section 1 of establishing and making public a comprehensive subsurface database to support geothermal exploration, a new sub-program will be needed within the Washington Geological Survey program. This sub-program would design a new expansive database structure, would collaborate with external agencies to gather and compile relevant and appropriate datasets, would populate the database from numerous data sources, and would make the database public facing on a web platform. Other new work includes appending and updating the dataset as more data is collected. This work would require the following:

- 1 FTE Natural Resource Scientist 4 would manage the new sub-program, setting priorities, hiring and supervising staff, and applying for additional federal funding opportunities to supplement data gathering activities. Under the program manager;
- 1 FTE Natural Resource Scientist 3 would collaboratively design, populate, and maintain the database, with opportunistic support from resources gained through federal grants;
- 1 FTE Natural Resource Scientist 3 would be needed to establish a public-facing and comprehensive inventory for the numerous physical samples that the survey stores, sample the materials for a suite of analyses to support geothermal exploration, and work with the database geologist to incorporate that information into the subsurface database;
- 1 FTE Natural Resource Scientist 3 is needed to acquire, process, and analyze new subsurface geologic information, including gravity and magnetotelluric surveys, and to conduct hazard assessments related to induced seismicity in high-potential geothermal play areas. The new subsurface information would be provided to the subsurface program for inclusion in the subsurface database, and interpretations from these studies and induced seismicity hazard assessments would be published and made publicly available.

Costs for this section are \$862,445 for FY25 and \$1,624,000 per biennium ongoing and are detailed below:

Salaries for four new staff are \$340,200 for FY25 and \$680,400 per biennium ongoing.

Benefits total \$121,00 for FY 25, \$243,800 per biennium ongoing.

Goods and services and travel are calculated on actual program averages per person.

Additionally, goods and services costs of \$20,000 in FY25 and \$220,000 per biennium ongoing are needed for material sampling, rock property testing, and geophysical survey services.

In addition to program averages, beginning in FY26, travel costs are \$12,000 per biennium ongoing to support field work.

Software licensing for geophysical data interpretation and induced seismicity hazard assessments total \$30,000 per biennium ongoing.

One-time costs total \$145,245 in FY25 for workstations, computer equipment, and a new gravimeter.

Administrative costs are calculated at 31% of staff salary and benefits and staff-related goods and services and travel. For fiscal note purposes, this cost is represented as a Fiscal Analyst 2 position (1.24 FTE).

### Part III: Expenditure Detail

#### III. A - Operating Budget Expenditures

Account	Account Title	Type	FY 2024	FY 2025	2023-25	2025-27	2027-29
001-1	General Fund	State	0	862,400	862,400	1,624,000	1,624,000
<b>Total \$</b>			0	862,400	862,400	1,624,000	1,624,000

#### III. B - Expenditures by Object Or Purpose

	FY 2024	FY 2025	2023-25	2025-27	2027-29
FTE Staff Years		5.2	2.6	5.2	5.2
A-Salaries and Wages		340,200	340,200	680,400	680,400
B-Employee Benefits		121,900	121,900	243,800	243,800
C-Professional Service Contracts					
E-Goods and Other Services		93,600	93,600	311,200	311,200
G-Travel		4,000	4,000	20,000	20,000
J-Capital Outlays		147,200	147,200	60,000	60,000
M-Inter Agency/Fund Transfers					
N-Grants, Benefits & Client Services					
P-Debt Service					
S-Interagency Reimbursements					
T-Intra-Agency Reimbursements		155,500	155,500	308,600	308,600
9-					
<b>Total \$</b>	0	862,400	862,400	1,624,000	1,624,000

#### III. C - Operating FTE Detail: *List FTEs by classification and corresponding annual compensation. Totals need to agree with total FTEs in Part I and Part IIIA*

Job Classification	Salary	FY 2024	FY 2025	2023-25	2025-27	2027-29
Fiscal Analyst 2	58,107		1.2	0.6	1.2	1.2
Natural Resource Scientist 3	82,896		3.0	1.5	3.0	3.0
Natural Resource Scientist 4	91,524		1.0	0.5	1.0	1.0
<b>Total FTEs</b>			5.2	2.6	5.2	5.2

#### III. D - Expenditures By Program (optional)

NONE

## Part IV: Capital Budget Impact

### IV. A - Capital Budget Expenditures

NONE

### IV. B - Expenditures by Object Or Purpose

NONE

### IV. C - Capital Budget Breakout

*Acquisition and construction costs not reflected elsewhere on the fiscal note and description of potential financing methods.*

NONE

**IV. D - Capital FTE Detail:** *FTEs listed by classification and corresponding annual compensation. Totals agree with total FTEs in Part IVB.*

NONE

## Part V: New Rule Making Required

*Provisions of the bill that require the agency to adopt new administrative rules or repeal/revise existing rules.*

Section 2 (amending RCW 79.13.53) requires DNR to adopt new rules regarding geothermal royalty rates, with rulemaking to commence by 09/30/2024. Additionally, amendments to WAC 332-22-210 will be required.