

ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE

April 17, 2023

1:56 p.m.

MEMBERS PRESENT

Senator Click Bishop, Co-Chair
Senator Cathy Giessel, Co-Chair
Senator Bill Wielechowski, Vice Chair
Senator Scott Kawasaki
Senator James Kaufman
Senator Forrest Dunbar
Senator Matt Claman

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

SENATE BILL NO. 92

"An Act relating to state ownership of submerged land underlying navigable water within the boundaries of and adjacent to federal areas; and providing for an effective date."

- MOVED CSSB 92(RES) OUT OF COMMITTEE

SENATE BILL NO. 69

"An Act relating to geothermal resources; relating to the definition of 'geothermal resources'; and providing for an effective date."

- HEARD & HELD

HOUSE JOINT RESOLUTION NO. 11

Urging the United States Environmental Protection Agency to develop a woodstove certification program that addresses the threat to clean and healthy winter air in Fairbanks; and urging the state Department of Environmental Conservation to develop an economically and legally defensible state implementation plan for the Fairbanks North Star Borough nonattainment area.

- HEARD & HELD

SENATE BILL NO. 82

"An Act relating to the powers of the Alaska Commercial Fisheries Entry Commission; relating to administrative areas for regulation of certain commercial set net entry permits; establishing a buy-back program for certain set net entry permits; providing for the termination of state set net tract leases under the buy-back program; closing certain water to commercial fishing; and providing for an effective date."

- HEARD & HELD

PREVIOUS COMMITTEE ACTION

BILL: SB 92

SHORT TITLE: STATE OWNERSHIP OF SUBMERGED LAND

SPONSOR(s): SENATOR(s) GIESSEL BY REQUEST

03/08/23	(S)	READ THE FIRST TIME - REFERRALS
03/08/23	(S)	RES
03/29/23	(S)	RES AT 3:30 PM BUTROVICH 205
03/29/23	(S)	Heard & Held
03/29/23	(S)	MINUTE(RES)
04/12/23	(S)	RES AT 3:30 PM BUTROVICH 205
04/12/23	(S)	Heard & Held
04/12/23	(S)	MINUTE(RES)
04/14/23	(S)	RES AT 3:30 PM BUTROVICH 205
04/14/23	(S)	<Bill Hearing Canceled>
04/17/23	(S)	RES AT 3:30 PM BUTROVICH 205

BILL: SB 69

SHORT TITLE: GEOTHERMAL RESOURCES

SPONSOR(s): RULES BY REQUEST OF THE GOVERNOR

02/15/23	(S)	READ THE FIRST TIME - REFERRALS
02/15/23	(S)	RES, FIN
04/12/23	(S)	RES AT 3:30 PM BUTROVICH 205
04/12/23	(S)	Heard & Held
04/12/23	(S)	MINUTE(RES)
04/17/23	(S)	RES AT 3:30 PM BUTROVICH 205

BILL: HJR 11

SHORT TITLE: ADDRESS AIR POLLUTION IN FAIRBANKS

SPONSOR(s): REPRESENTATIVE(s) STAPP

03/08/23	(H)	READ THE FIRST TIME - REFERRALS
03/08/23	(H)	RES
03/20/23	(H)	RES AT 1:00 PM BARNES 124
03/20/23	(H)	Moved HJR 11 Out of Committee

03/20/23 (H) MINUTE (RES)
 03/22/23 (H) RES RPT 7DP
 03/22/23 (H) DP: MEARS, DIBERT, MCCABE, SADDLER,
 WRIGHT, RAUSCHER, MCKAY
 03/27/23 (S) RES AT 3:30 PM BUTROVICH 205
 03/27/23 (S) <Pending Referral>
 03/29/23 (H) TRANSMITTED TO (S)
 03/29/23 (H) VERSION: HJR 11
 03/29/23 (S) RES AT 3:30 PM BUTROVICH 205
 03/29/23 (S) <Pending Referral>
 03/31/23 (S) READ THE FIRST TIME - REFERRALS
 03/31/23 (S) RES
 04/17/23 (S) RES AT 3:30 PM BUTROVICH 205

BILL: SB 82

SHORT TITLE: COOK INLET: NEW ADMIN AREA; PERMIT BUYBACK
 SPONSOR(s): SENATOR(s) BJORKMAN

02/24/23 (S) READ THE FIRST TIME - REFERRALS
 02/24/23 (S) RES, FIN
 04/17/23 (S) RES AT 3:30 PM BUTROVICH 205

WITNESS REGISTER

JOHN CROWTHER, Deputy Commissioner
 Department of Natural Resources (DNR)
 Anchorage, Alaska

POSITION STATEMENT: Provided information relating to SB 69.

SEAN CLIFTON, Policy and Program Specialist
 Division of Oil and Gas
 Department of Natural Resources (DNR)
 Anchorage, Alaska

POSITION STATEMENT: Provided an overview of SB 69 and presented the sectional analysis.

DAVE ROBY, Senior Reservoir Engineer
 Alaska Oil and Gas Conservation Commission (AOGCC)
 Department of Commerce, Community and Economic Development
 Anchorage, Alaska

POSITION STATEMENT: Responded to questions relating to SB 69.

DR. DAVID LEPAIN, State Geologist and Director
 Division of Geological and Geophysical Surveys
 Department of Natural Resources (DNR)
 Fairbanks, Alaska

POSITION STATEMENT: Responded to questions and presented the fiscal note for SB 69.

PAUL CRAIG, Founder and CEO
GeoAlaska LLC.
Anchorage, Alaska

POSITION STATEMENT: Testified in support of SB 69.

GEOFFREY SIMPSON, Land Manager
Cyrq Energy
Boulder, Colorado

POSITION STATEMENT: Testified in support of SB 69.

REPRESENTATIVE WILL STAPP, District 32
Alaska State Legislature
Juneau, Alaska

POSITION STATEMENT: Sponsor of HJR 11.

JASON OLDS, Acting Director
Division of Air Quality
Department of Environmental Conservation
Juneau, Alaska

POSITION STATEMENT: Answered questions relating to HJR 11.

SENATOR JESSE BJORKMAN, District D
Alaska State Legislature
Juneau, Alaska

POSITION STATEMENT: Sponsor of SB 82

KONRAD JACKSON, Staff
Senator Jesse Bjorkman
Alaska State Legislature
Juneau, Alaska

POSITION STATEMENT: Presented the sectional analysis for SB 82.

ACTION NARRATIVE

[3:30:26 PM](#)

CO-CHAIR CLICK BISHOP called the Senate Resources Standing Committee meeting to order at 3:30 p.m. Present at the call to order were Senators Dunbar, Claman, Kawasaki, Kaufman, Co-Chair Giessel, and Co-Chair Bishop. Senator Wielechowski arrived during the course of the meeting.

SB 92-STATE OWNERSHIP OF SUBMERGED LAND

[3:31:32 PM](#)

CHAIR BISHOP announced the consideration of SENATE BILL NO. 92 "An Act relating to state ownership of submerged land underlying navigable water within the boundaries of and adjacent to federal areas; and providing for an effective date."

He noted that there was an amendment for the committee to consider.

[3:31:42 PM](#)

CO-CHAIR GIESSEL moved to adopt Amendment 1, work order 33-LS0536/B.2, for SB 92.

33-LS0536\B.2
Bullard
4/15/23

AMENDMENT 1

OFFERED IN THE SENATE BY SENATOR WIELECHOWSKI

TO: CSSB 92(), Draft Version "B"

Page 69, line 27:
Delete all material.

CO-CHAIR BISHOP objected for purposes of an explanation.

[3:31:52 PM](#)

CO-CHAIR GIESSEL explained that Amendment 1 removes the reference to the Mendenhall Lake and Mendenhall River because title in these areas is in dispute. The State of Alaska has filed a quiet title action against the federal government and the case is currently being heard in district court. Once the federal court has made a decision on the quiet title litigation, the Mendenhall Lake and Mendenhall River will be added back to the list of navigable rivers and lakes in federal areas that will be reported annually to the legislature.

[3:33:14 PM](#)

SENATOR KAUFMAN wondered how removing these areas from the bill would affect the ["SWFA"] numbers running down the right side of the list of areas DNR had identified as navigable.

CO-CHAIR GIESSEL answered that there would be simple renumbering.

SENATOR KAUFMAN asked whether the amendment should cover that point.

CO-CHAIR GIESSEL responded that the amendment certainly could be amended to make that clear.

CO-CHAIR BISHOP suggested a statement to clarify that the department would make such technical and conforming changes.

CO-CHAIR GIESSEL agreed.

[3:34:13 PM](#)

SENATOR KAWASAKI said that caught his eye as well, and he wondered about the potential for dispute over other areas.

[3:34:34 PM](#)

CO-CHAIR BISHOP removed his objection; finding no further objection Amendment 1 was adopted. He solicited a motion.

[3:34:42 PM](#)

CO-CHAIR GIESSEL moved to report the CS for SB 92, work order 33-LS0536\B as amended, from committee with individual recommendations and attached fiscal note(s).

[3:35:03 PM](#)

CO-CHAIR BISHOP found no objection and CSSB 92(RES) was reported from the Senate Resources Standing Committee.

[3:35:11 PM](#)

At ease

SB 69-GEOTHERMAL RESOURCES

[3:37:05 PM](#)

CO-CHAIR BISHOP reconvened the meeting and announced the consideration of SENATE BILL NO. 69 "An Act relating to geothermal resources; relating to the definition of 'geothermal resources'; and providing for an effective date."

He noted that this was the second hearing and the intent was to go through the sectional analysis and hear public testimony.

[3:37:53 PM](#)

JOHN CROWTHER, Deputy Commissioner, Department of Natural Resources (DNR), Anchorage, Alaska, introduced himself.

[3:38:05 PM](#)

SEAN CLIFTON, Policy and Program Specialist, Division of Oil and Gas, Department of Natural Resources (DNR), Anchorage, Alaska provided an overview of SB 69 and presented the sectional analysis. He began by reviewing the purpose of the legislation.

Modernize Alaska's geothermal exploration program

- Greater potential for providing affordable, renewable energy to rural communities and remote natural resource extraction projects
- Promote clean energy industry job creation

Align geothermal licensing with the oil and gas exploration license program, thereby increasing feasibility for companies to develop resources

- More time for a company to identify and prove resource to convert to leases
- Conversion to leases based on completion of work commitment and submission of exploration plan instead of proving discovery of commercial resource
- Doubles maximum acreage allowed for exploration
- Repeals rental/royalty modification after 20 years of production, providing stability and predictability for investors in geothermal energy projects

Reform definitions for geothermal resources to focus on Commercial Use

- Explicitly excludes domestic, noncommercial, or small-scale industrial use from the need for a geothermal license or lease

[3:40:48 PM](#)

MR. CLIFTON advanced to slide 11, "DNR Geothermal Leasing/Permitting History," and spoke to the following:

Present Mount Spurr Two prospecting permits in the Mount Spurr area, issued in 2021 (expire in 2023).

Augustine Island One prospecting permit in the southern part of the volcanic island, issued in 2022 (expires in 2024).

2013 Augustine Island 26 tracts were offered. Only one tract was leased to a private individual and no exploration work was conducted as a result of that lease sale.

2008 **Mount Spurr** 16 tracts were leased to Ormat and one private individual. Ormat purchased 15 leases in the 2008 sale and drilled on the southern flank of volcano. They didn't find adequate temperatures in wells to pursue the project. The State has the data available on the Division of Oil & Gas website.

1986 **Mount Spurr** On June 24, 1986, DNR offered 2,640 acres in two tracts. Both tracts received bids. The lease for Tract 1 expired in 1996, and the lease for Tract 2 was terminated in 1990.

1983 **Mount Spurr** DNR held its first geothermal lease sale in the Mount Spurr area on May 17, 1983. 10,240 acres in 16 tracts were offered in Competitive Geothermal Lease Sale 1. One tract received a bid. The lease for that tract was terminated in 1992.

MR. CLIFTON noted that without this legislation, the permitting would have to be completely restarted for the two Mount Spurr permits that are due to expire in 2023.

[3:42:47 PM](#)

CO-CHAIR BISHOP asked how much it would extend a prospect lease, if the bill were to pass.

MR. CLIFTON replied that it would give a company about three additional years.

[3:43:24 PM](#)

SENATOR CLAMAN asked where Augustine Island is located.

MR. CLIFTON replied that it's due west of Anchor Point in the southern Cook Inlet.

SENATOR CLAMAN asked where the Unalaska project that Bernie Karl talked about would fall in DNR's regulatory permitting process.

MR. CLIFTON replied that Bernie Karl is associated with the development of the Makushin project, which is a private resource. DNR is not involved, but the Alaska Oil and Gas Commission and the Department of Environmental Conservation (DEC) are involved in that project. He reiterated that the

purpose of SB 69 is to update DNR's program for permitting, licensing, and leasing projects involving State of Alaska resources.

CO-CHAIR BISHOP recalled that Mr. Karl said he had all his permits.

SENATOR KAWASAKI asked about the permitting process when the geothermal resource transitions through multiple layers of state and private land.

MR. CLIFTON responded that unitization provides a framework for different resource owners to come to agreement on how they're going to develop the resource. This will be addressed further along in the presentation, but Pilgrim Hot Springs near Nome is a good example of multiple resource owners.

MR. CLIFTON advanced to slide 12, "Leasing and Permitting Process," and discussed the following:

Application and call for competing proposals

- **If competing proposals ► competitive lease sale**
- **If no competing interest ► issue prospecting permit with two-year time limit**
 - This bill replaces two-year permits with five-year licenses modelled after our modern oil and gas exploration licensing program.
 - Conversion to lease
 - Permit (current): "showing of a discovery of geothermal resources in commercial quantities"
 - License (bill): after work commitment is met Both processes require Best Interest Finding prior to award of permit, license, or lease

[3:48:40 PM](#)

CO-CHAIR BISHOP asked whether DNR was hard and fast on five years.

MR. CROWTHER replied that DNR's belief is that five years maintains the competitive balance and allows the time for a company to do several field-seasons of work and prove a potential resource. He added that the department would be happy to provide its perspective on other timeframes if the committee suggested alternatives.

CO-CHAIR BISHOP said he was thinking about the logistics required to get to some remote locations.

MR. CLIFTON conveyed that the sectional summary on slide 13 was for reference as members review the legislation.

[3:49:55 PM](#)

MR. CLIFTON advanced to the detailed sectional summary starting on slide 15. He spoke to the following:

SECTION 1: CLASS V WELLS PRIMACY

- Grants AOGCC authority to pursue primacy for permitting Class V injection wells for geothermal developments
- State agencies are quicker and have more expertise with permitting within their jurisdiction than US EPA
- Reduces project costs and permitting timelines
- AOGCC already has primacy for Class II injection wells used for enhanced oil recovery injection programs

MR. CLIFTON deferred further explanation of Class V primacy to the representative from AOGCC.

CO-CHAIR BISHOP asked Commissioner Wilson if he had anything to add.

GREG WILSON, Commissioner, Alaska Oil and Gas Conservation Commission (AOGCC), Department of Commerce, Community and Economic Development (DCCED), Anchorage, Alaska, stated that he had nothing to add at this time.

[3:51:34 PM](#)

SENATOR CLAMAN asked for the timeline when DNR might apply for Class V primacy.

MR. CROWTHER deferred the question to the AOGCC representative. He added that DNR's thinking was that it was prudent to put all the geothermal updates in one bill, even though Class V authority may not be needed immediately.

COMMISSIONER WILSON deferred the question to Dave Roby.

[3:52:20 PM](#)

DAVE ROBY, Senior Reservoir Engineer, Alaska Oil and Gas Conservation Commission (AOGCC), Department of Commerce, Community and Economic Development (DCCED), Anchorage, Alaska, stated that the purpose of including Class V is to provide authority to regulate the injection activities instead of just the permitting of the well. It would be similar to what's done currently for water and gas injection for enhanced oil recovery. He noted that the Environmental Protection Agency (EPA) currently was the permitting authority and he wasn't sure the agency would authorize the state to assume Class V primacy.

SENATOR CLAMAN asked for DNR's timeline for pursuing Class V primacy and what it might cost.

MR. ROBY said he believes DNR would start pursuing primacy right away if the bill were to pass, although preliminary discussions with the EPA indicate that it would be unlikely that the agency would grant primacy on just geothermal. He said it may be a dead end but it costs nothing to pursue. Beyond that, he didn't know how long the process might take.

CO-CHAIR BISHOP advised that the DCCED fiscal note says that AOGCC does not anticipate any fiscal impact from the legislation.

[3:54:20 PM](#)

MR. CROWTHER suggested that the committee may be thinking about and referencing the Class VI program that does have a fiscal note impact. That primacy is more complex to pursue and the EPA has signaled it wants applicants to go through the entire process, which will take time. The cost of that primacy is distinct from this pursuit.

CO-CHAIR BISHOP asked Mr. Clifton to continue.

[3:55:01 PM](#)

MR. CLIFTON advanced to slide 16 and discussed the following:

SECTIONS 2, 10, & 15: DNR MANAGES GEOTHERMAL UNITS ON STATE LAND

DNR manages Alaska's geothermal resources under unitization and operations provisions in AS 38.05.181

Section 2: Removes redundant reference to AS 41.06 from AS 31.05.030(m)

Section 10: Related amendment to AS 41.06.020(e)

Section 15: Repeals AS 41.06.005(b) and AS 41.06.030 since geothermal units are managed by DNR

[3:55:52 PM](#)

MR. CLIFTON advanced to slide 17 and discussed the following:

SECTIONS 3-6: PERMITS TO LICENSES

- Provisions in these sections replace "permit" with "license."
- Within DOG, "permits" are for surface use authorizations. For subsurface, "licenses" and "leases" are issued.
- Adopting the exploration licensing program for geothermal resource management conforms with existing processes for oil and gas.
- Section 17 allows for conversion of existing permits to licenses.

[3:57:00 PM](#)

SENATOR WIELECHOWSKI joined the committee.

MR. CLIFTON advanced to slide 18 and discussed the following:

SECTION 3: PRIVATE USE EXEMPTION

- **New language added:**

A prospecting license or lease is not required under this section to explore for, develop, or use geothermal resources if the geothermal resource is intended for domestic, noncommercial, or small-scale industrial use.

- **This explicitly excludes private geothermal users from a requirement to apply for a license or lease.**

He noted that later in the presentation he'd talk about changing the definition of "geothermal resources" by removing the very high-temperature requirement.

CO-CHAIR BISHOP asked if it would exclude somebody who circulates naturally occurring hot water throughout their home.

MR. CLIFTON said slide 19 addresses the question. The graphic on the bottom right provides examples of a typical home or small business use of different types of ground source heat pumps.

They use heat exchange to pull heat from the earth to heat water. This is not a model for producing power. The graphic on the left illustrates a commercial development of geothermal resources to produce power. He noted that Bernie Karl is producing power with geothermal resources, but he is not selling that power so DNR does not view it as commercial use of the resource. He acknowledged that the language was open so a future commissioner could take a different approach.

CO-CHAIR BISHOP asked Dr. LePain if the boreholes for non-commercial systems illustrated on slide 19 would use the same drill and case as a conventional well.

DR. DAVID LEPAIN, State Geologist and Director, Division of Geological and Geophysical Surveys, Department of Natural Resources (DNR), Fairbanks, Alaska, said that's correct; ground source heat pump technology would be used in such non-commercial systems.

CO-CHAIR BISHOP observed that it might be beneficial to identify the depth or length of the boreholes as a range in feet.

[4:01:44 PM](#)

SENATOR WIELECHOWSKI agreed and asked whether there was a definition for domestic or small-scale industrial use.

MR. CLIFTON replied that the bill does not propose adding specific definitions under Title 38 for domestic, small-scale industrial use. He opined that those would be interpreted according to the common meanings.

SENATOR WIELECHOWSKI asked how he would define domestic and small-scale industrial use.

[4:02:42 PM](#)

MR. CROWTHER responded that the core intent is commerciality. Power somebody generates from a geothermal resource for their home or a business operation on their property would not be subject to this lease requirement if the power isn't sold. Somebody who develops a large-scale project that requires central power generation and has commodity sales of manufactured products would start to be a non-small-scale industrial use.

SENATOR WIELECHOWSKI asked if geothermal is considered part of the subsurface resource the state continues to own.

MR. CROWTHER said yes; DNR views it as a mineral resource of the state.

SENATOR WIELECHOWSKI asked if it runs afoul of the constitution if no royalty is collected.

MR. CROWTHER replied that DNR understands commercial projects to be those seeking resources from significant depths of hundreds or thousands of feet, which is clearly a character of the mineral estate. He acknowledged that the court had not settled whether the migration of the heat to the surface at the level that's functionally useful for purposes of home or small business use is a sufficiently mineral and whether the state could assert authority at the surface level if the state is not the surface owner. The legislature carves out the private right, but it does not attempt to draw a distinct line.

[4:05:45 PM](#)

SENATOR WIELECHOWSKI asked whether Section 3 should have a provision that limits depth to no more than 300 feet.

MR. CLIFTON said it's different than selling a barrel of oil; it's based on a percentage of gross revenue under AS 38.05.181(g). Subsection (g) sets the royalty rate at 1.75 percent of gross revenue for the first 10 years of production and 3.5 percent of production in subsequent years. SB 69 does not propose to change that statute.

[4:06:56 PM](#)

SENATOR WIELECHOWSKI asked if somebody could drill a 100-foot-deep oil well and pump 25 gallons per day for personal use.

MR. CROWTHER said he didn't know how Alaska law treats surface expressions of hydrocarbons or other mineral resource. He offered to do some research and follow up with the information.

[4:07:50 PM](#)

SENATOR CLAMAN asked if Bernie Karl had to apply for any permits initially and whether there was any regulatory oversight of his geothermal operation at Chena Hot Springs outside of Fairbanks.

MR. CROWTHER offered his understanding that, similar to the Makushin project, the resource is private, so Mr. Karl didn't have to get a permit from DNR to access and use that resource. He didn't know what permits or authorizations from other uses that Mr. Karl may hold.

SENATOR CLAMAN summarized that DNR's understanding is that Mr. Karl's operation uses surface geothermal because using the subsurface estate requires authorization from DNR.

MR. CROWTHER said he'd follow up with a definitive response but his understanding in that case is that the mineral and subsurface estate is private.

SENATOR CLAMAN continued that the state sold the subsurface estate to some depth.

MR. CROWTHER said the state typically cannot alienate its mineral estate in transactions, but Alaska has instances where there is a private mineral estate that passed to private owners pre-statehood or in other situations.

[4:10:03 PM](#)

SENATOR CLAMAN said he wasn't questioning what Mr. Karl was doing but it seemed relevant to the questions that were arising.

CO-CHAIR BISHOP commented that from a safety standpoint it makes sense to set a range for private use.

[4:10:44 PM](#)

SENATOR KAUFMAN noted the reference to "small-scale industrial" and asked whether there was intent to differentiate between commercial and industrial.

MR. CLIFTON said small-scale industrial envisions something like a seafood processing plant that is adjacent to a resource that can be used to power the plant instead of using diesel generation. DNR doesn't need to get involved in the permitting or licensing or leasing processes for the mineral estate. The bill does provide flexibility for situations where the facility changes and is exporting power.

SENATOR KAUFMAN said he'd follow up offline.

MR. CLIFTON responded to Senator Claman's question. He conveyed that the area around Chena Hot Springs is a private mineral estate that was granted prior to statehood. It is not a unique situation. He agreed with Mr. Crowther that if the mineral estate had been given to the state, it would not have been ceded.

[4:14:07 PM](#)

MR. CLIFTON advanced to slide 20 and discussed the following:

SECTION 3: PREFERENTIAL RIGHTS

- **Current statute grants preferential rights to a surface owner to apply for a geothermal prospecting permit once notice is received of an existing application**
 - Inappropriate for a surface owner to have a preferential right to the State's mineral estate
 - Potentially discouraging to commercial development
 - Private landowners usually don't have financial resources to develop a commercially-viable geothermal resource
- **Surface owners may still pursue domestic geothermal developments for their own uses**
 - Need well permits from AOGCC
 - Need environmental review or permits from other agencies such as Department of Environmental Conservation, Department of Fish & Game, DNR Division of Mining Land & Water, possibly federal agencies
 - Examples of permitting requirements are detailed in a supplemental slide
- **Rights to access the mineral estate are reserved under AS 38.05.125, while surface owner rights are protected under AS 38.05.130**
 - Surface owners must provide reasonable access to resource developers
 - The same condition exists for oil & gas or mining
 - If conflict arises, DNR ensures private landowners would not be left without heat or power, or otherwise damaged by commercial development
- **If a surface use agreement can't be reached, resolution process is in 11 AAC 86.145**
 - DNR holds a hearing wherein the developer must prove there is no other alternative location for the well or data acquisition
 - If the Commissioner concurs, a developer posts a bond to compensate landowner for any impacts and work progresses

- **Geothermal licenses and leases are not surface use authorizations**
 - They only provide the exclusive right to explore for and develop the subsurface resources
 - Public notice is a part of the license issuance process and surface owners can participate
 - Surface use authorizations require public notice and direct notice to any affected surface owners

[4:15:53 PM](#)

MR. CLIFTON advanced to slide 21 and discussed the following:

SECTIONS 4 & 7: TERMS AND WORK COMMITMENT

- Changes prospecting permit to license and increases term from 2 to 5 years
 - Creates greater opportunity for success of noncompetitive geothermal program
- **Conversion to noncompetitive lease through completion of agreed upon work commitment**
 - Current process for oil and gas exploration license
 - Commitment expressed in dollar figure
 - Annual reporting and performance objectives
- **Amends AS 38.05.181(f) for geothermal leases**
 - Geothermal leases last for 10 years, with opportunity for a five-year extension, and standard indefinite extension by production
 - Repeals opportunity for DNR commissioner to renegotiate rental and royalty rates for geothermal leases after 20 years of production

MR. CLIFTON continued to slide 22 and discussed the following:

SECTION 6: ACREAGE LIMIT & RENT

- **Maximum acreage a lessee may hold increases from 51,200 to 100,000 acres**
 - Geothermal systems can underlie very large areas
 - Enables explorers to more effectively delineate resource

- **Rental fees to be set by regulation instead of statute**
 - Enables DOG to be nimbler in response to market changes

[4:18:38 PM](#)

MR. CLIFTON advanced to slide 23 and discussed the following:

SECTION 8: UNITIZATION

- **Adds three new subsections AS 38.05.181(i-k) to modernize unitization statute for geothermal leases to match the model used for oil & gas**
 - (i) DNR commissioner may compel unitization
 - (j) Commissioner may establish, change, or revoke drilling, producing, and royalty requirements of leases as part of the unit agreement
 - (k) Leases and unit agreement are subject to current and future statutes and regulations

[4:20:36 PM](#)

MR. CLIFTON advanced to slide 24 and discussed the following:

SECTIONS 9 & 14: GEOTHERMAL RESOURCES DEFINITION

"Geothermal resources" means the natural heat of the earth; the energy, in whatever form, below the surface of the earth present in, resulting from, or created by, or which may be extracted from, such natural heat; and all minerals in solution or other products obtained from naturally heated fluids, brines, associated gases, and steam, in whatever form, found below the surface of the earth; but excluding oil, hydrocarbon gases, or other hydrocarbon substances.

- Modern definition for geothermal resources
- Not limited by temperature because current technology enables development of cooler geothermal systems
- Ensures all the State's mineral estate resources are captured in definition
- Same definition being applied to both DNR & AOGCC statutes

CO-CHAIR BISHOP commented that it might fall under a different safety jurisdiction.

[4:22:22 PM](#)

MR. CLIFTON advanced to slide 25 and discussed the following:

SECTION 13: GEOTHERMAL FLUIDS

AS 41.06.060(4) is amended to read:

(4) "geothermal fluid" means liquids, brines, water, gases, or steam naturally or artificially present in a geothermal system; "geothermal fluid" does not include oil, hydrocarbon gases, or other hydrocarbon substances;"

- Aligns with modernized definition for geothermal resources
- Not limited by temperature because current technology enables development of cooler geothermal systems
- Distinguishes geothermal fluids from hydrocarbon resources

MR. CLIFTON advanced to slide 26 and discussed the following:

SECTION 12: PENALTIES

- **Conforming language to AOGCC authority over gas and oil operations (AS 31.05.150)**
- **Without this provision, AOGCC may not have authority to assess penalties for violations related to operation of geothermal wells**

[4:23:26 PM](#)

SENATOR WIELECHOWSKI noted that the temperature requirement was removed from Section 13. He asked if that would allow a company to pump large quantities of drinking water from the ground.

MR. CLIFTON responded that geothermal fluids typically are not potable.

SENATOR WIELECHOWSKI pointed out that the definition includes water and the temperature requirement is removed. He restated his question and asked for a yes or no answer.

[4:24:17 PM](#)

MR. CROWTHER said they'd follow up with a definitive response, but he believes that the beneficial use of water may have to be approved by DNR through the water authorization.

CO-CHAIR BISHOP commented that geothermal typically runs in a loop.

MR. CROWTHER said that's correct, but if somebody wanted to extract and make beneficial use of the water instead of reinjecting, they may need an additional authorization.

MR. CLIFTON deferred to Dr. LePain to review the DGGs fiscal note.

[4:25:27 PM](#)

DR. DAVID LEPAIN, Director, Division of Geological and Geophysical Surveys, advanced to slide 27 and spoke to the DGGs fiscal note:

FISCAL NOTE: NEW DGGs GEOLOGIST 4

- **Enables DGGs to restart its geothermal program. The new geologist would:**
 - Coordinate with agencies and industry to publish new geologic data to further development of Alaska's geothermal energy resources
 - Maintain and update geologic data on Alaska's geothermal systems in a geothermal database
 - Attract federal funds to characterize Alaska's geothermal systems and resources
 - Monitor developments in geothermal systems technology
 - Conduct geologic investigations of Alaska's geothermal systems
 - Publish geologic maps, reports and data on Alaska geothermal systems
 - Advise DNR and other state agencies on the state's geothermal resources
 - Support DNR's geothermal leasing program
 - Support and supply information to explorers and developers of Alaska's geothermal resources
 - Support and advise DNR Commissioner's Office and Governor's Office on geothermal policy

[4:26:32 PM](#)

CO-CHAIR BISHOP opened public testimony on SB 69.

[4:26:50 PM](#)

PAUL CRAIG, Founder and CEO, GeoAlaska LLC., Anchorage, Alaska, stated that his company has geothermal exploration permits for Mount Spur and Augustine Island and they fully support SB 69 as currently written. This bill is critical for the corporation to survive. He stressed that two years is not enough time to make a discovery and obtain a lease; five years is a more realistic timeframe. He said companies are ready and willing to spend millions of dollars in Alaska that will help secure energy security for the Railbelt and diversify the economy but the legislation is needed for that to happen.

[4:29:18 PM](#)

GEOFFREY SIMPSON, Land Manager, Cyrq Energy LLC, Boulder Colorado, testified in support of SB 69. He stated that Cyrq has six operating plants in the western US; they produce energy for up to 100,000 homes. Cyrq is also working on a project on Mount Spurr. He echoed Mr. Craig in support of DNR's new licensing proposal; they look forward to it going into effect this year. They have plans to move their exploration activity for Mount Spurr onto the ground next year.

[4:30:26 PM](#)

CO-CHAIR BISHOP held SB 69 in committee with public testimony open.

HJR 11-ADDRESS AIR POLLUTION IN FAIRBANKS

[4:30:42 PM](#)

CO-CHAIR BISHOP announced the consideration of HOUSE JOINT RESOLUTION NO. 11 Urging the United States Environmental Protection Agency to develop a woodstove certification program that addresses the threat to clean and healthy winter air in Fairbanks; and urging the state Department of Environmental Conservation to develop an economically and legally defensible state implementation plan for the Fairbanks North Star Borough nonattainment area.

He invited the sponsor to introduce the resolution.

[4:31:12 PM](#)

REPRESENTATIVE WILL STAPP, District 32, Alaska State Legislature, Juneau, Alaska, sponsor of HJR 11, introduced himself.

[4:31:29 PM](#)

CLIFTON COGHILL, Staff, Representative Will Stapp, Alaska State Legislature, Juneau, Alaska, introduced himself.

REPRESENTATIVE STAPP presented HJR 11 speaking to the following sponsor statement:

In May 2017, the United States Environmental Protection Agency reclassified the Fairbanks North Star Borough nonattainment area from moderate to serious for particulate matter 2.5 (PM2.5). The Environmental Protection Agency seems intent on turning attentions toward so-called greener sources of heat, including electric heat pumps that will not work as solutions in the Fairbanks North Star Borough.

HJR 11 urges the United States Environmental Protection Agency to develop a woodstove certification program that the state Department of Environmental Conservation and residents of the Fairbanks North Star Borough nonattainment area can rely on and acknowledges the unique challenges Alaskans face in economically and technically feasible and is legally defensible.

[4:32:56 PM](#)

REPRESENTATIVE STAPP stated that the resolution asks the EPA to take another look at the woodstove certification program and develop one similar to a previous program.

He provided history on what the community has done so far to address the program.

In 2006, the PM 2.5 standard was changed from 65 micrograms per cubic meter to 35 micrograms per cubic meter. That put the Fairbanks North Star Borough outside the air quality attainment standards.

In 2010, the North Star Borough Assembly implemented a woodstove buyback and change out program. Existing woodstoves were replaced with EPA compliant woodstoves.

By 2016, the borough had spent about \$2.5 million to further the objective to improve air quality.

By fiscal year 2018 about \$8 million had been spent in gasification and changing out woodstoves with cleaner sources of fuel.

Between 2010 and 2017, the borough looked at EPA recommendations that ranged from banning coal burning and outdoor hydronic heaters to kiln drying firewood.

In 2019 the borough proved it had improved air quality by over 50 percent since starting the process.

In September 2020, the EPA issued a determination that the Fairbanks PM 2.5 nonattainment area failed to fulfill the requirements and an extension was denied. The standard had effectively been reduced once again.

In 2023, the EPA moved to disapprove the borough's fine air quality particulate state implementation plan and threatened revocation of federal highway dollars.

REPRESENTATIVE STAPP summarized that HJR 11 asks the EPA to help Fairbanks North Star Borough residents attain better air quality in an economically viable way.

[4:36:37 PM](#)

CO-CHAIR BISHOP asked if there were questions.

[4:36:57 PM](#)

SENATOR KAWASAKI asked why DEC's first and second state implementation plans failed EPA review.

REPRESENTATIVE STAPP deferred the question to DEC.

CO-CHAIR BISHOP asked Jason Olds to respond to the question.

[4:37:57 PM](#)

JASON OLDS, Acting Director, Division of Air Quality, Department of Environmental Conservation, Juneau, Alaska, replied that the EPA primarily pointed to more stringent control measures for point sources and power plants as well as home heating oil.

[4:38:26 PM](#)

SENATOR CLAMAN asked whether Fairbanks air quality had improved with the work that was done, and if he had any insight as to why that didn't satisfy the EPA.

MR. OLDS agreed with the sponsor that air quality had improved more than 50 percent since the efforts started. He opined that it wasn't satisfactory because air quality still does not meet current EPA standards.

SENATOR CLAMAN asked how much wood stoves contribute to the air quality problem.

MR. OLDS said woodstoves account for about 80 percent of the poor air quality.

CO-CHAIR BISHOP clarified that the woodstoves that are primarily contributing to the problem are concentrated in the North Pole area.

[4:40:01 PM](#)

SENATOR DUNBAR asked if the Department of Defense (DoD) had indicated that poor air quality would jeopardize military personnel remaining in Fairbanks.

REPRESENTATIVE STAPP said he hopes that's not the case and that the matter can be resolved equitably.

[4:40:37 PM](#)

CO-CHAIR BISHOP found no further questions and announced he would hold HJR 11 in committee

SB 82-COOK INLET: NEW ADMIN AREA;PERMIT BUYBACK

[4:40:45 PM](#)

CO-CHAIR BISHOP announced the consideration of SENATE BILL NO. 82 "An Act relating to the powers of the Alaska Commercial Fisheries Entry Commission; relating to administrative areas for regulation of certain commercial set net entry permits; establishing a buy-back program for certain set net entry permits; providing for the termination of state set net tract leases under the buy-back program; closing certain water to commercial fishing; and providing for an effective date."

[4:41:05 PM](#)

SENATOR JESSE BJORKMAN, District D, Alaska State Legislature, Juneau, Alaska, sponsor of SB 82, introduced the legislation speaking to the following sponsor statement:

Senate Bill 82 is the result of sport and commercial fishermen in Cook Inlet working together toward a viable solution to conserve King Salmon. Alaskans

aware of the struggles between user groups when it comes to Cook Inlet fisheries know that it is a rare occurrence for agreement on a major policy call that affects all of them. For decades there has been an unhealthy tension between commercial set net fishermen who fish on the east side of Cook Inlet and other user groups on the Kenai and Kasilof Rivers. This legislation will help alleviate a significant proportion of that tension.

SB 82 supports all user groups; commercial, sport, personal use and subsistence, providing relief by reducing the number of set netters in the east side set net fishery by nearly half. Thru reducing the number of set net operations on the east side of Cook Inlet we will see a more viable commercial fishery for those remaining and adequate production for the processing industry. We will also see more fish available for in-river users. The bill offers set net fishermen, some of whom have fished in the area for generations, a way to fairly exit the fishery or to reinvest in remaining operations once the 200 permit and site reductions take place.

In the 1980s there was a migration of set net fishermen to the east side of Cook Inlet. Returns were large, fishing in the area was lucrative and access to processors was easy. The appeal to commercial fishermen was irresistible. As pressure on stocks increased and commercial fishing profitability began to wane, processors began leaving the area. Over time, set net fishermen saw fewer and fewer opportunities to fish. In recent years there have been very few openings during the entire season. This year, the fishery has been closed by ADF&G order.

This voluntary program established by SB 82 would become effective only after an election held amongst the permit holders. Once established, permit holders would apply for the program and 200 permits would be drawn in lottery-fashion to determine the order of permit retirement. When a permit is retired, the waters where the permit was fished would be closed to future commercial fishing.

Improved King Salmon conservation and a more viable set net fishing industry make this concept a win-win for all user groups.

I respectfully ask for your support of this legislation for the benefit of all the salmon user groups on the Kenai Peninsula.

SENATOR BJORKMAN stated that the only difference between this and the previous iteration of the bill is that the current bill does not change the powers of the Commercial Fisheries Entry Commission.

[4:45:01 PM](#)

KONRAD JACKSON, Staff, Senator Jesse Bjorkman, Alaska State Legislature, Juneau, Alaska, presented the sectional analysis for SB 82.

Section 1: Amends the uncodified law of the State of Alaska by adding a new section which establishes that this legislation may be known as the East Side of Cook Inlet Set Net Fleet Reduction Act.

Section 2: Amends the uncodified law of the State of Alaska by adding new Legislative findings and intent relating to the bill.

Section 3: Amends AS 16.43.200 by adding 2 new subsections: (c) Establishes an area of the Upper Subdistrict of the Cook Inlet Central District as a distinct administrative area separate from the Cook Inlet Central District on December 31, 2023. This area is made up of the statistical areas identified on January 1, 2023 as 244-21, 244- 22, 244-31, 244-32, 244-41 and 244-42. (d) Provides that an individual who has a set net permit for the Cook Inlet Central District on December 31, 2023 is not entitled to set net in the administrative area created under this section as of January 1, 2023 unless the permit has been reassigned to that new administrative area.

Section 4: Amends the uncodified law of the State of Alaska by adding a new section which provides how the commission will determine whether an individual who holds a set net entry permit in the Cook Inlet Central District on January 1, 2024 is reassigned an entry permit for the administrative area established under

AS 16.43.200(c) (added by sec. 3 of the bill) or the portion of the Cook Inlet Central District that was not assigned into the administrative area established under AS 16.43.200(c).

Section 5: Amends the uncodified law of the State of Alaska by adding a new section which defines the appeals process in the new administrative area. This section provides that a provisional license will be issued pending resolution of an appeal and the provisional permit holder may cast a provisional ballot in the election established under section 6.

Section 6: Amends the uncodified law of the State of Alaska by adding a new section which requires on April 1, 2024 an election be conducted by the commission among persons holding permits in the new administrative area, to affirm support or opposition to a buy-back program. Requires the commission provide public notice of the election, hold public meetings concerning the election, and clarify the details of the buy-back program to those participating in the election.

Section 7: Amends the uncodified law of the State of Alaska by adding a new section which establishes the set net entry permit buy-back program for certain permits fished in the administrative area established under AS 16.43.200(c) (added by sec. 3 of the bill). This section will only take effect if approved in an election by the set net entry permit holders in the administrative area established under AS 16.43.200(c). If it is approved, the buyback program will become law 30 days following notification of the Lt. Governor (see secs. 9 and 11). Sets qualifications for participation in the program, provides the buy-back price for permits, requires that the purchased permits be cancelled and not re-issued, provides that certain waters that were fished with permits purchased under the program will be closed to future commercial salmon fishing, and specifies other details of the buy-back program.

Section 8: Amends the uncodified law of the State of Alaska by adding a new section which requires the commission to provide a written report to the

Legislature on the status of the program not later than January 15, 2030.

Section 9: Amends the uncodified law of the State of Alaska by adding a new section which requires the chair of the commission to notify the Lieutenant Governor and the Revisor of Statutes of the outcome of the election held under section 6.

Section 10: Repeals sections 1, 2, 7 and 8 on June 30, 2030.

Section 11: Amends the uncodified law of the State of Alaska by adding a new section which provides that secs. 1, 2, 7, and 8 take effect only if notice is provided under section 9 that the buy-back program established under section 7 was approved.

Section 12: Effective Date Clause. Section 4 of the bill takes effect January 1, 2024.

Section 13: Effective Date Clause. Provides if sections 1, 2, 7 and, 8, take effect under section 11, they take effect 30 days following the date of the notice provided in section 9 that the buyback program was approved.

Section 14: Effective Date Clause. Except as provided in sections 12 and 13, the bill takes effect July 1, 2023.

[4:49:48 PM](#)

SENATOR BJORKMAN directed attention to page 2, line 4, and highlighted that the bill would have no adverse effect on the state treasury. The funding to support the optional buyback program is designed to come from non-governmental organizations or grants.

CO-CHAIR BISHOP noted that Section 3 identifies the areas from which the 200 permits might come. He asked if permit holders who decide not to participate could continue to fish in the same area.

SENATOR BJORKMAN answered that the statistical area remains open to the set netters who decided not to participate in the buyback. The statistical area is closed to commercial fishing for the retired permit.

[4:51:45 PM](#)

SENATOR DUNBAR said he assumes that each permit holder has the option to participate in the buyback program. It's not binding on every member who votes, even if they vote "no."

SENATOR BJORKMAN confirmed that was correct.

SENATOR DUNBAR observed that this was not a quota fishery so the remaining permits would gain in value as they are able to catch more fish.

SENATOR BJORKMAN said a goal of the program is to develop a more economically viable east-side set net fishery, and a reduction of gear theoretically would leave more fish for the remaining set netters.

[4:53:00 PM](#)

SENATOR DUNBAR asked if it would be accurate to say that the goal is to create a more economically sustainable fishery rather than reduce the total catch because the remaining sites presumably would catch more fish.

SENATOR BJORKMAN replied that the nets can only catch so much and the fishing time is limited based on where the nets are placed on the beach and within the tide cycle. Less gear in the water translates to fewer fish caught.

[4:54:34 PM](#)

CO-CHAIR GIESSEL asked whether reducing the Chinook salmon catch was still an aspect of the legislation.

SENATOR BJORKMAN said yes.

CO-CHAIR GIESSEL asked how \$260,000 for the buyback was determined.

MR. JACKSON explained that \$260,000 is an aggregate of 10 years historical fishing revenue for each permit. A small portion was included for administrative costs for the CFEC to administer the program and for some level of tax protection.

[4:55:41 PM](#)

SENATOR CLAMAN offered his perspective that the buybacks would create a patchwork area.

SENATOR BJORKMAN directed attention to the map in the packets; the red outline reflects the location of gear currently in the water and the boxes reflect set net sites. When a set net permit is sold, three nets would be removed from the fleet and that water would be closed to commercial fishing. The statistical area would exist but the area where those three nets used to fish would be closed.

SENATOR CLAMAN observed that the map would have 200 fewer boxes.

SENATOR BJORKMAN agreed.

[4:57:40 PM](#)

CO-CHAIR BISHOP discerned there were no further questions and announced he would hold SB 82 in committee.

[4:58:27 PM](#)

There being no further business to come before the committee, Co-Chair Bishop adjourned the Senate Resources Standing Committee meeting at 4:58 p.m.