

ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE

April 22, 2024

3:30 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

COMMITTEE SUBSTITUTE FOR HOUSE BILL NO. 104(RES) AM

"An Act relating to salvage sales of timber, negotiated timber sales for local manufacture of wood products, and expedited timber sales; and providing for an effective date."

- MOVED SCS CSHB 104(RES) OUT OF COMMITTEE

COMMITTEE SUBSTITUTE FOR HOUSE BILL NO. 50(FIN)

"An Act relating to carbon storage on state land; relating to the powers and duties of the Alaska Oil and Gas Conservation Commission; relating to carbon storage exploration licenses; relating to carbon storage leases; relating to carbon storage operator permits; relating to enhanced oil or gas recovery; relating to long-term monitoring and maintenance of storage facilities; relating to carbon oxide sequestration tax credits; relating to the duties of the Department of Natural Resources; relating to carbon dioxide pipelines; and providing for an effective date."

- HEARD & HELD

PREVIOUS COMMITTEE ACTION

BILL: HB 104

SHORT TITLE: TIMBER SALE: EXPEDITED/SALVAGE/NEGOTIATED

SPONSOR (s) : REPRESENTATIVE (s) CRONK

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) Heard & Held
03/20/23 (H) MINUTE(RES)
03/24/23 (H) RES AT 1:00 PM BARNES 124
03/24/23 (H) Heard & Held
03/24/23 (H) MINUTE(RES)
04/03/23 (H) RES AT 1:00 PM BARNES 124
04/03/23 (H) -- MEETING CANCELED --
04/14/23 (H) RES AT 1:00 PM BARNES 124
04/14/23 (H) Moved CSHB 104(RES) Out of Committee
04/14/23 (H) MINUTE(RES)
04/17/23 (H) RES RPT CS(RES) NEW TITLE 4DP 2NR
04/17/23 (H) DP: RAUSCHER, MCCABE, SADDLER, MCKAY
04/17/23 (H) NR: ARMSTRONG, PATKOTAK
04/20/23 (H) TRANSMITTED TO (S)
04/20/23 (H) VERSION: CSHB 104(RES) AM
04/21/23 (S) READ THE FIRST TIME - REFERRALS
04/21/23 (S) RES
04/24/23 (S) RES AT 3:30 PM BUTROVICH 205
04/24/23 (S) Heard & Held
04/24/23 (S) MINUTE(RES)
05/05/23 (S) RES AT 3:30 PM BUTROVICH 205
05/05/23 (S) Scheduled but Not Heard
05/08/23 (S) RES AT 3:30 PM BUTROVICH 205
05/08/23 (S) Heard & Held
05/08/23 (S) MINUTE(RES)
05/12/23 (S) RES AT 3:30 PM BUTROVICH 205
05/12/23 (S) Heard & Held
05/12/23 (S) MINUTE(RES)
04/22/24 (S) RES AT 3:30 PM BUTROVICH 205

BILL: HB 50

SHORT TITLE: CARBON STORAGE

SPONSOR (s) : RULES BY REQUEST OF THE GOVERNOR

01/27/23 (H) READ THE FIRST TIME - REFERRALS
01/27/23 (H) RES, FIN
02/10/23 (H) RES AT 1:00 PM BARNES 124
02/10/23 (H) Heard & Held
02/10/23 (H) MINUTE(RES)
02/15/23 (H) RES AT 1:00 PM BARNES 124
02/15/23 (H) Heard & Held
02/15/23 (H) MINUTE(RES)

02/17/23	(H)	RES AT 1:00 PM BARNES 124
02/17/23	(H)	Heard & Held
02/17/23	(H)	MINUTE(RES)
02/20/23	(H)	RES AT 1:00 PM BARNES 124
02/20/23	(H)	Heard & Held
02/20/23	(H)	MINUTE(RES)
02/22/23	(H)	RES AT 1:00 PM BARNES 124
02/22/23	(H)	Heard & Held
02/22/23	(H)	MINUTE(RES)
02/24/23	(H)	RES AT 1:00 PM BARNES 124
02/24/23	(H)	Bills Previously Heard/Scheduled
02/27/23	(H)	RES AT 1:00 PM BARNES 124
02/27/23	(H)	Heard & Held
02/27/23	(H)	MINUTE(RES)
03/01/23	(H)	RES AT 1:00 PM BARNES 124
03/01/23	(H)	Heard & Held
03/01/23	(H)	MINUTE(RES)
03/08/23	(H)	RES AT 1:00 PM BARNES 124
03/08/23	(H)	Moved CSHB 50(RES) Out of Committee
03/08/23	(H)	MINUTE(RES)
03/13/23	(H)	RES RPT CS(RES) NEW TITLE 6DP 1NR 1AM
03/13/23	(H)	DP: ARMSTRONG, DIBERT, MCCABE, SADDLER, WRIGHT, MCKAY
03/13/23	(H)	NR: PATKOTAK
03/13/23	(H)	AM: MEARS
03/24/23	(H)	FIN AT 1:30 PM ADAMS 519
03/24/23	(H)	Heard & Held
03/24/23	(H)	MINUTE(FIN)
04/07/23	(H)	FIN AT 1:30 PM ADAMS 519
04/07/23	(H)	-- MEETING CANCELED --
04/11/23	(H)	FIN AT 1:30 PM ADAMS 519
04/11/23	(H)	Heard & Held
04/11/23	(H)	MINUTE(FIN)
04/18/23	(H)	FIN AT 1:30 PM ADAMS 519
04/18/23	(H)	Heard & Held
04/18/23	(H)	MINUTE(FIN)
04/28/23	(H)	FIN AT 1:30 PM ADAMS 519
04/28/23	(H)	Heard & Held
04/28/23	(H)	MINUTE(FIN)
05/03/23	(H)	FIN AT 1:30 PM ADAMS 519
05/03/23	(H)	Heard & Held
05/03/23	(H)	MINUTE(FIN)
05/12/23	(H)	FIN AT 1:30 PM ADAMS 519
05/12/23	(H)	Bills Previously Heard/Scheduled
01/25/24	(H)	FIN AT 1:30 PM ADAMS 519
01/25/24	(H)	Heard & Held
01/25/24	(H)	MINUTE(FIN)

02/19/24 (H) FIN AT 8:30 AM ADAMS 519
02/19/24 (H) Heard & Held
02/19/24 (H) MINUTE(FIN)
03/07/24 (H) FIN AT 11:00 AM ADAMS 519
03/07/24 (H) -- MEETING CANCELED --
03/11/24 (H) FIN AT 1:30 PM ADAMS 519
03/11/24 (H) Heard & Held
03/11/24 (H) MINUTE(FIN)
03/14/24 (H) FIN AT 10:00 AM ADAMS 519
03/14/24 (H) Moved CSHB 50(FIN) Out of Committee
03/14/24 (H) MINUTE(FIN)
03/18/24 (H) FIN RPT CS(FIN) NEW TITLE 3DP 5NR 3AM
03/18/24 (H) DP: CRONK, D.JOHNSON, FOSTER
03/18/24 (H) NR: GALVIN, COULOMBE, ORTIZ,
TOMASZEWSKI, EDGMON
03/18/24 (H) AM: STAPP, HANNAN, JOSEPHSON
04/17/24 (H) TRANSMITTED TO (S)
04/17/24 (H) VERSION: CSHB 50(FIN)
04/19/24 (S) READ THE FIRST TIME - REFERRALS
04/19/24 (S) RES, FIN
04/22/24 (S) RES AT 3:30 PM BUTROVICH 205

WITNESS REGISTER

ANNE RITTGERS, Staff
Senator Click Bishop
Alaska State Legislature
Juneau, Alaska

POSITION STATEMENT: Presented the explanation of changes from Version D to Y of HB 104.

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

POSITION STATEMENT: Answered questions during the presentation on HB 50.

HALEY PAINE, Deputy Director
Division of Oil and Gas
Department of Natural Resources (DNR)
Anchorage, Alaska

POSITION STATEMENT: Delivered a presentation on HB 50.

DAN STICKEL, Chief Economist
Tax Division
Department of Revenue (DOR)
Juneau, Alaska

POSITION STATEMENT: Answered questions during the presentation on HB 50.

MARWAN WARTES, Chief
Energy Resources Section
Division of Geologic & Geophysical Surveys
Department of Natural Resources (DNR)
Fairbanks, Alaska

POSITION STATEMENT: Answered questions during the presentation on HB 50.

BRETT HUBER, Chair
Alaska Oil and Gas Conservation Commission (AOGCC)
Department of Commerce, Community and Economic Development
Anchorage, Alaska

POSITION STATEMENT: Answered questions during the presentation on HB 50.

ACTION NARRATIVE

[3:30:46 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 Kawasaki, Dunbar, Wielechowski, Co-Chair Giessel, and Co-Chair Bishop. Senators Kaufman and Claman arrived shortly thereafter.

HB 104-TIMBER SALE: EXPEDITED/SALVAGE/NEGOTIATED

[3:31:20 PM](#)

CO-CHAIR BISHOP announced the consideration of CS FOR HOUSE BILL NO. 104(RES) am "An Act relating to salvage sales of timber, negotiated timber sales for local manufacture of wood products, and expedited timber sales; and providing for an effective date."

[3:31:29 PM](#)

CO-CHAIR BISHOP solicited a motion.

[3:31:35 PM](#)

CO-CHAIR GIESSEL moved to adopt the Senate committee substitute (SCS) for CSHB 104, work order 33-LS0474\Y, as the working document.

[3:31:46 PM](#)

CO-CHAIR BISHOP objected for purposes of discussion.

[3:31:56 PM](#)

ANNE RITTGERS, Staff, Senator Click Bishop, Alaska State Legislature, Juneau, Alaska, presented the explanation of changes from Version D to Y of HB 104.

[Original punctuation provided.]

Explanation of Changes

SENATE CS for House Bill 104
Version 33-LS0474\D to 33-LS0474\Y

The Senate Resources Committee adopted the following changes:

Section 3, Salvage sales: AS 38.05.117

Added language expanding salvage opportunities for timber:

- that has lost or within two years will lose economic value because of the effects of fire or fire suppression activities
- to prevent the spread of insect infestation or disease to adjacent stands

Removed language expanding salvage opportunities for timber that if harvested, would prevent surrounding timber from losing economic value because of fire

Section 4, Negotiated sales: AS 38.05.118

Added language to allow that negotiated sales may be sold below appraised value but above base rate

Added language for the Division to review an existing contract's stumpage rates periodically

In the event of multiple operators expressing interest in the same negotiated sale, added language for the Division to move that sale to a competitive process under AS 38.05.120

Section 6, Reporting requirement to the Legislature:

Set a time frame, clarified what type of sales to include, other technical changes

[3:33:00 PM](#)

SENATORS KAUFMAN and CLAMAN joined the meeting.

[3:33:43 PM](#)

CO-CHAIR BISHOP solicited the will of the committee.

[3:33:52 PM](#)

CO-CHAIR GIESSEL moved to report SCS CSHB 104, work order 33-LS0474\Y, from committee with individual recommendations and forthcoming zero fiscal note.

[3:34:07 PM](#)

CO-CHAIR BISHOP found no objection and SCS CSHB 104(RES) was reported from the Senate Resources Standing Committee.

CO-CHAIR BISHOP turned the gavel over to Co-Chair Giessel at 3:34 p.m.

[3:34:24 PM](#)

At ease

HB 50-CARBON STORAGE

[3:37:00 PM](#)

CO-CHAIR GIESSEL reconvened the meeting and announced the consideration of CS FOR HOUSE BILL NO. 50(FIN), "An Act relating to carbon storage on state land; relating to the powers and duties of the Alaska Oil and Gas Conservation Commission; relating to carbon storage exploration licenses; relating to carbon storage leases; relating to carbon storage operator permits; relating to enhanced oil or gas recovery; relating to long-term monitoring and maintenance of storage facilities; relating to carbon oxide sequestration tax credits; relating to the duties of the Department of Natural Resources; relating to carbon dioxide pipelines; and providing for an effective date."

[3:38:30 PM](#)

JOHN CROWTHER, Deputy Commissioner, Department of Natural Resources, Anchorage, Alaska, stated that today's presentation would include a summary of HB 50, focusing on the changes made in the House and noting the changing dynamics that make this an important opportunity for the state.

[3:39:30 PM](#)

HALEY PAINE, Deputy Director, Division of Oil and Gas, Department of Natural Resources, Anchorage, Alaska, delivered a presentation on HB 50. She noted that the presentation applies to Version D.

[3:39:59 PM](#)

MS. PAINE advanced to slide 2:

[Original punctuation provided.]

TWO CORE PURPOSES OF HB 50

Make Alaska's subsurface resources available for maximum use

- Enables the Department of Natural Resources (DNR) to lease state lands for geologic storage of carbon dioxide and issue right-of-way leases for carbon dioxide transportation pipelines
- Empowers the Alaska Oil and Gas Conservation Commission (AOGCC) to regulate the geologic storage of carbon dioxide on all lands in the state, including protection of correlative rights

MS. PAINE noted that HB 50 addresses carbon capture, utilization, and storage (CCUS). She explained that this is a catch-all phrase for capturing CO2 from industrial processes. This CO2 would then be cleaned, dehydrated, transported, and finally stored in deep underground caverns. She stated that "deep underground" means that the CO2 would be injected to a minimum of 2,400 feet. She noted that it would most likely be 5-6 thousand feet below the surface, which is a significant distance from water sources.

[3:41:36 PM](#)

MS. PAINE advanced to slide 3:

[Original punctuation provided.]

ALASKA'S CCUS OPPORTUNITIES

"The United States commits to supporting collaboration with Japanese counterparts to evaluate the potential for cross-border carbon dioxide transport and storage hubs between Alaska and Japan." *Japan Official Visit to State Dinner - White House April 10, 2024*

"HD Hyundai Heavy Industries, the world's largest shipyard, and Greece-based shipowner Capital Product Partners have designed a specialized vessel to carry liquefied CO2. They envision such ships transporting their cargo to depleted offshore oil-and-gas wells,

where it would be pumped in and entombed for permanent storage. Capital Product Partners signed a deal for four such ships, to be delivered in 2025 and 2026, that together cost more than \$300 million." *A New Solution for CO2 Emissions: Bury Them at Sea - January 31, 2024 Wall Street Journal*

MS. PAINE noted that timing has been an important consideration for HB 50. She stated that several factors play a role, including 45Q tax credits, which provide an incentive for the capture and sourcing of CO2. She explained that the 45Q tax credits are only available for entities that begin construction on a CCUS facility by January 1, 2033. She added that it can take 5-7 years for facilities to begin capturing CO2. She noted that industry interest is increasing.

[3:44:13 PM](#)

SENATOR KAUFMAN asked if this is designed for shipping liquified CO2 one direction while shipping a separate product in the opposite direction - or if this is only designed for CO2.

[3:44:38 PM](#)

MS. PAINE replied that this design is for the single-direction transport of CO2.

[3:44:50 PM](#)

CO-CHAIR GIESSEL commented that she receives many questions related to how and why capturing CO2 is necessary - and how it benefits Alaskans. She requested a simple explanation of why Alaska is doing this.

[3:45:31 PM](#)

MR. CROWTHER said that there are two very simple distillations. First, 45Q tax credits and international requirements are driving investments in CCUS projects, which then create economic benefits (e.g. more jobs and diversified industrial activity). He opined that this is one reason Alaska should be open to these projects. Second, CCUS projects generate revenue for the state. He explained that Alaska has valuable pore space that is not being utilized and opined that Alaska has an obligation to maximize the development of the state's natural resources. He pointed out that investors in mining, oil, and gas - which are currently driving economic activity and revenue in the state - are increasingly concerned with carbon management. He emphasized the importance of carbon management solutions close to activity sites in order to drive continued investments in locations such as the North Slope. He opined that this is an important long-

term consideration. He reiterated that carbon sequestration offers an economic benefit as well as direct state revenue, along with a maximization of other resources.

[3:48:00 PM](#)

SENATOR WIELECHOWSKI directed attention to the fiscal notes for HB 50 and asked for clarification regarding the magnitude of revenue the state might expect.

[3:48:31 PM](#)

MR. CROWTHER replied that small in-state projects with existing emissions sources - or new in-state energy generation - could result in revenue ranging from \$1 million to \$10 million. Large scale projects could potentially result in \$10 million to \$100 million. Importing CO2 would be an additional step up. Each of these has development challenges and uncertainty around how this would be applied in Alaska.

CO-CHAIR GIESSEL noted that the Department of Revenue is also available for questions. She shared her understanding that GaffneyCline has done modeling for DNR and asked if this is the type of information that Senator Wielechowski is looking for.

[3:50:13 PM](#)

SENATOR WIELECHOWSKI replied yes. He directed attention to the Department of Revenue (DOR) fiscal note, which states that CCUS projects could potentially impact revenues from oil and gas production tax, oil and gas property tax, and corporate income tax (petroleum and non-petroleum). He asked about the potential negative impacts of CCUS projects.

[3:50:54 PM](#)

DAN STICKEL, Chief Economist, Tax Division, Department of Revenue, Juneau, Alaska, answered that the Department of Revenue (DOR) fiscal note is indeterminate, as potential impacts may be positive or negative. He said that HB 50 would decouple the state from the federal 45Q tax credit, which would have a positive impact on state revenue. He explained that it is difficult to say what impact HB 50 would have on other taxes and royalties. He said that this may positively impact oil and gas investment and production, leading to an increase in revenues from associated taxes and royalties. Conversely, these investments could have a short-term negative impact due to additional lease expenditures against the oil and gas production tax.

[3:53:03 PM](#)

SENATOR KAWASAKI asked how contingent the state is on the 45Q tax credit being economic for companies to utilize CCUS technology.

[3:53:18 PM](#)

MR. CROWTHER replied that the state is not contingent on the 45Q tax credit; instead, the state makes its resources available, and the details of the projects are driven by the private market. He added that the 45Q tax credit does not apply to the international importation CO2. He surmised that there may be other mandates guiding those projects. He reasoned that, while the 45Q tax credit is the driver for projects in the state, HB 50 does not make the state dependent on this consideration. He reiterated that the state is offering a commodity that is necessary in order to pursue projects.

[3:54:25 PM](#)

SENATOR KAWASAKI asked if the state has any liability if a company takes 45Q tax credits and was able to defray CCUS costs in the state as a result.

[3:55:03 PM](#)

MR. STICKEL asked for clarification that the question is about differentiating CCUS costs from other lease expenditure costs.

SENATOR KAWASAKI replied yes.

MR. STICKEL answered that DOR anticipates developing regulations to fully implement HB 50; however, current law includes a robust definition of lease expenditures. He explained that under current law, "enhanced oil recovery" activities are considered a lease expenditure. A carbon capture facility - independent of an enhanced oil recovery project - would not be a lease expenditure. He reiterated the need for additional regulations that would detail where the line is drawn between the two.

SENATOR KAWASAKI said that he would like to discuss this more offline. He opined that it is necessary to ensure developers cannot simultaneously use the federal 45Q tax credit and the state tax regime and suggested that further clarification is needed.

[3:56:31 PM](#)

CO-CHAIR GIESSEL surmised that this issue would come up again. She asked to see the modeling that DNR received.

[3:56:51 PM](#)

MR. CROWTHER replied that the information from GaffneyCline would be made available. He clarified that the data is not "modeling" that shows expected revenue streams with different variables, because there is currently no CCUS in Alaska. He said that DNR has done "scenario planning."

[3:57:23 PM](#)

CO-CHAIR GIESSEL asked for confirmation that the data from GaffneyCline does not take into account what would need to be done in terms of the lease expenditures - or how they would play in to different scenarios. She noted that consultants have done this in the past.

[3:57:44 PM](#)

MR. CROWTHER shared his understanding that GaffneyCline did not model expected lease expenditures under development scenarios. He noted that there is a framework to identify what is considered a lease expenditure - and CCUS does not fit this framework. He suggested that a question to ask might be, "do more projects occur that result in enhanced oil recovery that is a valid lease expenditure today - and what are the revenue metrics associated with that?" He said that some conceptual analysis has been done and has shown a positive outcome in most scenarios. He offered to share this data with the committee.

[3:58:55 PM](#)

MS. PAINE advanced to slide 4 and continued the presentation on HB 50:

[Original punctuation provided.]

AGENCY RESPONSIBILITIES IN HB 50

AOGCC - Subsurface Regulator

- Issue storage facility permits
 - Safeguard human health and the environment from underground injection
 - Protect other mineral interests and property rights
 - Amalgamate pore space
- Provide public notice and hearings
- Administer penalty provisions
- Determine storage capacity and volumes
- Utilize carbon storage facility administration fund

- Review and issue site completion certifications

DNR - Landowner

- Issue carbon storage exploration licenses & leases and manage:
 - Commercial payments
 - Work commitments and annual reporting
 - Transition and multiple-use management of operations
- Administer carbon storage leasing consistent with existing oil & gas framework
- Regulate CO2 pipeline leasing
- Administer carbon storage closure trust funds
- Perform long term monitoring and maintenance

MS. PAINE noted AOGCC would be seeking Class VI well primacy from the EPA, meaning that AOGCC would be responsible for implementing the Class VI rule in Alaska (i.e. the regulations specific to carbon storage wells in the state).

[4:01:30 PM](#)

CO-CHAIR BISHOP asked for an update on the certification process timeline.

MS. PAINE replied that there have been staffing updates, including a carbon program officer. They are currently seeking an engineer. She said that they have begun efforts on the regulatory crosswalk, which has been done in concert with the statutory review. They have also held regional meetings with EPA Region 10 and EPA headquarters.

[4:02:36 PM](#)

MR. CROWTHER noted that some of the changes to HB 50 reflect the EPA feedback.

[4:02:49 PM](#)

SENATOR CLAMAN asked if these changes are in the draft SCS or if they are being suggested.

[4:02:54 PM](#)

MR. CROWTHER replied that the changes are in the draft SCS. He noted that there are no additional EPA derived changes at this time; however, DNR continues to conduct the exchange and review through AOGCC.

[4:03:14 PM](#)

MS. PAINE advanced to slide 5 and continued the presentation on HB 50:

[Original punctuation provided.]

HRES CHANGES TO HB 50

Notable Changes on CSHB 50 (RES) (all references are to sections of HB 50 as numbered in the current version D)

- Policy statements for AOGCC and DNR removed (secs. 15 & 32)
- Clarifying language added to the Carbon Storage Closure Trust Fund to prevent the fund from being susceptible to the Constitutional Budget Reserve (CBR) "sweep" and condensed the fund into a single account (sec. 5)
- Added a new section to exempt the use of 45Q tax credits against state corporate tax income liability (sec. 37)
- Amended AS 46.03.020 to add carbon dioxide pipelines to the regulatory authority given to the Alaska Department of Environmental Conservation (sec. 38)
- Removed minimum commercial terms from AS 38.05.710 and directs the DNR commissioner to establish minimum commercial terms in regulations to be reviewed and updated every 5 years (sec. 15)
- Modified AS 38.05.720 to account for the dismantlement, removal, and restoration (DR&R) obligations of an enhanced oil recovery reservoir transitioning to a carbon storage lease and provides a definition for "enhanced oil or gas recovery" (secs. 15 & 32)

MS. PAINE noted that the Carbon Storage Closure Trust Fund (CSCTF) was set up to conduct long-term monitoring and maintenance and post-site care.

[4:07:20 PM](#)

SENATOR KAWASAKI asked how the department would distinguish between "enhanced oil recovery" and a "shut well" situation. He surmised that this would depend on the price of oil and how much it costs to inject.

MS. PAINE replied that AOGCC would need to do an injection order approval (as it currently does). She explained that any well that is operating must do so under an approved permit. This permit states whether the well is used for injection or production and monthly metering reports (available on the website) shows the draw amounts for each well. She said that any transition must be managed by the AOGCC through an injection order in a public process.

[4:08:28 PM](#)

SENATOR WIELECHOWSKI asked if there is a dismantlement, removal, and restoration requirement for CCUS facilities.

MS. PAINE replied that HB 50, page 25, lines 12-18 addresses site and facility closure; this includes remediation and removal requirements and department approval prior to a closure being issued.

[4:09:33 PM](#)

MS. PAINE moved to slide 6 and continued the presentation on HB 50:

[Original punctuation provided.]

HB 50 COMMERCIAL TERMS

Original Commercial Minimums

- Minimum rental rate of \$20 per acre
- Minimum injection charge of \$2.50 per ton of carbon dioxide

CSHB 50(RES) (sec 15)

- AS 38.05.710 directs the commissioner to establish minimum commercial terms in regulations to be reviewed and updated every 5 years

Flexibility in Commercial Terms improves the State's ability to maximize the resource:

- The value of pore space is highly dependent on:
 - Geotechnical factors: depth, porosity, permeability, seal, under burden, faults, geochemistry, total dissolved solids, etc.
 - Non-technical factors: source of CO₂, transportation distance, proximity to infrastructure, complexity of land ownership

- Revenue mechanisms can be project specific and a "gold standard" has yet to emerge. Fees can be assessed as: rentals, bonus bid payments, injection charges, minimum guaranteed payments, percentages of gross revenue, and may include a variety of escalators
- DNR is adept at evaluating the State's interest to account for other non-monetary factors
- Regulations are more readily adaptable than fixed statutory language

MS. PAINE explained that this flexibility is supported by the administration and reflects a growing understanding of the industry. She briefly explained how this understanding has shifted as additional states have begun to issue their own leases and licenses, which has provided valuable information. She noted that pore space is not inherently valuable; rather, it is valuable based on geotechnical factors that vary by location.

[4:13:20 PM](#)

SENATOR WIELECHOWSKI asked whether Gaffney, Cline & Associates (GaffneyCline) advised DNR when the original minimums were determined.

[4:13:35 PM](#)

MS. PAINE replied no. She explained that the original numbers were generated from DNR's evaluation of other states' agreements. She explained how these numbers were determined.

[4:14:32 PM](#)

SENATOR WIELECHOWSKI asked whether DNR has received advice from GaffneyCline or other experts regarding what the commercial terms should be.

[4:14:44 PM](#)

MR. CROWTHER replied that he is unsure whether DNR has received information from any of its consultants, research, working groups, or from participation with the PCORE Partnership about the commercial terms that are being seen in different projects. He added that DNR has not received advice to set any particular term. He shared his understanding that DNR has been gathering information - and DNR's conclusion is a synthesis of this information. Namely, that the flexibility allows for iterative development via the public regulatory process - as opposed to being set in law and potentially missing the market's evolution. He pointed out that some of this information has come over the last several months.

[4:15:54 PM](#)

SENATOR WIELECHOWSKI expressed concern that HB 50 does not include commercial terms, leaving this solely at the discretion of the DNR commissioner. He noted that the current legislature has no experts on this complex issue. He reiterated his concern and asked whether DNR would be willing to share the work product received from its experts - related to commercial terms and other aspects of HB 50 - with the legislature.

MR. CROWTHER replied that he would endeavor to share this information; he noted that some of these reports may contain commercially sensitive data, though there are a variety of materials that can be shared.

[4:17:16 PM](#)

SENATOR WIELECHOWSKI asked if DNR would be willing to have the aforementioned experts testify before the committee.

MR. CROWTHER replied that DNR would be willing to do so; however, DNR would first need to check the status of the contract.

[4:17:49 PM](#)

MS. PAINE added that a portion of the information on slide 7 is gleaned from public documents associated with various leases. She noted that the original document sources can be shared as well.

[4:18:16 PM](#)

SENATOR WIELECHOWSKI directed attention to HB 50, Section 15, (page 6, lines 10-14) which establishes the commercial terms provision. He noted that this indicates that the DNR commissioner would establish the commercial terms and asked whether the department would object to adding language that would require any terms to be "in the best interest of the state" or to require a "best interest" finding.

MR. CROWTHER replied no and added that the department believes this obligation to be inherent. However, he surmised that clarifying this in statute would make it clear that the intention is to act in the best interest of the state. He indicated that requiring transparent legislative oversight and public process regarding decisions made by the commissioner would serve to further ensure this.

[4:19:33 PM](#)

SENATOR KAWASAKI expressed concerns regarding whether the minimum rentals and injection charges would amount to the money being spent to administer the CCUS program and requested additional information. He noted that he has an additional question about the Clean Air Protection Fund (CAPF).

[4:20:06 PM](#)

MR. CROWTHER explained that, with respect to fees assessed to cover the costs of the program, high-level AOGCC costs are assessed and recouped from operators via the regulatory cost-charge mechanism. This is analogous to what is currently done for AOGCC operations relating to oil and gas. He noted that, from a DNR/land-owner perspective, no additional costs are expected.

[4:21:04 PM](#)

SENATOR KAWASAKI asked for clarification regarding who would bear the costs (and who would recoup the costs) for well-delineations.

[4:21:24 PM](#)

MR. CROWTHER clarified that the project proponent would be responsible for funding the project; there would be no cost-recovery, rebate, or reduction from the state.

[4:21:41 PM](#)

SENATOR KAWASAKI asked whether the company would pay for confirmation analyses done by the state prior to releasing pore spaces. He questioned whether these analyses would be attributed to the company. He explained that he is unsure whether there is a mechanism by which the state would determine the amount of pore space that it has to offer.

[4:22:11 PM](#)

MR. CROWTHER replied that the Division of Oil and Gas (DOG) has experts on staff who are familiar with characterizing reservoirs and who would be able to determine whether proposed explorations are reasonable. He explained that utilizing this expertise would not incur any additional costs. He added that, if one hundred projects were to come forward, DNR would come before the legislature to request additional funding; however, this funding would be project specific. He reiterated that one or two major projects could be managed by existing staff.

[4:23:02 PM](#)

SENATOR KAWASAKI questioned what factors would drive a company to seek CO2 sequestration in Alaska. He asked if DNR anticipates

that companies in other locations would seek out carbon sequestration and have it sent via pipeline - or whether companies currently existing in Alaska would be more likely to take advantage of this opportunity.

[4:23:48 PM](#)

MR. CROWTHER replied that, across the industry (within the US and internationally), transportation is a significant cost for projects. He explained that areas with beneficial geology are made more appealing if emissions locations are at the same site. He noted that transportation costs are also a concern for projects with low emissions that require transport via pipeline. DNR anticipates that most of the emissions sources would be domestic, such as small in-state power generation, existing oil and gas operations, or potential expansions of in-state industrial activity (e.g. Cook Inlet). The latter could include emissions imported via vessel and sequestered near the docking site. He reiterated that projects requiring long-distance emissions transport (whether domestic or international) are not anticipated.

[4:25:08 PM](#)

SENATOR WIELECHOWSKI asked whether DNR, other departments, or the consultants have done any modeling of what projects might look like.

MR. CROWTHER replied yes and added that DNR would be happy to share these. He noted that many of these models use the 45Q tax credit as the revenue stream rather than using a variable revenue stream. He briefly discussed how the various costs may impact the revenue amount.

[4:27:06 PM](#)

CO-CHAIR BISHOP asked how DNR determines what volume of CO2 can be placed in a reservoir. He questioned whether it is one-to-one with oil and gas and surmised that DNR has calculations for determining the available space.

MR. CROWTHER deferred the question.

[4:28:17 PM](#)

CO-CHAIR BISHOP commented that this information could be provided to the committee at a later time, if needed.

[4:28:44 PM](#)

MARWAN WARTES, Chief, Energy Resources Section, Division of Geologic & Geophysical Surveys, Department of Natural Resources,

Fairbanks, Alaska, explained that, in the case of an oil and gas field, the volume of oil and gas that is produced provides parameters. He shared his understanding that these calculations are done with a model that makes assumptions based on porosity, permeability, and volume calculations. He offered to provide more detailed information to the committee.

[4:30:11 PM](#)

BRETT HUBER, Chair, Alaska Oil and Gas Conservation Commission, Anchorage, Alaska, said that the amount of pore space in a basin is determined by the geological characteristics of the basin. He explained that it is not a simple one-to-one (i.e., if x amount of gas comes out, x amount of CO2 goes in), because the CO2 will behave differently with the rock properties than gas does. He said that determining the amount of pore space requires consideration of reservoir location; properties of the reservoir; properties of the product to be stored; and how the product will behave in the reservoir. He explained that rather than quantifying the amount of pore space a reservoir has, the question is, "will this reservoir accept x amount of injection?" He briefly explained how the final calculations are used to determine the amount of CO2 a reservoir can hold.

[4:31:42 PM](#)

CO-CHAIR BISHOP asked how the behavior of the product is determined in a reservoir that did not previously store gas.

MR. HUBER replied that this would be determined based on a catalogue of properties related to various rocks and gases/fluids. The final determination is dependent on the modeling. He briefly discussed the processes for gathering and applying this information. He said that the modeling process is outside his scope of expertise.

[4:33:14 PM](#)

SENATOR KAUFMAN asked whether one-way shipping from Japan is viable, considering the shipping costs. He wondered whether the economy of scale allows for the shipping.

MR. CROWTHER said that this is the crux of the issue when determining whether the business model and industry will develop, as shipping costs are high. He directed attention to slide 3 and said that investment in - and construction of - CO2 carrying ocean liners signals that the industry is moving this direction. In addition, the Japanese government has indicated interest in this activity. These are indicators that CO2 shipment is being pursued in earnest. He acknowledged that

cracking the economic formula will continue to be a major driver. In addition, he noted that international parties may have incentive and restriction structures separate from the US 45Q tax credit. He agreed that where these countries see the value - and how they manage costs while still recouping value is an important question.

[4:35:20 PM](#)

MS. PAINE advanced to slide 7 and briefly discussed the peer state leasing terms for Wyoming, Texas, and Louisiana. She pointed out that these states individually negotiate agreements, and none have statutory minimums.

[4:37:29 PM](#)

SENATOR WIELECHOWSKI directed attention to the "Public Process" column on slide 7, and asked whether Alaska has a similar statutory mechanism.

MS. PAINE replied that, at this time, HB 50 does not include a review board; however, there would be a public process.

[4:38:27 PM](#)

SENATOR WIELECHOWSKI asked if DNR would object to assigning review board or commission to review lease negotiations.

MR. CROWTHER stated that DNR understands the importance of the role of public process and adhering to constitutional mandates with respect to these negotiations. He explained that DNR does not directly communicate with the state boards that oversee decision-making. He said that he is not aware of any existing board that would be capable of filling this function and surmised that establishing a new board would incur additional costs and would take time. He indicated that these are concerns for DNR. However, he expressed understanding of why this type of oversight is appealing.

[4:40:10 PM](#)

SENATOR WIELECHOWSKI pointed out that currently, only one person would be deciding the terms that would be "in the state's best interest" and opined that it would be better if this decision-making power was dispersed through an oversight organization or a board.

[4:40:30 PM](#)

SENATOR DUNBAR said that Alaska lacks elected boards and commissions, instead including these under the executive branch.

He wondered which board would be the most capable - if statutory authority were granted.

MR. CROWTHER commented that Alaska does not have a wide variety of boards to oversee different department activities. He noted that there may be different groups of decisions that receive review from different boards. He said that the Oil and Gas Royalty Advisory Board reviews and offers recommendations for royalty-in-kind contracts. He shared his understanding that this board consists of volunteer members and only meets when a royalty-in-kind contract is considered (which may occur once every few years). He reiterated that all decisions made by DNR are subject to public process, receive public input, and are subject to appeal. He emphasized the seriousness with which DNR undertakes its constitutional obligations. He opined that this process is robust and expressed appreciation for the legislative oversight provided.

[4:43:15 PM](#)

CO-CHAIR GIESSEL recalled that Alaska once had an Oil and Gas Competitiveness Review Board and surmised that this could potentially fit the requirements of HB 50.

[4:44:10 PM](#)

MS. PAINE moved to slide 8 and continued the presentation on HB 50:

[Original punctuation provided.]

Deleted provision authorizing AOGCC to seek Class VI well primacy

- This provision was enacted in 2023 as part of SB 48 (Ch. 2 SLA 2023) Certificate of completion default period - AS 41.06.170 (sec. 32)

Summary: Changed the default period for AOGCC to issue certificates from at least 10 years to 50 years.

Rationale: When introduced, the 10-year period reflected a standard that had previously been acceptable to the Environmental Protection Agency (EPA) for primacy, so long as it was supported by geologic and engineering data. EPA now requires states to match the 50 years in the federal requirements.

Removal of Good Cause exemption - AS 41.06.110 (sec. 32)

Summary: Removed the exemption from AOGCC's authority under carbon storage, which would allow a deviation from a regulatory requirement upon a showing that the objective of the provision can still be achieved through other means.

Rationale: Although common place in oil and gas, EPA is uncomfortable with good cause exemptions and would like the federal requirements to be prescriptively implemented.

MS. PAINE explained that the House Finance Committee worked with AOGCC and DNR to create an amendment containing these changes. These changes were based on feedback received from the Environmental Protection Agency (EPA) and several states that have completed the primacy process.

[4:46:34 PM](#)

CO-CHAIR GIESSEL asked for clarification that this was changed in Section 32 of HB 50.

MS. PAINE replied yes.

[4:46:49 PM](#)

CO-CHAIR BISHOP asked if the change to the good cause exemption (AS 41.06.115) would sync up with the 50-year extension.

MS. PAINE replied that these are two different changes that were based on feedback from EPA. She explained that the 50-year extension can be found on HB 50, page 24, line 31. She stated that the good cause exemption - which is now renumbered to AS 41.06.110 - has been removed.

[4:47:51 PM](#)

MR. CROWTHER explained that the slide refers to "AS 41.06.110," which is a technical correction (changed from AS 41.06.115).

[4:48:14 PM](#)

CO-CHAIR GIESSEL sought clarification about which sections had technical corrections. She asked if it should read "AS 41.06.115."

MR. CROWTHER replied that the section should be AS 41.06.110 and added that this is the last technical correction on the slide.

[4:48:36 PM](#)

MS. PAINE advanced to slide 9 and continued the presentation on HB 50:

[Original punctuation provided.]

HFIN CHANGES TO HB 50

Carbon storage closure trust fund - AS 37.14.850 (sec. 5)

Summary: Removed the 'schedule of payments' provisions through a memorandum of understanding (MOU) from AS 37.14.850(c), empowers the DNR commissioner to make expenditures from the account for the purposes of new AS 41.06.305, and authorizes AOGCC to make expenditures from the fund in certain instances.

Rationale:

- An MOU setting payments is unnecessary with set schedule provided in updated AS 41.06.175.
- Clarifies agency roles in managing/expending the fund.

Carbon storage facility injection surcharge - AS 41.06.175 (sec. 31)

Summary: Establishes project-specific accounts set as an annual surcharge paid into over 12 years for a total of \$7.5 million, adjusted for inflation.

Rationale:

- Reflects an extended period of operator responsibility.
- Simplifies from per ton charge and reflects best practices of other Class VI primacy state.
- Provides surety to both State and operator on the amount.

[4:51:52 PM](#)

MS. PAINE advanced to slide 10 and continued the presentation on HB 50:

[Original punctuation provided.]

HFIN CHANGES TO HB 50

Title to carbon dioxide - AS 41.06.165 (sec. 31)

Summary: When a certificate of completion is issued, title to the CO2 is transferred to the owner of the pore space, unless there is a contrary agreement, rather than previous language in AS 41.06.170 that transferred title of CO2 to the State.

Rationale:

- New section AS 41.06.305 allows State to perform monitoring and maintenance functions without taking title to storage reservoir.
- Reflective of subsurface ownership in Alaska versus other states.

Long-term monitoring and maintenance - AS 41.06.305 (sec. 31)

Summary: New article authorizing DNR to enter and inspect storage facilities that have been issued a certificate of completion and perform (where appropriate) specified monitoring and maintenance activities beyond regulatory responsibilities of Class VI well permit.

Rationale:

Further clarifies role of DNR in the post-completion period consistent with other jurisdictions.

[4:53:50 PM](#)

SENATOR KAWASAKI asked if there is a natural value for CO2 in the ground.

MS. PAINE replied that CO2 is thought to be a useful product that is used in other industrial processes. She explained that the 45Q tax credit is structured for permanent sequestration. She surmised that any entity that stored CO2 in the ground - and later attempted to draw the CO2 out and sell it - would face penalties.

[4:54:45 PM](#)

CO-CHAIR BISHOP asked if EPA imposes a penalty for inadvertent release into the atmosphere.

[4:55:03 PM](#)

MR. HUBER replied that the penalty provisions contained in HB 50 are the same as the penalty provisions in oil and gas statutes. These include a \$100,000 maximum and a \$10,000 per day fine. He noted that EPA has a compliance division, though he is unaware of a specific penalty structure for inadvertent atmospheric release. He said that he could research this and provide additional information. He stated that EPA finds the penalty provisions in HB 50 to be in line with federal guidelines.

[4:55:58 PM](#)

SENATOR WIELECHOWSKI asked if AOGCC has jurisdiction over the waste of gas, natural gas, or CO2.

MR. HUBER replied that AOGCC has jurisdiction over waste from oil and gas resources. He explained that this form of waste applies to product that is not being used, metered, and charged to the state (e.g. if the product is escaping into the ground and not being appropriately metered and charged). He said that CO2 is an atmospheric constituent and is therefore valued differently than a hydrocarbon. He questioned how waste would be addressed in this instance, when the CO2 is being injected rather than producing a product. He explained that, in this case, the CO2 would be considered a private product that has been produced, purchased, and for which storage space has been purchased. He clarified that CO2 would not fall under the jurisdiction of AOGCC in this instance.

[4:57:34 PM](#)

SENATOR WIELECHOWSKI asked how this would apply to an oil company on the North Slope, where the CO2 is technically owned by the state.

[4:58:18 PM](#)

MR. HUBER agreed that any production that is not metered - and therefore the state is not receiving its fair compensation - is a form of waste. He pointed out that CO2 and methane are valued very differently - and therefore would have different value chains for waste determination. He explained that AOCGG would be responsible for determining the amount of CO2 brought in daily, the daily injection rate, and whether the daily injection rates are met. However, the Department of Environmental Conservation would address any pipeline issues.

[4:58:59 PM](#)

SENATOR WIELECHOWSKI asked whether a company that retains the title to the CO2 would pay property taxes (or any form of tax) on the pore space.

MR. CROWTHER replied that the facilities associated with the pore space would be subject to a property tax.

[4:59:51 PM](#)

SENATOR WIELECHOWSKI restated the question. He asked if title to the CO2 is given to the company upon project completion, and the company is using pore space owned by the state, the company would then be required to pay property taxes or another form of taxes (or royalties) on the pore space.

[5:00:19 PM](#)

MR. STICKEL replied that he would investigate this and follow up with the committee.

[5:01:08 PM](#)

SENATOR DUNBAR asked about the environmental impacts of a catastrophe resulting in a massive CO2 release. He also asked which of the various funds would be available to remediate this type of disaster.

[5:02:05 PM](#)

MS. PAINE replied that CO2 does not behave like other products, such as oil. She explained that once the pressure vessel holding the CO2 in the critical space is ruptured, it returns to a gaseous form. It would then return to the atmosphere. She briefly described this process, noting that CO2 travels quickly. She surmised that there would be nothing remaining on the surface or subsurface (which is the case with oil and gas).

[5:03:13 PM](#)

SENATOR DUNBAR asked whether this would be a violation of the Clean Air Act (CAA).

MR. CROWTHER shared his understanding that there are no federal regulations on CO2 emissions that would be triggered in the event of this kind of disaster. He surmised that it would not be a violation of CAA but acknowledged that he is not qualified to speak to CAA applications. He noted that many other insurance and liability requirements to operate may have been violated in this instance.

[5:04:15 PM](#)

CO-CHAIR GIESSEL announced that the committee had run over time and would resume the presentation at the next hearing.

[5:04:33 PM](#)

SENATOR KAWASAKI wondered whether DEC would have a representative to answer questions at the next hearing.

[5:04:38 PM](#)

CO-CHAIR GIESSEL said the committee could request this. She asked whether the GaffneyCline materials could be shared at the next meeting.

MR. CROWTHER replied that the department would endeavor to make this information available at the next meeting.

[5:05:19 PM](#)

SENATOR GIESSEL held HB 50 in committee.

[5:05:42 PM](#)

There being no further business to come before the committee, Co-Chair Giessel adjourned the Senate Resources Standing Committee meeting at 5:05 p.m.