

**ALASKA STATE LEGISLATURE
HOUSE RESOURCES STANDING COMMITTEE**

February 27, 2023

1:04 p.m.

MEMBERS PRESENT

Representative Tom McKay, Chair
Representative George Rauscher, Vice Chair
Representative Josiah Patkotak
Representative Kevin McCabe
Representative Dan Saddler
Representative Stanley Wright
Representative Jennie Armstrong
Representative Donna Mears
Representative Maxine Dibert

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

SENATE BILL NO. 10

"An Act providing for trapping licenses for active members of the Alaska National Guard and military reserves without charge; making sport fishing, hunting, and trapping permanent identification cards available to certain disabled veterans without charge; and providing for an effective date."

- MOVED SB 10 OUT OF COMMITTEE

HOUSE BILL NO. 50

"An Act relating to the geologic storage of carbon dioxide; and providing for an effective date."

- HEARD & HELD

HOUSE BILL NO. 49

"An Act authorizing the Department of Natural Resources to lease land for carbon management purposes; establishing a carbon offset program for state land; authorizing the sale of carbon offset credits; and providing for an effective date."

- SCHEDULED BUT NOT HEARD

HOUSE BILL NO. 83

"An Act reestablishing the Citizens' Advisory Commission on Federal Management Areas in Alaska; and providing for an effective date."

- SCHEDULED BUT NOT HEARD

PREVIOUS COMMITTEE ACTION

BILL: SB 10

SHORT TITLE: HUNTING/TRAPPING/FISHING: DISABLED VETS

SPONSOR(s): SENATOR(s) KIEHL

01/18/23	(S)	PREFILE RELEASED 1/9/23
01/18/23	(S)	READ THE FIRST TIME - REFERRALS
01/18/23	(S)	RES
01/27/23	(S)	RES AT 3:30 PM BUTROVICH 205
01/27/23	(S)	Heard & Held
01/27/23	(S)	MINUTE(RES)
02/10/23	(S)	RES AT 3:30 PM BUTROVICH 205
02/10/23	(S)	Moved SB 10 Out of Committee
02/10/23	(S)	MINUTE(RES)
02/13/23	(S)	RES RPT 6DP
02/13/23	(S)	DP:BISHOP, GIESSEL, DUNBAR, KAUFMAN, WIELECHOWSKI, CLAMAN
02/15/23	(S)	TRANSMITTED TO (H)
02/15/23	(S)	VERSION: SB 10
02/17/23	(H)	READ THE FIRST TIME - REFERRALS
02/17/23	(H)	RES
02/22/23	(H)	RES AT 1:00 PM BARNES 124
02/22/23	(H)	Heard & Held
02/22/23	(H)	MINUTE(RES)
02/27/23	(H)	RES AT 1:00 PM BARNES 124

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

WITNESS REGISTER

SENATOR JESSE KIEHL
 Alaska State Legislature
 Juneau, Alaska

POSITION STATEMENT: As prime sponsor, presented SB 10.

CATHY SCHLINGHEYDE, Staff
 Senator Jesse Kiehl
 Alaska State Legislature
 Juneau, Alaska

POSITION STATEMENT: Answered questions regarding SB 10 on behalf of Senator Kiehl, prime sponsor.

DAVID SUMMERS, Veteran
 Juneau, Alaska

POSITION STATEMENT: Testified in support of SB 10.

AARON O'QUINN, Leasing Manager
 Division of Oil and Gas
 Department of Natural Resources
 Anchorage, Alaska

POSITION STATEMENT: Via PowerPoint, co-presented HB 50 on behalf of the sponsor, House Rules by request of the governor.

JOHN CROWTHER, Deputy Commissioner
 Office of the Commissioner
 Department of Natural Resources
 Anchorage, Alaska

POSITION STATEMENT: Via PowerPoint, co-presented HB 50 on behalf of the sponsor, House Rules by request of the governor.

ACTION NARRATIVE

[1:04:13 PM](#)

CHAIR TOM MCKAY called the House Resources Standing Committee meeting to order at 1:04 PM. Representatives McCabe, Rauscher, Saddler, Wright, Armstrong, Mears, Dibert, and McKay were present at the call to order. Representative Patkotak arrived as the meeting was in progress.

SB 10-HUNTING/TRAPPING/FISHING: DISABLED VETS

[1:05:33 PM](#)

CHAIR MCKAY announced that the first order of business would be SENATE BILL NO. 10, "An Act providing for trapping licenses for active members of the Alaska National Guard and military reserves without charge; making sport fishing, hunting, and trapping permanent identification cards available to certain disabled veterans without charge; and providing for an effective date."

[1:06:27 PM](#)

SENATOR JESSE KIEHL, Alaska State Legislature, as prime sponsor, said SB 10 would add trapping licenses to the lifetime hunting and fishing licenses for veterans that have a 50 percent or greater service-related disability. At the request of the Alaska Department of Fish & Game (ADF&G), he said the bill would add trapping to the annual hunting and fishing licenses that active duty members of the national guard and reserve receive. He referred to his staff to answer a question posed at the last meeting by Representative Saddler.

[1:07:20 PM](#)

CATHY SCHLINGHEYDE, Staff, Senator Jesse Kiehl, Alaska State Legislature, on behalf of Senator Kiehl, prime sponsor, stated to the committee that SB 10 would apply only to members of the armed forces, not all uniformed services.

[1:07:39 PM](#)

REPRESENTATIVE SADDLER asked how many applicants there would be if all disabled veterans in the state applied for the license.

MS. SCHLINGHEYDE answered that the Department of Military and Veterans' Affairs doesn't have an exact number. She said the department knows the number of people who receive trapping licenses, but does not know how many service disabled veterans are among the license recipients.

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SENATOR KIEHL noted that the number is fewer than the about 77,000 veterans in Alaska.

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CHAIR MCKAY opened public testimony on SB 10.

[1:08:44 PM](#)

DAVID SUMMERS, Veteran, shared that he is a veteran of the United States Army, and had served during the operation Desert Storm era. He recounted that, after [the terrorist attacks of September 11, 2001], he had decided to "re-up" as a veteran and was deployed during operation Iraqi Freedom. He told members that he holds a disabled veterans hunting and fishing license, as he is a disabled veteran. He stated, "Just a generation or two ago, a disabled veteran looks different. Today, we don't look the same." He elaborated that historically one can see veterans' disability in their eyes, but that is not the case today. He said care for wounded soldiers has become so advanced that the types of injuries a veteran would typically have, have become more survivable. He told members that there are new kinds of injuries that disabled veterans encounter, including traumatic brain injury and concussions. In answering the question, why a disabled veteran is doing a physical intensive activity like trapping, he said veterans do not look the same as they used to. Further, he stated that trapping is good for disabled veterans and ADF&G, in that it helps ADF&G meet its goals, and for the veteran, there is the benefit of being in the outdoors. Historically, buying a hunting, fishing and trapping license has been simple, but he said the current process can be confusing or difficult. He explained that the individual not only needs to get the disabled veteran license, and the standard hunting and fishing license, but also the trapper license. He urged members to pass SB 10.

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REPRESENTATIVE MCCABE thanked Mr. Summers for his testimony.

[1:11:31 PM](#)

CHAIR MCKAY after ascertaining that no one else wished to testify, closed public testimony on SB 10.

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REPRESENTATIVE RAUSCHER asked Senator Kiehl if the legislation addresses veterans that must shoot mechanically because of a limb injury. He said he is unsure if that is legal in Alaska.

SENATOR KIEHL answered that SB 10 doesn't address the methods or means of trapping. He said the bill speaks only to how disabled veterans could obtain a lifetime trapping, hunting, and fishing card as a service disabled veteran.

1:13:00 PM

REPRESENTATIVE WRIGHT asked for the percentage of veterans who partake in trapping.

SENATOR KIEHL responded by stating that there have been 700 standalone trapping licenses sold in Alaska, and that only a subset of the cards were sold to service disabled veterans. On the thought that having a less confusing system would lead to more service disabled veterans attaining a trapping license, he said the impact of that may be small. He said that, while he does not have a strong estimate on the percentage of veterans who partake in trapping, ADF&G estimates a negligible financial impact. Further, he speculated that the increase in those receiving licenses would be small.

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REPRESENTATIVE SADDLER spoke on a bill that passed in the legislature that allowed state hunting and fishing licenses to be displayed digitally on a cell phone, over having to display a physical license card. He asked if, under SB 10, the courtesy would extend to disabled veterans with a trapping license.

SENATOR KIEHL answered yes, and said ADF&G plans to offer these same licenses on the department's phone application "app". He concluded his testimony by thanking the committee for hearing the bill.

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REPRESENTATIVE RAUSCHER moved to report SB 10 out of committee with individual recommendations and the accompanying fiscal notes. There being no objection, SB 10 was reported out of the House Resources Standing Committee.

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The committee took an at-ease from 1:15 p.m. to 1:19 p.m.

HB 50-CARBON STORAGE

[1:19:06 PM](#)

CHAIR MCKAY announced that the final order of business would be HOUSE BILL NO. 50, "An Act relating to the geologic storage of carbon dioxide; and providing for an effective date."

[1:19:54 PM](#)

AARON O'QUINN, Leasing Manager, Division of Oil and Gas, Department of Natural Resources, on behalf of the bill sponsor, House Rules by request of the governor, co-offered a PowerPoint presentation titled, "HB 50 - Carbon Storage, CCUS Opportunities for the State of Alaska" [hardcopy included in the committee packet]. He said he and Deputy Commissioner Crowther are at today's meeting to answer questions that were posed at previous committee hearings of HB 50. While displaying slide 2, he said he'll be providing global overview statistics on the carbon market; how Alaska is a container for emissions; revenue scenarios that may be available to Alaska; and risk scenarios [and opportunities related to carbon capture and HB 50.

[1:20:56 PM](#)

JOHN CROWTHER, Deputy Commissioner, Office of the Commissioner, Department of Natural Resources, on behalf of the bill sponsor, House Rules by request of the governor, co-offered a PowerPoint presentation related to HB 50, stressed that the revenue scenarios that will be presented are hypothetical, not a prediction. He explained that there are significant assumptions made in the scenarios, and said the scenarios are meant to provide context to the committee.

[1:21:16 PM](#)

MR. O'QUINN, in regard to slide 3, stated there are 30-35 gigatons of CO2 emissions generated globally from energy related activities, like power generation. He said that not all sources of CO2 emissions are easily captured. A primary target for carbon capture, utilization, and storage (CCUS) within the power generating sector is coal-fired generation, which he stated is

the most technological feasible way to capture CO2 from energy generation. He said Alaska is not a significant contributor to global emissions, in that, if the world is at 35 billion tons of CO2, then Alaska is at 14 million tons (.014). In response to a question from Representative Saddler about global CO2 emissions, he said 35 gigatons equals 35 billion tons.

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CHAIR MCKAY referring to the graphic on slide 3, asked if the graph's X axis is by year and Y axis is gigatons per year worldwide. Further, he asked if the .014 gigatons per year figure on slide 3 accounts for all CO2 production in Alaska.

MR. O'QUINN confirmed that Chair McKay's understanding of the data is correct.

[1:23:47 PM](#)

REPRESENTATIVE RAUSCHER asked Mr. O'Quinn what the dollar figure would be.

MR. O'QUINN assured Representative Rauscher that his question will be answered in a future slide.

[1:24:06 PM](#)

REPRESENTATIVE SADDLER asked Mr. O'Quinn about the .014 gigatons per year figure on slide 3, and if that is accounting for actual emissions or potential emissions from all sources.

MR. O'QUINN answered that the .014 is based on an inventory that is done in Alaska through the Environmental Protection Agency (EPA). He confirmed that .014 is the actual number for 2022.

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MR. O'QUINN returned to the presentation on slide 4 to elaborate on Alaska's storage opportunity. He said that Alaska has three main CO2 storage tanks: unmineable coals, saline aquifers, and depleted oil and gas fields. On storage capacity, he stated that unmineable coals store nearly 50 gigatons (49.24) of CO2. He explained that depleted oil and gas fields, as well as saline aquifers, do not have a CO2 storage estimate, but store more CO2 than unmineable coals. He said the department has a good idea about the oil and gas fields, but said quantifying a storage amount for saline aquifers is hard without drilling a well. He

said the department has not been drilling saline aquifer wells as it will require additional research, but shared that aquifers are more prolific than coal seams and could be a larger storage receptacle. He reiterated that the world is at 30-35 gigatons of CO2 emissions a year and stressed that Alaska has nearly 50 gigatons of storage in it's unminable coals alone, and so could store all of the world's CO2 emissions for one year using the coal seams.

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REPRESENTATIVE MCCABE mentioned that there's a coal-fired power plant preparing to shut down in his district. With the "extension cord" from Homer to Fairbanks, and natural gas depleting, he said his district already struggles with generating electricity. In Healy, Alaska, he stated that a coal-fired power plant is being shut down for "being a coal fired power plant." He noted the closure of the Fort Greely power plant; he said it was closed because the U.S. Air Force found that it could completely offset carbon emissions and fulfill federal offset requirements by closing the plant. He pointed, while on slide 4, to an area on the graphic highlighted in blue, and suggested that it is possible to sequester the emissions from a second power plant and save on transportation costs. He stressed that the need for electricity matters more than the need for the money that would be generated. He asked if his understanding is correct, and if the department is already considering what he explained.

DEPUTY COMMISSIONER CROWTHER answered that what Representative McCabe described is one of the major drivers of HB 50. He said what he has been observing internationally is the same in Alaska, in that there are individuals that advocate against an energy source because of its carbon emissions. With HB 50, he said, power plants would have the ability to continue power generation, but with emissions sequestered. He said the department sees Alaska coal power plants as a potential candidate for CCSU projects.

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REPRESENTATIVE RAUSCHER commented on Representative McCabe's remarks on power plants in Alaska. He said the issue, as was described by John Burns, was keeping the plant running. The issues included costs associated with repairs, parts, and maintenance. He stated that he does not think coal is the main reason for the plant's closure.

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REPRESENTATIVE SADDLER asked for clarification regarding CO2 storage in Alaska. He asked about the 50 gigatons of CO2 storage in unminable coals and shared his understanding that the mining space would need to be emptied before something is put in it. He asked if Mr. O'Quinn is suggesting that the CO2 is actually stored in and around the coal.

MR. O'QUINN explained the process of carbon storage in unmineable coal. He said the carbon is pressurized so that there would be room for CO2 to occupy pore space within the coal seams.

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MR. O'QUINN moved to slide 5 to talk about hypothetical revenue opportunities. He echoed Deputy Commissioner Crowther's comments, in that the scenarios are "very hypothetical," but said he feels that the scenarios rely on reasonable economic assumptions. He explained that the scenarios come with a caveat in that they are designed to illustrate magnitudes, and not specific numbers, and further, that he and Deputy Commissioner Crowther are not making promises about revenue. He spoke to the metrics of a regional power plant, comparable in size to the Healy power plant, which generated 600,000 metric tons of emissions a year. The conceptual regional power facility would generate 250,000 tons a year; have a \$2.50 per metric ton injection fee; a fee of \$20 per acre every non-injection year; and would have a 20-year life. The next hypothetical opportunity would be an emitting facility on the North Slope, which would generate 2,000,000 metric tons of CO2 a year. The facility would use 50 percent of the emissions for enhanced oil recovery (EOR) and the other 50 percent for pure sequestration. He noted the last option on the slide, which is a CO2 import and sequestration facility, and said such a facility would be a longer term project with a 40-year life. He summed up the three hypothetical options: a small, medium and large facility.

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REPRESENTATIVE ARMSTRONG pointed to a graphic, on slide 5, of a conceptual waterborne CO2 carrier. She asked how many tons of CO2 such a vessel could carry.

DEPUTY COMMISSIONER CROWTHER answered that, currently, the ocean-going transshipment of CO2 is still under assessment. He said he is unable to answer what volume of CO2 will be stored on the carriers but said the level of CO2 emissions that is being talking about today is not being shipped. He stated that the more CO2 transported on a carrier, the better it will be for the economics. He said he imagines millions - if not billions - of tons would be shipped via vessel, if possible.

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CHAIR MCKAY relayed his thought that the CO2 carriers would be similar to liquefied natural gas (LNG) tankers since the CO2 is being liquefied and is a gas.

MR. O'QUINN shared that, in concepts observed by the department, the CO2 would be backhaul. He expounded that hydrogen or ammonia would be exported, and then CO2 would come as backhaul from the countries that imported hydrogen or ammonia.

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MR. O'QUINN returned to the presentation on slide 6. He said a current caveat is that not all CO2 emissions are feasibly captured, and that there's developing technology in carbon capture space. He explained that captured CO2 emissions are primarily from industrial processes. With government support through Section 45Q tax credits, as well as research grant initiatives from the U.S. Department of Energy, he said technology is continuing to rapidly develop. He stressed that the capital expenditures for such projects are very high, especially for retrofitting existing power plants. He stated that sometimes the benefits of the sequestration project cannot overcome the initial capital expenditures. He said, however, that there are a growing number of opportunities for capital expenditure support, which in turn has made such an expenditure less of a barrier. He explained that CO2 importing is dependent on the development of shipping and loading technology.

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CHAIR MCKAY noted that, to address Representative Armstrong's question on how much CO2 could be carried on a waterborne vessel, current LNG tankers carry 125,000-150,000 cubic meters of LNG.

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MR. O'QUINN moved to slide 7 to outline possible state revenues from the three hypothetical facilities shown previously on slide 5. For a regional power facility, it would have a 20-year life with acquisition of property and exploration in the first three years, and then a ramp up of CO2 injection in the fifth year. Between the injection fees and annual rental fees, the department estimates about \$11.8 million in revenue. Regarding the North Slope Facility Standalone CCUS project, he pointed out additional EOR oil revenue increases and reduced pollution charges. He said this is to highlight that, in some areas where carbon is captured, injection could lead to additional oil production. He explained that the department made some geological assumptions about the reservoir's impact from CO2 injection and how it would affect oil barrel yield, based on experience with natural gas injection increasing oil production.

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MR. O'QUINN explained the reduced pollution charges; during the CO2 capture process, there's an opportunity to capture certain regulated pollutants. Then the operator would be considered not polluting, since it is capturing the pollutants, and would not need to be charged for pollution fees by the Department of Environmental Conservation. He again stressed that the conversation is hypothetical, and said he is demonstrating to the committee the possible impact of operators taking pollutants or CO2 out of the air. He reviewed scenario two on the list of hypothetical revenue opportunities, which forecasts \$210 million in revenue over a 20-year period. As for scenario three, CO2 import for sequestration, the revenue over 40 years totals over \$1 billion dollars.

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REPRESENTATIVE SADDLER queried Mr. O'Quinn about his comments that, by capturing CO2, other pollutants may be captured. He asked if HB 50 envisions injecting additional pollutants, and further, if there is a standard the CO2 needs to qualify for injection.

MR. O'QUINN answered that HB 50 contains a definition of CO2 and requires that the CO2 meets a certain level of purity. The bill does not define purity itself, as the department will rely on the Alaska Oil and Gas Conservation Commission to make the regulatory determination. On tax credits, he said there are purity requirements in the transportation of CO2, but said the

department felt that statute was not the most appropriate place to define such CO2 standards broadly.

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DEPUTY COMMISSIONER CROWTHER added that the captured pollutants are either being emitted subject to regulation and permits or managed consistent with existing authority and regulation. He said there are existing protocols in place for managing other pollutants in the CO2 streams, like methane, carbon monoxide and hydrogen sulfide. He said HB 50 acknowledges that, whether treating flume emissions, natural gas feedstocks, or other components of the industrial process, the pollutants might appear and will need to be managed. He said the pollutants can be disposed of in other ways, but the department is not proposing that the pollutants be injected into CO2 for sequestration.

REPRESENTATIVE SADDLER replied that the comments are good to hear. He said it appears issues, like CO2 by volume compared to other pollutants, are being addressed upstream.

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REPRESENTATIVE MEARS offered clarification that exploration leases cover a large portion of land, while during development, focus is narrowed to an area.

MR. O'QUINN confirmed that is correct, in that there is larger acreage for exploration licensing, and that licensees determine what they need, which reduces their property rights entitlement. He said the process can be seen in years two and three on the chart on slide 7, in that the licenses are paid up until the year an operator starts injecting.

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REPRESENTATIVE MEARS pointed out that the chart projects a best-case scenario. She asked about slide 8's mention of a newly updated fiscal note, which said the cost for plastics primacy was covered. She surmised that the cost would be covered by federal grants. She further asked about the zero fiscal note for the AOGCC and DNR to come up with regulations and begin administering the program.

DEPUTY COMMISSIONER CROWTHER said the next slide will provide a summary of risk and the costs that would be incurred in a zero-

development scenario. He said Representative Mears' characterization is correct, in that the fiscal notes have been reduced, and said DNR does not expect other costs.

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REPRESENTATIVE SADDLER asked Deputy Commissioner Crowther about scenario two, the North Slope CCUS project, which is hypothesized to generate \$210 million in revenue over the course of 20 years. He asked if that covers the entirety of Alaska's North Slope, or if it covers a single field in particular. He said he is asking in order to understand how much of the emissions in the North Slope the project would be covering.

MR. O'QUINN recalled slide 5 to answer the question, and spoke on the standalone North Slope emitting facility project. He mentioned that there are two emissions facilities on the North Slope: one producing two million tons a year, and the other, three million. He defined standalone as a facility that is not part of AKLNG or the gas line, but rather, existing facilities on the North Slope. To answer Representative Saddler's question, he said the hypothetical scenario assumes one facility with one emitter on the North Slope.

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CHAIR MCKAY commented that if three million was added to the other facility, the number could be scaled up.

DEPUTY COMMISSIONER CROWTHER confirmed Chair McKay's comment as correct. He said there are additional facilities and operations beyond the corporate facilities, which still have emissions. He noted that emissions on the entirety of the North Slope are larger than five million, and said the data was included because it was concentrated from a single source.

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MR. O'QUINN added that Alaska emissions amount to 14 million tons annually.

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REPRESENTATIVE ARMSTRONG pointed out, on slide 7, that it takes five to six years before revenue from injection fees are realized. She asked why it takes five to six years.

MR. O'QUINN reminded committee members about DNR's statutory exploration licensing process. He spoke about what needs to take place on a site: a characterization report; property rights acquisition; and a best interest finding report. Once entitlement is received, land exploration activities take place; however, injection could occur sooner if the operator knows the subsurface area well. He said from what DNR has seen in the Lower 48, and what they expect to see in Alaska, subsurface review and infrastructure buildouts take time, especially for retrofits. As examples, a coal-fired power plant takes time to build, as does a pipeline. He said DNR believes that the five-year timeline is reasonable for Alaska, but could possibly be longer depending on the construction season.

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REPRESENTATIVE MEARS suggested that scenario two would happen first, as there are injections happening now. She asked if the operations are turn-key and would not require exploration and development.

DEPUTY COMMISSIONER CROWTHER stressed that, while it may be possible, the timeline DNR has shared is hypothetical. He explained that one aspect of the project that takes a lot of up-front time is understanding the geologic space an operator plans to sequester. In a scenario where an operator has a good understanding of either the existing production, depleted reservoirs for EOR, or of other adjacent reservoirs, the operator may be able to speed up the characterization process. However, that facility construction and permitting could still consume a portion of the up-front time. He said it is a fair statement that the people that carry out the project in scenario two would likely have a better understanding of their targeted geology than in scenarios one and three.

REPRESENTATIVE MEARS asked if it is more likely that Alaska would start with scenario two.

DEPUTY COMMISSIONER CROWTHER answered that it is hard for DNR to say it is "more likely," but said that a project with more defined characteristics is naturally ahead in the process. He said scenario two was included because if the capital, corporate, and technological capacity is there, it's a good "ready-made" example that DNR believes could develop quickly. He said that, in a general sense, it appears more likely for the project to start, but reiterated that it is not DNR's position to say when or how the project would come together.

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CHAIR MCKAY commented that it would be interesting to see another scenario where a 42-inch gas pipeline is built, and with the rate of gas production, how much CO2 would be "scrubbed out." He suggested that this could be a fourth scenario like scenario two, but with greater volume.

DEPUTY COMMISSIONER CROWTHER answered that scenario two deals with existing facilities: the production of power and the pressurization of produced methane back into the Prudhoe Bay reservoir, and capturing the emissions. He hypothesized that, if there was a large gas sale, a much larger volume of gas would be processed to remove all the CO2, which would be significantly larger than scenario two.

CHAIR MCKAY explained he had pointed that out because, over the long term, it could add to the speculated revenue.

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MR. O'QUINN added that CO2 processed at the gas treatment plant most likely would be used for EOR, which would result in additional barrels of oil, but not necessarily revenues under carbon capture.

CHAIR MCKAY said he was unsure whether those present knew that or not.

[1:53:14 PM](#)

MR. O'QUINN returned to slide 8 of the presentation. In addressing Representative Mears' question about the scenario in which no one comes forward to develop carbon capture, he said that DNR believes the industry is ready to bring projects to Alaska. He said that there is no project in hand, and that the legislation, HB 50, is not being designed around one specific project. He explained that a worst-case scenario, there being no development, would pose a low risk to the state. He said DNR requested over \$1 million dollars in the fiscal note for two full-time positions within AOGCC for Fiscal Year (FY) 24; however, AOGCC has communicated that it intends to seek out EPA grant funds under the underground injection control class six grant program. He said DNR believes that costs could be covered by the grant for several years so that AOGCC can "stand up" a regulatory program. He explained that through the work of his

staff, there is a new online bidding system for lease sales that was set up by, and for, DNR. He said it would be an initial lift to get a regulatory program set up, but expressed his belief that it can be done in-house, so the fiscal note was revised to zero for next year and out years.

[1:55:32 PM](#)

MR. O'QUINN said the Division of Oil and Gas has additional technical needs, like geologists and economists, but said he would rather like to wait to ask the legislature for those resources until there is a specific need for them. He reiterated his belief that the program could be stood up within DNR's Division of Oil and Gas, without taking on additional staff, but said it may be something to come back to once the industry coalesces. He stated that DEC has possible theoretical reductions in its revenue due to decreased pollution, and would require that the carbon facilities already be operational.

DEPUTY COMMISSIONER CROWTHER showcased slide 7 to talk about exploration licenses. He illustrated a hypothetical scenario where there is little to no business activity, and what activity there is, is in exploration licenses. He said that licensing activity still brings thousands of dollars of revenue to the state, depending on the size of the project. He further made the point that even if there are just a few exploration licenses, no injections, and no development, the state could still at least see revenue from the licensing. He said the present risks are de minimis costs offset with federal grant funds. He stated that even the worst-case scenario is protective and positive for the state.

[1:57:51 PM](#)

REPRESENTATIVE MCCABE asked about the presenter's remarks regarding the zeroing out of a previous \$456,000 DNR fiscal note.

DEPUTY COMMISSIONER CROWTHER answered that upon receiving the committee substitute, the fiscal note for DNR will reflect zero.

[1:58:19 PM](#)

MR. O'QUINN moved to slide 9 to talk about carbon storage opportunities in Alaska. In a hypothetical scenario where the carbon storage infrastructure is built out and CO2 injection is occurring, there are significant opportunities for revenue. In

building a carbon storage industry in Alaska, he said, EOR could be developed as well as extend the life of existing royalty revenues by providing decarbonization opportunities. He said that most of the corporations have emissions targets they have to meet, and by allowing the companies to reach their emissions target in Alaska, the lifespan of projects could be extended, which would make the state more attractive to investment. He reminded members that carbon storage revenues are split between the general and permanent fund, per Alaska constitutional and statutory language relating to mineral revenue. He stated that the industry builds upon, preserves, and could grow the Alaska oil and gas technical workforce. He explained that there are analog aspects of carbon storage work: wells being drilled, pipelines built, and work that requires engineers and geologists. Another opportunity under carbon storage is in the power generating industry, where power facilities can now decarbonize, and also diversify in base power generation.

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REPRESENTATIVE SADDLER queried Mr. O'Quinn about the revenues going to the permanent and general funds. He asked if both the injection and rental fees are subject to the required 25 percent contribution to the permanent fund, or if it is just rental fees that are subject to the requirement.

MR. O'QUINN expressed his belief that both fund streams are subject to the requirement. Further, he said all revenue is split, per the Alaska Constitution.

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CHAIR MCKAY asked the presenters to talk about how the state would manage long-term liability of storage projects, and if the state would need to pay insurance. He said he is asking in order to provide further clarity on the record.

DEPUTY COMMISSIONER CROWTHER answered that, as the project develops, there would be a fee assessment by the state that would go into a long-term fund for managing liability. He clarified this does not mean that while the project was operating, the state would have liability, rather the liability would be on the project operator. He explained that liability would continue to be on the operator, even while operator reviews, with the AOGCC, the potential closure of the facility. The closure would be contingent on AOGCC approving of the closure, and after a period of time following closure, the

liability would go to the state, as well as the title of the project. When the state subsumes liability for a project, the long term liability fund could be used to address any issue that may arise after the regulatory closure process is complete. He said it is possible that the state may want to procure insurance for risks outside of the fund. He further suggested that it's possible that the liabilities would be low while the fund balance accumulates. He said that, from an actuarial standpoint, the state would be well covered, and the fund would be the framework for managing long term liability.

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REPRESENTATIVE SADDLER referred to the possible revenues listed on slide 7. He asked how much of the revenue for the North Slope emitting facility would need to be kept in a trust fund and how much would need to be kept in the permanent and general funds.

MR. O'QUINN reminded committee members that the data around the hypothetical scenarios do not look at injection fees; those would instead be accessed by the regulatory agency. He explained that the fees are analogous to the regulatory cost charge that AOGCC assesses against industry, or like DEC assesses against polluters. He said these fees are currently assessed by AOGCC and are established in the permit, or regulation. The fees that are paid for the proprietary use of the property rights on the pore space account for AOGCC's year-to-year administrative permitting activity, as well as the long-term closure fund.

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CHAIR MCKAY asked the presenters to walk the committee through how DNR will manage competing land uses when the leases are issued. An example he shared was public use oil and gas extraction versus storage, which he said would take precedence and dominate.

MR. O'QUINN responded that, as far as the surface conflicts, DNR envisions that carbon storage would work the same as the oil and gas industry does today. He pointed out that the state does control access to the surface at Prudhoe Bay, with allowances made toward subsistence and community uses. He stated that there would not be exclusivity, except in instances where it is required for safety reasons. He reminded members of the North Dakota example where there was one injection well, two

monitoring wells, and a few pipelines, all of which leave a small surface foot print. He said that notification to mineral owners of a carbon project would be required by law, as well as the state and other mineral licensees. He said that DNR has empowered AOGCC to mitigate conflicts by setting spacing rules that govern drilling through one horizon over another. He stated that DNR has laid out that carbon capture would not interfere with the mineral industry. He further stated that this plan would not trump oil and gas production.

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REPRESENTATIVE SADDLER posed a hypothetical scenario wherein five to ten years later, when the process is complete, CO2 is injected into the ground and the liability process is covered, there is a need in the market for the stored CO2. He asked if the state could access a closed capped CO2 storage reservoir and use that gas for commercial purposes, like selling it back to the operator who injected the gas.

DEPUTY COMMISSIONER CROWTHER answered that the state, once the title transfers over, would own the stored CO2. He explained that, in theory, if someone wanted to make good use of the CO2, it would be a state resource and the state's to manage. He advised that getting to the stored CO2 would require a technically and operationally complex piece of equipment to drill and produce the CO2 safely and responsibly. He said that, if a storage operator identifies some CO2 they wish to store or sell, they are able to do that through the course of their operations; however, the operator cannot manage the CO2 after their lease is finished as it is then considered the state's. Though, if the operator wanted to make use of the stored CO2 after the closure and title change is made, it would be the state's to manage.

REPRESENTATIVE SADDLER asked, if for any reason an operator does not surrender control of the stored CO2 and wished to keep it past ten years, whether HB 50 would allow for that.

DEPUTY COMMISSIONER CROWTHER responded that he is hesitant to speculate all the scenarios, but explained that an existing oil and gas operation can continue to produce miniscule volumes, depending on the economic and business decisions of the operator. He said that there's talk in the west U.S. regarding stripper wells, which produce one to a dozen barrels a day. Similarly with carbon storage, an operator may choose to inject a small amount of CO2 as the project matures, but the injections

are subject to the permit as well as AOGCC regulations on injections. The carbon operator could not do anything contrary to the regulations, but it is possible that the operator may want to maintain a project at a low level for a long time in case there are other uses for CO2, or until more CO2 comes to be injected.

[2:10:10 PM](#)

REPRESENTATIVE MEARS thanked the presenters. She commented that she is working to understand air quality implications, and will have more questions in the future.

[2:11:07 PM](#)

CHAIR MCKAY thanked the presenters. He announced that HB 50 was held over.

[2:12:09 PM](#)

ADJOURNMENT

There being no further business before the committee, the House Resources Standing Committee meeting was adjourned at 2:12 p.m.