

ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE

March 22, 2023

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

SENATE BILL NO. 90

"An Act extending the termination date of the Alaska Minerals Commission."

- HEARD & HELD

SENATE BILL NO. 49

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

- HEARD & HELD

PRESENTATION(S): 2023 CERAWEEK Update

- HEARD

PREVIOUS COMMITTEE ACTION

BILL: SB 90

SHORT TITLE: EXTEND ALASKA MINERALS COMMISSION

SPONSOR(S): SENATOR(S) BISHOP

03/06/23	(S)	READ THE FIRST TIME - REFERRALS
03/06/23	(S)	RES, FIN
03/22/23	(S)	RES AT 3:30 PM BUTROVICH 205

BILL: SB 49

SHORT TITLE: CARBON STORAGE

SPONSOR(S): RULES BY REQUEST OF THE GOVERNOR

01/27/23	(S)	READ THE FIRST TIME - REFERRALS
01/27/23	(S)	RES, FIN
03/10/23	(S)	RES AT 3:30 PM BUTROVICH 205
03/10/23	(S)	Heard & Held
03/10/23	(S)	MINUTE(RES)
03/13/23	(S)	RES AT 3:30 PM BUTROVICH 205
03/13/23	(S)	Heard & Held
03/13/23	(S)	MINUTE(RES)
03/22/23	(S)	RES AT 3:30 PM BUTROVICH 205

WITNESS REGISTER

ENRIQUE FERNANDEZ, Chair
Alaska Minerals Commission
Anchorage, Alaska

POSITION STATEMENT: Provided invited testimony in support of SB 90.

KEVIN CONNORS, Assistant Director
Regulatory Compliance and Energy Policy
Energy and Environmental Resource Center
University of North Dakota
Grand Forks, North Dakota

POSITION STATEMENT: Provided invited testimony on SB 49.

JOHN BOYLE, Commissioner-Designee
Department of Natural Resources
Anchorage, Alaska

POSITION STATEMENT: Discussed 2023 CERAWeek.

ADAM CRUM, Commissioner-Designee
Department of Revenue
Anchorage, Alaska

POSITION STATEMENT: Discussed 2023 CERAWeek.

ACTION NARRATIVE

3:30:21 PM

CO-CHAIR CATHY GIESSEL called the Senate Resources Standing Committee meeting to order at 3:30 p.m. Present at the call to order were Senators Dunbar, Kaufman, Claman, Kawasaki, Wielechowski, Co-Chair Bishop, and Co-Chair Giessel.

SB 90-EXTEND ALASKA MINERALS COMMISSION

3:30:56 PM

CO-CHAIR GIESSEL announced the consideration of SENATE BILL NO. 90 "An Act extending the termination date of the Alaska Minerals Commission."

3:31:11 PM

SENATOR CLICK BISHOP, District R, sponsor of SB 90, introduced the legislation and paraphrased the sponsor statement.

Senate Bill 90 extends the Alaska Minerals Commission (Minerals Commission) until June 30, 2034. The Minerals Commission is currently set to sunset on February 1, 2024.

Created in 1986, the 11-member Alaska Minerals Commission serves in an advisory capacity to the Governor and the Alaska State Legislature on ways to mitigate constraints on the development of minerals in Alaska. Five members are appointed by the Governor (one of whom must reside in a rural community), three members are appointed by the President of the Senate, and three members are appointed by the Speaker of the House of Representatives. Current commissioners represent the placer, hard rock, and coal mining industries across the state, along with a representative from an Alaska Native Corporation. The State of Alaska Division of Community and Regional Affairs supports the Minerals Commission by facilitating their annual meetings and assisting with the annual report.

The Minerals Commission annually reports its recommendations to the Governor and the Legislature during the first ten days of the legislative session.

Key recommendations made by the Commission and implemented by the Legislature since the Commission's last extension in 2013 include: - Provided support for analysis of the state obtaining primacy of the Clean Water Act Section 404 Program - Continued to support reforms of state permitting processes to make them timelier and more efficient - Continued support for development of access and power infrastructure projects - Continued to support the Division of

Geological & Geophysical Survey (DGGS) - Continued to support the gathering and publishing geological and geophysical data on Alaska's mineral potential - Continued to assert and defend public access to roads, trails, and navigable waterways - Continued funding of mining education programs and outreach

Mining is a cornerstone of our society and economy, supporting all aspects of our everyday life; Alaska is uniquely positioned to play a leadership role in meeting the national mineral supply demand. Forty-nine of the fifty minerals identified in 2022 by the United States Geological Survey (USGS) as critical to the US economy and national security are found in Alaska. The state boasts a supportive natural resource development policy, and a proven mining industry. There now exists a rare alignment of mineral wealth in Alaska, demand, federal policy, state support, and an established industry, which presents an opportunity for mining industry and economic growth. The Alaska Minerals Commission has worked with the State of Alaska and Alaska State Legislature to successfully implement key recommendations that support a strong and sustainable Alaska minerals industry.

SENATOR BISHOP concluded the introduction by relaying that Alaska's most recent prospecting efforts were recorded in 1898 with the Klondike and Nome strikes. He noted that the USGS stated that Alaska was 50 years behind in mineral exploration.

CO-CHAIR GIESSEL commented on the brevity of the legislation.

[3:36:30 PM](#)

SENATOR CLAMAN queried whether the board extension required a Legislative Budget and Audit review.

CO-CHAIR BISHOP read a letter from Kris Curtis, Legislative Auditor from the Legislative Audit Division:

Only those entities listed in 08.03.010(c) and 44.66.010(a) are subject to a sunset process per 44.66.050.

CO-CHAIR GIESSEL turned to invited testimony.

[3:38:00 PM](#)

ENRIQUE FERNANDEZ, Chair, Alaska Minerals Commission, Anchorage, Alaska, provided invited testimony in support of SB 90. He stated that he works as the permitting and environmental manager for Donlin Gold, LLC. He informed the committee that the purpose of the Alaska Minerals Commission is to provide recommendations to the governor and legislature about policies and strategies that promote the development of the state's mineral resources. He stated that the commission members have extensive experience in all aspects of the mining industry including exploration, permitting and operations. He stated that the commission's annual reports provide assessments of the state's mineral resources and provide policy advice. He mentioned the state's primacy of the Clean Water Act, Section 404, which is necessary to bring stability to the permitting process.

MR. FERNANDEZ continued that the Alaska Minerals Commission is advocating for the state to develop a comprehensive mineral development plan that evaluates infrastructure, workforce, dialog, and education needs. He remarked that the members of the Alaska Minerals Commission are enthusiastic about the work at hand and grateful for the opportunity to advise the governor and legislature on topics they are passionate about. He requested an extension of the commission's termination date.

[3:40:15 PM](#)

CO-CHAIR GIESSEL held SB 90 in committee.

SB 49-CARBON STORAGE

[3:40:30 PM](#)

CO-CHAIR GIESSEL announced the consideration of SENATE BILL NO. 49 "An Act relating to the geologic storage of carbon dioxide; and providing for an effective date." She invited Kevin Connors to testify on SB 49.

[3:41:17 PM](#)

KEVIN CONNORS, Assistant Director of Regulatory Compliance and Energy Policy, Energy and Environmental Resource Center, University of North Dakota, Grand Forks, North Dakota, provided invited testimony on SB 49. He explained that he worked in regulatory and program development for both class II and class VI oil wells. He described the Energy and Environmental Resource Center (EERC) as a non-teaching business unit within the University of North Dakota. He stated that the EERC is industry focused with a great reputation regionally and worldwide. He added that EERC serves as the North Dakota energy research center. He stated that the CO₂ partnership is a research-focused

consortium with 20 years of applied experience. The consortium includes the energy, agriculture, ethanol, coal, electricity, oil, gas, service, and technology industries with 240 members. He added that the center's unprecedented growth confirms the interest in advancing technologies.

MR. CONNORS explained that the P-Corp partnership includes a large regional consortium with ten states and four Canadian provinces, including Alaska. He stated that the P-Corp partnership began in 2019 and is currently in its fourth phase. He noted that EERC partnered with the University of Alaska Fairbanks Institute of Northern Engineering and the University of Wyoming School of Energy Resources. He stated that the mission of the P-Corp partnership focuses on the commercial deployment of the technologies. He mentioned the contribution of the Interstate Oil and Gas Compact Commission (IOGCC) to SB 49. He remarked that IOGCC formed a task force in 2002 comprised of experts, state regulators, the P-Corp partnership, the Department of Energy and other key industry stakeholders. The task force sought to ascertain whether the federal government is the most appropriate regulator for dedicated geologic storage of carbon dioxide. The task force recommended that the states regulate the activity under a resource management framework, similar to the regulation of oil and gas. He added that the IOGCC developed a model statute and regulations. Portions of the language included in SB 49 is rooted in the model statute developed by the IOGCC task force.

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MR. CONNORS revealed that he works directly with commercial project developers of Carbon Capture Storage (CCS) in North Dakota and the surrounding region. He stated that he works on greenfield, characterization, feasibility, project design, and permitting. He added that operational projects receive monitoring and reporting that follows with those activities. He remarked on witnessing new industries emerging despite the challenges. He expressed familiarity with the regulatory frameworks similar to SB 49. He highlighted the priority of the Alaska Oil and Gas Conservation Commission (AOGCC) to apply for and obtain class VI primacy. He explained that when states regulate predictability and permitting, they provide regulatory certainty to the industry.

MR. CONNORS highlighted three key pieces of geologic storage: industry, geology and policy. He stated his full support for SB 49, which initiates the application for class VI primacy. He informed the committee that similar legislation was adopted in

other states. He stated that SB 49 provides a resource-management framework that allows for an effective, all-encompassing regulatory program. Only two states in the nation have primacy: North Dakota and Wyoming. He noted that Louisiana applied and is awaiting approval. He declared that the Environmental Protection Agency (EPA) authority can take several years. He added that EPA is the permitting and regulatory authority and approximately 40 permits were submitted to EPA.

MR. CONNORS mentioned that EPA approved multiple permits in Illinois over a four to five year period. In contrast, North Dakota, with primacy, issued four permits within the last year. The permitting process was shortened to eight months. He stated that primacy allowed the industry emerging in North Dakota a predictable and known permitting process. He alleged that states have an advantage by regulating the activity. The regulation process enables the deployment of technology and allows for economic opportunities and solutions for Alaska's energy industry.

[3:51:28 PM](#)

CO-CHAIR GIESSEL asked if there were questions.

[3:51:41 PM](#)

SENATOR KAWASAKI asked about class II wells, which are common in Alaska. He queried how frequently class II wells transition to class VI wells.

MR. CONNORS answered that EPA established class VI rules in 2010. He revealed that a federal code identifies the transition of oil well classes. He stated that the transition is tied to pressure and project intent. He spoke about potential challenges associated with the transition to a mineral-bearing zone, which requires permission from the mineral owner to use their minerals as a storage horizon. He remarked that he had not witnessed a transition in the oil well class. The future may include the use of depleted oil and gas reservoirs, but most states mandate optimal recovery of oil and gas resources. Transitioning to a class VI reservoir means that production ceases. He opined that a path toward continued production and storage is associated with enhanced oil recovery. He recognized the storage aspects of CO₂-enhanced oil recovery. He anticipated great benefits to enhanced oil recovery compared to CO₂ storage. He explained that CO₂ injection recovery involves managing a reservoir and pressures within the reservoir; the activity is considered storage.

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CO-CHAIR BISHOP asked how long North Dakota waited to receive the class VI certification.

MR. CONNORS answered that he led the effort, and it took about five years.

CO-CHAIR GIESSEL asked if the carbon storage is collected from currently functioning power plants. She wondered if North Dakota employed technology to capture carbon from the air.

MR. CONNORS responded that a combination of supplies are utilized including lignite coal. He furthered that electricity generation from ethanol plants and corn belt capture are also utilized. He explained that the states in the corn belt lack the appropriate geology for large-scale geologic storage, so captured CO₂ requires transport. He mentioned that CO₂ capture in Wyoming's natural gas processing facilities utilizes a pipeline to transport CO₂ to Montana and North Dakota. He added that North Dakota has been capturing CO₂ since 2000 in a lignite coal gasification plant utilizing a pipeline to transport CO₂ to oil fields in southern Saskatchewan.

CO-CHAIR GIESSEL asked about the federal credits North Dakota obtains.

MR. CONNORS replied that the Section 45Q tax credit is available to the project developer, which incentivizes advancing projects. He revealed that the Section 45Q tax credit is \$85/ton for saline storage, and \$60/ton for CO₂ as it is stored in association with enhanced oil recovery. He added that higher incentives exist for direct air capture. The Section 45Q tax credits incentivize commercial development and deployment and are made available to the capturer or the storage provider depending on the business arrangement.

CO-CHAIR GIESSEL assumed that North Dakota gleaned revenue from the core space.

MR. CONNORS replied that the North Dakota core space is privately owned. He expounded that surface owners own the core space, which is leased, and private landowners are compensated. He furthered that North Dakota saw economic benefits as the state exports more than it consumes. North Dakota provides energy to multiple states via the coal fleet and oil and gas industries. He cited North Dakota's goal to reach carbon neutrality. He shared that North Dakota's agriculture and energy

industries provide the pillars of the state's economy and carbon-intensive industries. He revealed that North Dakota considered carbon capture utilization and storage as a solution to reducing the carbon intensity of the industries. North Dakota reaps the benefits of economic interest and advancement because of the practices. He stated that North Dakota receives investment interest because of the early work with CCS projects.

[4:01:23 PM](#)

SENATOR WIELECHOWSKI asked what the average landowner receives per acre and ton. He wondered if North Dakota captures revenue via taxes.

MR. CONNORS replied that there is a fee associated with CO₂ storage used to pay for the administration of the regulatory program and the long-term transition of a closed site. He explained that CCS did not yield a direct economic benefit to North Dakota, however, the agriculture and energy industries benefit economically and pay into state revenues. He revealed that state revenue is gained from taxing the oil, gas, coal, and agriculture industries. The revenue is allocated to school systems and other programs.

SENATOR WIELECHOWSKI requested the per acre and ton value. He asked if the state taxed the industry directly for carbon storage.

MR. CONNORS denied a specific tax other than the fee associated with CO₂ storage. The benefit is that carbon storage attracts new industries. The state does not receive direct revenue but creates great opportunities for industries to thrive.

SENATOR WIELECHOWSKI asked how a state might receive revenue from CCS. He asked if the industry is taxed when they inject carbon into the wells.

MR. CONNORS restated that CO₂ storage is not taxed other than the fees associated. He shared that the North Dakota Legislature considered a higher fee for out-of-state CO₂. The state benefits from attracting new industries because of interest in carbon capture and the hydrogen economy. He stated that sales tax incentives exist for industries seeking to capture CO₂. He added that pipelines for CO₂ enhanced recovery operations allow for further tax incentives. North Dakota allows industries to thrive with a business-friendly environment and safeguards ensuring that CO₂ storage and transport are done safely.

[4:06:14 PM](#)

CO-CHAIR BISHOP queried Mr. Connors' experience with coal power plants and feasibility studies related to carbon direct-air capture.

MR. CONNORS replied that he had experience with both. He added that project developers were encouraged to characterize geological prospects. The projects were supported from characterization through feasibility and permitting. He mentioned a coal-fired power plant that is permitted to store four million metric tons of CO₂ underneath the facility. He added that the project received federal funding. He mentioned helping an electric company characterize its geology for a geologic storage project that was approved in January of 2023.

CO-CHAIR BISHOP requested a further conversation with Mr. Connors.

MR. CONNORS agreed to have another conversation.

[4:07:59 PM](#)

CO-CHAIR GIESSEL held SB 49 in committee.

DISCUSSION: 2023 CERAWEEK

[4:08:25 PM](#) late

CO-CHAIR GIESSEL announced that the committee would hear from Commissioner-Designee Boyle and Commissioner-Designee Crum about their recent trip to the Cambridge Energy Research Associates 2023 CERAWeek.

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JOHN BOYLE, Commissioner-Designee, Department of Natural Resources, Anchorage, Alaska, introduced himself.

[4:08:53 PM](#)

ADAM CRUM, Commissioner-Designee, Department of Revenue, Anchorage, Alaska, introduced himself.

[4:09:21 PM](#)

COMMISSIONER-DESIGNEE BOYLE informed the committee that the 2023 CERAWeek event reinforced his values about "Alaska showing up." He stated that CERAWeek is a conference that unites the chief executive officers (CEOs) of energy companies, infrastructure investors, private equity players, philanthropic organizations and government policymakers. He learned during CERAWeek about

how other areas market themselves, Canada and Alberta in particular. He credited Ellie Rubenstein, a board member of the Alaska Permanent Fund, for helping establish a robust meeting schedule that provided opportunities for important connections and conversations.

COMMISSIONER-DESIGNEE BOYLE relayed the omission of Alaska's resource opportunities in CERAWeek attendees' minds and plans. He opined that Alaska's resources may help expand industry investment portfolios and move forward with the process of energy transformation.

[4:12:32 PM](#)

COMMISSIONER-DESIGNEE CRUM agreed with the perception that Alaska was forgotten during the CERAWeek event. He spoke about conversations with renewable energy and infrastructure funding professionals that revolved around Alaska's Permanent Fund and cruise industry. He reported his focus on educating professionals about Alaska's resource complexity. He mentioned a philanthropic group that invested in grid upgrades and electrification of off-road systems in Africa, which provided an opportunity to educate people about Alaska's off-road systems.

COMMISSIONER-DESIGNEE CRUM explained the goal of further education about renewable energy. He shared that groups approached him at the end of CERAWeek with conversations about renewable energy projects. He opined that the conversations provide an opportunity for Alaska to continue the unified pitch. He shared an idea spurred by the salmon lunch that was provided at the CERAWeek conference; he wondered if an Alaskan salmon lunch might help market the state's resources.

[4:15:47 PM](#)

COMMISSIONER-DESIGNEE BOYLE spoke about the CERAWeek attendees' interest in major infrastructure project development. He shared conversations with investors interested in AKL&G. He reported the lack of large projects available for those interested in investing in larger projects. He highlighted Alaska's value as a major energy source from an Organization for Economic Cooperation and Development (OECD) country protected from geopolitical shipping risks. He added that the carbon bills currently dissected in Alaska coupled with tax credits may yield tangible project interest.

COMMISSIONER-DESIGNEE BOYLE stated that the CERAWeek conversations highlighted net zero carbon emissions. He acknowledged that transforming energy systems can destabilize

countries, economies and geopolitical power. He stressed the importance of a measured approach to transforming systems. He spoke about his opportunity to highlight Alaska's projects and the low Greenhouse Gas (GHG) ranking. He noted the interest in investing in environmentally responsible areas with environmental justice principles.

[4:22:11 PM](#)

SENATOR CLAMAN asked about carbon capture and the AKL&G projects. He mentioned past Senate Resources Committee conversations related to carbon capture and other countries' carbon storage needs. He asked if Alaska's opportunity was via the AKL&G project or imported carbon.

COMMISSIONER-DESIGNEE BOYLE replied that the opportunity exists everywhere. He opined that each project had tremendous benefits. He stated that AKL&G created a large demand because of the gas treatment plant on the North Slope. He stated that North Slope gas had a 12.5 percent CO₂ content. He explained the goal of removing the CO₂ from the natural gas stream to allow for an economic value. He stated that the CCS could supplement enhanced oil recovery in Prudhoe Bay or permanently sequester the carbon in reservoirs on the North Slope, presenting a value-added proposition for the state. He highlighted investor excitement about a gas line to Nikiski and the production of Liquefied Natural Gas (LNG), hydrogen, and ammonia. He mentioned an opportunity where ammonia could be shipped to Asian nations with vessels returning full of CO₂ for sequestration. He stressed the opportunity for a value chain based on Alaska's strategic geographic location.

[4:25:59 PM](#)

COMMISSIONER-DESIGNEE CRUM agreed with the value chain commentary and added the importance of in-process carbon capture. He remarked on the ammonia, hydrogen and eFuel processes. He explained that eFuel processes utilize CO₂ to electrolyze hydrogen and create a methanol-based product for use in combustion engines. He informed the committee about lithium batteries and the long and intensive production process involved. He highlighted the notion of a value chain that monetizes the carbon produced. He spoke about Fairbanks and the potential for a consistent and clean gas supply. He mentioned learning about old refineries that are transforming production.

[4:28:10 PM](#)

CO-CHAIR BISHOP asked Commissioner-Designee Boyle's for his plans to promote Alaska during next year's CERAWeek. He also

asked if Cook Inlet would serve as the next Qatar or Mecca for carbon capture in Alaska. He spoke about Alaska's challenges with intermittent power.

[4:28:53 PM](#)

COMMISSIONER-DESIGNEE CRUM replied to Co-chair Bishop's first question and stated his excitement about promoting Alaska during next year's CERAWeek. He spoke about a study in the Journal of Science addressing carbon monoxide wavelengths on satellite images following CO₂ release from forest fires. He spoke about the interest in active forest management for carbon credits.

[4:30:42 PM](#)

COMMISSIONER-DESIGNEE BOYLE responded to Co-chair Bishop's first question. He remarked on the practice of geologic characterization by the Division of Geological and Geophysical Surveys. He spoke about the team of experts employed at the division that delineate Alaska's mineral potential. He opined that the state would benefit from an increased capacity in the geothermal realm. He sought funding to establish geologic characterizations leading to a high potential for geothermal development. He stated that the characterizations would allow him to present findings to potential investors at future CERAWeek events. He stressed that characterizations allow the government to drive Alaska's economy.

COMMISSIONER-DESIGNEE BOYLE continued with Co-chair Bishop's second question. He opined that Alaska has a strategic advantage with Cook Inlet. He noted the AKL&G facilities with the geology under or adjacent to Cook Inlet provide incredible sequestering opportunities and carbon hubs for Asian countries interested in growing their economies.

[4:35:21 PM](#)

COMMISSIONER-DESIGNEE CRUM shared that Alaska's oil and gas production utilizes minimal holes, which increases the carbon structure opportunities because of the lack of leaking or capping effects.

[4:36:04 PM](#)

SENATOR DUNBAR stated that the Alaska Industrial Development and Export Authority (AIDEA) holds leases in the Arctic National Wildlife Refuge (ANWR). He wondered if AIDEA participated in CERAWeek. He asked if the commissioner-designee recalled positive or negative references to ANWR.

COMMISSIONER-DESIGNEE CRUM replied that he serves as an AIDEA board member. He revealed that the Willow project monopolized the discussions and ANWR was not mentioned. He added that the National Petroleum Reserve-Alaska (NPRA) was at the forefront of the CERAWeek discussions.

SENATOR KAUFMAN queried plans for an Alaskan marketing plan. He suggested a legislative checklist to enable an actionable economic plan. He opined that the state relies heavily on the Washington delegation.

[4:38:01 PM](#)

COMMISSIONER-DESIGNEE CRUM replied that the governor allocated \$5 million for Alaska's marketing efforts. He spoke about recent deliberations related to marketing since returning from CERAWeek. He mentioned meetings with credit rating agencies in the Department of Revenue. He stated that collaborative discussions bring awareness to those entities interested in the state's ability to lend and those interested in investing in Alaska. He suggested a marketing approach highlighting the credit rating because it may encourage interest in investment opportunities.

COMMISSIONER-DESIGNEE BOYLE added that an economic sub-cabinet group meets regularly with commissioners. He expressed that the marketing opportunity exists, as seen recently at CERAWeek and the next step involves an action plan. He expressed his belief that the legislature has a critical role in establishing marketing priorities. He stressed the importance of big-picture policy requirements. He spoke about the overlap between resources such as agriculture, carbon, forestry, oil, and gas. He expressed optimism about marketing the state and sought legislative opinions about how to move forward.

[4:41:39 PM](#)

CO-CHAIR GIESSEL recalled the meeting between joint leadership and the governor. She relayed the governor's query about the collaborative promotion of Alaska. She stated that legislators contributed ideas and she acknowledged the importance of the mission. She shared her enthusiasm about educating the world via an advertising campaign about the benefits and advantages of investing in Alaska's natural resources. She appreciated the update and the commissioner-designee's contributions.

[4:43:19 PM](#)

There being no further business to come before the committee, Co-Chair Giessel adjourned the Senate Resources Standing Committee meeting at 4:43 p.m.