**ALASKA STATE LEGISLATURE**
**SENATE RESOURCES STANDING COMMITTEE**
March 15, 2024
3:31 p.m.

**MEMBERS PRESENT**

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

**MEMBERS ABSENT**

Senator Scott Kawasaki

**COMMITTEE CALENDAR**

SENATE BILL NO. 164
"An Act making certain veterans eligible for a lifetime permit to access state park campsites and facilities without charge; and providing for an effective date."

- HEARD & HELD

SENATE BILL NO. 175
"An Act relating to an electronic product stewardship program; relating to collection, recycling, and disposal of electronic equipment; establishing the electronics recycling advisory council; and providing for an effective date."

- HEARD & HELD

COMMITTEE SUBSTITUTE FOR HOUSE BILL NO. 143(RES)
"An Act relating to the Department of Environmental Conservation; relating to advanced recycling and advanced recycling facilities; relating to waste; and providing for an effective date."

- HEARD & HELD

**PREVIOUS COMMITTEE ACTION**

BILL: SB 164

SHORT TITLE: STATE PARK PERMITS FOR DISABLED VETERANS
SPONSOR(s): SENATOR(s) BJORKMAN

| | | |
|---|---|---|
| 01/16/24 | (S) | PREFILE RELEASED 1/8/24 |
| 01/16/24 | (S) | READ THE FIRST TIME - REFERRALS |
| 01/16/24 | (S) | RES, FIN |
| 03/11/24 | (S) | RES AT 3:30 PM BUTROVICH 205 |
| 03/11/24 | (S) | Heard & Held |
| 03/11/24 | (S) | MINUTE(RES) |
| 03/15/24 | (S) | RES AT 3:30 PM BUTROVICH 205 |

BILL: SB 175
SHORT TITLE: ELECTRONIC DEVICE RECYCLING
SPONSOR(s): SENATOR(s) TOBIN

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|---|---|---|
| 01/16/24 | (S) | PREFILE RELEASED 1/12/24 |
| 01/16/24 | (S) | READ THE FIRST TIME - REFERRALS |
| 01/16/24 | (S) | RES, FIN |
| 03/15/24 | (S) | RES AT 3:30 PM BUTROVICH 205 |

BILL: HB 143
SHORT TITLE: ADVANCED RECYCLING AND FACILITIES
SPONSOR(s): RESOURCES

| | | |
|---|---|---|
| 03/27/23 | (H) | READ THE FIRST TIME - REFERRALS |
| 03/27/23 | (H) | RES, L&C |
| 04/05/23 | (H) | RES AT 1:00 PM BARNES 124 |
| 04/05/23 | (H) | -- MEETING CANCELED -- |
| 04/12/23 | (H) | RES AT 1:00 PM BARNES 124 |
| 04/12/23 | (H) | Heard & Held |
| 04/12/23 | (H) | MINUTE(RES) |
| 04/19/23 | (H) | RES AT 1:00 PM BARNES 124 |
| 04/19/23 | (H) | -- MEETING CANCELED -- |
| 04/21/23 | (H) | RES AT 1:00 PM BARNES 124 |
| 04/21/23 | (H) | Heard & Held |
| 04/21/23 | (H) | MINUTE(RES) |
| 04/26/23 | (H) | RES AT 1:00 PM BARNES 124 |
| 04/26/23 | (H) | Moved CSHB 143(RES) Out of Committee |
| 04/26/23 | (H) | MINUTE(RES) |
| 04/28/23 | (H) | RES RPT CS(RES) 5DP 2DNP 1AM |
| 04/28/23 | (H) | DP: MCCABE, WRIGHT, RAUSCHER, SADDLER, MCKAY |
| 04/28/23 | (H) | DNP: MEARS, DIBERT |
| 04/28/23 | (H) | AM: ARMSTRONG |
| 05/08/23 | (H) | L&C AT 3:15 PM BARNES 124 |
| 05/08/23 | (H) | Heard & Held |
| 05/08/23 | (H) | MINUTE(L&C) |

| | | |
|---|---|---|
| 01/22/24 | (H) | L&C AT 3:15 PM BARNES 124 |
| 01/22/24 | (H) | Moved CSHB 143(RES) Out of Committee |
| 01/22/24 | (H) | MINUTE(L&C) |
| 01/24/24 | (H) | L&C RPT CS(RES) 5DP 2AM |
| 01/24/24 | (H) | DP: SADDLER, PRAX, WRIGHT, RUFFRIDGE, SUMNER |
| 01/24/24 | (H) | AM: CARRICK, FIELDS |
| 02/19/24 | (H) | NOT TAKEN UP 2/19 - ON 2/20 CALENDAR |
| 02/20/24 | (H) | NOT TAKEN UP 2/20 - ON 2/21 CALENDAR |
| 02/23/24 | (H) | TRANSMITTED TO (S) |
| 02/23/24 | (H) | VERSION: CSHB 143(RES) |
| 02/26/24 | (S) | READ THE FIRST TIME - REFERRALS |
| 02/26/24 | (S) | RES, L&C |
| 03/15/24 | (S) | RES AT 3:30 PM BUTROVICH 205 |

**WITNESS REGISTER**

SENATOR LÖKI TOBIN, District I
Alaska State Legislature
Juneau, Alaska
**POSITION STATEMENT:** Sponsor of SB 175

LOUIE FLORA, Staff
Senator Loki Tobin
Alaska State Legislature
Juneau, Alaska
**POSITION STATEMENT:** Presented an overview of SB 175.

LELANDE REHARD, Senior Associate
Policy and Programs
Product Stewardship Institute
Anchorage, Alaska
**POSITION STATEMENT:** Invited testimony for SB 175.

AHNAMA SHANNON, Environmental Director
Kawerak, Inc.
Nome, Alaska
**POSITION STATEMENT:** Invited testimony for SB 175.

REILLY KOSINKI, Specialist
Waste Logistics and Training Development
Zender Environmental Health and Research Group
Haines, Alaska
**POSITION STATEMENT:** Invited testimony for SB 175.

SIMONE SEBALO, Deputy Director
Zender Environmental Health and Research Group

Haines, Alaska
**POSITION STATEMENT:** Testified on SB 175.

REPRESENTATIVE TOM MCKAY, District 15
Alaska State Legislature
Juneau, Alaska
**POSITION STATEMENT:** Sponsor of HB 143.

TREVOR JEPSEN, Staff
Representative Tom McKay
Alaska State Legislature
Juneau, Alaska
**POSITION STATEMENT:** Presented an overview of HB 143.

ADAM PEER, Senior Director
American Chemistry Council (ACC)
Washington, D.C.
**POSITION STATEMENT:** Invited testimony for HB 143.

**ACTION NARRATIVE**

3:31:05 PM
**CO-CHAIR CLICK BISHOP** called the Senate Resources Standing Committee meeting to order at 3:31 p.m. Present at the call to order were Senators Dunbar, Kaufman, Wielechowski, Co-Chair Giessel, and Co-Chair Bishop.

**SB 164-STATE PARK PERMITS FOR DISABLED VETERANS**
**SB 164-STATE PARK PERMITS FOR DISABLED VETERANS**

3:31:42 PM
CO-CHAIR BISHOP announced the consideration of SENATE BILL NO. 164 "An Act making certain veterans eligible for a lifetime permit to access state park campsites and facilities without charge; and providing for an effective date."

3:32:09 PM
CO-CHAIR BISHOP opened public testimony on SB 164; finding none, he closed public testimony.

3:32:15 PM
CO-CHAIR BISHOP [held SB 164 in committee].

3:32:41 PM
At ease

**SB 175-ELECTRONIC DEVICE RECYCLING**

## SB 175-ELECTRONIC DEVICE RECYCLING

3:33:20 PM
CO-CHAIR GIESSEL reconvened the meeting and announced the consideration of SENATE BILL NO. 175 "An Act relating to an electronic product stewardship program; relating to collection, recycling, and disposal of electronic equipment; establishing the electronics recycling advisory council; and providing for an effective date."

3:33:49 PM
LÖKI TOBIN, Senator, District I, Alaska State Legislature, Juneau, Alaska, sponsor of SB 175, introduced herself.

3:33:56 PM
LOUIE FLORA, Staff, Senator Loki Tobin, Alaska State Legislature, Juneau, Alaska, introduced himself.

3:34:00 PM
SENATOR TOBIN presented the opening statement.

[Original punctuation provided.]

**Senate Bill 175**

**Electronic Device Recycling**

**Sponsor Statement**

Senate Bill 175 creates a manufacturer-funded system for collecting and recycling electronic devices. Flat-screen televisions, computer monitors, and other electronic devices have grown integral to modern life, business, and education. With ever more devices, there is a growing problem of electronic waste in Alaska.

SB 175 introduces the practice of product stewardship for electronic devices sold in Alaska. Product stewardship is a program where the manufacturer of an electronic device assumes financial responsibility on a life-cycle basis for that device. Manufacturers would allocate funding to cover collection and recycling activities. These costs are currently borne by communities, non-profit organizations, Tribes, and businesses.

Electronic waste associated with human health risks includes lead used in the cathode ray tubes found in computer and TV screens, cadmium used in rechargeable computer batteries, contacts and switches, and mercury used in the liquid crystal displays of mobile phones and flat screen computer monitors as well as in switches, batteries and fluorescent lamps. These components are especially problematic in rural Alaska where community landfills are often unlined, allowing harmful chemicals to be released into local waters. Landfill fires that include electronic devices can cause smoke inhalation hazards in communities.

If SB 175 passes, Alaska will join half the states in the nation, Canada and many other countries in having a product stewardship law. Under SB 175 a manufacturer offering electronic devices covered under this bill for sale in Alaska would register with the Department of Environmental Conservation and allocate funding for the collection and recycling of devices proportional to the volume of their sales. Manufacturers would register individually or join a clearinghouse that specializes in implementing these programs and dividing the costs of the program among manufacturers. This will create a funding stream to cover the costs of collection, transportation and recycling which is currently funded by a mix of grants and local tax revenue.

SB 175 was developed by the Alaska Solid Waste Task Force. Stakeholders in the task force include the Alaska Native Tribal Health Consortium, the Alaska Department of Environmental Conservation, Kawerak Incorporated, and Zender Environmental. SB 175 is supported by the Alaska Federation of Natives, the Solid Waste Association of North America as well as numerous communities, organizations, and businesses.

SENATOR TOBIN gave a brief acknowledgment to her former classmates for their help in starting the University of Alaska Anchorage (UAA) Recycling Club, which is now supported by a fee at the university. She also expressed condolences to the family of the late Gary Smith from Total Reclaim, who had previously allowed her to volunteer for Community E-Waste Recycling Day in exchange for fare tickets during her university days. She mentioned another invited testifier, the Environmental Director of Kawerak, who collaborated with her on e-recycling efforts in

the Nome community after her return from the Peace Corps. Alaska has over 184 unlined landfills, and the chemicals from these devices are leaching into water systems. According to data, companies like Dell Technologies, which earned $102 billion in 2022, are financially capable of supporting e-waste recycling. Currently, the burden of collecting, transporting, and recycling electronic waste in Alaska falls on communities, nonprofit organizations, tribes, and businesses, with entities like the Nome-based nonprofit Kawerak carrying much of the responsibility.

3:39:20 PM
MR. FLORA presented the sectional analysis for SB 175:

[Original punctuation provided.]

**SB 175**

**Sectional Analysis**

**Section 1** – (page 1) Legislative findings. The legislature finds that the collaboration between manufacturers of electronic devices to establish an electronic recycling program is protected from federal anti-trust actions.

**Section 2** – (page 2) Amends AS 29.10.200 to add regulation of electronic device recycling to the list of restrictions on home rule municipality powers.

**Section 3** – (page 2) Adds a new Sec. 29.35.142., providing that the authority to regulate electronics recycling is reserved by the state.

**Section 4** – (page 2) Amends AS 45.50.572(b) a chapter on competitive practices, regulation of competition, consumer protection which prohibits monopolies. This section adds the Electronic Product Stewardship Program to the list of programs shielded from anti-trust actions. SB 175 authorizes multiple companies that manufacture electronic devices to combine forces to create a clearing house for the purpose of funding the program. This section ensures that the clearing house will be protected from anti-trust lawsuits.

**Sections 5 through 12** - (pages 2-6) Conforming changes to ensure existing statute at Title 46 Chapter 6

Recycling and Reduction of Litter applies to itself and not the proposed new statute relating to an Electronic Product Stewardship Program.

**Section 13** - (pages 6 – 23) Establishes the Electronic Product Stewardship Program in the Department of Environmental Conservation.

**Section 46.06.200** (page 6) Requires manufacturers of the following electronic devices sold in the state to register annually with the State of Alaska: computers and small-scale servers; computer monitors; televisions; printers, fax machines, and scanners; digital video disc players, digital video disc recorders, and videocassette recorders; video game consoles; microwave ovens; digital converter boxes, cable receivers, and satellite receivers; and battery-operated portable digital music players, computer keyboards, computer mice, and cables.

**Section 46.06.210** (pages 7-10) Manufacturer e-scrap program plans; manufacturer and manufacturer clearinghouse responsibilities. Manufacturers of electronic devices shall submit an annual plan to the Electronics Recycling Advisory Council for feedback, and incorporate this feedback into a plan submitted to DEC. Plans must include contact information, a description of the methods used in achieving the recycling program, audit and accounting information, and timelines for implementation. The manufacturer shall assume all costs of implementing the plan. If two or more manufacturers are participating in a manufacturer clearing house the clearing house shall assume all costs and manufacturers shall pay a proportional share based on national sales over the past two years.

**Section 46.06.220** (pages 10-12) Establishes requirements for the community electronic device collection sites including the frequency of collection events, and collector responsibilities.

**Section 46.06.230** (page 12, 13) Department responsibilities. DEC shall review and approve or disapprove electronic recycling plans and annual reports, conduct periodic studies to determine if new devices should be added to the recycling program,

report to the legislature every two years after 2030 on the effectiveness of the program. DEC shall write regulations to establish the amount and manner of payment of a program administration fee for manufacturers and manufacturer clearinghouses covered under this act. DEC may adopt further regulations for the implementation, and enforcement of the program.

**Section 46.06.240** (page 14) Outreach requirements for manufacturers of electronic devices participating in recycling programs established by this act, for DEC, for retailers of electronic devices, and for communities.

**Section 46.06.250** (page 14, 15) Prohibited acts. A person may not knowingly mix electronic waste covered under this act with landfill waste, may not knowingly burn electronic waste. A retailer may not sell devices covered under this act unless they are labeled and branded. A manufacturer may not provide electronic devices covered under this act unless it is labeled and branded. An electronic recycling program may not charge fees for collection.

**Section 46.06.260** (page 15) Establishes penalties for false statements, submitting falsified reports, and failure to pay registration fees.

**Section 46.06.270** (pages 16, 17) Establishes a 13-member multi-stakeholder Electronics Recycling Advisory Council, appointed by the Commissioner of DEC, to serve two-year terms. The purpose of the Advisory Council is to review and comment on a proposed manufacturer e-scrap program plan before submission of the plan to the department; (2) make recommendations to the department regarding the approval or disapproval of a manufacturer e-scrap program plan; (3) make recommendations to the department regarding the need for plan amendments or other requirements based on annual reports; (4) review and comment on regulations proposed by the department under AS 46.06.230; and (5) by November 1 of each year, beginning in 2026, provide to the department a list of best practices for program collection sites and single-day collection events under manufacturer e-scrap program plans.

**Section 46.06.280** (page 18) Describes those electronic devices items that are not subject to the terms of the act.

**Section 46.06.290** (pages 19-23) Definitions

**Section 14** - Transition section regarding seats on the Advisory Council. The commissioner shall appoint seven initial members of the electronics recycling advisory council to serve four-year terms and the remaining six initial members to serve three-year terms. Initial members maybe appointed to subsequent two-year terms thereafter.

**Section 15** - Immediate effective date

3:47:39 PM
SENATOR CLAMAN expressed concern about the size of the board, noting that 13 members seem excessive. While he acknowledged the importance of public participation, he questioned the need for such a large number.

3:47:57 PM
MR. FLORA explained that the 13-member board reflects the diverse stakeholders identified by the Solid Waste Alaska Task Force. However, he acknowledged that the number of seats could be reconsidered and deferred to the invited testifiers for further input.

3:48:36 PM
SENATOR KAUFMAN asked whether Alaskans would be ready to comply with an immediate effective date under SB 175, expressing concern about the feasibility of meeting such a timeline.

3:49:04 PM
SENATOR TOBIN replied that the immediate effective date is intended to help initiate the regulation process. However, the actual program is not set to go into effect until 2029, providing ample time to establish the framework, collaborate with community partners, and implement the necessary plans.

3:49:28 PM
CO-CHAIR GIESSEL announced invited testimony on SB 175.

3:50:06 PM
LELANDE REHARD, Manager, Policy and Programs, Product Stewardship Institute, Anchorage, Alaska, moved to slide 2 and

described the Product Stewardship Institute. He stated that the organization includes members from state and local governments across the country, who also serve on its board and guide its direction. Its goal is to support and promote the policies being discussed today. The organization also collaborates with industry partners, international governments, and other stakeholders to better inform proposed bills and programs.

3:51:00 PM
MR. REHARD moved to slide 3 and explained extended producer responsibility (EPR):

[Original punctuation provided.]

**EXTENDED PRODUCER RESPONSIBILITY**

A law that extends a producer's financial and managerial responsibility for its products and packaging beyond the manufacturing stage — both upstream to product design and downstream to postconsumer reuse, recycling, or safe disposal.

MR. REHARD noted that EPR extends a producer's responsibility beyond product design and consumer use to include reuse, recycling, and safe disposal. This approach gives manufacturers both a financial and managerial stake in the end-of-life management of their products. He noted that while this is not a new concept, it has been a long-standing policy that has successfully funded waste management and recycling in Europe, Canada, and other countries for decades.

3:51:48 PM
MR. REHARD moved to slide 4 and spoke to EPR laws in the U.S in 2000:

[Original punctuation provided.]

**U.S. EPR LAWS IN 2000**

- 8 laws
- 1 product
- 7 states

MR. REHARD noted that EPR is prevalent in the United States and is growing. In 2000, when the Product Stewardship Institute first began, there were eight product stewardship laws in seven states, specifically for batteries. Iowa had two of these laws.

3:52:05 PM
MR. REHARD moved to slide 5 and spoke to the status of EPR laws as of 2024:

[Original punctuation provided.]

**U.S. EPR LAWS 2024**

- 136 laws
- 18 products
- 33 states

MR. REHARD stated that approximately 260 million Americans live in states with product stewardship laws and programs.

3:52:24 PM
MR. REHARD moved to slide 6 and spoke to a bar chart depicting EPR laws from 2000 to 2023. He stated that product stewardship laws have been growing rapidly since 2000 and are now expanding exponentially, with the number of such laws expected to increase in the coming year. These laws are becoming a key policy for managing challenging waste and promoting recycling instead of landfill disposal.

3:52:46 PM
MR. REHARD moved to slide 7 and spoke to a graphic that shows product categories. He highlighted that product stewardship laws are used to manage waste across several product categories, including batteries, pharmaceuticals, and packaging. Currently, four states in the U.S. have programs covering packaging materials like cans, bottles, and paper. Additional states are expected to adopt similar programs soon.

3:53:13 PM
MR. REHARD moved to slide 8 and spoke to states in the U.S. that follow electronics EPR laws. He noted that electronics is one of the oldest product stewardship categories in the country, with 23 states and the District of Columbia having some form of law and program for managing electronic waste. However, the programs vary by state. While some states, like Oregon, Washington, New Jersey, and Minnesota, have robust programs, others are less developed. He expressed disapproval Missouri's program, which he would not recommend for adoption in Alaska or other states.

3:53:49 PM

MR. REHARD moved to slide 9 and explained the process of implementing EPR programs:

[Original punctuation provided.]

**How does EPR work?**

Law passes, manufacturers register with AK DEC and join a Producer Responsibility Organization (PRO).

PRO develops a Program Plan and submits it to AK DEC and Advisory Council.

Producer fees based on cost to the program and divided based on a producer's market share.

PRO implements the program using local infrastructure, submits annual reports to AK DEC and Advisory Council.

MR. REHARD noted that after a law, such as SB 175, is passed, there is a lengthy implementation period during which manufacturers or producers register with the Department and join a coordinating body, often called a Producer Responsibility Organization (PRO) in Europe. PROs specialize in managing these laws on behalf of multiple manufacturers, unlike single entities like Dell, which might manage only their products. The PRO develops a plan by consulting with communities and logistics experts to meet the law's objectives. Funding for the program comes from manufacturers based on their market share, such as Samsung's obligation that is proportional to its share of the TV market. Once funded, the PRO collaborates with local infrastructure to manage collection, transportation, and recycling of materials. The PRO also ensures compliance with industry and state standards. Regular reports, typically annual, are provided to the advisory council to demonstrate the program's effectiveness, outreach efforts, and adherence to the law's goals.

3:56:56 PM
SENATOR DUNBAR asked whether he is familiar enough with SB 175 to comment on the specifics of this legislation or if he is speaking generally about these programs.

3:57:06 PM
MR. REHARD replied that he could discuss specifics about SB 175 to the best of his ability but noted that he may request to follow up later with responses to any questions.

3:57:24 PM
SENATOR DUNBAR acknowledged his general understanding of SB 175. However, he expressed concern about Sections AS 46.06.250, and AS 46.06.260 of SB 175, which address prohibited acts and penalties for individuals. He noted that he was surprised to find provisions imposing fines of up to $10,000 on individuals for actions such as improperly disposing of electronics. He opined that these implications would have a significant impact and questioned whether such significant penalties for individuals, rather than corporate polluters, are typical in other states and how these fines are applied.

3:58:48 PM
MR. REHARD explained that the penalties in SB 175 are part of a broader approach to waste management known as a landfill ban. This policy encourages the use of recycling infrastructure by prohibiting the disposal of certain items in landfills. He noted that while not all states use landfill bans, the inclusion of penalties aims to ensure compliance with the recycling program. He clarified that the specifics of penalty structures and enforcement are typically decided by individual states based on their existing statutes and fee structures. He cited Massachusetts as an example of a state with notable landfill bans, while Washington is known for its strong recycling programs but fewer landfill bans. He emphasized that the exact fee structures and enforcement practices are determined by state stakeholders and agencies, and he deferred to Alaska's Department of Environmental Conservation (DEC) to decide on the appropriate approach for enforcement and penalties.

4:00:32 PM
SENATOR DUNBAR expressed appreciation for the explanation and requested additional information on the enforcement of landfill bans. He asked for evidence or examples from states with landfill bans, such as Massachusetts, regarding how and when these bans are enforced. He expressed concern about the practical enforcement of such bans, noting the potential for numerous daily violations, such as individuals inadvertently disposing of old electronics. He requested details on how enforcement is handled in practice and how often such violations are addressed.

4:01:21 PM
MR. REHARD explained that enforcement of landfill bans is typically not directed at individuals. Instead, enforcement often involves landfill inspectors who notice prohibited items,

such as electronics, and then work with trash haulers to improve outreach and inform customers about proper disposal practices. He stated that, based on his experience with various state departments, individual fines for such violations are rare. Enforcement usually focuses on improving practices at the landfill and ensuring compliance through better education and outreach. Enforcement practices might vary in Alaska and suggested considering the practicality and reasonableness of such fees and bans in the state.

4:02:16 PM
SENATOR TOBIN recommended reviewing page 14 of SB 175, which outlines significant outreach requirements to inform the public about potential penalties for violating the legislation. She noted that some invited testifiers would discuss practices in rural Alaska, where managed facilities are less common. In such areas, improper disposal of materials might occur at unmanned sites. The bill aims to educate the public and clarify penalties, rather than primarily targeting enforcement of improper disposal in remote areas. The goal of SB 175 is to provide education and ensure understanding of the electronic recycling program's requirements and consequences.

4:03:26 PM
SENATOR DUNBAR noted that his mother formerly managed the recycling program in Cordova and raised concerns about equity issues in enforcing recycling bans. He said rural areas and small towns might lack well-established recycling programs, making enforcement challenging. He questioned how SB 175 addresses these issues, noting that residents in such areas might face difficulties accessing recycling facilities and affording proper disposal. He asked whether the intent should be to address these equity concerns without penalizing individuals in such situations.

4:04:15 PM
SENATOR TOBIN replied that is correct.

4:04:41 PM
SENATOR KAUFMAN asked whether there are considerations for potential issues related to Alaska's small and remote market when implementing recycling statutes. He expressed concern that, given Alaska's limited population and remote supply chains, there might be risks of adverse reactions from businesses. He questioned whether there could be situations where businesses might respond to new recycling fees or requirements in a way that could impact availability or access to products, such as a

scenario where a retailer might withhold sales of certain items due to new regulations.

4:05:28 PM
MR. REHARD acknowledged the concern about potential market impacts due to new recycling statutes in a small and remote market like Alaska. He noted that similar concerns were raised in Hawaii, which has an electronics EPR program, but no significant issues have been reported. He explained that while logistical challenges exist, the overall cost of these programs is relatively small compared to industry revenues. For instance, a program may cost around $4 to $5 million annually, translating to approximately 35 cents per pound of collected material, compared to retail sales revenue of $500 billion. Larger manufacturers are obligated to participate, while very small businesses may be exempt from these requirements, minimizing the burden on smaller entities.

4:07:47 PM
SENATOR CLAMAN asked whether states with similar electronics recycling laws have observed any significant changes in sales due to the additional cost being incorporated into the sale price of electronics. He inquired about the impact of these recycling fees on consumer behavior and sales figures.

4:08:10 PM
MR. REHARD replied no. He said that, generally, there is no significant change in sales prices attributed to recycling programs, except when a direct consumer fee is involved. He noted that California's model includes a fee added at the point of sale, which is different from the approach being proposed in Alaska. In other states with similar programs, such as those for electronics and packaging, there is no noticeable cost increase linked specifically to these programs. Studies on packaging programs show no discernible impact on consumer goods prices beyond what might be attributed to inflation or sales tax.

4:09:12 PM
SENATOR CLAMAN asked whether, considering the California example, when purchasing a computer, consumers would pay an additional fee directly on top of the sales tax, which would be added to the final price at the point of sale.

4:09:29 PM
MR. REHARD replied that he believes California charges an additional fee specifically for TVs and monitors, which is added to the final price at the point of sale. This fee is listed on

their website and is updated occasionally. Unlike the proposed program for Alaska, this fee directly impacts consumers rather than obligating manufacturers.

4:10:35 PM
AHNAMA SHANNON, Environmental Director, Kawerak, Inc., Nome, Alaska, invited testimony for SB 175. She moved to slide 11 and noted that Kawerak, Inc. is a native nonprofit in Nome that serves the Bering Strait region. She discussed the challenges of waste management in small villages, highlighting a strategy implemented by her organization over the past 15 years. This strategy involves collecting household hazardous materials from small villages, repackaging them in Nome, and sending them to Seattle for proper recycling. She emphasized the environmental and health issues associated with rural landfills, which are unlined and often involve burning trash to reduce volume. This practice releases dioxins and toxins into the environment, contaminating the air and water table, and affecting human health, particularly for those involved in subsistence practices. The slide displays images of village landfills, illustrating the close proximity of these sites to residential areas and the lack of proper waste management. Removing toxic electronic waste from these landfills is important to protect human health and improve environmental conditions. She expressed hope that SB 175 could lead to future expansions to address other products.

4:13:57 PM
MS. SHANNON moved to slide 12 and highlighted the close proximity of landfills to community spaces, such as playgrounds and schools, which is a common issue in small communities due to their limited footprint. During winter, the need for easy access to landfills often results in them being situated close to residential areas. She pointed out the environmental and health risks associated with burning waste, particularly electronic waste, which releases harmful dioxins. In 2014, she and other professionals established the Solid Waste Alaska Task Force (SWAT team), with their initial focus on the Backhaul Alaska program. This initiative involves transporting electronics, lead-acid batteries, and other hazardous materials to Seattle or other locations for proper recycling. The program has received strong support from industry and federal sources. Through extensive meetings and collaboration with various sectors, including transportation and finance, they explored ways to sustain these recycling efforts. They discovered the concept of product stewardship, which involves sharing the cost burden with the industry that produces these products. This approach holds

manufacturers responsible and encourages them to share the burden, plus encourages manufacturers to create longer-lasting, less disposable products. The team studied successful models of product stewardship, such as the one in Victoria, British Columbia, and sees it as a potential long-term solution for maintaining a clean environment and promoting recycling in Alaska.

4:17:15 PM
MS. SHANNON moved to slide 13 and said she is representing the boots on the ground perspective. With 15 years of experience running the program at Kawerak, Inc., she highlighted the significant costs of shipping recyclables from Nome to Seattle, which can amount to $7,000 for a Conex container. This cost is only for shipping from Nome, not including the transportation from remote villages to Nome. She explained that many small, rural landfills have major issues, including proximity to schools and homes, which poses health risks from burning trash. The program at Kawerak aims to remove hazardous materials from these landfills to prevent environmental contamination. She noted that the landfill situation is common across many small places due to the small footprint of these communities. Expanding recycling infrastructure and implementing a comprehensive statewide program could help address these challenges. She supported the idea of product stewardship, where the burden of recycling costs is shared with industry, making it a more sustainable solution for managing electronic waste and other materials. The proposed bill would help small communities establish better recycling programs, improving their ability to manage waste and protect the environment and public health.

4:19:01 PM
REILLY KOSINKI, Specialist, Waste Logistics and Training Development, Zender Environmental Health and Research Group, Haines, Alaska, invited testimony for SB 175. He spoke to slides 13 - 14:

[Original punctuation provided.]

**Electronics are the best products to start with**

Why electronics?

40 lbs per year of Electronics per person are discarded annually. They are a growing waste.

They contain toxic heavy metals (e.g. lead, mercury, cadmium), PFAS, and more that can affect neuro-development, motor development, behavioral control, and are teratogenic and carcinogenic.

Unlike lead-acid batteries, most electronics don't demand a market price.

MR. KOSINSKI stated that Zender Environmental Health and Research Group is a 501(c)(3) nonprofit based in Anchorage that provides training and technical assistance to rural communities on solid waste issues. He said he is also a member of the Solid Waste Alaska Task Force and serves as the statewide coordinator for the Backhaul Alaska program. He explained that the Backhaul Alaska program aims to establish a statewide framework to enable communities to effectively and affordably ship out hard-to-manage materials, thus diverting them from landfills. One of the materials the Backhaul Alaska program focuses on is e-waste, which is visible, bulky, and contains materials that, if improperly disposed of or burned, can pose significant risks. Groundwork efforts have been successful over the past 15-20 years to help people recycle e-waste. Many rural communities use Class III landfills and often resort to burning waste to reduce volume, which exacerbates the problem of hazardous materials. He shared his experience in the field over the past 17 years, noting that while there is a general understanding of the risks associated with e-waste and a desire to recycle it, the challenge remains the high cost of proper disposal. Despite individual and group efforts, including programs like Backhaul Alaska, there is a lack of a sustainable funding source to support regular, statewide shipments of e-waste. SB 175 would ensure that even the smallest and most remote communities in Alaska receive the necessary resources to manage e-waste consistently and effectively, providing a long-term solution for recycling electronics.

4:21:47 PM

MR. KOSINSKI moved to slide 15 and spoke to third-party engagement on e-waste management efforts. He said it took years of engagement with many stakeholders to reach this point. He emphasized that numerous people contributed input throughout various stages of the process, which is reflected in the resolutions passed by organizations such as the Alaska Federation of Natives (AFN) and the Solid Waste Association of North America's Alaska chapter (SOWANA). These resolutions support product stewardship for managing e-waste, underscoring the collaborative effort and broad support for SB 175.

4:22:20 PM
MR. KOSINSKI moved to slide 16 and explained the benefits of SB 175:

[Original punctuation provided.]

**Many Benefits**

Help protect subsistence resources from toxics and rural health in other ways.

Create jobs and infrastructure in rural communities, as well as Alaska's recycling and transportation sectors.

Bring revenue to Alaska's struggling tribal and local governments

Bolster rural technical skills capacity and ensure safe handling of hazardous materials.
Recover valuable metals

MR. KOSINSKI noted that SB 175 would provide a long-term funding source, enabling both rural and urban areas to divert e-waste from landfills and ensure proper recycling. This would integrate these materials back into the circular economy. He noted that product stewardship for e-waste is already in place in nearly half the states, with similar programs existing for various other materials in even more states. The lower 48 states benefit from such programs. Alaska, with its unique challenges and needs, stands to benefit significantly from this bill, especially for rural communities.

4:23:50 PM
CO-CHAIR GIESSEL concluded invited testimony and opened public testimony on SB 175.

4:24:18 PM
SIMONE SEBALO, Deputy Director, Zender Environmental Health and Research Group, Haines, Alaska, offered to answer questions related to SB 175. She introduced herself as a member of the Solid Waste Alaska Task Force and a collaborator with Riley on the Backhaul Alaska program. She mentioned she has been involved in product stewardship since 2017. She offered to provide support and assist with any questions related to SB 175.

4:24:45 PM
CO-CHAIR GIESSEL closed public testimony and concluded invited testimony on SB 175. She invited Senator Tobin to provide closing remarks.

4:25:06 PM
SENATOR TOBIN noted that the large number of participants on the Advisory Council reflects the significant investment in developing the proposal. She opined that having diverse input from various stakeholders is crucial for effective and inclusive decision-making. SB 175 would support existing community efforts to manage hazardous materials and addresses the need to improve waste management practices. Ensuring everyone lives in a healthy community is a fundamental goal of the bill.

4:26:23 PM
CO-CHAIR GIESSEL expressed gratitude for SB 175. She shared a personal experience of paying to recycle computers rather than disposing of them improperly. She highlighted the environmental and health impacts of e-waste and commended the effort to find a solution.

4:26:53 PM
CO-CHAIR GIESSEL held SB 175 in committee.

## HB 143-ADVANCED RECYCLING AND FACILITIES

**HB 143-ADVANCED RECYCLING AND FACILITIES**

4:26:57 PM
CO-CHAIR GIESSEL announced the consideration of CS FOR HOUSE BILL NO. 143(RES) "An Act relating to the Department of Environmental Conservation; relating to advanced recycling and advanced recycling facilities; relating to waste; and providing for an effective date."

4:27:25 PM
REPRESENTATIVE TOM MCKAY, District 15, Alaska State Legislature, Juneau, Alaska, sponsor of HB 143. He presented the sponsor statement:

[Original punctuation provided.]

**House Bill 143**

**Advanced Recycling**

**SPONSOR STATEMENT**

In today's world, there is a heavy push for low greenhouse gas (GHG) processes for energy, fuel, and petroleum related products. However, many of the options available to us are not economical without heavy government subsidies or they simply don't work on a commercial scale. Advanced recycling is a process that defies those trends while also decreasing the amount of plastic that ends up in landfills and in the environment as pollution. HB 143 puts into place a regulatory framework that would allow Alaska to participate in the advanced recycling industry which would create jobs, revenue, and economic activity for the state.

Roughly 90 percent of plastics that are recycled or sorted at landfills are not suitable for traditional (mechanical) recycling. Through chemical processes such as pyrolysis and gasification, advanced recycling offers a way to solve this issue by taking plastics which cannot be recycled via traditional methods and converting them into new, high value plastics, chemicals, and other products.

Twenty-three other states have passed legislation similar to HB 143 in bipartisan fashion. I encourage you to support this legislation which encourages technological innovation, could create new manufacturing jobs, and promotes low GHG products in an economically viable manner.

4:29:47 PM
TREVOR JEPSEN, Staff, Representative Tom McKay, Alaska State Legislature, Juneau, Alaska, presented an overview of HB 143. He stated that HB 143 establishes a regulatory framework that could enable the emerging industry of advanced recycling to develop in the state.

4:30:12 PM
MR. JEPSEN moved to slide 2 of the presentation and explained that advanced recycling, also known as chemical recycling, is a relatively new technology that has been commercialized over the past decade. The industry has seen significant growth in the last five years due to increased research, technological advancements, and the enactment of supportive legislation similar to HB 143 in 24 other states, which has generated regulatory stability. This growth has resulted in billions of

dollars flowing into the domestic advanced recycling sector. The technology is designed to convert post-use plastics, which are not recyclable through traditional mechanical methods, into hydrocarbon-based products. This process reduces reliance on crude oil for plastic production and helps decrease the volume of plastic waste in landfills and the environment.

4:31:07 PM
MR. JEPSEN moved to slide 3 and explained the outputs for advanced recycling. He stated that advanced recycling can transform plastics into valuable products such as building blocks for new chemicals, plastic feedstocks, additives, waxes, lubricants, and fuels. However, the industry is shifting focus from fuels to plastic feedstocks as the primary product. Currently, most of the advanced recycling output is naphtha, a precursor for raw materials. He emphasized that this industry does not rely on government subsidies and is economically viable on its own. Advanced recycling is designed to complement, rather than replace, mechanical recycling. The provided circular flow chart illustrates how advanced recycling integrates into the recycling industry: post-use collection flows into mechanical recycling and consumer goods creation, with less than 10 percent of plastics currently recyclable mechanically. Advanced recycling offers an additional route to divert plastics from landfills and reintroduce them into the economy as plastic feedstock.

4:32:29 PM
MR. JEPSEN moved to slide 4 and summarized the process for advanced recycling. He said the process involves gasification, pyrolysis, and solvolysis. These processes break down plastics into hydrocarbon-based products. These methods are non-combustive, distinguishing them from incineration facilities. Although emissions are associated with advanced recycling, these facilities are regulated under federal legislation such as the Clean Air Act and the Clean Water Act. This ensures that emissions are controlled through technological and operational practices, similar to other manufacturing plants.

4:33:26 PM
MR. JEPSEN moved to slide 5 and provided definitions for the three advanced recycling processes outlined in HB 143. The flow chart illustrated the process as follows:

- **Gasification:** Uses high heat and an oxygen-deficient environment to prevent combustion, producing syngas, a mixture of carbon monoxide, hydrogen, and methane.

- **Pyrolysis:** The primary method currently used in the industry, involves heating in an oxygen-free environment, resulting in base chemicals and hydrocarbon liquids such as diesel and naphtha.
- **Solvolysis:** Employs solvents and sometimes heat to break down plastic into purified polymers.

4:34:16 PM
MR. JEPSEN moved to slide 6 and explained the pyrolysis process, the primary method currently used in the industry. The flow chart illustrated the process as follows:

- **End Use/Consumers:** Plastic is collected and sent to a sorting and cleaning facility.
- **Advanced Recycling Facility:** The sorted and cleaned plastic is processed using pyrolysis, producing naphtha.
- **Plastic Resin Producers:** The naphtha is then sent to plastic resin producers, where it is converted into new plastics.
- **Market Integration:** The recycled plastics are reintroduced into the market through packaging, manufacturing, and other applications.

4:35:12 PM
MR. JEPSEN moved to slide 7 and explained why advanced recycling is necessary. He highlighted that it is estimated only about 9 percent of plastics recycled in the U.S. are actually reused, and this figure does not fully account for the plastic waste that ends up in the environment. He suggested that the true rate is likely much lower. With ongoing plastic production and a lack of capacity for mechanical recycling, this rate is expected to decline further. Additionally, countries that previously accepted U.S. plastic waste, such as China, no longer do so, leading to rapidly filling landfills. That problem will only grow unless something is done. Advanced recycling could play a crucial role in addressing this growing problem by providing a viable solution for plastic waste management.

4:35:57 PM
MR. JEPSEN moved to slide 8 and explained a circular economy. He said advanced recycling fits into the concept of the circular economy, which aims to incentivize markets to reuse products on a larger scale than is currently observed. Through effective policy and technology, advanced recycling can enable more efficient use of waste materials, allowing them to be returned to the economy as valuable products. This approach supports the idea of maximizing the lifecycle of materials and reducing

waste, contributing to a more sustainable and resource-efficient system.

4:36:24 PM
MR. JEPSEN moved to slide 9 and demonstrated the economic model. He said the accuracy of the model depends on the underlying assumptions, which he outlined. The model assumes the existence of one advanced recycling facility in the state, processing approximately 60,000 metric tons of landfill plastic, with 50 percent of that plastic being available for advanced recycling. The total amount of landfill plastic was estimated based on the state's population, using the 2020 census data and a weighting factor to account for the state's estimated recycling rate. The economic modeling software used for this analysis was called InPlan. According to the model, the facility would directly create 100 jobs with a payroll of $10.4 million and generate an economic output of $34.2 million. The model projected downstream employment—both direct and induced—of another 150 jobs. This would include an additional payroll of $10.5 million and an economic output of $36 million. He explained that the induced jobs result from household spending of income after taxes and savings, while the indirect outputs arise from business-to-business purchases within the supply chain, stemming from the initial industry input purchases.

4:38:14 PM
MR. JEPSEN moved to slide 10 and provided an explanation of the benefits of advanced recycling. He highlighted that advanced recycling is a low greenhouse gas process capable of producing petroleum-based products. This technology would significantly increase the percentage of plastics that can be recycled, reduce the landfill space occupied by plastics, and bring new industry and economic benefits to Alaska. He emphasized that introducing this new industry to the state is contingent upon the passage of HB 143.

4:38:58 PM
CO-CHAIR GIESSEL announced invited testimony on HB 143.

4:39:18 PM
ADAM PEER, Senior Director, American Chemistry Council (ACC), Washington, D.C, invited testimony for HB 143. He introduced the ACC as the national trade association for nearly 200 global companies in the chemical industry, including leading plastic resin manufacturers. He expressed support for HB 143, which aims to regulate advanced recycling as manufacturing. He informed the committee that if Alaska adopts this legislation, it would

become the 26th state to do so, with Wyoming having just signed a similar bill into law. He emphasized the growing importance of sustainability and reducing plastic waste, noting that HB 143 would establish an innovative approach to modernize recycling efforts. While traditional mechanical recycling effectively handles items like soda bottles, milk jugs, and detergent containers, it struggles with complex engineered packaging such as food pouches, snack wrappers, and yogurt tubs. He explained that the challenges posed by economics, market demand, and resource limitations—especially following China's recycling policy changes—underscore the need for innovation. Advanced recycling, often referred to as chemical recycling, offers a solution by converting hard-to-recycle plastics into raw materials for new, virgin-equivalent plastics and chemical products. These processes provide truly circular and environmentally beneficial solutions without combusting or burning plastic materials.

4:41:04 PM
MR. PEER provided examples of successful implementation in the United States, including Wendy's transition from paper-lined drink cups to plastic cups made with 20 percent recycled plastics through advanced recycling. He also highlighted Herbal Essence, a Procter & Gamble brand, which now produces shampoo and conditioner bottles made from 50 percent certified recycled plastic. Companies like Warby Parker and Under Armour have incorporated recycled materials into their eyewear products via advanced recycling technologies. If Alaska were to convert just 50 percent of the currently landfilled plastic feedstock using advanced recycling, it could generate over $70 million in economic output annually and create up to 250 manufacturing jobs. These manufacturing facilities would be subject to state, federal, and local environmental regulations, including the Clean Air Act and the Clean Water Act. Proper regulation of these technologies as manufacturing is crucial for attracting advanced recycling companies to invest in the state. He urged support for HB 143, which would position Alaska as a national leader in reducing plastic waste, increasing recycling, conserving resources, and bringing added investments and jobs to the state.

4:42:54 PM
SENATOR DUNBAR expressed that, based on the testimonies, including that of the bill sponsor, he is convinced of the economic benefits and potential usefulness of the bill as part of broader recycling efforts. However, he questioned the necessity of the bill, seeking clarity on why the proposed

changes cannot be accomplished under existing regulations. Specifically, he asked for an explanation of the practical differences for industry members between regulating advanced recycling as manufacturing versus under the current recycling facility regulations. He requested details on what would actually change for industry members if advanced recycling is categorized as manufacturing compared to the existing regulatory framework for other facilities.

4:43:47 PM
MR. PEER explained that there are two key reasons for the necessity of HB 143. He emphasized the importance of providing legal certainty of how the process is going to be regulated and how the content they produce is going to be used for meeting targets for investors. When companies consider making investments in advanced recycling, they need to know how their processes will be regulated and how the materials they produce will be recognized in meeting recycling targets. One of the primary functions of this bill is to ensure legal certainty, which is crucial for encouraging investment. He mentioned the need to clarify the regulatory language, noting that terms like "pyrolysis" can have different applications and meanings in various parts of the statutes. While he agreed that a reasonable person could interpret the current statutes in a way that aligns with the bill's objectives, he stressed that investors require clear assurance that the technologies they bring will be regulated as manufacturing processes rather than as waste management. The main difference between regulating advanced recycling as manufacturing versus as waste management lies in the standards and compliance regulations applicable to each. He reiterated the importance of having legal certainty to ensure that advanced recycling technologies are properly classified and regulated as manufacturing processes.

4:45:31 PM
SENATOR DUNBAR asked for clarification on the importance of legal certainty regarding regulation as manufacturing versus solid waste. He questioned whether having legal certainty that advanced recycling would be regulated as solid waste would deter companies from opening a plant in Alaska. He sought to understand the practical difference between being regulated as solid waste and being regulated as a manufacturer, and why the latter is preferred.

4:46:13 PM
MR. PEER stated that the key difference is that advanced recycling is a manufacturing process, not a waste management

process, and should be regulated accordingly. He offered to follow up with the committee to provide specifics.

4:46:53 PM
REPRESENTATIVE MCCKAY explained that he learned there are seven classes of plastic, with traditional recycling handling only classes one and two. Classes three through seven are tougher to manage, and advanced recycling is needed for them. He stressed the importance of setting up regulations through this bill to ensure that emissions and processes are safe and environmentally sound. Alaska, despite its low population, sees a lot of plastic waste due to its extensive coastline and industrial activity on the North Slope. He also noted that there's an exponential demand for recycled plastic packaging, driven by environmental awareness, and this process meets that demand. This understanding helped clarify the importance of HB 143.

4:49:27 PM
SENATOR WIELECHOWSKI inquired about the implications of HB 143, particularly regarding changes to the definition of solid waste in Section 4. He noted that existing regulations under 18 AAC 60.010 and 16 AAC 60.009 set standards for handling solid waste to protect public health and safety. He asked whether changing the definition of solid waste would exempt advanced recycling materials from these existing regulatory requirements.

4:50:45 PM
MR. PEER explained that the key difference is treating plastic separated from the waste stream as feedstock rather than waste. This distinction helps provide legal certainty and a framework for advanced recyclers to invest in equipment and infrastructure to process these materials into new products. He cited New Jersey, where recycled content requirements did not recognize pyrolysis output as recycled content due to regulatory ambiguity. Clarifying this issue in advance would have provided legal certainty. While advanced recycling processes must comply with federal and state laws for safety and environmental protection, HB 143 seeks to ensure they are regulated as manufacturing processes, not as waste management.

4:53:19 PM
SENATOR WIELECHOWSKI acknowledged the desire for legal certainty and inquired whether including relevant sections from 18 AAC 60.010, which regulate solid waste handling, would address concerns. He asked if an amendment ensuring that plastic products are stored in a manner that avoids health hazards and pollution would provide the necessary legal certainty and

alleviate concerns, and whether he would support such an amendment.

4:54:08 PM
MR. PEER replied that he would consider language that addresses safety and environmental concerns. He indicated a willingness to work with his office to find mutually agreeable language.

4:54:41 PM
SENATOR KAUFMAN asked for details on the energy inputs required for advanced recycling processes. He wondered how these energy demands align with current energy constraints.

4:55:08 PM
MR. PEER replied that the energy impact and emissions from advanced recycling are comparable to those of a medium-sized college campus or hospital. He noted that while specific figures depend on the size and scope of the operation, this comparison provides a useful context for understanding the energy demands and emissions associated with the process.

4:55:47 PM
SENATOR CLAMAN questioned how to address the legal and regulatory dichotomy between plastics intended for advanced recycling and those that remain as solid waste. He noted the challenge of distinguishing between plastic feedstock that is processed in manufacturing and plastic that does not make it into the manufacturing stream. He asked how this issue is managed legally, emphasizing the importance of regulating the solid waste that does not enter the manufacturing stream.

4:56:58 PM
MR. PEER explained that once plastics are separated from the waste stream, they are no longer considered waste but are classified as recyclable materials. This distinction is crucial for processing these materials, whether mechanically or through advanced recycling. He offered to provide specific statutory references to illustrate this difference for the committee.

4:57:49 PM
SENATOR CLAMAN expressed a need for a more detailed economic analysis of advanced recycling. He noted that while advanced recycling is promoted as using less overall energy compared to extracting raw materials, he has not seen this detailed analysis in the bill presentation or related materials. He emphasized the importance of understanding how advanced recycling compares in energy efficiency and overall economic impact, given that

plastic will continue to be present in the world. He requested a comprehensive analysis to illustrate how advanced recycling contributes to reducing energy consumption and minimizing reliance on raw materials.

4:59:14 PM
CO-CHAIR GIESSEL said the committee would request economic data from Representative McKay. She invited him to provide closing remarks.

4:59:36 PM
REPRESENTATIVE MCKAY replied that if materials are not recycled, they end up in landfills, which is not a favorable outcome. He pointed out that Exxon recently invested around a billion dollars in a facility in Louisiana, indicating that advanced recycling is a significant industry.

5:00:02 PM
CO-CHAIR GIESSEL held HB 143 in committee.

5:00:20 PM
There being no further business to come before the committee, Co-Chair Giessel adjourned the Senate Resources Standing Committee meeting at 5:00 p.m.