ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE
March 25, 2024
3:30 p.m.

MEMBERS PRESENT

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

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

SENATE BILL NO. 217
"An Act relating to the taxation of independent power producers; and increasing the efficiency of integrated transmission system charges and use for the benefit of ratepayers."

- HEARD AND HELD

PREVIOUS COMMITTEE ACTION

BILL: SB 217
SHORT TITLE: INTEGRATED TRANSMISSION SYSTEMS
SPONSOR(s): RULES BY REQUEST OF THE GOVERNOR

02/02/24	(S)	READ THE FIRST TIME - REFERRALS
02/02/24	(S)	RES, L&C, FIN
03/04/24	(S)	RES AT 3:30 PM BUTROVICH 205
03/04/24	(S)	Heard & Held
03/04/24	(S)	MINUTE(RES)
03/13/24	(S)	RES AT 3:30 PM BUTROVICH 205
03/13/24	(S)	Heard & Held
03/13/24	(S)	MINUTE(RES)
03/25/24	(S)	RES AT 3:30 PM BUTROVICH 205

WITNESS REGISTER

MATTHEW PERKINS, CEO
Alaska Renewables
Anchorage, Alaska
POSITION STATEMENT: Invited testimony for SB 217.

GWEN HOLDMANN, Associate Vice Chancellor
Research, Innovation, and Industry Partnerships
University of Alaska Fairbanks (UAF)
POSITION STATEMENT: Invited testimony for SB 217.

ACTION NARRATIVE

3:30:37 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 Wielechowski, Kawasaki, Dunbar, Co-Chair Giessel, and Co-Chair Bishop. Senators Claman and Kaufman arrived thereafter.

SB 217-INTEGRATED TRANSMISSION SYSTEMS

3:31:10 PM
CO-CHAIR GIESSEL announced the consideration of SENATE BILL NO. 217 "An Act relating to the taxation of independent power producers; and increasing the efficiency of integrated transmission system charges and use for the benefit of ratepayers."

3:31:55 PM
MATTHEW PERKINS, CEO, Alaska Renewables, Anchorage, Alaska, gave invited testimony for SB 217. He discussed his background, including 10 years at General Electric and involvement in multiple energy startups. Appreciation was expressed for the committee's work on this important issue, and the company's position, outlined 10 days ago, remains unchanged. Alaska Renewables is currently engaged with all railed facilities on wind energy projects. The ability to achieve the lowest power costs is impacted by proposed legislation, which Perkins urged should eliminate double taxation for Independent Power Producers (IPP) and transmission wheeling charges across the high voltage grid. The priorities highlighted were speed, clarity, and fairness. He expressed urgency regarding these wind energy projects, noting that ongoing price negotiations are directly influenced by the legislation. Long-term fixed-price agreements, typically used by IPPs, benefit ratepayers by removing cost volatility and attracting low-risk, patient capital such as pension funds. Unpredictable changes like taxes or tariffs

introduce financial risks that deter investment, making legislative clarity essential for maintaining project financing. Fair cost recovery for utilities investing in high voltage transmission infrastructure was also emphasized. Cost recovery should be based on transmission line usage rather than variable fees. An example from Fort Knox was provided, illustrating that while Golden Valley may own a transmission line, it should not charge Chugach variable rates for its use. Market distortions must be avoided to ensure fairness. The recent cold snap served as a practical example of the importance of this legislation. During that event, the proposed southern project at Little Mount Susitna could have supplied around 20 percent of the region's energy needs, according to third-party models. While wind power and thermal assets are not always reliable, additional generation from wind farms such as Belt and Shovel Creek would have allowed more energy to be shared with Southcentral Alaska. During the cold snap, large industrial customers, including mines, were asked to reduce power usage to address an energy shortage occurring 300 miles away. Collaboration among Railbelt utility leadership and staff was key to maintaining the system during the crisis. SB 217 is vital for securing low-cost power and ensuring energy security for Alaska.

3:37:22 PM
CO-CHAIR GIESSEL expressed appreciation for the three priorities he highlighted: speed, clarity, and fairness. She said that these are important considerations as the committee reviews SB 217 and others.

3:38:19 PM
GWEN HOLDMANN, Associate Vice Chancellor, Research, Innovation, and Industry Partnerships, University of Alaska Fairbanks (UAF), gave invited testimony for SB 217. She said she is presenting today as a representative of the Alaska Center for Energy Power, where she holds a joint position alongside the Associate Vice Chancellor. The goal at the university is to provide clarity on complex policy challenges and address the energy issues currently facing Alaska, along with the opportunities available.

3:38:54 PM
CO-CHAIR GIESSEL said a major reason for inviting Ms. Holdmann today is to outline the topics being discussed, not only for the committee's benefit but also to refresh the public's understanding and increase awareness of the important issue of modernizing and upgrading the grid transmission system.

3:39:23 PM

MS. HOLDMANN moved to slide 2 and noted that she appreciates the reminder that many issues have been at the forefront during this legislative session. She said that energy remains a major concern for Alaskans now and in the future and commended the committee's focus on keeping energy as a priority despite the numerous other challenges being faced in the state. She introduced the presentation outline:

[Original punctuation provided.]

Presentation Outline

- Current systemic challenges of the Railbelt Grid
- How SB 217 addresses issues
- What is not included in SB 217
- How SB 217 might be improved

3:39:28 PM
SENATOR KAUFMAN joined the meeting.

3:39:38 PM
SENATOR CLAMAN joined the meeting.

3:40:25 PM
MS. HOLDMANN moved to slide 3 and cited a study conducted on electrifying Alaska's Railbelt. She noted that the study was recently conducted by Bill White, an associate professor in history and northern studies at the University of Alaska Fairbanks. The study, titled "Electrifying Alaska's Railbelt: Generation and Transmission History," complements the modeling work by ASAP on future scenarios for the Railbelt grid. The report, which will be published soon, reveals how many times attempts have been made to address transmission issues. These are not new challenges. She provided examples from the report, mentioning a proposal from the 1950s for the Central Alaska Power Association, initiated by two electric associations to develop new generation on the Kenai Peninsula for an aluminum smelter planned by Harvey Aluminum. The goal was to create a power pool capable of offering "dump power rates" from hydro, making electricity so inexpensive that it could support industries like aluminum production. This historical context is reminiscent of her discussions about Iceland’s energy policies. More recently, the Trans Alaska Electric Cooperative was formed in the late 1960s and early 1970s by Golden Valley Electric Association, MEA, and Copper Valley Electric Association. This cooperative aimed to develop a transmission line between Palmer and Glennallen to electrify pump stations for the Trans Alaska

Pipeline, which spurred the construction of additional transmission lines, including the Rolodex transmission line. The discussion has also included Artech, the Alaska Railbelt Cooperative Transmission Electric Company, a partnership among several entities. Additionally, there was a proposal about five years ago for a for-profit transmission corporation with American Transmission Corporation involving Homer and Chugach Electric. She indicated the importance of these historical examples.

3:43:40 PM
MS. HOLDMANN moved to slide 4 and spoke to the history of the Railbelt Grid:

[Original punctuation provided.]

> **Historically, transmission has not been prioritized**
>
> Railbelt utilities solved reliability issues with local and regional generation rather than investing in interregional high-voltage transmission due to long distances with few members to pay the cost.
>
> The history of the Railbelt has been compared to an Alaskan "Prisoner's Dilemma" - prioritizing individual utilities' needs has resulted in a suboptimal system for everyone.
>
> There has never been single unified operator who was concerned about the grid as a whole.
>
> Prisoners Dilemma:
> A paradox in decision analysis in which two individuals acting in their own self interests do not produce the optimal outcome.

MS. HOLDMANN noted that the recurring challenge is seeing good ideas gain momentum but ultimately facing dissent, preventing progress. This is why a legislative solution is necessary. If it wasn't required, these industry best practices—commonplace in other markets—would already be implemented. Expecting utilities to simply figure it out on their own is unfair. Using the example of the "prisoner's dilemma," she said cooperative utilities are primarily beholden to their local customers. While cooperative ideals include collaboration, local interests often conflict with the greater benefit of the whole. This can create situations where decisions prioritize local constituents rather

than the overall system's efficiency. She pointed out the irony that no utility is advocating to leave the Railbelt grid, as being interconnected benefits everyone by increasing reliability. The transmission grid allows power sharing—whether from renewables like Mr. Perkins' wind farms or traditional sources like coal—which is critical for all utilities in the long term.

3:46:01 PM
CO-CHAIR BISHOP said page 3 shows a 1952 map and encouraged her to take a moment later to look at the proposed Devil's Canyon power plant.

3:46:14 PM
MS. HOLDMANN noted that the map relates to the Susitna-Watana Hydroelectric project. She stated that it illustrates several high-voltage transmission lines with built-in redundancy as part of the 1952 proposal. She said this highlights that the issues being discussed are not new.

3:46:39 PM
MS. HOLDMANN moved to slide 5 and spoke to opportunities for cooperation:

[Original punctuation provided.]

Shared opportunities create incentives for cooperation

Effective Railbelt cooperation most often occurred when state entities (legislature or AEA) provided capital for generation and transmission (Bradley Lake and Alaska Intertie).

To operate these joint assets, Railbelt utilities had to find a way to work together.

Federal Funding (GRIP) create that incentive today.

MS. HOLDMANN said that historically, there have been times when utilities have collaborated to develop significant projects, as noted in the report. Examples include the Bradley Lake Hydroelectric Project and the Alaska Intertie Project. These successes have often stemmed from opportunities and financial incentives, such as the chance to develop large-scale projects. The Bradley Lake project, in particular, brought together various stakeholders to establish a framework for effective management. This collaborative effort has proven successful in

navigating the diverse opinions and nuances present among individual cooperatives.

3:47:44 PM
MS. HOLDMANN moved to slide 6 and spoke to constraints on the Railbelt Grid:

[Original punctuation provided.]

Constraints on the Railbelt Grid

Technical Constraints

- Inadequate
- physical infrastructure

Economic Constraints

- economic dispatch
- wheeling
- small market
- economies of scale

Institutional Constraints

- Management and operation of assets for the benefit of the whole

MS. HOLDMANN mentioned the potential for generational investments in new transmission assets to strengthen the grid, emphasizing that Alaska has one of the weakest electric grids in the United States. This vulnerability has led the Federal Government to prioritize funding for Alaska, which has received the fifth highest amount under this competitive initiative due to its aging utility grid that urgently needs repair. SB 217 aims to mitigate some of these challenges, particularly the small market limitations that hinder the development of economies of scale. She pointed out the need to tackle institutional constraints that impede progress. Currently, there is no organization focused on the transmission system as a whole. Although the State of Alaska, the Alaska Energy Authority, and rail belt cooperatives collaborate through the Bradley Project Management Committee for federal funding applications, this framework does not adequately address the overall transmission system or consider the collective benefits to all stakeholders within the interconnected grid.

3:50:05 PM

SENATOR WIELECHOWSKI inquired about the legislation passed two years ago, which created the Regulatory Commission (RRC) under Senator Giessel's bill. He mentioned receiving considerable feedback from the RRC in recent weeks. He wondered about their role in planning the transmission and generation systems and asked for her thoughts on their effectiveness in that capacity.

3:50:35 PM
MS. HOLDMANN explained that the Alaska Railbelt Reliability Council (RRC) serves as the Electric Reliability Organization (ERO) for the Railbelt Grid and has critical mandates, including developing reliability standards and planning for the overall system through SB 123. While this planning function is essential, it is not typically associated with a reliability organization, which primarily focuses on setting standards rather than managing assets. The RRC is not expected to take ownership of or manage these assets comprehensively. Instead, their role involves setting standards and conducting planning. There has been some discussion about whether the RRC's responsibilities should shift, but currently, they do not include managing the entire transmission system. She referenced discussions from 2019 about forming a transmission organization, noting that a bill had already been passed in 2020, indicating that efforts to establish a mature energy market were already in progress.

3:52:31 PM
CO-CHAIR BISHOP inquired about the economic constraints and whether utilizing either SB 217 or SB 257, or a combination of both, could help address these issues. He asked if this legislative approach would unlock economic constraints and attract new capital investments.

3:53:08 PM
MS. HOLDMANN referenced comments made by Matt Perkins, noting the emphasis on speed, clarity, and fairness as key objectives. She emphasized that the focus is not solely on renewables, which present a near-term opportunity, especially given current federal incentives. However, the economic constraints discussed are not limited to renewable energy sources but are relevant to all energy types, including nuclear and coal. She urged that having an open transmission system is crucial for integrating various energy sources into the grid, allowing for the delivery of low-cost power to benefit customers. This aspect of a functioning transmission system is essential for meeting energy needs efficiently.

3:54:09 PM
CO-CHAIR BISHOP emphasized to the audience that this discussion is central to achieving the primary goal of lowering electric prices.

3:54:24 PM
SENATOR CLAMAN referenced slide six, which mentions institutional constraints, recalling an economist's observation about Anchorage. He noted that, unlike other communities of similar size, which typically have a single utility provider, Anchorage is served by multiple utilities. He asked whether this fragmentation is a reflection of those constraints.

3:55:06 PM
MS. HOLDMANN acknowledged that having a single utility could lead to greater efficiencies within the system. However, she noted that diversity among utilities can also provide value. For example, Hawaii essentially operates under a single utility structure, with Hawaiian Electric Company (HECO) managing all aspects, including transmission assets. Alaska's geographic diversity allows for local distribution utilities to focus on their customers' needs, which is beneficial. She then addressed the challenges of utility consolidation, particularly among cooperative utilities. Merging two cooperative utilities requires a substantial proportion of membership participation at annual meetings, making it difficult to achieve the necessary voting thresholds. Achieving a 60 percent turnout for a merger vote is an almost insurmountable barrier. Therefore, beyond minor consolidations, such as those under discussion in Seward, substantial mergers are challenging to realize in the short term.

3:56:59 PM
SENATOR CLAMAN asked whether it would be more effective to create an entirely new organization to handle transmission duties or to expand the existing Electric Reliability Organization's (ERO) role, which is currently focused on standards and planning. He inquired about her perspective on whether it's better to enhance the authority of the ERO to include additional responsibilities or to start a new entity for this purpose, considering the progress already made by the ERO in addressing related issues.

3:57:59 PM
MS. HOLDMANN replied that clarified that SB 217 does not propose any changes to the ERO. She acknowledged that the question about expanding responsibilities could be broader. She highlighted the

importance of considering the current ownership of transmission assets on the Railbelt Grid, which includes five owners: four cooperative utilities and the state of Alaska, currently owning about one-third of these assets. This percentage is expected to rise as more projects funded through the grid initiative will be state-owned, potentially increasing the state's share to about 50 percent. For effective management of these assets, there needs to be significant involvement from the asset owners, including a controlling interest, as they manage these assets for their members and ratepayers. The ERO is primarily focused on setting reliability standards, enforcing them, coordinating joint planning through an Integrated Resource Plan process, and ensuring consistent interconnection protocols. However, it is not designed to manage the system as a whole or act as a unified system operator. The ERO has experienced a slow start, and adding more responsibilities could hinder their progress. As an alternative, she suggested the possibility of establishing a transmission corporation within the state, similar to the approach taken for the Bradley Lake project. This would allow for state control and flexibility, enabling adjustments as needed. If, in the future, the ERO demonstrates capability, the transmission function could be transitioned to an outside entity, allowing for adaptability while remaining organized under the state's umbrella.

4:01:22 PM
MS. HOLDMANN moved to slide 7 and spoke to legislative objectives for SB 217:

[Original punctuation provided.]

SB 217 – How It Will Help

Objective #1:
Tax exemptions for IPP's

- puts IPP's on a level playing field with cooperative utilities.
- Encourages competition and unleashes free market principles.
- Supports development of a power market to increase diversification and reduce costs to consumers.
- Not limited to renewable IPP's, can also be coal, nuclear or other technology.

Objective #2:
Improves Transmission Cost Recovery Mechanism

- Eliminates economic constraints of buying and selling power between utilities, and between utilities and IPP's.
- Develops an association similar to low-cost, low-overhead structure that managers existing telecom universal service charge in Alaska.
- Allows free market to act to drive down costs.
- Enables local control of power decisions.

MS. HOLDMANN reiterated that the bill is not solely focused on renewable energy. Rather, it applies to all energy sources. The provisions are designed to be agnostic regarding the type of energy, indicating their relevance even if renewable energy were not the primary focus. These aspects are valuable considerations for the overall energy landscape.

4:01:59 PM
CO-CHAIR GIESSEL inquired whether the vast majority of independent power producers (IPPs) are primarily focused on renewable energy sources such as solar, wind, and hydroelectric power.

4:02:15 PM
MS. HOLDMANN acknowledged that while a significant portion of IPPs focus on renewable energy sources, this is not universally true. She cited Aurora Energy, a coal generator in Fairbanks, as an example of an IPP that does not fit the renewable category. Additionally, she mentioned that the University of Alaska Fairbanks sells power into the grid from a coal-based resource, further demonstrating this diversity. Historically, the trend has leaned towards renewables, particularly given current federal incentives and decreasing equipment costs, which create opportunities for an increase in renewable energy projects. However, she pointed out that it has been over a decade since the last wind farm was constructed on the Railbelt Grid. There is a growing consensus among utilities that there is capacity on the grid for additional renewable resources, provided they can be integrated economically for consumers.

4:03:33 PM
SENATOR WIELECHOWSKI mentioned that it has been suggested to include a provision in the tax exemptions for independent power producers (IPPs) stating that the cost savings from the tax exemption should be passed on to consumers. He asked for her perspective on that recommendation.

4:03:48 PM

MS. HOLDMANN responded that if costs were subject to taxation, they would ultimately be passed on to consumers. However, she indicated that she does not have a specific perspective on the suggestion regarding tax exemptions for IPPs. She mentioned that Steve Colt has been actively researching taxation issues related to clean energy standards and suggested inviting him to contribute to the discussion.

4:04:33 PM
MR. COLT expressed his hope that tax savings for IPPs would enable them to offer lower prices to utilities. He emphasized the importance of honest negotiation in ensuring that utilities secure the best deals for ratepayers. By doing so, utilities would essentially encourage and force IPPs to pass on the benefits of tax savings rather than retaining them.

4:05:20 PM
SENATOR WIELECHOWSKI asked whether the legislature, as a matter of public policy, should mandate that IPPs pass along tax savings to the local community, considering that these tax exemptions could represent a significant amount. He questioned whether it is sufficient to hope that IPPs will voluntarily pass on the benefits or if there should be a regulatory requirement to ensure that these savings are transferred to consumers.

4:05:46 PM
MR. COLT expressed uncertainty about the effectiveness of mandating that IPPs pass along tax savings. He noted that while it is possible to calculate the difference between what the taxes would have been under the previous tax structure and what they will be under the new system, it remains unclear what this would be subtracted from. Given that IPPs and utilities will negotiate contracts, he suggested that determining a counterfactual—comparing the negotiated contract price under the new taxation system with what would have been agreed upon under the old system—would be quite challenging. Therefore, he personally leans towards trusting the competition and negotiation process to yield the best outcomes.

4:07:17 PM
CO-CHAIR GIESSEL inquired about the role that the Regulatory Commission of Alaska (RCA) currently has or could potentially have in the context of IPPs, and the tax exemption provisions being discussed.

4:07:32 PM

MR. COLT explained that the RCA has, and will continue to have, review and approval authority over contracts between IPPs and utilities. He noted that the depth of the RCA's review process depends on their discretion, similar to how they handle gas supply contracts. While the existing statutory framework allows the RCA to thoroughly examine IPP contracts, it ultimately determines how deeply it wants to investigate, particularly if it suspects that an IPP is excessively benefiting from tax breaks granted by the legislature.

4:09:00 PM
CO-CHAIR BISHOP acknowledged the previous question but presented a different perspective, suggesting that if electricity costs are lowered, it could attract new businesses to the borough or city. This influx of businesses might lead to the construction of large facilities, ultimately benefiting the local tax base.

4:09:34 PM
CO-CHAIR GIESSEL acknowledged Senator Bjorkman's arrival.

4:09:42 PM
MS. HOLDMANN moved to slide 7 and spoke to the second objective of SB 217:

[Original punctuation provided.]

Objective # 2: Improve Cost Recovery Mechanism

- SB 217 intends to accomplish this by:
- Adding up all the transmission system costs.
- Allocating costs annually based on each utilities' proportional load through an "association".
- Uplifting costs directly to end-users (note end user pays all costs regardless).

MS. HOLDMANN referenced Dr. Scott's presentation from about ten days ago, noting that the aim is to consolidate all transmission system costs and allocate them based on each utility's proportional load through an association formed among the utilities that currently own transmission assets, excluding the state of Alaska. This approach will directly uplift those costs to end users. End users will ultimately pay these costs regardless, stating that the change primarily involves how these costs are recouped from consumers. While it may seem like an accounting difference, she asserted that this shift could significantly impact the overall cost recovery process.

4:10:56 PM
MS. HOLDMANN moved to slides 9 - 10 and explained the intent of eliminating wheeling:

[Original punctuation provided.]

> **Why does eliminating wheeling matter?**
>
> Decisions about investment in projects or economic dispatch should not be inhibited by the cost of transmission, or the need to move power across transmission lines with different ownership
>
> There are discrepancies to the utilities' current system of accounting, and how costs are allocated and recovered. Bottom line … its complicated!
>
> *Get rid of the toll road, create an open access highway that does not discriminate in terms of who generates the power, or what form of generation is used*

MS. HOLDMANN revisited a slide presented previously to the committee, updating it with the actual toll numbers from Dr. Scott's recent presentation. She explained that if Matthew Perkins with Glass Renewables aims to develop the Shuttle Creek wind farm in Fairbanks, and if a cooperative from Homer wishes to participate in the project, they currently face accumulating additional costs throughout the system. This process could result in power costs reaching 10 cents per kilowatt-hour by the time it reaches Alaska Electric Transmission Association (AETA). Due to these inflated costs, utilities may opt for cheaper alternatives, while dispatchers might find the proposed renewable energy more expensive compared to readily available resources. She highlighted the significance of this issue for decision-making regarding investments in projects and the dispatching of the most cost-effective resources on the grid at any given time.

4:12:22 PM
SENATOR CLAMAN noted that a few meetings ago, testimony highlighted the significant impact of group funding in the current dynamics of transmission investment. He emphasized that this funding allows for substantial investments in transmission infrastructure without relying on ratepayer contributions through individual utilities. While the presentation did not

explicitly focus on the importance of GRIP funding, he indicated that it plays a critical role. Without GRIP funding, much of the necessary transmission construction would need to be financed through utility member rates, complicating the situation. He whether she agrees that this aligns with previous testimony underscoring the essential nature of GRIP funding for the overall effectiveness of the proposed changes.

4:13:06 PM
MS. HOLDMANN concurred on the importance of GRIP funding in removing constraints related to the transmission system, particularly the challenges faced in getting power on and off the Kenai Peninsula, which currently relies on a single line, which makes the area extremely vulnerable She acknowledged the serious need to upgrade the physical attributes of the transmission system, stating that these upgrades are essential even if the legislation is valuable in alleviating economic constraints. As these constraints are addressed, new opportunities for power movement will arise. She highlighted that GRIP funding is crucial for reducing the burden on consumers in a small market where fixed transmission costs are significant due to the limited number of customers and expensive power. She expressed a desire for the state to leverage federal resources, if possible, to expand the transmission assets effectively.

4:14:42 PM
MS. HOLDMANN moved to slide 15 and explained how SB 217 handles cost recovery. She highlighted the discrepancies in how utilities calculate costs for their transmission assets, noting that each utility has its own approach due to the complexities involved in accounting. Some utilities may include all transmission assets, such as radial lines, in their wheeling charges, while others might only charge for the specific contract path used for transmitting electricity. She clarified that this variance is not indicative of any wrongdoing but is approved by the regulatory commission. The bill does not adequately address whether all transmission assets, including radial assets, are considered in cost recovery. For instance, it is questionable whether a consumer in Homer should be responsible for paying for a radial line that benefits another utility. She suggested that SB 217 should focus on defining backbone transmission assets essential for moving power across the grid, as this would help clarify cost allocations and improve the effectiveness of the bill. There is an opportunity to enhance the definitions related to backbone transmission

assets to ensure better alignment with the legislation's objectives.

4:17:09 PM
SENATOR WIELECHOWSKI noted that Chugach Electric Association (CEA), the utility serving his district, charges 1.4 cents per kilowatt-hour, which constitutes a significant portion of their revenue. He questioned whether removing this charge would result in a loss of revenue for CEA, potentially leading to increased rates for ratepayers due to the need for subsidies.

4:17:48 PM
MS. HOLDMANN moved to slide 16 and spoke to the cost recovery under the current model. She explained that CEA occupies a unique position in the transmission system, being situated in the middle of the system and historically acting as a backbone for moving bulk power north and south. They own many important components of the transmission system. CEA aggregates all transmission costs into one charge, which includes debts related to operations and maintenance, along with various components lumped together. This allows CEA to charge for electricity moving through their system, resulting in a credit for ratepayers. She emphasized that this cost-shifting means that ratepayers in other areas avoid certain costs because they are being covered by others. This situation is true for all utilities, but CEA has the most transmission and associated costs. The way these costs are recovered can vary, allowing for some flexibility in accounting practices. While some utilities have low transmission costs by minimizing what is included, others have higher costs. This system allows for the redistribution of cost burdens across different users, and any changes could equalize costs, leading to everyone paying the same amount. Although some utilities may pay slightly more or less in the short term, the overall impact involves small differences in cents or sub-cents rather than significant dollar amounts. The potential economic value of removing constraints from the transmission system greatly outweighs the minor cost differences for individual users. In the long term, the aim is for Anchorage consumers to benefit from energy projects developed in other regions, such as wind farms or hydro projects, as these are unlikely to be built within CEA's service territory. Therefore, while there may be some short-term reshuffling of costs, the long-term benefits for all utilities are clear.

4:23:22 PM

SENATOR KAUFMAN inquired about the overall dollar amounts involved in aggregate concerning transmission costs, specifically asking if there is a sense of these amounts at the unit rate.

4:23:36 PM
MS. HOLDMANN asked whether he is asking about the cost for transmission.

4:23:44 PM
SENATOR KAUFMAN replied that he is asking about the total volume and its contribution to the overall dollar amount per year. He noted that this aggregation through the grid, which charges that rate, has implications for offsetting costs and the broader macroeconomic impact on the utility.

4:24:23 PM
MS. HOLDMANN indicated that she could provide specific calculations regarding the aggregate dollar amounts if requested. She clarified that some costs are integrated into capital or long-term debt, making it challenging to separate them from operational and maintenance (O&M) expenses, which are distinctly outlined as a separate line item in reports to the RCA. While those O&M figures are available in the presentation, they do not encompass all costs related to transmission. Long-term debt and other categories also contribute to transmission costs but are not fully represented in the O&M figures.

4:25:21 PM
SENATOR KAUFMAN reiterated the need to break down the discussion into unit rates and the corresponding volume. He emphasized that understanding the total dollar amount impact on the system would be beneficial, especially in light of the changes being proposed. This insight would provide clarity on the broader financial implications for the utility.

4:25:51 PM
CO-CHAIR GIESSEL suggested referring back to slide 11 to help address the question regarding financial impacts. He noted that there are confidential financial documents that the utilities provide to the RCA for review. She stated that requesting Ms. Holdmann to provide precise numbers may not be possible.

4:26:22 PM
SENATOR KAUFMAN clarified that the discussion is focusing on substance in terms of unit rates rather than in aggregate amounts. He sought confirmation on this distinction.

4:26:37 PM
MS. HOLDMANN moved to slide 14 and spoke to a chart breakdown of Railbelt Electric Utilities total cost as of 2021. She noted that she did not verify this data with the utilities but attempted to break out the transmission and distribution costs. The operation and maintenance cost for transmission is $16.4 million. This figure does not include long-term interest and debt, depreciation, or some wheeling charges, which would likely fall under the purchase power component. While this does not represent all associated costs, it provides an idea of the magnitude, particularly for the operations and maintenance of transmission. Additionally, she mentioned that the two components combined account for slightly more than half of the total.

4:28:08 PM
CO-CHAIR GIESSEL invited Mr. Perkins to comment about the potential for IPPs to pocket tax benefits.

4:28:31 PM
MR. PERKINS addressed concerns about the perception regarding developers potentially benefiting from tax exemptions or tariff eliminations. He explained that the pricing provided to the utilities includes both tax-inclusive and tax-exclusive figures to ensure transparency. He agreed with Professor Colt's assertion that the financial implications are calculable and clear to the utilities and the RCA, estimating a potential variation of plus or minus 10 percent of the total cost. As an Alaska-based company developing projects for Alaskans, public confidence in fairness is paramount. Currently, the public has limited options: either rely on a monopoly cooperative or opt for off-grid solutions. The introduction of competitive projects, such as those by Golden Valley Electric, creates a third option. These cooperatives run competitive Requests for Proposals (RFPs) to identify the best projects. While he acknowledged potential skepticism regarding trust in developers, he emphasized the integrity of the competitive landscape established through utility procurement processes. He further highlighted that multiple projects are under development by various entities in multiple jurisdictions, which fosters competition based on property tax implications and applicable wheeling rates. This competitive environment ensures that only the most economically advantageous projects are advanced by utilities. Additionally, he noted that all relevant boroughs have unanimously supported property tax exemptions, which reinforces the collective endorsement of eliminating certain

wheeling rates, ultimately benefiting the utilities and the communities involved.

4:31:28 PM
MS. HOLDMANN moved to slide 18 - 19 and spoke to the elimination of wheeling:

[Original punctuation provided.]

How SB 217 Handles Elimination of Wheeling

Directs utilities to create an "association" for the purpose of calculating total transmission system costs.

Directs the RCA to establish a transmission cost recovery mechanism taking into account each utility's proportion of the "total load on the integrated transmission system."

- How is this fair? Members pay for all transmission costs now just in a different way.
- Assuming that "total load" is interpreted as coincident peak demand on the system, it best aligns with the cost causer = cost payer principle.

The "Association" calculates the total annual cost of an "integrated transmission system" and allocates a share of this lump-sum cost to each utility (LSE).

- Does not distinguish 'backbone' transmission for power N-S, or radial lines to connect loads specific to an LSE (means all consumers need to pay for transmission that only benefits one LSE)
- Calculation is open to RCA's interpretation as to what "total load on the integrated transmission system" means. (by contrast, a utility's contribution to coincident peak demand is a less ambiguous metric.)

MS. HOLDMANN noted that the committee previously discussed the formation of an association among utilities owning transmission assets. This association would calculate annual costs, resulting in a lump sum payment that each utility would be accountable

for, reflected in ratepayer bills. However, SB 217 lacks clear definitions regarding what constitutes transmission assets. From the utility industry's perspective, there are established definitions distinguishing between transmission assets and backbone transmission assets, which are essential for the movement of power in and out of specific service territories. She emphasized the need for legislative clarity on whether the focus is on all transmission assets or primarily on backbone transmission assets. She raised concerns about the interpretation of "total load on the integrated transmission system." Best practices within the utility industry emphasize assessing coincident peak demand or load rather than merely the volume of energy transferred through the system. This distinction is crucial for understanding when congestion occurs, akin to identifying traffic jams on a highway. Therefore, it is essential to recognize the industry's best practices for determining cost allocation. While the intention behind the legislation may align with these principles, further clarification would be beneficial.

4:34:05 PM
MS. HOLDMANN moved to slide 21 and spoke to best practices to eliminate wheeling:

[Original punctuation provided.]

Best practice framework for elimination of wheeling

Coincident peak demand - period when electricity usage (demand) is at its highest across the entire system
Load share ratio - considers users' overall energy consumption over a specific period

Transmission lines (like highways) are typically built for peak demand, not how much energy (traffic) flows through the system.

Texas operates as an electrical "island" and because power generated in Texas is not sent outside of the state, Texas is exempt from federal FERC regulation (like Alaska and Hawaii)

"…pool backbone transmission system costs and allocate those costs based on a coincident peak or load share ratio basis" - Adapted from Texas Substantive Rule 25.192

4:34:26 PM
MS. HOLDMANN highlighted the unique nature of Alaska's energy market, noting the scarcity of analogous markets for comparison. She stated that while it is challenging to find best practices directly applicable to Alaska, the state lags behind wholesale energy markets, which offer numerous examples to learn from. She identified three specific markets as valuable sources of insight:

1. Iceland: The structure of a regional transmission organization in Iceland serves as a best practice for grid management.
2. Texas: The state has effectively managed wheeling costs and implemented strategies to eliminate them, establishing a model worth emulating.
3. Hawaii: Known for its innovative long-term planning in energy management, Hawaii is aggressively pursuing a 100 percent decarbonization goal. Its approach to all-inclusive grid planning presents another best practice that could benefit Alaska as it seeks to incorporate new assets and enhance transmission efficiency.

4:35:43 PM
MS. HOLDMANN moved to slide 22 and explained what SB 217 does not address:

[Original punctuation provided.]

SB 217 Does Not Address Bigger Questions

SB 217 does not address AEA (state) – owned assets. These currently include about 30% of all Railbelt "backbone" transmission assets, and this will increase with GRIP-funded projects.

Questions:

- *How will new AEA-owned assets be managed?*
- *Will the Bradley Lake regulatory exemption extend to these new assets? (presumably, yes)*
- *What is the long-term strategy for asset management and ownership?*

MS. HOLDMANN expressed concerns regarding SB 217 and its approach to managing new state-owned assets related to the grid project. She wondered about the future handling of these assets, particularly if the project is funded and proceeds as planned. She emphasized the need for clarity on whether these assets will

be organized under a structure similar to the Bradley Project Management Committee, which operates with exemptions from regulation. She suggested that the state has an opportunity to reconsider how to manage these assets, advocating for a redesign that enhances transparency and accountability in operations, management, and rate-setting for state-owned assets. This moment, she noted, presents a chance for the state to establish a more effective framework that aligns with its investment and participation goals in future grid projects.

4:37:01 PM
SENATOR CLAMAN addressed the issue of transmission ownership, referencing an earlier question about the ownership structure of transmission assets. He highlighted that while the existing utilities currently own the transmission structure, there is a need to consider how the state-owned assets fit into this equation. He pointed out that the ownership interest of the current utilities in any new entity managing transmission assets is crucial. However, the state-owned assets, such as those associated with the Bradley Project, complicate this landscape. He asked for confirmation of his understanding that it is important to find a solution that incorporates both state and existing utility ownership for effective management of transmission assets.

4:38:01 PM
MS. HOLDMANN acknowledged the astuteness of the point raised regarding the ownership structure of transmission assets. She noted the need for a unique construct, referencing Iceland's approach where individual municipal utilities combined their transmission assets to form a transmission organization under state oversight. She highlighted that the Bradley project serves as a good template for this structure, especially in terms of dispute resolution and organization. However, she emphasized that a balance is needed between state-owned assets and privately owned assets, such as those from cooperative utilities. While there is no suggestion to change ownership immediately, the gradual transfer of asset ownership toward the state, as seen in Iceland, is a model to consider, though it is not a prerequisite for developing an effective management framework.

4:39:22 PM
MS. HOLDMANN moved to slide 23 and spoke to the future of the Railbelt Grid:

[Original punctuation provided.]

Future of the Railbelt Transmission Grid

STEP 0: Establish reliability standards: SB 123 (2020), now RR
STEP 1: Eliminate wheeling: SB 217, SB 257
STEP 2: Create a centralized transmission authority: SB 257
STEP 3: Seize the resulting opportunities to develop, transmit, and use low-cost power
Upgrade transmission assets - GRIP

MS. HOLDMANN acknowledged the frustrations felt by legislative members, who may have believed past issues had been resolved years ago. The current efforts are incremental steps toward establishing a modern transmission system, highlighting the importance of reliability standards established by the Electric Reliability Organization, as exemplified by SB 123 However, she pointed out that while SB 217 and other proposals aim to eliminate wheeling charges, they primarily address economic limitations rather than the structural limitations that persist within the system. Despite these challenges, she commended the legislature for its attention to these issues, noting that any advancements made will contribute significantly to fostering a competitive energy market in the future. She underscored the importance of exploring alternative solutions at this critical juncture.

4:40:56 PM
MS. HOLDMANN moved to slide 24 and presented a picture from Iceland illustrating their control center. She explained that it represents their perspective on the transmission system operator's role as integral to the overall system.

4:41:16 PM
MS. HOLDMANN moved to slides 25 - 26 and spoke to the governor's recent press release regarding SB 217:

[Original punctuation provided.]

SB 217 Press Release February 2nd, 2024

"Currently, there are electrical tariffs on the Railbelt system that stand in the way of transmitting the lowest-cost power," said Governor Dunleavy. "This legislation would eliminate these tariffs and transform the system into a public highway rather than

a series of toll roads. This would lower costs for ratepayers and create new opportunities for independent power producers."

HB 307 (SB 217) improves how electricity transmission costs are managed in Alaska. These regulatory measures would eliminate the current method of charging per-unit wholesale transmission fees and instead would require the Regulatory Commission of Alaska (RCA) to create a system that will allow for the economic dispatch of the lowest-cost power at all times. It will also provide fair and reasonable cost recovery for the utility companies and clarifies which electric utility transmission assets are subject to this system.

This is exactly what we aspire to do … but needs to be clarified in SB 217

MS. HOLDMANN noted that the governor's press release articulates shared goals for Alaska's energy systems. However, upon reading SB 217, she observed discrepancies between the aspirational goals outlined in the press release and the actual language in the legislation. She emphasized the opportunity for clarification and strengthening certain components of the bill. She highlighted several areas from the governor's statement that reflect commendable roles, which would be difficult for anyone to disagree with.

4:42:10 PM
MS. HOLDMANN moved to slide 27 and explained what SB 217 fails to do:

[Original punctuation provided.]

SB 217 – What it Doesn't Do

- Does enable Gov's goal of a 'public highway' for transmission, but does not indicate how it will be managed for the greater good. (SB257)
- Does not require or subsidize renewable generation (or any new generation) but enables it.
- Does not require any new transmission to be built to be effective – important regardless of GRIP funding, but does enable GRIP investments to be maximized.

- Does not limit utility/state ability to recover costs.
- Does not change who pays for transmission – rate payers now pay for transmission through wheeling and will continue to, but eliminates the cost from distorting the economic decision of assessing generation options.

MS. HOLDMANN discussed the concept of a public highway as a metaphor for transmission assets, noting that while it represents a shared resource, there is currently no management structure in place to oversee it for the greater good. She highlighted that neither the ERO, the state, nor individual utilities are positioned to manage these assets effectively, nor is the existing association equipped for such responsibilities. This raises the question of who will ensure the overarching benefit of the transmission system. The discussion is not about subsidizing renewable energy but rather about establishing a framework beneficial to all power users, regardless of the energy source. She emphasized the importance of addressing this issue now, particularly with funding opportunities available, to ensure that the system is organized for future improvements. This restructuring will not alter the total transmission costs borne by end users; it simply reallocates how those costs are accounted for, which she believes is a significant adjustment.

4:43:55 PM
MS. HOLDMANN moved to slide 28 and summarized areas for improvement within SB 217. She suggested that clarifying the role of the ERO may be worth consideration.

4:44:21 PM
MS. HOLDMANN moved to slide 29 and spoke to broader considerations:

[Original punctuation provided.]

Other (broader) considerations:

- If GRIP funds are matched, what expectations should the ratepayers have of the state to ensure the transmission investments are properly managed for the greater good?
- How can the state reinforce the individual local cooperatives efforts to work for the benefit of the entire state vs individual service territories?

- How can Alaska demonstrate to energy developers that we are open for business and have a consistent, reliable economic platform to operate within.
- With energy as a priority, what commonalities can we find among current legislative vehicles to streamline action at this point in the legislative session?

MS. HOLDMANN questioned the expectations ratepayers should have when state funds are matched and how the state can ensure these transmission investments benefit the greater good. She also raised concerns about the need for incentivizing cooperatives to work in the state's best interest, emphasizing the importance of creating a stable market environment that signals to developers, like Matthew Perkins, that Alaska is open for business. Furthermore, she inquired whether there are additional energy legislations with synergies that could be leveraged to create a comprehensive energy package for this session that the committee could take pride in.

4:45:41 PM
MS. HOLDMANN moved to slide 30 and spoke to the vision for the Railbelt:

[Original punctuation provided.]

A Vision for our Railbelt

We want a system that:

- Allows cheapest cost power to get to end -users wherever it is produced, whatever the source is, and wherever that generation is located.
- Facilitates innovative energy projects at scale for energy security and diversification.

MS. HOLDMANN reiterated her vision for the future of the Railbelt, emphasizing the need to incentivize economic development and provide low-cost power to citizens throughout the region regardless of location.

4:46:19 PM
SENATOR WIELECHOWSKI inquired about the best approach for funding the GRIP initiative, specifically whether it would be more advantageous to secure a single state funding allocation or to consider a more gradual funding approach. He expressed interest in understanding the historical context of state

project funding, the financial dynamics involving utilities and ratepayers, and the overall appropriateness of different funding strategies.

4:47:10 PM
MS. HOLDMANN expressed concern regarding the signals sent to federal agencies, particularly the Department of Energy, regarding funding and project management capabilities. She emphasized the importance of demonstrating that the organization receiving funding can secure matching funds and manage the project transparently. A well-articulated plan for matching funding is essential to show that Alaska is committed to attracting federal resources, not only for urban areas like the Railbelt but also for rural Alaska. Recent successes in obtaining additional project funding should reinforce this commitment. While acknowledging the myriad of funding priorities at both federal and state levels, she stressed the significance of signaling the importance of this initiative through state funding, as it will ultimately benefit ratepayers and the state as a whole.

4:49:00 PM
SENATOR WIELECHOWSKI noted that the state has funded billions of dollars in energy initiatives. He asked whether there is any precedent for the state requiring ratepayers to contribute a portion toward projects that the state has funded.

4:49:16 PM
MS. HOLDMANN highlighted that there are several examples of state funding structures, noting that the Bradley project was funded with 50 percent from a grant and 50 percent through a bonding process. The utilities repaid approximately $12 million annually, effectively resulting in ratepayers contributing to that 50% share of the project's cost.

4:49:58 PM
CO-CHAIR BISHOP expressed a desire to send the right signal regarding funding. He emphasized the rarity of this opportunity given the current state of the country's finances. He inquired about the estimated timeline for the RCA to implement the proposed measures and navigate the regulatory process. He asked whether this would take one, two, or three years or if there was any clarity on the timeline.

4:50:54 PM
MS. HOLDMANN appreciated his question. She highlighted the significant responsibilities placed on the RCA under SB 217. She

noted that the RCA typically opens dockets, which can take around 300 days, approximately one year, just for data collection. While she emphasized that the RCA would be better positioned to provide a specific timeline regarding the cost and duration of the regulatory process, she pointed out that previous experiences, such as with the ERO, indicate it may take about two years to implement regulations. Even after regulatory approval, transitioning to new rate structures would require further evolution, allowing for a gradual shift that considers individual utilities' unique circumstances and minimizes impact on their ratepayers.

4:52:44 PM
SENATOR CLAMAN asked a follow-up to Senator Bishop's question, linking it to his earlier inquiry about managing the ERO in the context of transmission. He expressed frustration over the prolonged timeline for the ERO to get started and voiced concern that creating a new organization might take even longer than expected. While he acknowledged that one approach could involve moving forward with the existing organization to expedite progress, he also questioned whether simply adding more responsibilities to the ERO would accelerate their work, given that they have already begun addressing some issues. He noted the challenge of creating a regulated entity that ends up taking years to function properly, leaving everyone wondering what went wrong. He requested ideas on how to manage this situation effectively.

4:53:53 PM
MS. HOLDMANN acknowledged the collective frustration over the slow pace of action on many issues. She clarified that the RRC was a privately formed group that applied to become the ERO for the Railbelt. It was not organized at the mandate of the state but instead responded to the requirement that the Railbelt must have such an organization. The RRC was the sole applicant to serve as the ERO for the state, making its formation distinct. She highlighted that there is now an opportunity to establish something within the state that could potentially lead to faster action.

4:54:47 PM
SENATOR CLAMAN reflected on the discussions surrounding House Bill 123, which created the ERO. He recalled the debate on whether the state should establish the entity or simply create the requirement and allow the market to respond. The decision was made to take a market-driven approach, leading to the formation of the ERO, with only one group, the RRC, applying. He

emphasized that this outcome was based on legislative choices informed by feedback suggesting that letting the market figure it out would be a better approach. He affirmed that the RRC's existence resulted from decisions made by the legislature.

4:55:40 PM
SENATOR WIELECHOWSKI referred to slide 28, which addressed areas for improvement regarding the cost recovery mechanism in section AS 42.05.905. He inquired about the basis for allocating costs and asked for suggestions on how SB 217 might be improved.

4:55:57 PM
MS. HOLDMANN questioned whether all fixed costs were being pooled and reapplied in the same manner, treating them as variable costs tied to energy movement across the system. Her first impression was that this was happening, though she did not believe it was the intent. She raised concerns about whether the costs were being applied as a charge to the energy units or allocated to the end user, as had been discussed. While she was now more confident that the intent was the latter, the language in the bill could be clarified. She emphasized the need to avoid a scenario where individuals, like Mr. Perkins, end up paying a single large "pancake" charge, underscoring the importance of clarity in the bill beyond just intent.

4:57:25 PM
SENATOR DUNBAR asked for clarification regarding the difference between the cost recovery needed to fund transmission assets and the concept of a "pancake" charge.

4:57:39 PM
MS. HOLDMANN replied that the main difference lies in how costs are recovered. One approach ties cost recovery to the movement of energy through the system, treating transmission costs as variable expenses linked to the sale of power. In this case, costs are applied when power is sold in the system. The alternative approach treats transmission costs as fixed, with all parties agreeing to cover these expenses on an annual basis, independent of energy movement. This method would ensure that everyone pays a consistent amount, without tying it to power flow. She emphasized the goal of avoiding a "pancake" charge, which would still link costs to energy movement. The intent is to prevent economic constraints on energy movement within the system based on the location of energy production and consumption.

4:58:51 PM

SENATOR DUNBAR noted that the proposed cost recovery structure could create some distortions. He observed that it likely costs more to transmit energy from Fairbanks to Homer than from Anchorage to the Mat-Su. He asked for confirmation that, under the proposed system, there would be no additional charges for moving energy from Fairbanks to Homer compared to Anchorage to the Mat-Su. He clarified that this would not involve "artificial toll roads," but rather a single rate, where all end users, including utility members, would pay the same. He sought to confirm whether this meant that someone in Homer would pay the same transmission costs as someone in Anchorage.

4:59:43 PM
MS. HOLDMANN replied that the proposed approach separates transmission costs from the movement of energy. She emphasized that moving an additional electron through the system does not incur a higher cost, meaning there is no significant marginal cost associated with transmitting one more unit of energy. This method ensures that transmission costs are not tied to the physical movement of energy across the system.

5:00:05 PM
SENATOR DUNBAR noted that there is a higher average cost because of the infrastructure required to extend to the ends of the system.

5:00:12 PM
MS. HOLDMANN stated that once the system reaches the point of maximizing its capabilities, that observation is absolutely true.

5:00:25 PM
CO-CHAIR BISHOP referred to the second bullet point and asked if Ms. Holdmann is wanting to ensure that an open access pipeline for new energy is truly created if the goal is to ensure the creation of an open access pipeline for new energy.

5:00:36 PM
MS. HOLDMANN responded that is entirely true.

5:00:53 PM
CO-CHAIR GIESSEL held SB 217 in committee.

5:01:07 PM
There being no further business to come before the committee, Chair Giessel adjourned the Senate Resources Standing Committee meeting at 5:01 p.m.