

**ALASKA STATE LEGISLATURE
HOUSE SPECIAL COMMITTEE ON ENERGY**

March 5, 2024

10:16 a.m.

MEMBERS PRESENT

Representative George Rauscher, Chair
Representative Tom McKay
Representative Stanley Wright
Representative Mike Prax
Representative Jennie Armstrong

MEMBERS ABSENT

Representative Thomas Baker
Representative Calvin Schrage

COMMITTEE CALENDAR

PRESENTATION(S): Cook Inlet Region Low Carbon Power Generation with Carbon Capture, Transport, and Storage Feasibility Study

PREVIOUS COMMITTEE ACTION

No previous committee action to record

WITNESS REGISTER

FRANK PASKVAN, Affiliate Professor
Institute of Northern Engineering
University of Alaska Fairbanks
Fairbanks, Alaska

POSITION STATEMENT: Gave the presentation, titled "Cook Inlet Region Low Carbon Power Generation with Carbon Capture, Transport, and Storage Feasibility Study."

ACTION NARRATIVE

[10:16:07 AM](#)

CHAIR RAUSCHER called the House Special Committee on Energy meeting to order at 10:16 a.m. Representatives Rauscher, McKay, Prax, Wright, and Armstrong were present at the call to order.

PRESENTATION(S): Cook Inlet Region Low Carbon Power Generation with Carbon Capture, Transport, and Storage Feasibility Study

[10:17:43 AM](#)

CHAIR RAUSCHER announced that the only order of business would be a presentation, titled "Cook Inlet Region Low Carbon Power Generation with Carbon Capture, Transport, and Storage Feasibility Study."

[10:19:04 AM](#)

FRANK PASKVAN, Associate Professor, Institute of Northern Engineering, University of Alaska Fairbanks, gave the presentation, titled "Cook Inlet Region Low Carbon Power Generation with Carbon Capture, Transport, and Storage Feasibility Study." He began on slide 2, which gave context as to what the Carbon Capture Use and Storage (CCUS) project at the University of Alaska Fairbanks (UAF) is and its history.

[10:26:17 AM](#)

MR. PASKVAN continued to slide 3, which displayed a graphic that showed how carbon capture and storage (CCS) is performed and detailed how the carbon dioxide would be transported to a place and stored. He moved to slide 4, which displayed a graph that outlined sources of energy along with their associated carbon emissions and explained how CCUS addresses both the increasing energy needs of a growing world and the problems of climate change simultaneously.

[10:33:01 AM](#)

MR. PASKVAN responded to questions from Chair Rauscher. He said the difference between an older natural gas plant and a newer one, in the same category of energy and emissions, would be the efficiency. As to whether the combined use of wind and natural gas for energy generation was equivalent in carbon emissions to other carbon-based energy sources, he said that it would depend on how often there is wind energy blowing at a certain plant. In response to Representative McKay as to whether NO_{x2} and SO_{x2} proteins could be removed from emissions caused by a natural gas treatment plant, he explained that proposed natural gas pipeline would primarily emit methane and clarified how a natural gas treatment plant functions.

[10:40:24 AM](#)

MR. PASKVAN resumed the presentation on slide 5, which displayed a graph that compared different types of fuels along with their associated cost and detailed the associated carbon emissions with each type of fuel. In response to Chair Rauscher, he used decomposition as an example of how net-negative carbon emissions could be achieved. In response to Representative Prax, he said he has heard of but is unfamiliar with compressed wood pellet fuel, and he confirmed that biomass eventually turns into coal.

[10:49:43 AM](#)

MR. PASKVAN resumed the presentation on slide 6, which displayed a graph that outlined the cost of carbon capture against current natural gas prices and clean energy tax credits. It had text that further compared the cost of carbon capture to the price of fuel itself. In response to Chair Rauscher, he deferred to the federal government as the best source to answer a question about how much money the State of Alaska lost as a result of the "45q tax credit." He then resumed the presentation on slide 7, which highlighted the findings of the CCUS technical and economic feasibility study completed by UAF. He continued to slide 8, which further elaborated on the results of the aforementioned CCUS study and compared the costs of electricity with and without CCUS per Megawatt Hour (MWh).

[11:11:18 AM](#)

MR. PASKVAN, in response to a question from Representative McKay as to whether the CCUS industry could survive without the 45q tax credits from the federal government, replied that the cost of carbon capture is \$65 dollar per ton and explained how that cost estimate roughly equates to the cost of a new gas plant.

REPRESENTATIVE MCKAY shared his belief that climate change is a hoax and said that there is nothing that humans can do even if they understood that there was a climate crisis. He spoke up in strong support of coal-fired power plants, gas power plants, and a liquified natural gas (LNG) pipeline to the Southcentral Region of Alaska.

[11:18:42 AM](#)

MR. PASKVAN, in response to Chair Prax, confirmed that the capital cost of the different options for energy generation is included in the presentation and emphasized that the numbers are all estimate figures. He then resumed the presentation on slide 8, where he further elaborated on the cost differences between

certain sources of energy generation. He moved to slide 9, which displayed a map of proposed low-carbon biomass coal power projects and explained the logistics of each individual proposed project location.

[11:28:06 AM](#)

MR. PASKVAN concluded the presentation on slide 10, which outlined a series of recommended actions that the Alaska State Legislature could take to bring the proposed low-carbon biomass coal power plants to life in Alaska. He thanked the committee for its time and offered to answer questions.

[11:34:46 AM](#)

CHAIR RAUSCHER asked if private investors are interested in developing the low-carbon biomass coal power plants in Alaska.

MR. PASKVAN said that there is great general interest in developing clean energy all over the country right now.

[11:35:18 AM](#)

CHAIR RAUSCHER thanked Mr. Paskvan for his presentation and delivered committee announcements.

[11:36:40 AM](#)

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Energy meeting was adjourned at 11:36 a.m.