Hidden in Plain Sight: Alaska's Affordable Energy

House Special Committee on Energy February 21, 2023

Lorali Simon Vice President External Affairs







Leadership of Usibelli Coal Mine

1943 Emil Usibelli founded the mine; 1st generation

1964 Joe Usibelli became President; 2nd generation



Joe Usibelli Jr. took over as President; 3rd generation





Usibelli Today

tons to be of Alaska's demand to produced six coal-fired power this year plants

More than 400 million tons of proven coal reserves





Economic Impact of Coal





322

Number of direct & indicrect jobs statewide



\$48.6 In total direct & indirect wages statewide



\$30.4M

spent with 300 different suppliers, service providers and organizations in Alaska.



\$~300M

In ratepayer savings on heat and power costs in Interior Alaska





Energy Impact of Coal



》 **50%**

Of electricity generation in the Interior



Megawatts of capacity among 6 coal-fired power plants



1M tons

Of coal was consumed by Interior heat and power plants in 2022





Six Coal-Fired Power Plants in Interior Alaska

HEAT POWER University of Alaska Fairbanks (17 MW) Fort Wainwright Army Post (22.5MW) **Eielson Air Force Base** (25 MW) Aurora Energy (27 MW) GVEA Healy 1 (25 MW)*

GVEA Healy 2 (50 MW)*

= electrical generation only





Hidden in Plain Sight

- Coal is Plentiful
- Coal is Affordable
- Coal is Reliable
- Existing Infrastructure
- Clean Technology

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Energy

Railbelt utilities again scramble to fill expected Cook Inlet gas shortages

By Sean Maguire Updated: February 13, 2023 Published: February 12, 2023

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Energy

Hilcorp warns Alaska utilities about uncertain Cook Inlet natural gas supplies

By Alex DeMarban Updated: May 17, 2022 Published: May 17, 2022



Alaskan Source of Energy

- Alaskan resource
- Alaskan jobs
- Alaskan families
- Alaskan communities







Fairbanks North Star Borough Air Quality



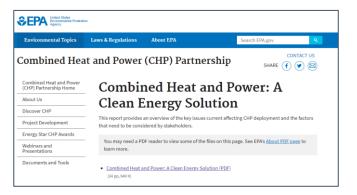




Air Quality in Interior Alaska Afflicted by Woodsmoke

- EPA, "Woodsmoke contributes 60% to 80% of fine particulate levels measured in the Fairbanks North Star Borough."
- More than \$20 million has been invested to reduce wood smoke particulates
- District heat provided by combined heat & power plants provides higher efficiencies and improves air quality









A meaningful solution to improve air quality



AURORA ENERGY SOLUTIONS

Invests in Fairbanks' First-Ever Wood-Drying Kiln

- Consistent, low-moisture content wood that can be burned immediately
- Free from bugs, fungus, and mold
- Burning <20% moisture wood as compared to 40% moisture wood = 25% reduction in PM2.5





Usibelli's CCUS Efforts



- Collaborated on State response to Dept. of Energy RFI on CCUS 2021 and 2022
- Participant in State CCUS Working Group whitepaper establishing State regulatory framework for CCUS (HB 50)
- Coordination with Assistant Secretary Crabtree, U.S.
 Department of Energy Office of Fossil Energy and Carbon Management
- Stakeholder Engagement seeking and promoting local and regional partnerships
- Evaluating storage opportunities







How can CCUS apply in Interior Alaska?

- Converting existing Interior power plants can reduce CO2 emissions to near zero and reduce statewide emissions by 4%
- Renewable Energy alternatives do not lower emissions due to heating requirements
- Interior Alaska CCUS conversions are micro-scale relative to Lower 48 standards (approximately 25% of the size of Project Tundra in North Dakota – cumulatively)
- Primary need is transport and storage infrastructure in the Interior (HB 50)





Coal Supports Military Readiness & Resiliency







- ► A proven fuel source for 80 years
- On-site coal stockpiles provide uninterrupted supply of energy for at least 90-days
- Over 400 years of proven reserves at Usibelli
- Self-sufficient supply chain (government subsidies not required)





Alaska Can Count on Coal







Thank You.

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