

Hidden in Plain Sight: Alaska's Affordable Energy

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Leadership of Usibelli Coal Mine



1943

Emil Usibelli founded the mine; 1st generation



1964

Joe Usibelli became President; 2nd generation



1987

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

Usibelli Today

~1 million
tons to be
produced
this year

100%
of Alaska's demand to
six coal-fired power
plants

More than
400
million
tons of proven
coal reserves

Economic Impact of Coal



322

Number of direct & indirect 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*



167

*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



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



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Combined Heat and Power: A Clean Energy Solution

This report provides an overview of the key issues current affecting CHP deployment and the factors that need to be considered by stakeholders.

You may need a PDF reader to view some of the files on this page. See EPA's [About PDF page](#) to learn more.

- Combined Heat and Power: A Clean Energy Solution (PDF)
(24 pp, 949 K)

A meaningful solution to improve air quality



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



- ▶ Stable
- ▶ Secure
- ▶ Reliable
- ▶ Accessible
- ▶ Affordable



Thank You.

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