

Hidden in Plain Sight: Alaska's Affordable Energy

Resource Development Council | April 1, 2021

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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, has led the mine for 34 years; 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



100

Number of direct jobs



\$13.5M

in wages to UCM employees. Average UCM wages among highest in Interior and more than twice statewide average



\$28.7M

spent with over 400 different suppliers, service providers and organizations in Alaska.

Energy Impact of Coal



32%

Of electric power capacity 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 2020



\$140M

in savings for heat and power to Interior Alaska



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)*

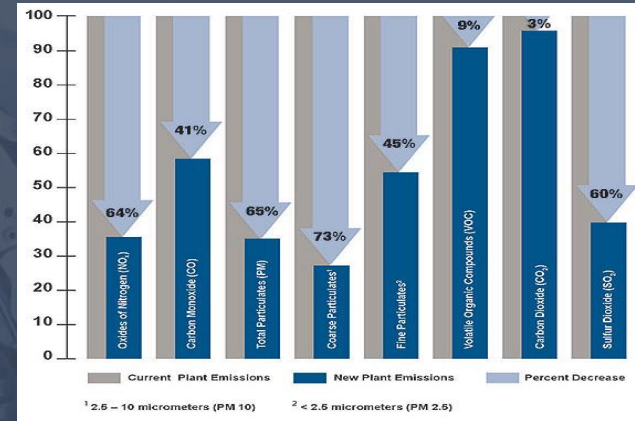
* = electrical generation only

UAF builds nation's newest coal-fired power plant

- New cleaner burning technology
- Provides supply stability
- Reduces emissions relative to the existing plant even while increasing output
- 17 MW of generation capacity



Emission Reductions at UAF



Source: University of Alaska
Fairbanks

Economic benefits for UAF & the Interior

- Supplemental energy supply from GVEA no longer needed
- Anticipated savings of 40% in 2021 over 2019 fuel costs
- GVEA power purchase agreement



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



The screenshot shows the EPA website's navigation bar with links for Environmental Topics, Laws & Regulations, and About EPA. The main heading is "Combined Heat and Power (CHP) Partnership". Below this, there are several menu items: "Combined Heat and Power (CHP) Partnership Home", "About Us", "Discover CHP", "Project Development", "Energy Star CHP Awards", "Webinars and Presentations", and "Documents and Tools". The main content area features the title "Combined Heat and Power: A Clean Energy Solution" and a brief description: "This report provides an overview of the key issues current affecting CHP deployment and the factors that need to be considered by stakeholders." A note indicates that a PDF reader is needed to view some files, with a link to "About PDF page to learn more." A list of documents includes "Combined Heat and Power: A Clean Energy Solution (PDF)" with a file size of 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

Lower Moisture
=
Better efficiencies
=
Less Wood Burned
=
Savings for Consumer
+
Improved Air Quality

STOP fossil
fuels!



WHAT ARE
JOBS?

WHAT ABOUT
THE IMPACT
ON JOBS?



Biden Administration Does Not Support Natural Gas Pipelines

- Keystone XL Pipeline Project shut down (1,200-mile pipeline from Alberta to Nebraska)
- Natural gas is *not* included in Biden's plan to reach ZERO emissions by 2035

The image shows a screenshot of a White House briefing room slide. At the top left is a red stamp that says "EXECUTIVE ORDER". To its right is the White House logo. Below the logo is the text "BRIEFING ROOM". The main title of the slide is "Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis". Below the title is the date "JANUARY 20, 2021" and "PRESIDENTIAL ACTIONS". On the right side of the slide, there is a photo of Joe Biden and a list of executive orders under the heading "DAY 1 EXECUTIVE ORDERS: CLIMATE":

- REJOINED PARIS CLIMATE AGREEMENT
- CANCELED KEystone XL PIPELINE PERMIT
- MORATORIUM ON OIL & GAS LEASING ACTIVITIES IN ARCTIC NATIONAL WILDLIFE REFUGE

Coal Supports Military Readiness & Resiliency



- A proven fuel source for 78 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*)
- Army Directive 2017-01 Installation Energy and Water Security Policy: Usibelli can provide assured access to coal resources

Alaska Can Count on Coal

Stable

Secure

Reliable

Accessible

Affordable

**Coal is an
invaluable
price shock
absorber**

**When natural gas prices spike,
coal is there to protect ratepayers
by holding down electricity prices**





Thank you.

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