

# Coal Industry Update:

Locally, Nationally & Globally

Alliance Industry Update Forum | Fairbanks





DAYS

MORE THAN



457,000  
HOURS



EMPLOYEES

Top Safety Records:

2006 | 797 days

2014 | 703 days

2016 | 679 days

1993 | 453 days



# Mine Emergency Response Team



# October is National Fire Prevention Month



# Usibelli Today

**~1 million**

tons to be  
produced  
this year

**100%**

of Alaska's coal  
demand to 6 coal-fired  
power plants supplied

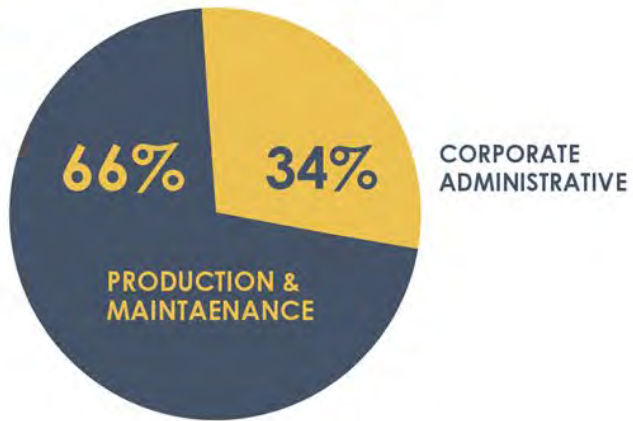
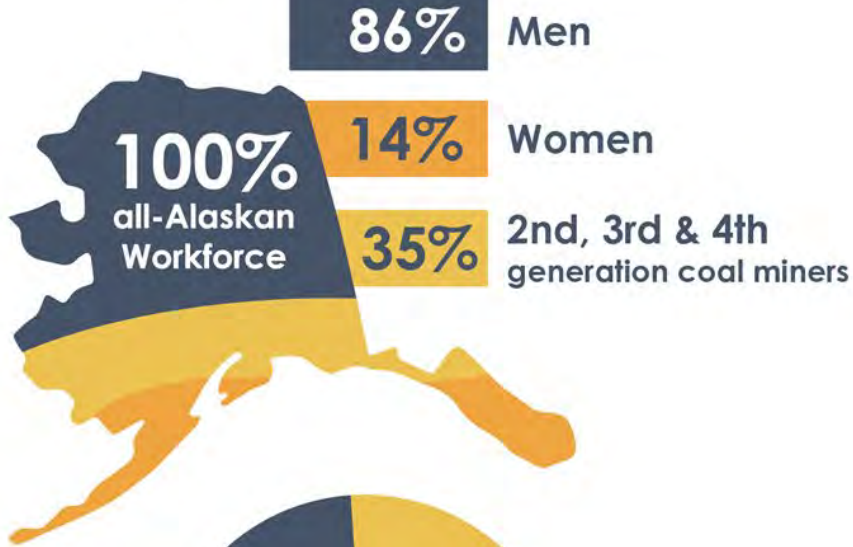
More than

**400**

**million**

tons of proven  
coal reserves





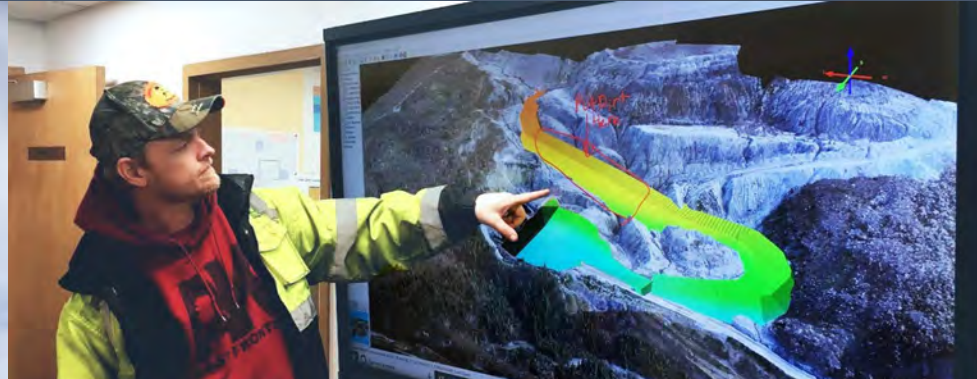
**46** years  
Average age

**13** years  
Average # of years at UCM



# Technology at Usibelli

# Technology at Usibelli





# Healy Unit 2 and UAF

# Healy Unit 2



**DOUBLES**

The amount of coal-fired generation capacity available to GVEA.

**REDUCES**

reliance on Intertie power from Southcentral.

Annual savings of as much as

**\$13M**

when comparing the fuel costs at Healy 2 versus Intertie power costs.

# UAF builds nation's newest (and only) coal-fired power plant

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



Source: University of Alaska  
Fairbanks



# Affordable, reliable energy solution



# Economic benefits for UAF & the Interior

- Supplemental energy supply from GVEA no longer needed; opportunity to sell electricity to the grid instead
- Significant increase in construction jobs and economic activity
- Annual fuel costs with coal ~\$9.8 million
- UAF can continue to serve as shelter for Alaskans during disasters



Source: University of Alaska  
Fairbanks

# Energy & Economic Impacts of Coal



# Economic Impact of Coal



**109**

*Number of direct jobs*



**\$12.1M**

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



**506**

*Number of direct, indirect, induced and downstream jobs generated by Usibelli Coal Mine*



**\$40.2M**

*in total wages paid statewide from coal mining activities*



**\$27M**

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

*Source: Energy & Economic Impacts of Coal in Interior Alaska, McDowell Group, July 2018*

# Energy Impact of Coal



**39%**

*electrical generation*



**32%**

*Of electric power capacity in the Interior*



**153**

*Megawatts of capacity among 6 coal-fired power plants*



**875**

*Thousand tons of coal was consumed by Interior heat and power plants in 2016*



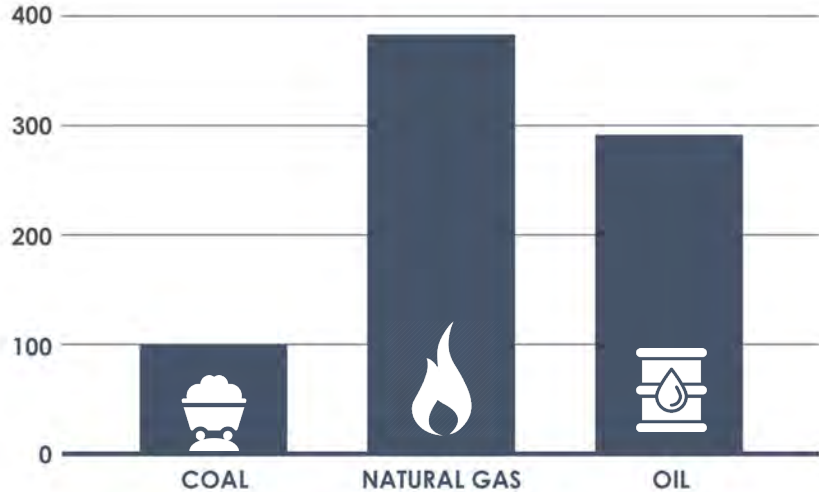
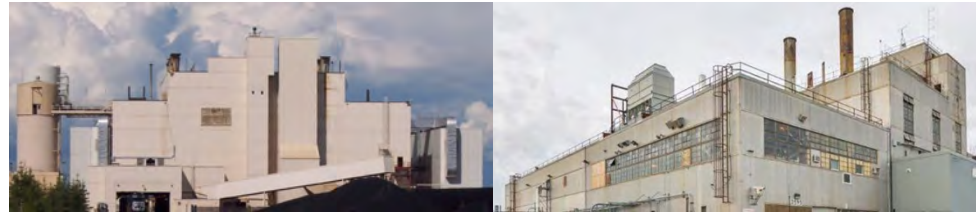
**\$153M**

*in savings for heat and power to Interior Alaska*



*Source: Energy & Economic Impacts of Coal in Interior Alaska, McDowell Group, July 2018*

# Coal Supports Military Readiness & Resiliency



**375%**

Increase in fuel costs (or \$92m) to military installations if switched to trucked natural gas

**288%**

Increase in fuel costs (or \$71m) to military installations if switched to fuel oil



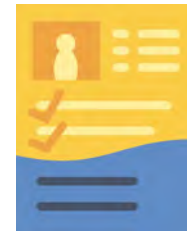
# Impact to the community of Healy

There are 6 Healy-based non-profit organizations that the coal mine matches employee donations 100%:

- Denali Preschool & Learning Center
- Healy Hockey Association
- Kids in Motion
- Neighbor to Neighbor
- Tri-Valley Community Library
- Tri-Valley Volunteer Fire Department



**50%** of all wages paid in the Healy community



**25%** of all jobs in Healy

**Additionally, every graduating student of Tri-Valley High School receives at least a \$500 scholarship.**

**Employees are volunteers in the community - from coaching sports to judging science fairs.**



# Environmental Stewardship

# Usibelli Coal Mine began its land reclamation program in 1970

5,500

More than 5,500 acres have been reclaimed

16,000

16,000 lbs of seeds are planted each year

500,000

500,000 seedlings have been transplanted (approx. 25,000 – 30,000/year)

30 TONS

30 tons of fertilizer is spread each year





UNIVERSITY OF ALASKA



alaskaresource™  
EDUCATION

# Usibelli Cares



Big Brothers Big Sisters  
of Alaska



Tanana Valley State Fair  
ASSOCIATION



Christmas in Ice  
NORTH POLE • ALASKA



EVERYDAY SAFETY  
AT WORK. AT HOME. AT PLAY.



# Caring for Our Community

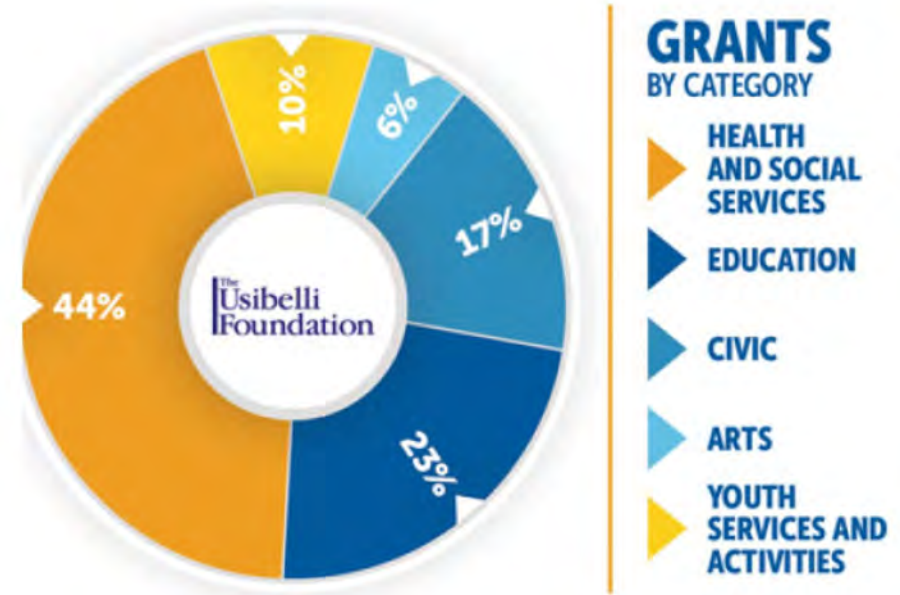
## Usibelli Foundation

~\$120,000 / year

## University of Alaska Fairbanks

~\$6.5 million since 1977

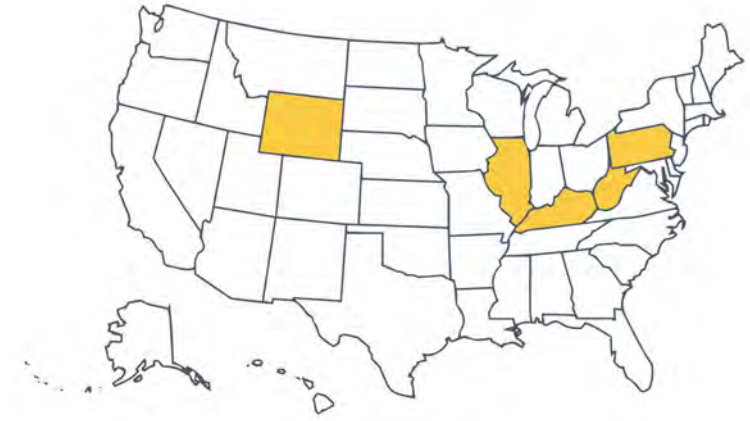
## Community Events, Programs & Activities



# Coal Outlook



# Coal remains an abundant energy source



**22%** **474 B**

of the world's coal reserves are in the U.S.

estimated short tons in the demonstrated reserve base in the U.S as of January 2019.

## Top 5 Coal-Producing States in 2018:

Wyoming – 304,187,602 tons  
West VA – 100,104,901 tons  
Illinois – 49,455,479 tons  
Pennsylvania – 45,475,234 tons  
Kentucky – 39,716,544 tons

# National Coal Outlook

## STATE OF THE UNION

### President Trump on Infrastructure & Permitting

*"I am asking both parties to come together to give us the safe, fast, reliable and modern infrastructure our economy needs and our people deserve."*

*"Any bill must also streamline the permitting and approval process – getting it down to no more than two years, and perhaps even one."*



# Top Issues of Progress & Challenges

Energy Policies reducing regulatory costs on the coal fleet include:

- Affordable Clean Energy Rule
- New Source Review Reforms
- Mercury Air Toxics
- Effluent Limitation Guidelines
- Coal Ash Disposal
- Regional Haze
- Power Plant CERCLA Financial Assurance

Coal operations, permitting and performance standards improvements include:

- Endangered Species Act Biological Opinion
- Blasting
- Bonding
- Temporary Cessation





# Global Coal Outlook

The U.S. Energy Information Administration's 2019 International Energy Outlook projects:



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Global energy consumption will increase by

**50%**



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Electricity consumption increase by

**79%**



# Thank You