Coal in Alaska: Mining, Transportation and Combustion

Alaska Collaborative on Health and the Environment
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Tim Leach
Alaska Coal Working Group
Context: Alaska’s Energy Crossroads

- Statewide energy crisis
- AK gets less than 10% of power from coal
- AK possesses substantial coal reserves
- Global energy supply and demand pressures
- High energy efficiency potential
- World-class renewable potential
Context: Alaska’s Energy Crossroads

Alaska is experiencing the disproportionate effects of Climate Change.
Alaska’s Coal Reserves = 5 trillion metric tons

Proposed Coal in Alaska

• Coal Mining
  – Chuitna Coal
  – Matanuska – Wishbone Hill
  – Western Arctic
  – Nanushuk

• Coal Usage
  – Healy Coal Plant No. 2 *
  – Fairbanks Coal to Liquid
  – Underground Coal Gasification
Current Coal Transportation and Storage

- Shipped from Healy by rail to Seward
- Stored in windrows on site for ships
- Coal dust has impacted community and contaminated water and air
- Aurora Energy is allegedly violating the Clean Water Act
Chuitna: Coal vs. Salmon

Total Leasing: 38,261 Acres or 59.78 Square Miles

Estimated reserve:

300 M tons coal = 673 M tons CO2
Matanuska: Coal vs. Community

Total Lease Area: Approximately 30,880 acres

Inferred resource:

200 M tons coal = 511 M tons CO2
Western Arctic: Coal vs. Climate

Total area: Western half of North Slope

Hypothetical Resource:
3.9 T tons coal = 8 T tons CO2
Global Carbon Impact of AK Coal

- Matanuska Coal Field
  - 200 M tons coal = 511 M tons CO2
- Chuitna Coal Field
  - 300 M tons coal = 673 M tons CO2
- Western Arctic Coal Field
  - 3.9 T tons coal = 8 T tons CO2*
  * Hypothetical

- In Context?
Emission Equivalents

• It would take 240 years of CO2 emissions from all human sources from all humans to reach 8 trillion tCO2.
“Atmospheric CO2 can be successfully constrained only if coal use is phased out…”

Dr. James Hansen

NASA Goddard Institute for Space Studies
Which Road to take?

- Alaska possesses a substantial portion of the world coal supply
- Devastating local and global impacts if coal is mined and burned
- Alaska’s world-class energy efficiency and renewable energy resources will produce sustainable jobs and clean power
- Do we trade our healthy fisheries, clean air and water for coal, or do we choose a cleaner path?
Thank You

Tim Leach
Coordinator
Alaska Coal Working Group

907.745.2707
tim@alaskacoal.org

www.alaskacoal.org