

Energy Session

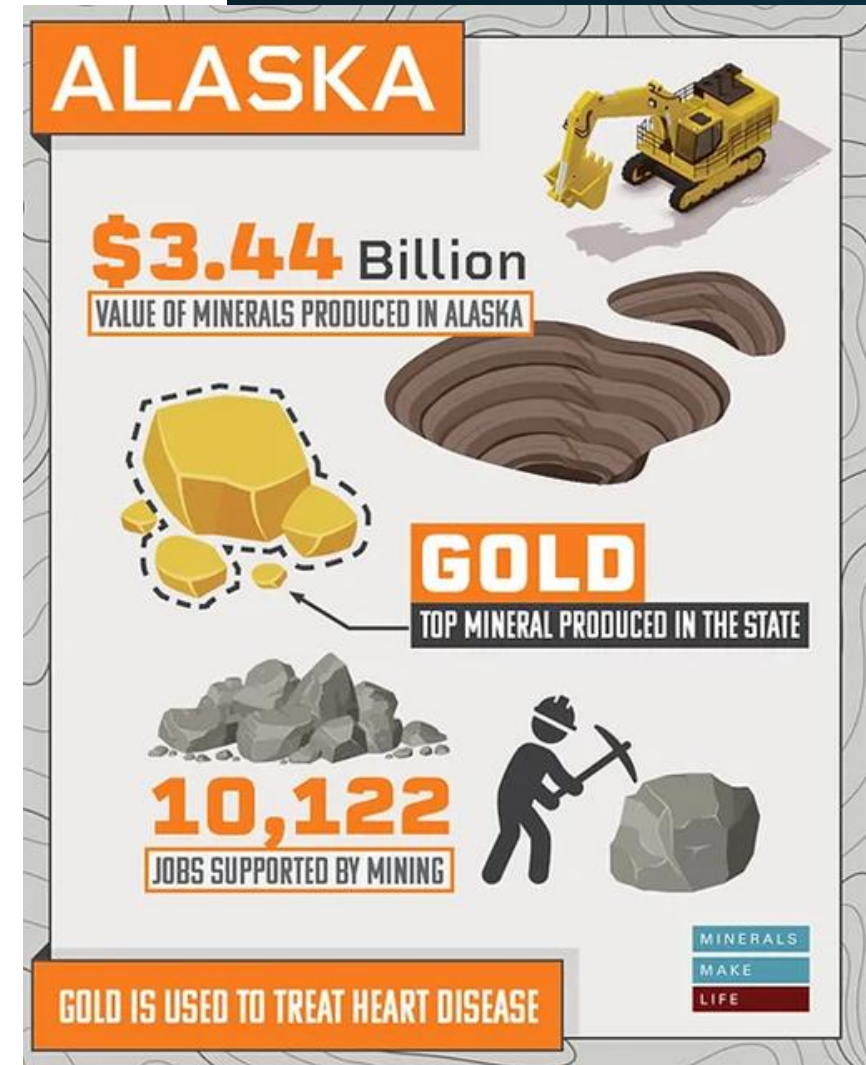
Chair: Dan Graham

Alaska Miner's Association

November 5, 2024

Powering Alaska's Mines

- Total electricity demand of Alaska's major mines is over 107 MW
 - 57 MW (53%) from the Railbelt Grid
 - 40-50 MW (37%-47%) Generated on-site (Diesel)
 - ~11MW from AEL&P (Hydro); intermittent and supplemented with on-site generators



Electricity Costs

- Alaska's mines are paying an average of ~\$0.25/kWh, with a range of \$0.11 - \$0.31/kWh
- For mines on the grid, demand charges are a key component of electricity cost



Alaska's Current and Future Mines need:

- Access: 40-50% of electricity consumed by Alaskan mines is generated on site!
- Reliability: Mine facilities operate 24/7 and are major economic drivers. They require stable energy sources with redundancy
- Cost Competitive: Energy costs are major determinants of mine success. They must be affordable and predictable





Agenda

- Frank Paskvan, UAF Institute of Northern Engineering (INE): *Alaska CCS Opportunities and Railbelt Grid*
 - Justin Seavey, UCM: *Coal's Role in Providing Affordable and Reliable Energy Today and in the Future*
 - Coffee Break
 - Lieza Wilcox, Enstar Natural Gas Company: *Southcentral LNG*
 - Mary Ann Pease, Westinghouse: *Micro-Nuclear and Energy Storage Options for Rural Alaska*
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