

# Copper River Valley Regional Energy Planning:

A Public-Private Partnership Working to Development  
Affordable Energy

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# Overview of Presentation

- 1. Copper Basin Regional Energy Plan – Jason Hoke, Executive Director, Copper Valley Development Association.
- 2. Ahtna Gas Exploration in the Tolsona Area – Joe Bovee, VP Land and Resources, Ahtna, Inc.
- 3. Importance of an Intertie from Glennallen to the Railbelt at Sutton – Robert Wilkinson, CEO, Copper Valley Electric Association.
- 4. Glennallen LNG Local Distribution Demonstration Project – Bruce Cain, Special Projects Manager, Ahtna, Inc.

# 1. Copper Basin Regional Energy Plan

Jason Hoke, Executive Director, Copper Valley Development Association



# Copper Valley Snapshot

- Primarily “Unorganized” Borough w/no Municipalities
- 20,649 sq. miles (about the size of Ohio)
- 23 communities, 8 Tribal Gov'ts (including Cantwell) and 2 Native Corps
- Approximately 3,000 residents and declining rapidly.
- Road-belt with Rural Lifestyle and High Expenses.

# Opportunities

- **Regional Energy Plan with AEA, increased collaboration**
- **Railbelt Intertie**
- **Natural Gas exploration under way**
- **LNG Feasibility Project Linked with Interior Energy Plan**
- **Summer Hydro with storage and co-generation already developed**
- **AK LNG**
- **Other Resources – Hydro, Biomass, Solar, Wind, Geothermal**



# *Copper River Basin Natural Gas*

Presentation to House Energy Committee

February 24, 2015

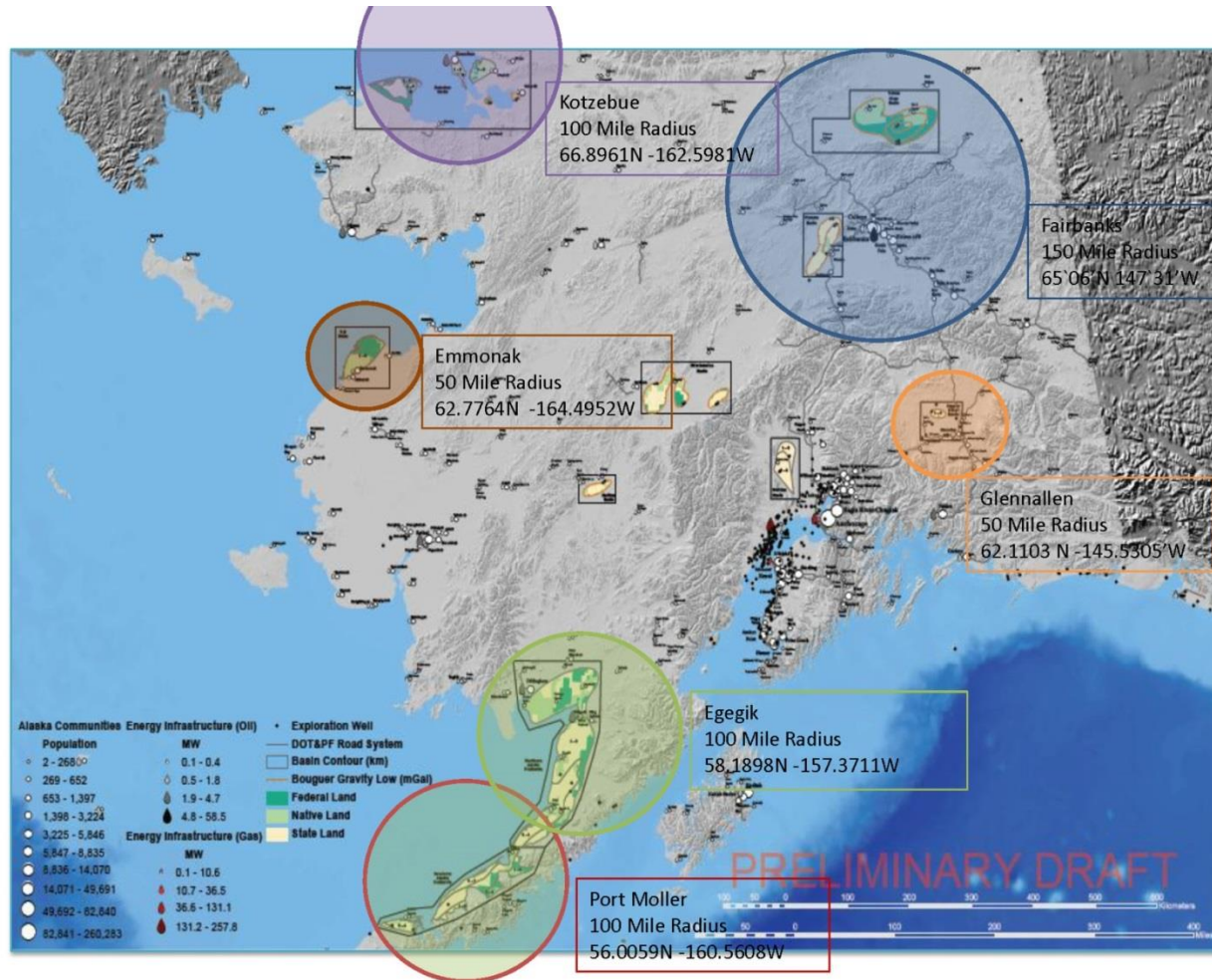
Mr. Joe Bovee, VP Land and Resources – Ahtna, Inc.

*“Our Culture Unites Us; Our Land Sustains Us; Our People are Prosperous”*





# Oil and Gas Basins in Alaska

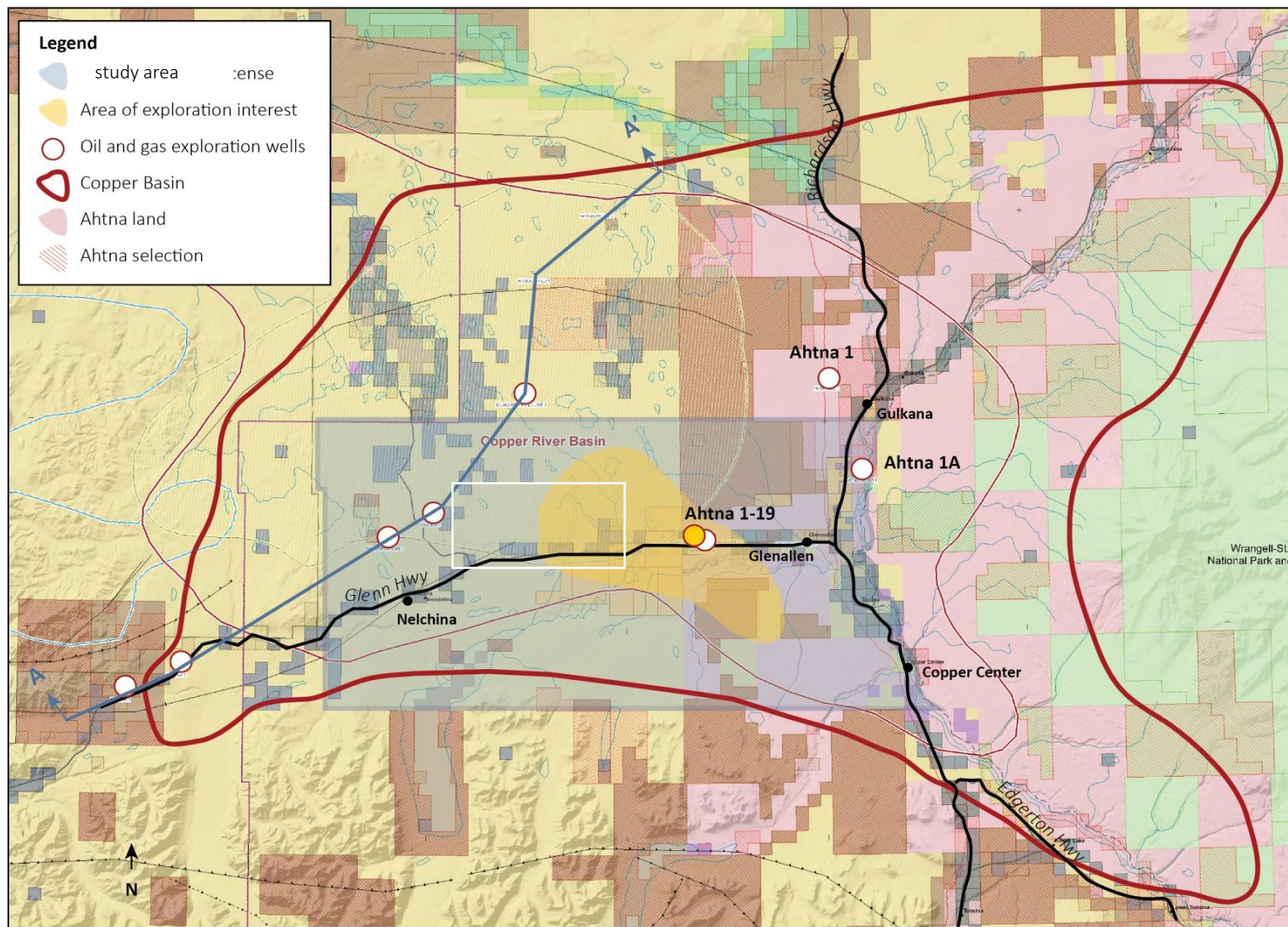


# *What is Currently Known About Gas Prospects in the Region?*

- Geologic structure of interest currently under State land.
- Millions of dollars invested in exploration in the region to date.
- Geological data and past exploration give strong natural gas indications.
- Formation accessible to South-central Alaska population centers, State highway road system and tidewater.
- Some technical drilling challenges due to high pressure water zones.

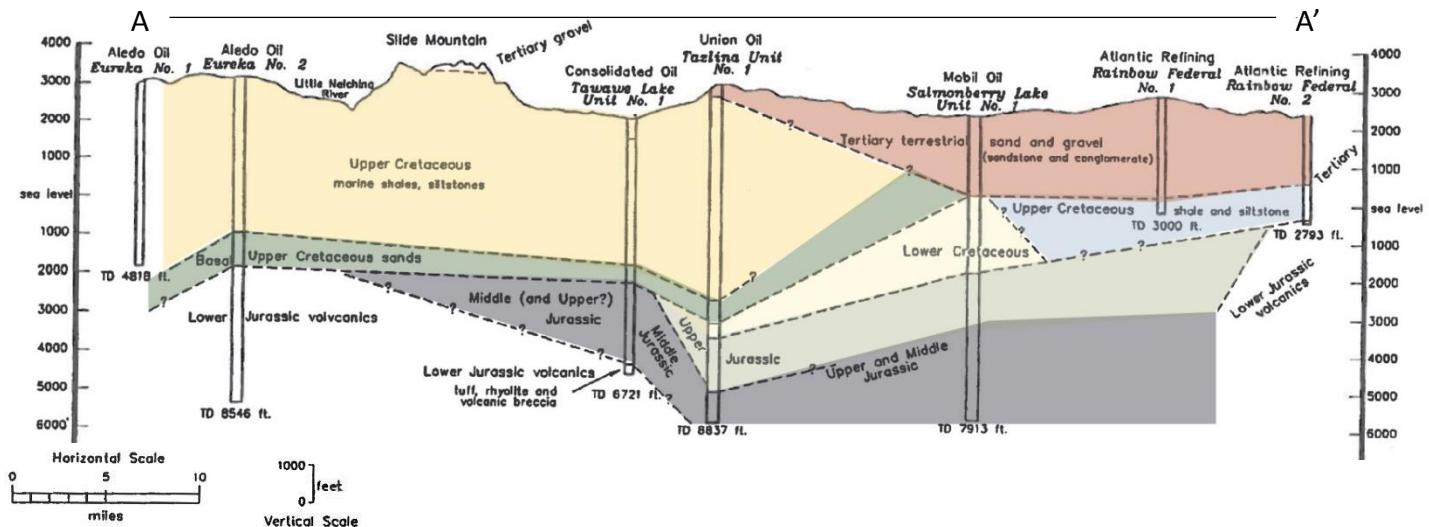


# *Copper River Basin Natural Gas*



# Geological Summary

- Identified porous, permeable, and hydrocarbon-bearing lower Cretaceous
- Several large fault-bounded geologic structures, may hold economic accumulations of natural gas
- High pressure water zone found identified at 1,100' with pressure of 1,000 PSI



# *Range of Market Opportunities*

  
thousands  
BTUs/day



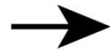
No Development

  
millions  
BTUs/day



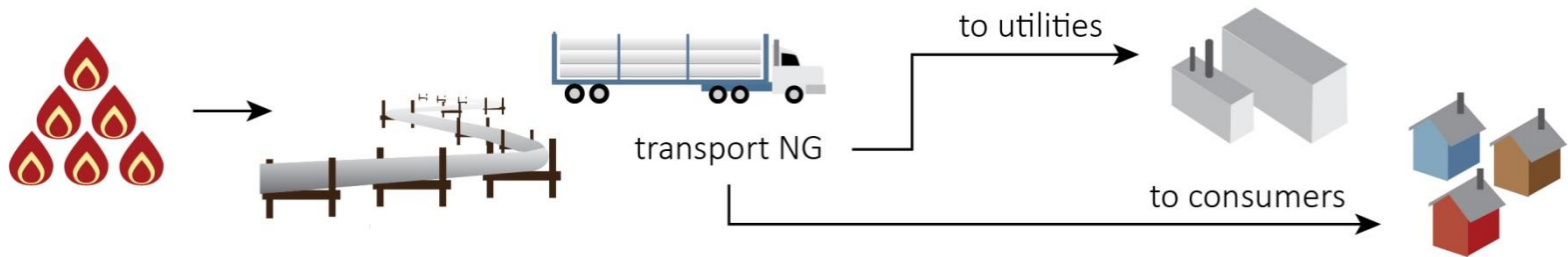
Copper Basin Market

  
billions  
BTUs/day



In-State or International Market

# *Local Market is Viable*



Present Cost #2 fuel oil  
#2 fuel oil Equivalent

\$4/gal  
\$35/MMBTU's

Estimated NG market delivery  
NG equivalent of

\$14.65MMBTU's  
\$1.67/gal

*58% Savings in Home Heating Cost  
Cheaper Energy for Economic Growth*

# *Conclusion and Next Steps*

- Engineer and design a new well with well completion prior to early 2016.
- Finalize RCA application for local gas distribution.
- Determine and develop markets.
  - Pipeline
  - Micro-LNG Plant (trucking)
  - Electric Intertie



# Glennallen-Sutton Intertie

Robert Wilkinson, CEO Copper Valley Electric Assn.

- Design Study completed
- Cost Estimate and feasibility updated
- Will stabilize system costs
- Provide limited market for surplus hydro in summer.
- Provide market to develop large hydro site at Tiekel
- Provide market to develop wind and geothermal potential
- Provide Market for new power generation from local gas fields and other resources

# Glennallen LNG Demonstration Project — Bruce Cain - Ahtna

- Would develop trucked LNG system in community of Glennallen.
- Would connect commercial, residential and electric power generation to the system.
- The lessons learned from the development would be used as a handbook for how to convert a small rural community to natural gas.
- The distribution system would be used to directly connect the local market to the Tolsona gas fields when they are developed.
- Feasibility Study Funding of \$175K requested in CIP TPS Number 63507.
- Project Cost estimate \$8M - \$10M will be funded with Tribal Energy, Rural Development and Private Investment.



# Glennallen LNG Distribution Demonstration Project Task List

- Feasibility, Design, Permitting 2015-2016 \$175,000 (CAPSIS TPS Number 63507) Named Recipient: Copper Valley Development Association
- Put tanks and regasification unit at the Ahtna Building in Glennallen and put in supplemental Natural Gas Boilers. 2016-2017 \$900,000 (Tribal Energy Grants, REAP)
- Build Expanded Storage and distribution line to the CVEA power plant and Glennallen Business Center 2017-2018 \$8M-\$10M (Tribal Energy Grants, Rural Development Funds, AIDEA, Private Investment)
- Develop Model Community Conversion Plan and Share with the Rest of the State 2015-2018. \$250,000 TBD

# Conclusion — Joe Bovee, Ahtna

- We are working together to:
- Complete the Copper Basin Regional Energy Plan – Phase II
- Discover and Develop Natural Gas in the Tolsona Area
- Setting the Foundation to Build an Intertie from Glennallen to the Railbelt at Sutton.
- Developing an LNG Storage and Local Distribution Demonstration Project.

# Questions?

