

#11 Application: Wood Gasification

Location: Rural Alaska

Fuel Input: 15 TPD woody biomass
Power Plant Size: 500 kW
Emissions Reduction: 25,000 TPY GHG
diesel power generation offsets

System Design:

- 500kW GE Jenbacher J316 IC Engine for Woodgas Operation
- with gas filtration and contaminant knockout controls
- Proven European biomass gasification technology
Biomass Engineering, Ltd. (UK) with over 17 operating plants

Financial Transaction:

- Offset Power Purchases from Diesel Driven Power Plants
- REC & GHG Credits via Brokerage Agt
- Cogeneration Host: District Heating
- Jobs and Revenues from Biomass Collection and Plant Operations
STAY LOCAL in RURAL ALASKA

Financial Performance

- \$3.5 Million NET Project Installed Cost post State Grant
- \$2.5 Million Annual Gross Operating Revenue/Savings
- \$2 Million Annual Net Operating Profit
- 38% IRR
- NPV (10%, 15 years): \$9 Million

Biomass
engineering

The clean and renewable energy source

“Complete Gasification system with combined heat and power (CHP).”

