

Donlin Gas Energy usage/needs

Donlin needs to make clear the rules for additional use of natural gas in the pipeline. Using Donlin's figures of a pipeline rated for $1.4 \times 10^6 \text{ m}^3$ natural gas per day (Section 3-1 DonlinGold EIS Natural Gas Pipeline POD), which calculates to 54,170 GJ energy each day. Using an estimate efficiency of converting natural gas to electricity of 40% means even at peak use there is excess $6,851 \text{ m}^3$ natural gas. Under base load conditions the daily amount of free gas in the pipeline increases to $28,000 \text{ m}^3$.

In that there is no gas storage capacity, excess gas in the pipeline cannot be used by the Donlin mine and potentially is available to other users.

Donlin needs to make additional details available as to their energy use modeling including more information as to the expected efficiencies of the generating systems planned for. Preliminary research on typical dual source reciprocating engine generators report 44% electrical efficiency conversion without waste heat steam turbine recovery system described in Donlin documentation. If overall efficiencies are raised to the 60% level or higher, then potentially significant excess gas on the order of $64,000 \text{ m}^3/\text{day}$ exists in the planned pipeline. What will be the rules and tariff conditions for the public to access this gas?