

MEA Fuel Supply Update



Energy Task Force
October 2, 2013

EKLUTNA GENERATION STATION (EGS) CONSTRUCTION UNDERWAY

- MEA contract with Chugach ends December 31, 2014
 - Construct own generation to meet full demand
 - Transitioning to vertically integrated utility
- Capacity – 170 mW installed (10 Wärtsilä reciprocating engine/generators)
 - Room for two more engine/generators for growth
- Gives MEA ~ 190 mW of capacity
 - ~20 mW of hydroelectric power
 - Peak demand – 148 mW (December 2012)



1st Engine In The North Hall



9/27/2013 - 4 Engines In North Hall



Characteristics of EGS Plant

- 10 reciprocating engines
- Compression-ignited by diesel fuel
 - 1% power from diesel
 - 99% from natural gas
- Efficient over large throttle range
 - Load following
- Quick response
- Exhibits high inertia level
 - Stabilizes voltage variances
- No interruption in output from fuel change – switch on the fly

FUEL NEEDS

- Diesel fuel
 - 800,000 gallons on site (4 days at full load)
 - Replenish via rail or truck
- Natural gas
 - On 20" high-pressure line from Beluga field
 - Line accommodates Mat-Su, North Anchorage, and ML&P Plant 2 needs
 - 20" line now tapped, regulator station on site to be activated by ENSTAR next week.
 - Can switch on-the-fly to diesel in the event of interruption of natural gas supply

FUEL SUPPLY

- Contract finalized with Hilcorp, signed July 17, 2013
 - Meets needs for commissioning and startup in 2014 through 3/2018
 - Pricing set by the Consent Decree and consistent with other recent Hilcorp contracts (ENSTAR and Chugach Electric)
 - Next step: Regulatory Commission Alaska (RCA) approval

FUEL SUPPLY

- Continuing to look for fuel supply beyond 3/2018
- Alternative fuel options
 - Diesel – EGS dual capability
 - Contributes to gas supply stability
 - Emergency alternative for Southcentral gas interruption
 - LNG Importation
 - Propane

CHALLENGES FACING COOK INLET FUEL SUPPLY

- Will additional supplies be developed by 2018
 - Investments by producers in the Inlet
- Size of market hampers investment

EGS ENGINE DELIVERY VIDEO



DISCUSSION / QUESTIONS

