

FAIRBANKS LNG TRUCKING PROJECT



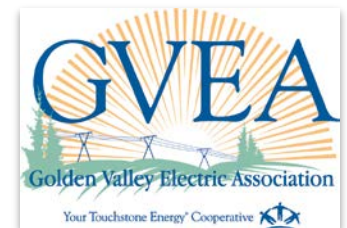
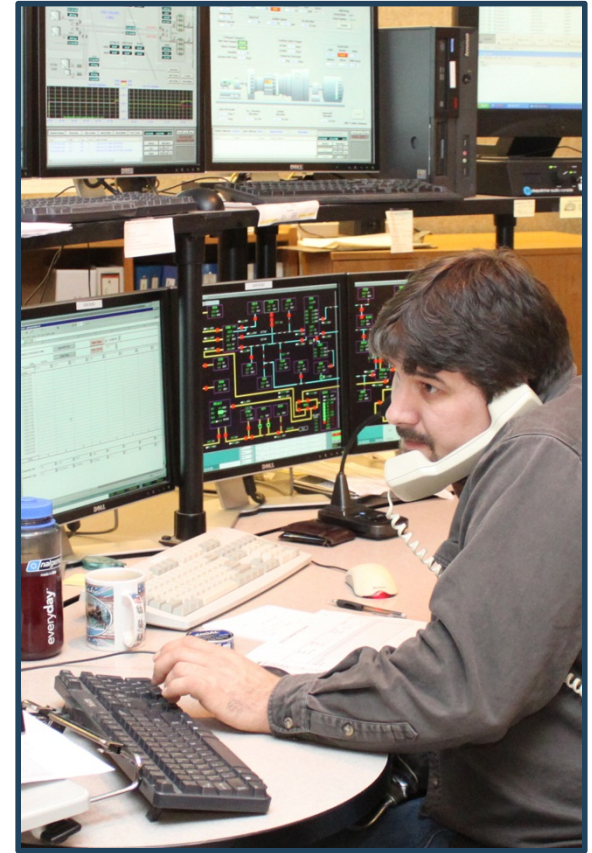
Cory Borgeson
GVEA Interim President & CEO

September 28, 2012



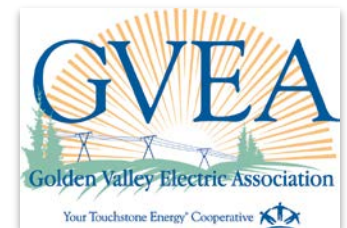
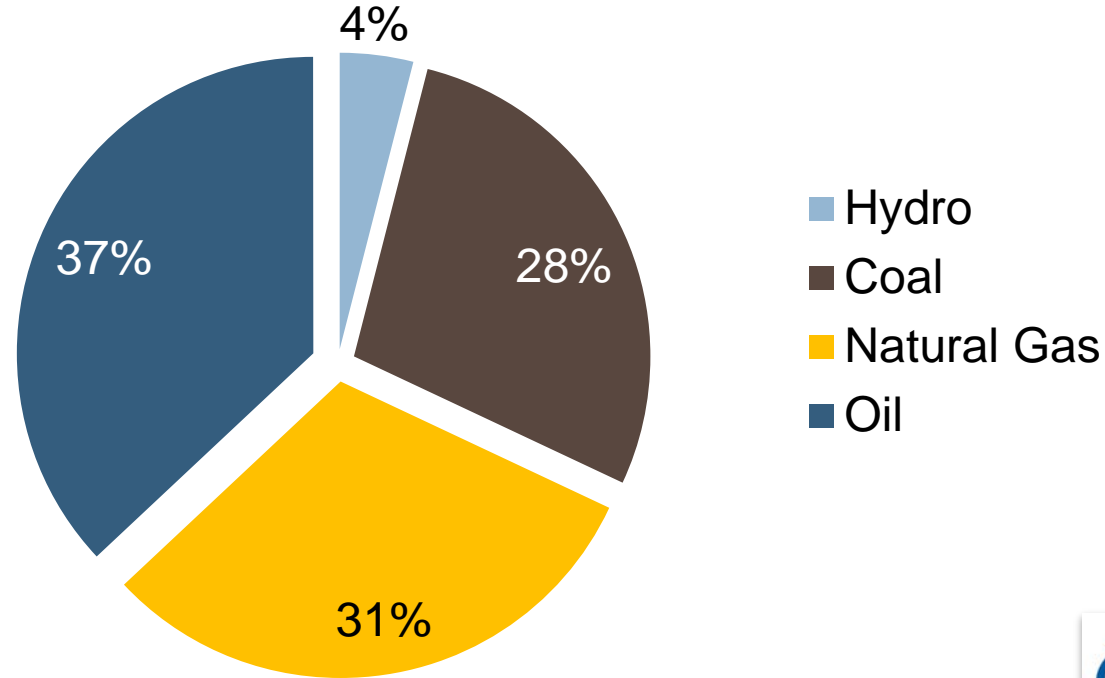
GVEA at a Glance

- Owned by 34,043 members
- 3,893 square mile service territory
- Annual sales: 1.29 billion kilowatt-hours
- 99.98 percent reliability during 2011
 - Average member experienced less than two hours without power
- 296 megawatts of generation capacity
- 2011 peak load 211.5 MW



Where the Power Comes From

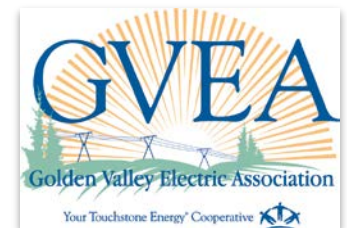
GVEA Fuel Supply (2011)



Alaska Residential Electric Rates*

- Fairbanks (GVEA): 23 cents
- Minto (Alaska Village Electric): 22 cents (with state assistance)/ 64 cents (without assistance)
- Glennallen (Copper Valley Electric): 20 cents
- Homer (Homer Electric Assn.): 16 cents
- Anchorage (Chugach Electric): 13 cents

*Rates are per kilowatt-hour and do not include monthly customer charges.

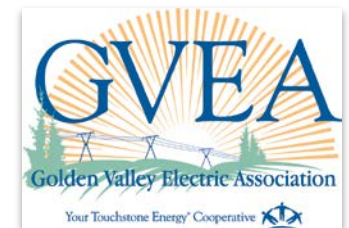


Alaska Urban Space Heating Costs

Simplified Fuel Cost Comparison: Fuel Oil, Propane, Natural Gas

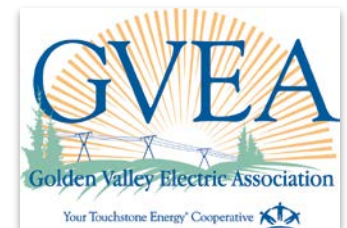
Location, Tariff, System	Fuel Oil, \$/gallon	Propane, \$/gallon	Natural Gas, \$/MCF
	1.00	1.12	7.96
Anchorage June 2012	1.38	1.54	11.00
	2.00	2.24	15.92
	3.00	3.35	23.88
Fairbanks, June 2012	4.00	4.47	31.84
	5.00	5.59	39.80
	6.00	6.71	47.76
	7.00	7.83	55.72

Source: Northern Economics.



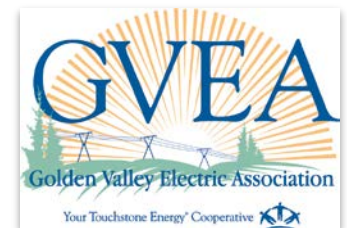
LNG Benefits for Interior Alaska

- Lower electric and space heating costs
 - Convert North Pole Expansion Power Plant to LNG
 - Liquid Fuel Use for 2011
 - 24,200,000 gallons of naphtha
 - \$63,839,000 total cost
 - Annual Residential & Commercial Heating Oil Use
 - 70,190,000 gallons (ACEP 2007 GHG Inventory)
 - \$4/gal - \$280,760,000/year
 - Fairbanks homeowners average 1,100 gallons of heating oil per year



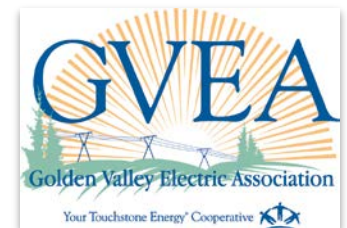
LNG Project Components

- Secured long-term North Slope gas supply contract
 - BP is supplier
 - 23 billion cubic feet (Bcf) annually
- North Slope Facility production capabilities
 - 9 Bcf annually - 310,000 gallons LNG per day
 - 10,000 gallons propane per day
- Transportation
- North Pole Storage and Vaporization Facility

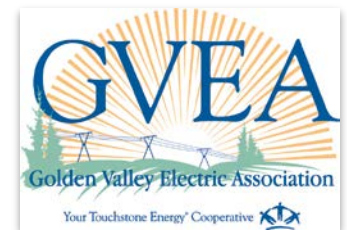
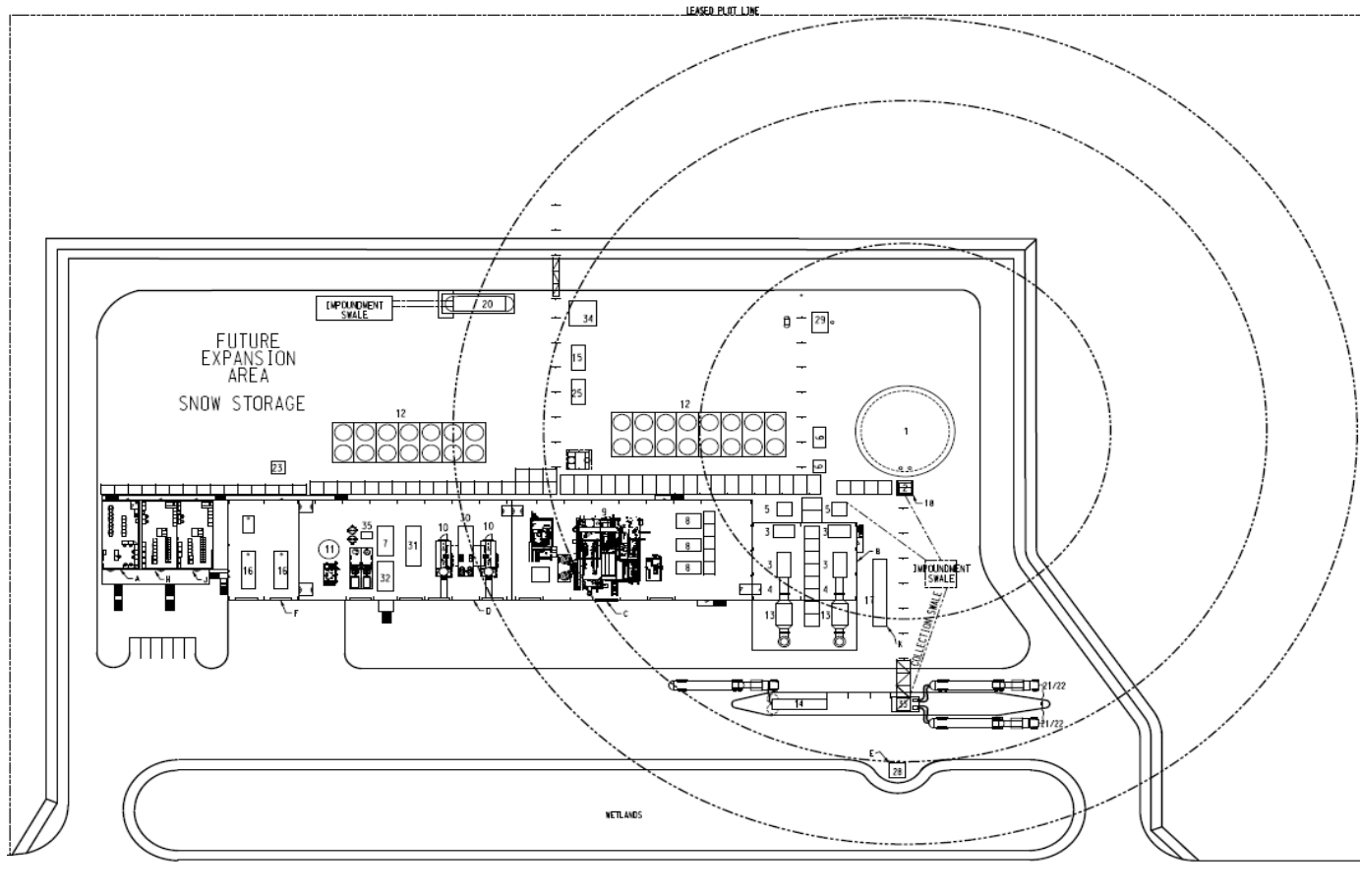


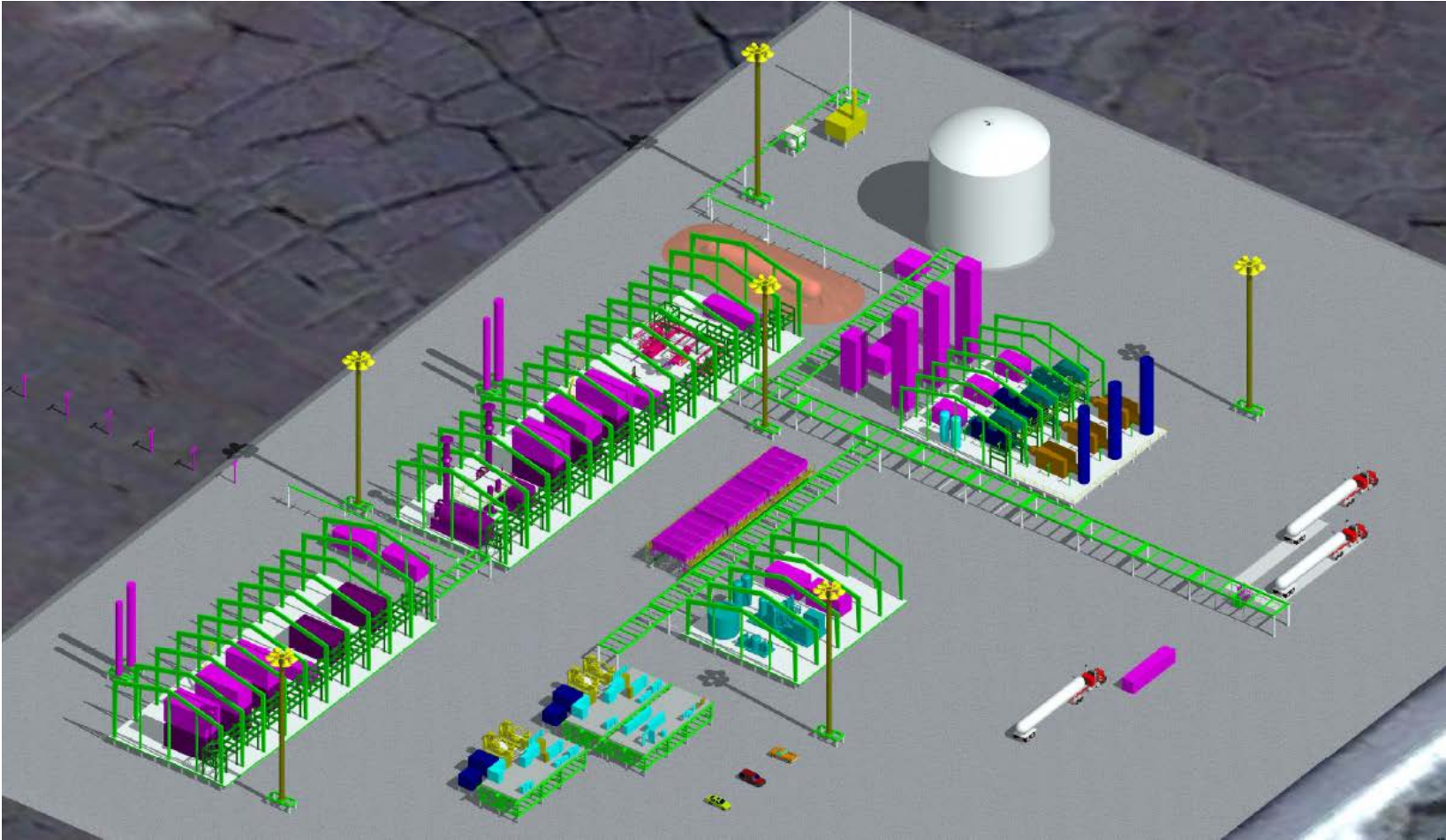
North Slope Liquefaction Facility

- Gas supply pipeline
- Pretreatment unit removes carbon dioxide and water
- Liquefaction unit converts natural gas to LNG
- Propane unit extracts propane during liquefaction process
- One million gallon LNG storage tank
- Truck loading facility for LNG and propane



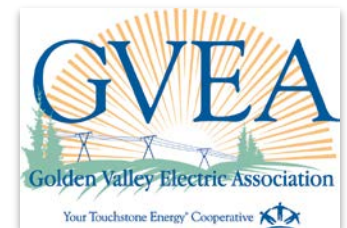
North Slope Liquefaction Facility Plot Plan





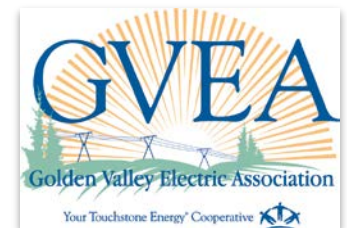
Transportation

- 9 Bcf production averages 23 truck loads per day
- Fairbanks transportation contractors have 38 years of experience on the “Haul Road” (Dalton Highway)
- Ways to lower transportation costs
 - Custom 13,500 gallon tanker trucks
 - LNG powered tanker trucks

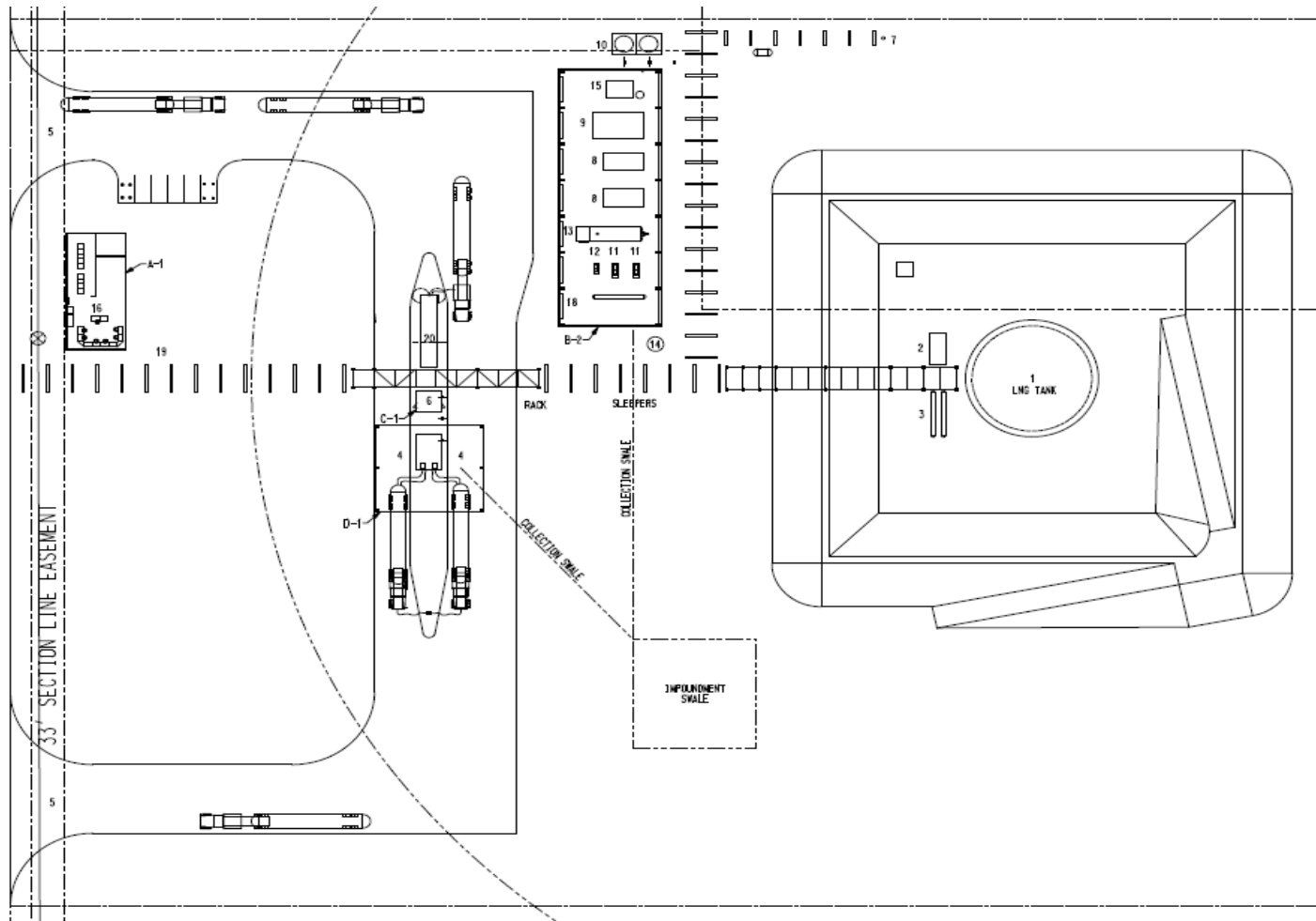


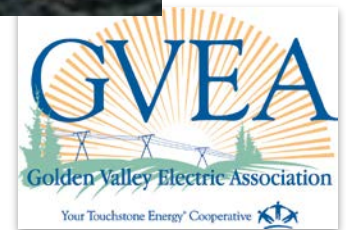
North Pole Storage and Vaporization

- Two bay truck offload rack
- 2,400,000 gallon LNG storage tank
- Vaporization unit to convert LNG back to natural gas for delivery to GVEA North Pole Expansion Power Plant, the refinery and other customers



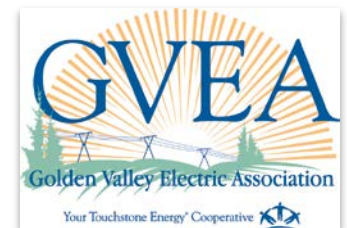
North Pole Storage and Vaporization





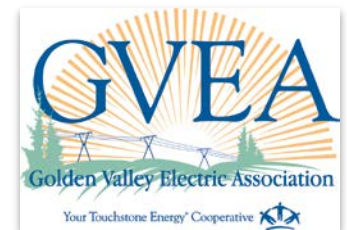
LNG Project Status

- Phase 2 Engineering and Construction Estimate Complete
- Environmental permitting for Air and ROW lease near agency submittal stage
- North Pole Storage and Vaporization Facility site purchased by GVEA



Moving Forward

- Finalize project development agreements and enter into fuel supply contracts with LNG, natural gas and propane customers
- Submit permit applications
- Move to Phase 3 Engineering (including placing orders for long lead equipment)
- Negotiate project financing and state project assistance
 - State granted \$3.75 million for engineering costs
 - Further state participation critical to maximize economic benefits



GVEA Project Strengths

- GVEA has 20-year gas supply contract with BP
- Regulated, not-for-profit cooperative
 - Benefit of state support maximized
- Experience with large-scale construction projects
 - Eva Creek Wind
 - Battery Energy Storage System (BESS)
 - North Pole Expansion Power Plant

