

Cook Inlet Natural Gas Storage- Alaska

Presentation Agenda

- CINGSA, LLC
- Purpose and Need
- Gas Storage 101
- Site Selection
- Site Specifics
- Customers
- Q&A

Who is CINGSA?



- 70/30 Joint Venture
- CINGSA will provide storage service to:
 - ENSTAR
 - Chugach Electric
 - Municipal Light & Power



Project Purpose and Need

- Construct and operate a new underground natural gas storage facility in Kenai, Alaska
- Peak winter gas demand is forecast to exceed delivery capability of local production – causing potential shortages
- Project will provide operational peaking flexibility and greater security of supply
- Project will enhance system reliability

Winter vs. Summer Demand

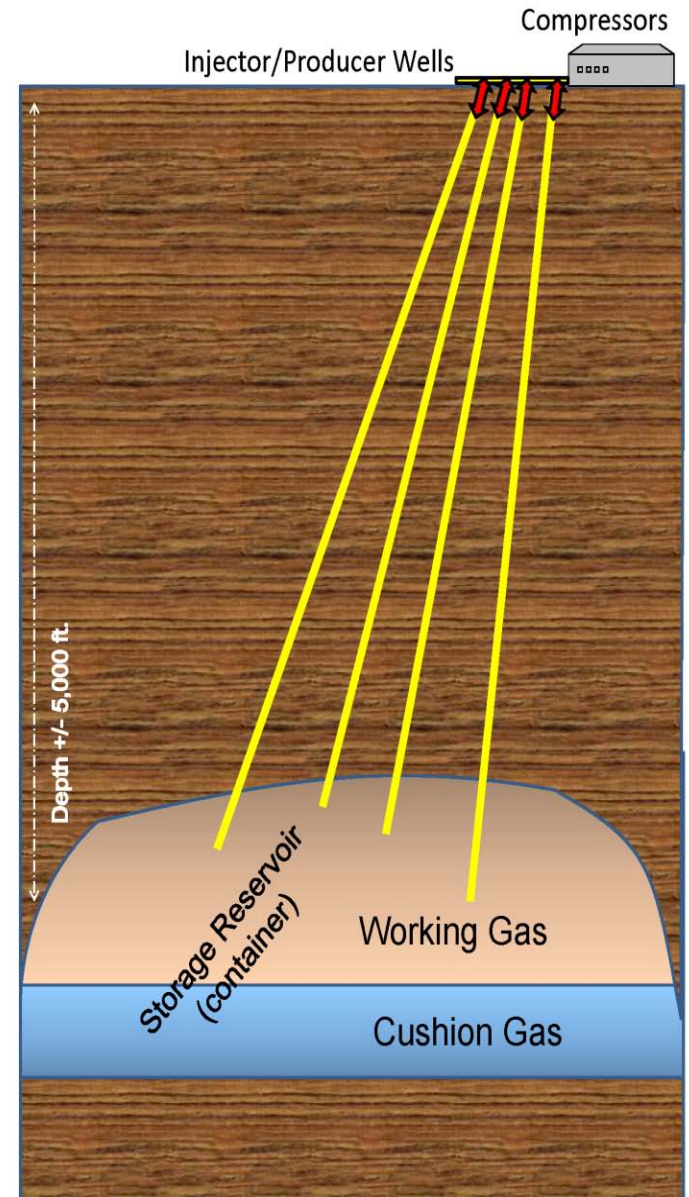
- For all utilities, the demand for natural gas in the winter months is 5X higher than in the summer months
- ENSTAR's demand for natural gas heating load in the winter months is 14X higher than in the summer months

Benefits from this Project

- Reliable deliverability – short and long term benefits
- Less volatile pricing
- May encourage natural gas development in Cook Inlet

Gas Storage 101

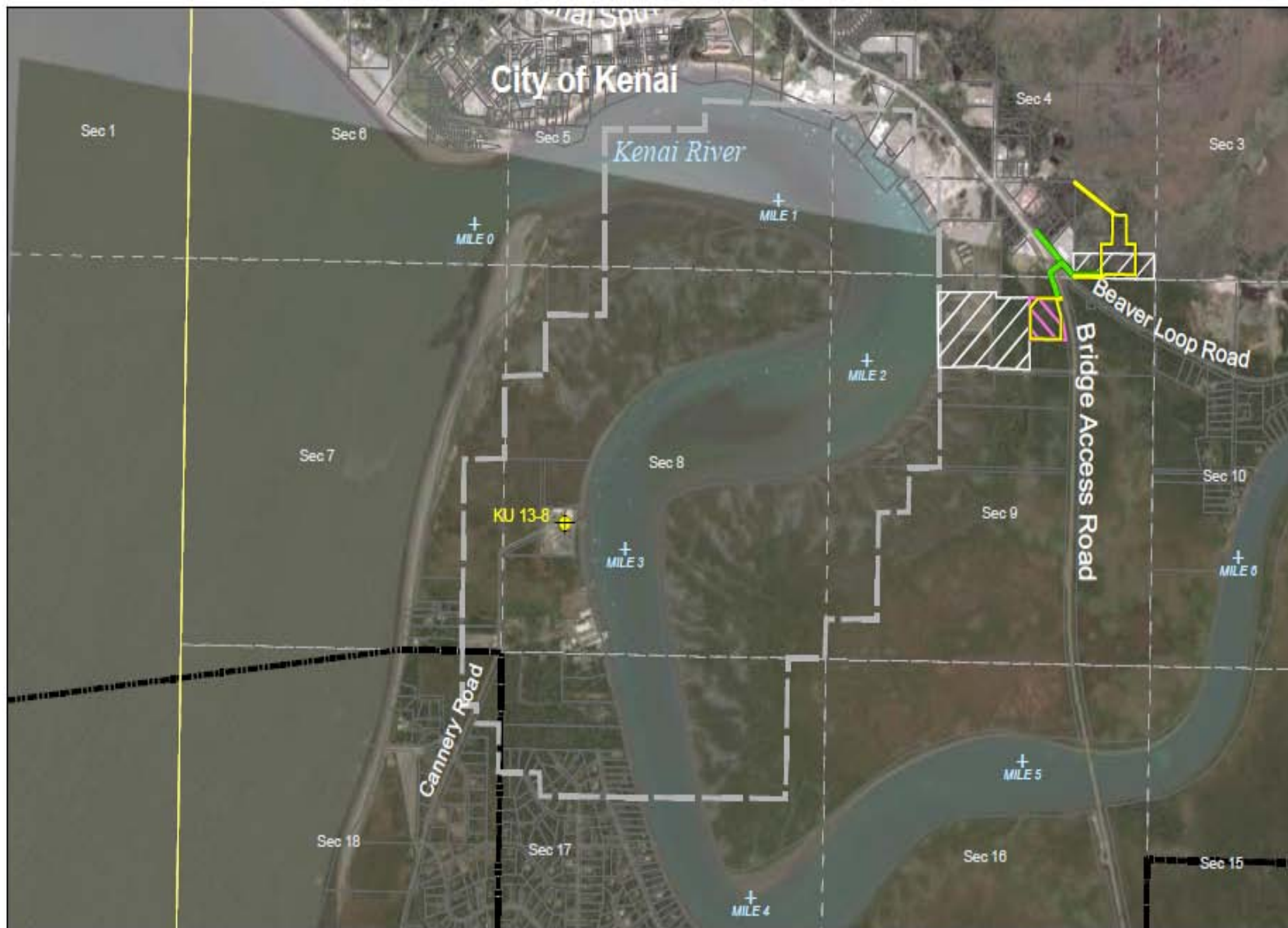
- First natural gas storage in Weland County, Ontario, Canada, in 1915, 1930 in Buffalo, New York
- Most commonly stored in depleted gas reservoirs, over 400 in use in North America storing 4 TCF
- Geologic considerations:
 - Porous and permeable structure
 - Impermeable cap rock
 - Well defined geologic structure



Similar Size Storage Station and Wells (Charlton, MI)



Cook Inlet Natural Gas
STORAGE
Alaska



AECOM

AECOM ENVIRONMENT
1835 S. Bragaw Street, Suite 490
Anchorage, Alaska 99508
phone: (907)561-5700
fax: (907)273-4555
web: <http://www.aecom.com>

Project No. 60157426

Cook Inlet Natural Gas Storage

Cook Inlet Natural Gas Storage Alaska, LLC

Kenai, Alaska

August 5, 2010

- LEGEND:**
- Proposed Underground Storage Boundary
 - Proposed Interconnecting and Gathering Pipeline Routes
 - Proposed Surface Footprint of Well Pad and of Compression/Gas Conditioning Facility
 - Proposed Subsurface Easement Area
 - Proposed Lease Area of Well Pad
 - Kenai City Limits



Project Considerations

- Minimize Social Impacts:
neighborhoods, travel patterns, rights-of-way
- Promote Positive Economic Impacts (locally, regionally)
- Preserve Local Land Use and Traditional Uses
- Avoid Cultural Resources
- Proper Waste Disposal
- Protect Air Quality
- Minimize Noise
- Avoid Wetlands
- Protect Fish and Wildlife
- Maintain Water Quality
- Avoid Floodplains

Decisions and Authorizations

- State
 - DNR, Division of Oil and Gas: Gas Storage Lease and Lease Plan of Operations
 - DNR, Division of Mining, Land and Water: Surface Lease, Pipeline Easement and Land Classification Order
 - DNR, Division of Coastal and Ocean Management: Consistency Determination
 - DOA, Alaska Oil and Gas Commission: Injection Orders
 - Regulatory Commission of Alaska: Tariffs
 - DEC, Air Permit, 401 Water Quality Certification*
 - DNR, NAWCA*
- Federal
 - U.S. Army Corps of Engineers Wetlands Permit
- Local
 - Kenai Peninsula Borough Requirements

Process and Schedule

- Permitting Complete – 11/2010
- Surface Construction – 10/2010 to 8/2012
- Subsurface Construction – 9/2011 to 4/2012
- Commission Withdrawal Facilities 10/2012

Customer Profiles

- ENSTAR
 - 5 Bcf
 - 113 Mmcfd injection
 - 91 Mmcfd withdrawal
- CEA
 - 2.4 Bcf
 - 27 Mmcfd injection
 - 35 Mmcfd withdrawal
- ML&P
 - .6 Bcf
 - 10 Mmcfd injection
 - 10 Mmcfd withdrawal



Questions