Project

Synopsis
Interior Energy Project PURPOSE AND GOALS
Interior Alaska

“. . . to bring low-cost energy to as many residents and businesses of Interior Alaska as possible, as quickly as possible . . .”

Stabilize the Economy

Improve Air Quality
Recognizing that over 100 Alaska Communities, and hundreds of thousands of Alaskans, face the same energy challenge as Fairbanks, design and test a system where the state can, more sustainably, provide necessary project support of critical development even when it is no longer in a position to offer large Grants...
IEP – Project Definition

Transition Energy Economy from Oil (and Wood) to Clear, Less Expensive Natural Gas

I. Increase LNG Production Capacity
II. Increase LNG Delivery Capacity
III. Increase LNG Storage Capacity
IV. Increase NG Delivery Capacity
V. Support Conversion to NG Use
Project History
Project History

- 2011
  -$500,000 State Appropriation

- 2012
  - FNSB Gas Distribution System Analysis
  - Interior Gas Utility Established by FNSB

- 2013
  - “Interior Energy Project” Announced
  - Governor Requests for State Financial Support
    - $362.5 Million Financing Package
      - $57.5M Grant
      - $125M SETS Loan
      - $150M Bonding Authority
    *Mandate for North Slope Focus
  - IGU acquires RCA Certified Service Area (CPCN)
Project History - Continued

- 2014
  - FNG System Expansion (Year 1 of 2)
  - Pursuit of NS Configuration
    - RFP Process
    - Selection of MWH as Partner

- 2015
  - FNG System Expansion (Year 2 of 2)
  - IGU Phase 1 Build-Out
  - Allowance for shift to Cook Inlet Configuration
  - Pursuit of NS Configuration
    - Salix selected as development partner
  - State (AIDEA) buys FNG/Pentex
Project History - Continued

- 2016
  - Salix “Unwind”
    - Precipitated by need for cost reduction against Oil
    - Unwind Agreement allowed for:
      » Retention of FEED work to date
      » Retention to FEED Contractors

  - Negotiations to:
    o Transition Pentex LLC into local ownership
    o Unite Local Natural Gas Utilities
    o Finance IEP Total-System Expansion

  - Memorandum of Understanding
Project Status

Memorandum of Understanding

for

Pentex Acquisition and IEP Financing
Definitions

▪ **Titan LNG plants**
  - Titan 1  Current LNG plant providing FNG with approximately 1B* in LNG
  - Titan 2  New LNG plant, integrated into Titan 1 that will provide 3B in LNG
  - Titan 3  Expansion of the LNG plant (Titan 1 & 2) to meet increased demand as demand materialize. Will provide additional 3B in LNG

▪ **Distribution System by Phase**

  **IGU**
  - 1  Customer service lines and meters for the 73 miles of gas mains installed in 2015
  - 2  Install 68 miles of gas mains along with customer service lines and meters
  - 3  Install 128 miles of gas mains along with customer service lines and meters

  **FNG**
  - Customer service lines and meters for the existing 134 miles of gas mains and expansion of up to 40 miles of gas main.

▪ **Storage**
  - 5.2 Million gallons of storage located in Fairbanks
  - Two 75,000 gallon tanks located in North Pole

*1B = 1 billion ft³ of liquid natural gas = approx. 7.46 Million Gallons of fuel oil*
IGU CAPITAL PLAN – 2017 thru 2022

Note: Service lines, meters and Conversion Program will be ongoing
AIR QUALITY 2013-2014 SEASONS

Fairbanks - North Pole - Combined - Average PM 2.5 - 2013 - 14 Season

Legend
- Static Monitoring Site
- RAAM_locations_with_dates
- School
- 5 µg/m3 Contours

PM 2.5 Concentration (µg/m3)

<table>
<thead>
<tr>
<th>Concentration (µg/m3)</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 8.12</td>
<td></td>
</tr>
<tr>
<td>8.12 - 11.11</td>
<td></td>
</tr>
<tr>
<td>11.11 - 13.58</td>
<td></td>
</tr>
<tr>
<td>13.58 - 16.94</td>
<td></td>
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<tr>
<td>16.94 - 20.64</td>
<td></td>
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<tr>
<td>20.64 - 26.11</td>
<td></td>
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<tr>
<td>26.11 - 31.98</td>
<td></td>
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<tr>
<td>31.98 - 34.23</td>
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<tr>
<td>34.23 - 38.33</td>
<td></td>
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<tr>
<td>38.33 - 44.99</td>
<td></td>
</tr>
<tr>
<td>44.99 - 57.83</td>
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<tr>
<td>57.83</td>
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* Typical Route
By the Numbers

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<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Customers</strong>*</td>
<td>8,840</td>
</tr>
<tr>
<td>Existing FNG</td>
<td>1,140</td>
</tr>
<tr>
<td>FNG Buildout</td>
<td>4,000</td>
</tr>
<tr>
<td>IGU Buildout</td>
<td>3,700</td>
</tr>
<tr>
<td><strong>Demand (BCF)</strong></td>
<td>5.3</td>
</tr>
<tr>
<td><strong>LNG Deliverability (BCF)</strong></td>
<td>5.4</td>
</tr>
<tr>
<td><strong>LNG Plant Capacity (BCF)</strong></td>
<td>7.5</td>
</tr>
<tr>
<td>**Estimated Gas Cost ($ / MCF) **</td>
<td>15.50</td>
</tr>
<tr>
<td><strong>Revenue/Yr ($M)</strong></td>
<td>88</td>
</tr>
<tr>
<td><strong>Capital Plan ($M)</strong></td>
<td>333</td>
</tr>
<tr>
<td>**Air Quality Improvement *****</td>
<td></td>
</tr>
<tr>
<td>Fairbanks/FNG (%)</td>
<td>8.6</td>
</tr>
<tr>
<td>North Pole/IGU (%)</td>
<td>26.4</td>
</tr>
</tbody>
</table>

* Conversions based on Cardno Report, Sensitivity Analysis 2015
** Includes a volumetric charge of $15 / MCF and a customer charge
*** “Order of Magnitude” Preliminary AQ Improvement forecast – Sierra Research
Utility Integration MOU (1 of 2)

SCOPE (CREATES FULLY INTEGRATED FNSB NATURAL GAS UTILITY)

- Titan 1 upgrades, Titan 2 and Titan 3 - construction
- Fairbanks LNG Storage - 5.2 million Gallons - construction
- North Pole LNG Storage – 150,000 Gallons - construction
- Full build-out of IGU Phases 1-3 Distribution System & FNG Expansion Area
- Services and Meters
- Customer Conversion Program
Establishes Key Business & Financial Terms

- **Overall financing plan**
  - Commitment of $330M in total to IGU’s development & startup
  - Structure of $125M SETS Loans
  - Standards and process for issuance of $150M of AIDEA bonds for IGU capital program

- **IGU purchase of Pentex (including Titan, FNG, all Pentex assets)**

- **Process and timing of system integration**

- **Contingent upon**
  - Economically sufficient Gas Supply Contract
  - Due Diligence
  - RCA Approval
## Source of Funds -- Capital Financing

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Capital Appropriations (HCS CSSB 18)</td>
<td>$42,800,000</td>
</tr>
<tr>
<td>SETS Financing (SB 23 SLA 2013)</td>
<td>125,000,000</td>
</tr>
<tr>
<td>AIDEA Bonds (SB 23 SLA 2013)</td>
<td>140,614,200</td>
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<tr>
<td><strong>Other Sources</strong></td>
<td></td>
</tr>
<tr>
<td>Commercial Financing (bridge &amp; LNG trailers)</td>
<td>4,745,000</td>
</tr>
<tr>
<td>State Storage Credits - Fairbanks &amp; North Pole</td>
<td>20,500,000</td>
</tr>
<tr>
<td><strong>Other Sources</strong></td>
<td>$25,245,000</td>
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<tr>
<td><strong>Total Source of Funds</strong></td>
<td>$333,659,200</td>
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</tbody>
</table>
## Financials – Use of Funds

### USE OF FUNDS – MOU Appendix C - Integrated Gas Utility Capital Program -- 2016-28

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td><strong>LNG Supply</strong></td>
<td></td>
</tr>
<tr>
<td>Titan 2 LNG Plant (inc. Titan 1 upgrades)</td>
<td>$ 46,200,000</td>
</tr>
<tr>
<td>Titan 3 LNG Plant (future)</td>
<td>$ 25,000,000</td>
</tr>
<tr>
<td><strong>LNG Supply</strong></td>
<td>$ 71,200,000</td>
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<tr>
<td><strong>Transportation</strong></td>
<td></td>
</tr>
<tr>
<td>LNG High-capacity Trailers &amp; Equip</td>
<td>$ 4,745,000</td>
</tr>
<tr>
<td><strong>Storage &amp; Regas</strong></td>
<td></td>
</tr>
<tr>
<td>FBKS 5.2mgal Storage</td>
<td>$ 42,000,000</td>
</tr>
<tr>
<td>NP 150kgal Storage &amp; Regas</td>
<td>$ 11,000,000</td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td>$ 53,000,000</td>
</tr>
<tr>
<td><strong>Pentex Acquisition</strong></td>
<td></td>
</tr>
<tr>
<td>AIDEA sale of Pentex to IGU</td>
<td>$ 58,206,000</td>
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<tr>
<td><strong>Distribution</strong></td>
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<tr>
<td>Phase 1-3 IGU Buildout</td>
<td>$ 87,360,000</td>
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<tr>
<td>FNG Expansion/Infill - Gas Mains</td>
<td>$ 23,000,000</td>
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<tr>
<td>FNG - Future Peak Shaving Plant</td>
<td>$ 2,000,000</td>
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<tr>
<td>IGU &amp; FNG - New Services and Meters</td>
<td>$ 19,648,200</td>
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<tr>
<td>Program Management</td>
<td>$ 11,500,000</td>
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<tr>
<td>Customer Conversion Program</td>
<td>$ 3,000,000</td>
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<tr>
<td><strong>Distribution</strong></td>
<td>$ 146,508,200</td>
</tr>
<tr>
<td><strong>Total Use of Funds</strong></td>
<td>$ 333,659,200</td>
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</table>
SETS Financing Terms

- SETS financing flexibility includes:
  - 15 Year Deferment
  - 0.25% Interest Rate
  - 50-year payback term *
  - SETS repayment is in a secondary position to AIDEA Bonds

Summary of SETS Loan Terms

<table>
<thead>
<tr>
<th>Item</th>
<th>Deferment</th>
<th>Repayment Term</th>
<th>Total Loan Term*</th>
<th>Interest Rate</th>
<th>Annual Debt Service</th>
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</thead>
<tbody>
<tr>
<td>SETS Loan Terms</td>
<td>15 yrs</td>
<td>35 yrs</td>
<td>50 yrs</td>
<td>0.25%</td>
<td>$3.73 m</td>
</tr>
</tbody>
</table>
Proposed MOU (12/16/2016):

- High probability of meeting goal of $15 per MCF rate for a 10-year period
- Provides natural gas service to **8,850 customers** in Fairbanks/North Pole area
  - Based on Conversion Analyses performed in 2014 & 2015 by Cardno Entrix
Next Steps
NEXT STEPS (SHORT TERM)

- Drafting of executable Pentex Purchase / IEP Financing Agreements (initiated - to be completed by March 31)
- Due Diligence and Utility Integration Planning (ongoing)
- **Gas Supply Contract** (ongoing)
- Immediate Capital Programming
  - LNG Plant Facility Front End Engineering & Design (FEED)
  - LNG Storage Development in FNSB
- AIDEA certification of “HB 105 Plan”
- RCA Approval of Ownership Transfer
- Execution of MOU-related Agreements
- IGU / FNG Integration
HB 105 requires a project plan within the AIDEA Board Resolution to include:

1. Source of natural gas
2. Estimated total project cost
3. Estimated “pre-distribution” cost of supplied gas
Next Steps (LONGER TERM)

- Conversion program
- Storage tanks constructed
  - LNG storage reimbursement
- LNG plants constructed
- Finalize transportation plan
- Distribution system expansion planning and construction
IGU Service Area
IGU SYSTEM – Phase 1 – Installed 2015
IGU SYSTEM – Phase 2 – Planned for 2018/21
IGU SYSTEM – Phase 3 – Planned for 2019/22
Interior Energy Project PURPOSE AND GOALS

“. . . to bring low-cost energy to as many residents and businesses of Interior Alaska as possible, as quickly as possible ...”

- Stabilize the Economy
- Improve Air Quality
- Model of Development:
  - Other Alaska Communities can Follow
  - Alaska can Sustainably Support
QUESTIONS