ENSTAR/CINGSA Supply Update

Presented to:

Commonwealth North Energy Action Coalition

November 2, 2012

Cook Inlet Natural Gas STORAGE Alaska

Project Summary

- Constructed to meet winter demand

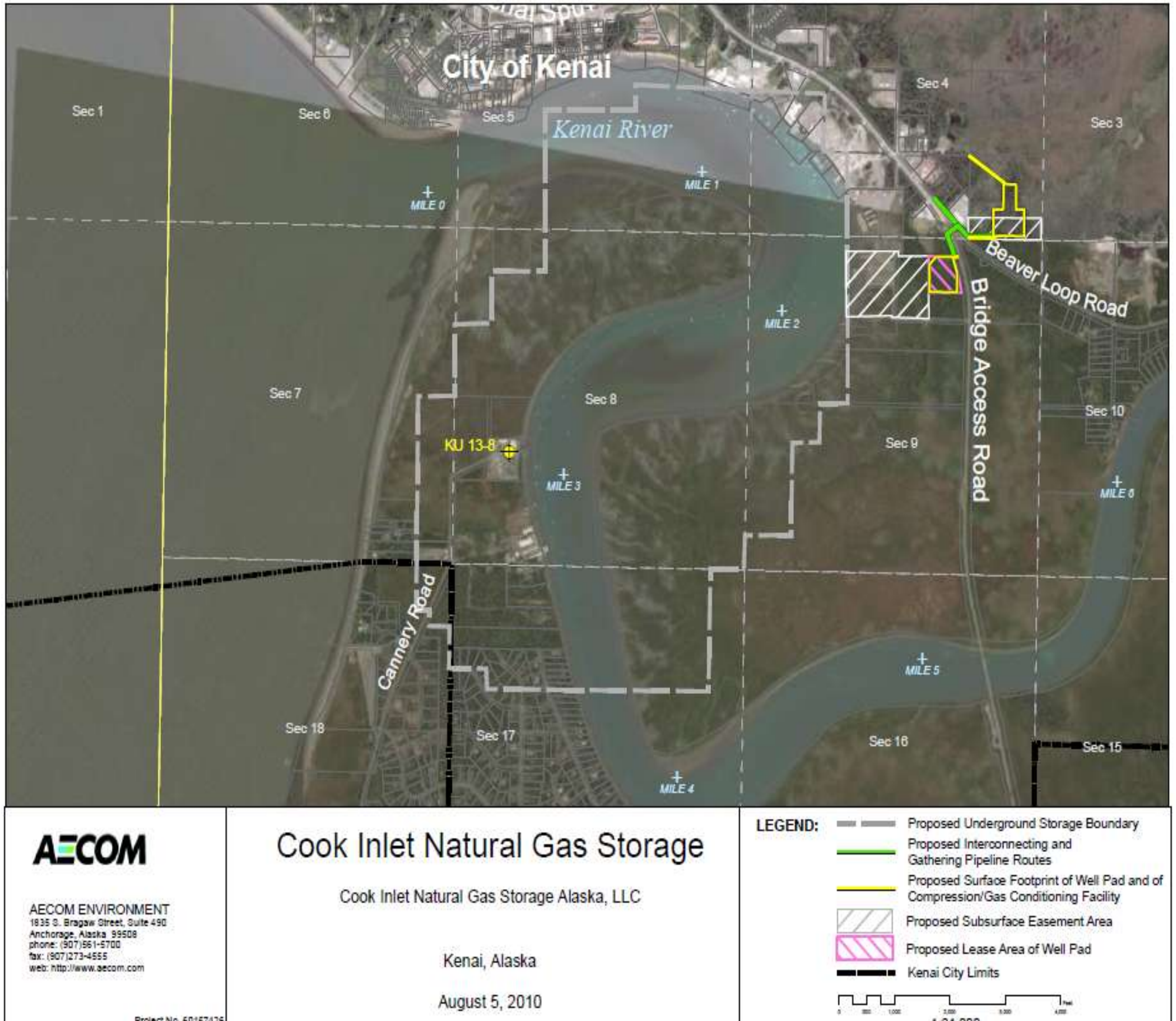
- CINGSA:
  - **A compression/gas conditioning facility**
  - **Five injection/withdrawal storage wells**
  - **A gas storage reservoir in Cannery Loop – Sterling C Pool**
  - **16” / 1,392’ pipeline to compression/gas conditioning facility**
  - **20” / 1,324’ pipeline connection to KNPL**
- Benchmarks:
  - **Construction began November 2010**
  - **Injections began in April 2012**
  - **Withdrawals are anticipated in late 2012**
  - **340,000 man-hours with no recordable incidents**

Project Impact

- Currently allows for storage of 11 BCF
- Will meet 45% of monthly average peak demand in the winter
- Allows for the purchase and storage of gas during summer for use during winter peak demands
- If needed, provides for storage of imported LNG or CNG

Photo by Robin Barry, ENSTAR

CINGSA: Aerial View



Compression/Processing Facility

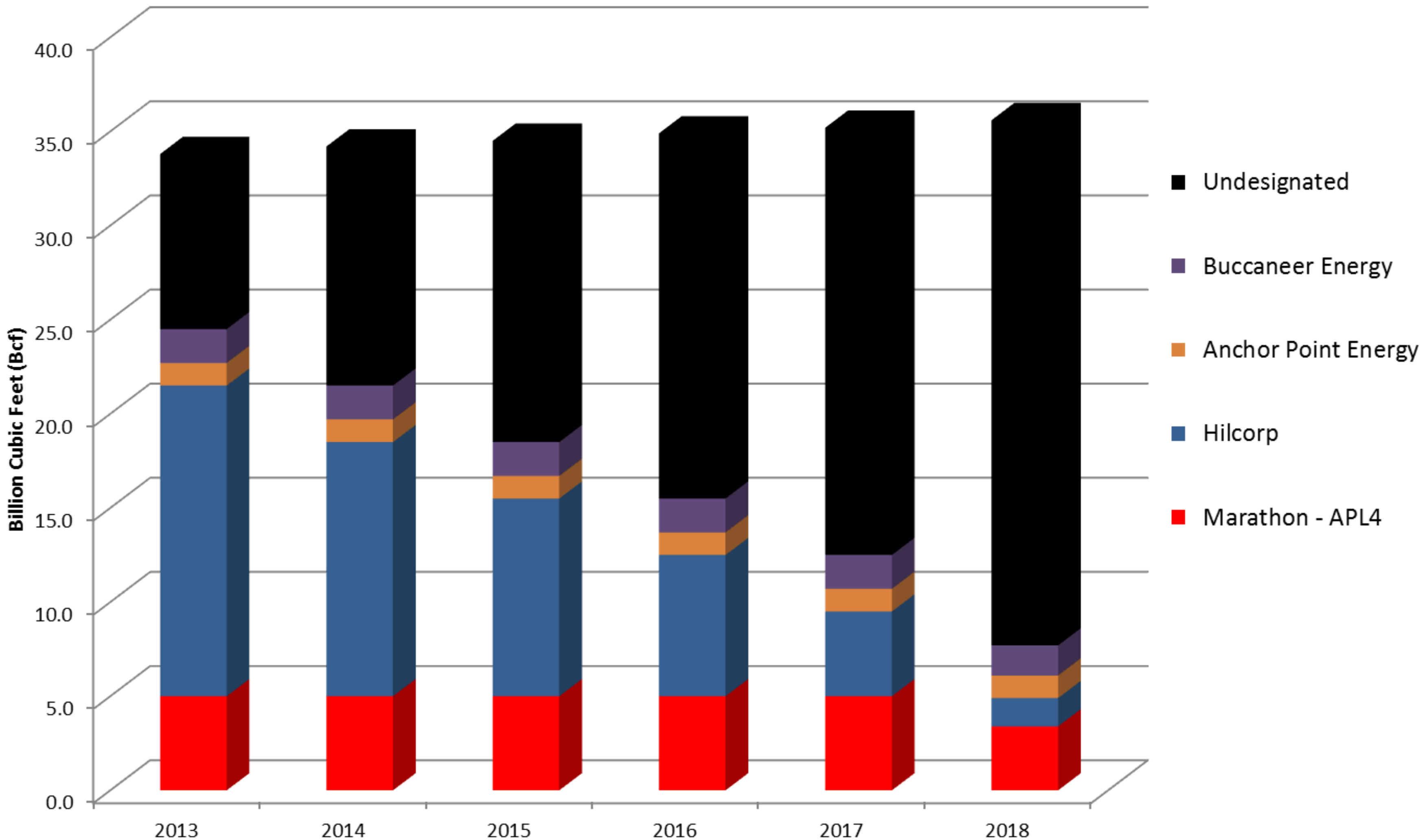
Compression/Processing Facility

Nabors Drill Rig

Well Pad

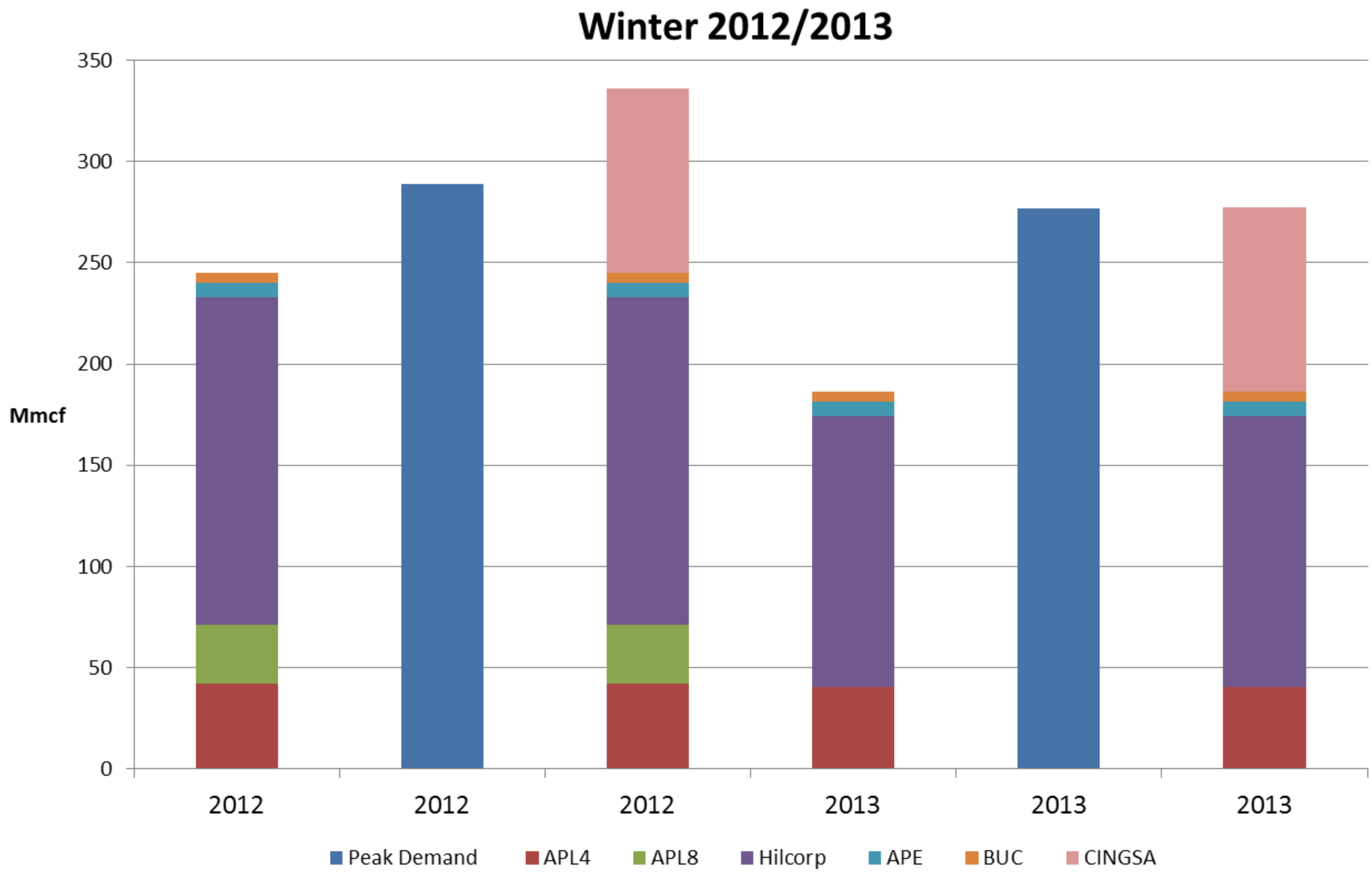
ENSTAR Gas Supply

ENSTAR's Forecasted Annual Demand/Committed Supply 2013-2018



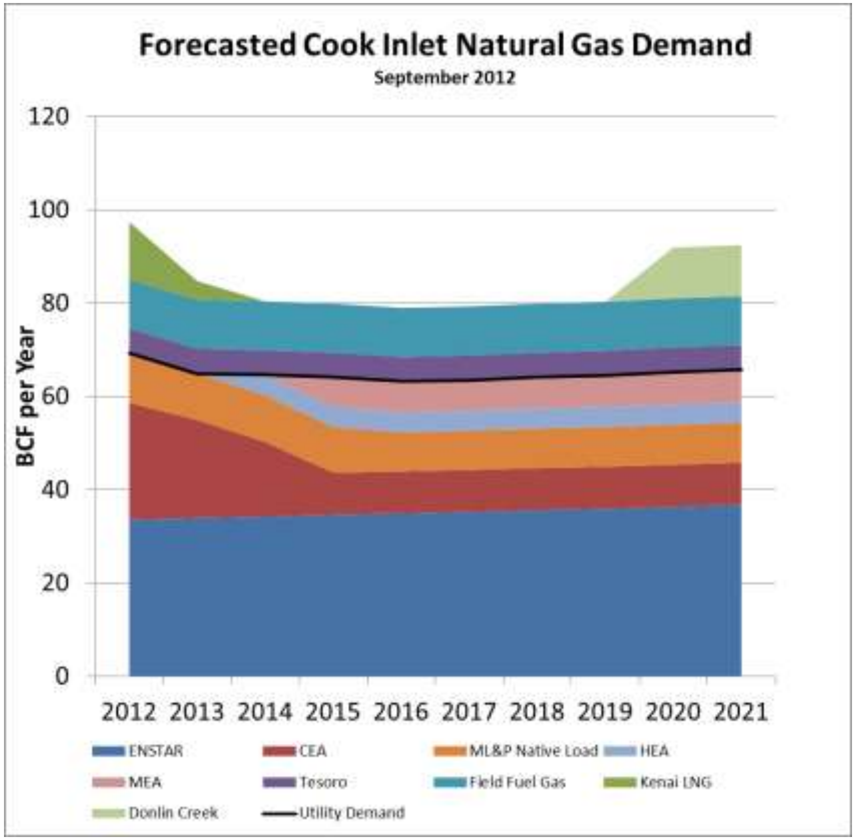
All Our Energy Goes Into Our Customers

ENSTAR's Contracted Deliverability & Peak Day Demand



South Central Demand

<u>Projected User</u>	<u>2014-19</u>
ENSTAR	44%
Chugach Electric	13%
Field Fuel Gas	13%
HEA/MEA	12%
ML&P	11%
Tesoro	7%



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Current Status Report
"Three steps forward"

- Cook Inlet Recovery Act has resulted in increased activity – but does not match production decline
- CINGSA gas storage facility operational
- Utility activities to further reduce gas demand
  - Generation unit efficiency
  - Renewable energy
  - Conservation & efficiency
  - Expand hydro

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Impacts of Incentives

Hilcorp Alaska

Apache
EXPLORING WHAT'S POSSIBLE

Aurora

LINC ENERGY

Anchor Point Energy

Furie Operating Alaska LLC

NORDAQ ENERGY

BUCCANEER ENERGY

Cook Inlet Energy

Miller Energy

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"Two Steps Back?"

- Although Cook Inlet activity is up, results have been disappointing
  - New wells do not keep pace with production decline
- Gas price uncertainty
  - Henry Hub based prices drop
  - Japan LNG prices move to all-time high
- Ownership changes
  - Well re-work efforts stalled
  - New drilling stalled
  - Contract discussions stalled

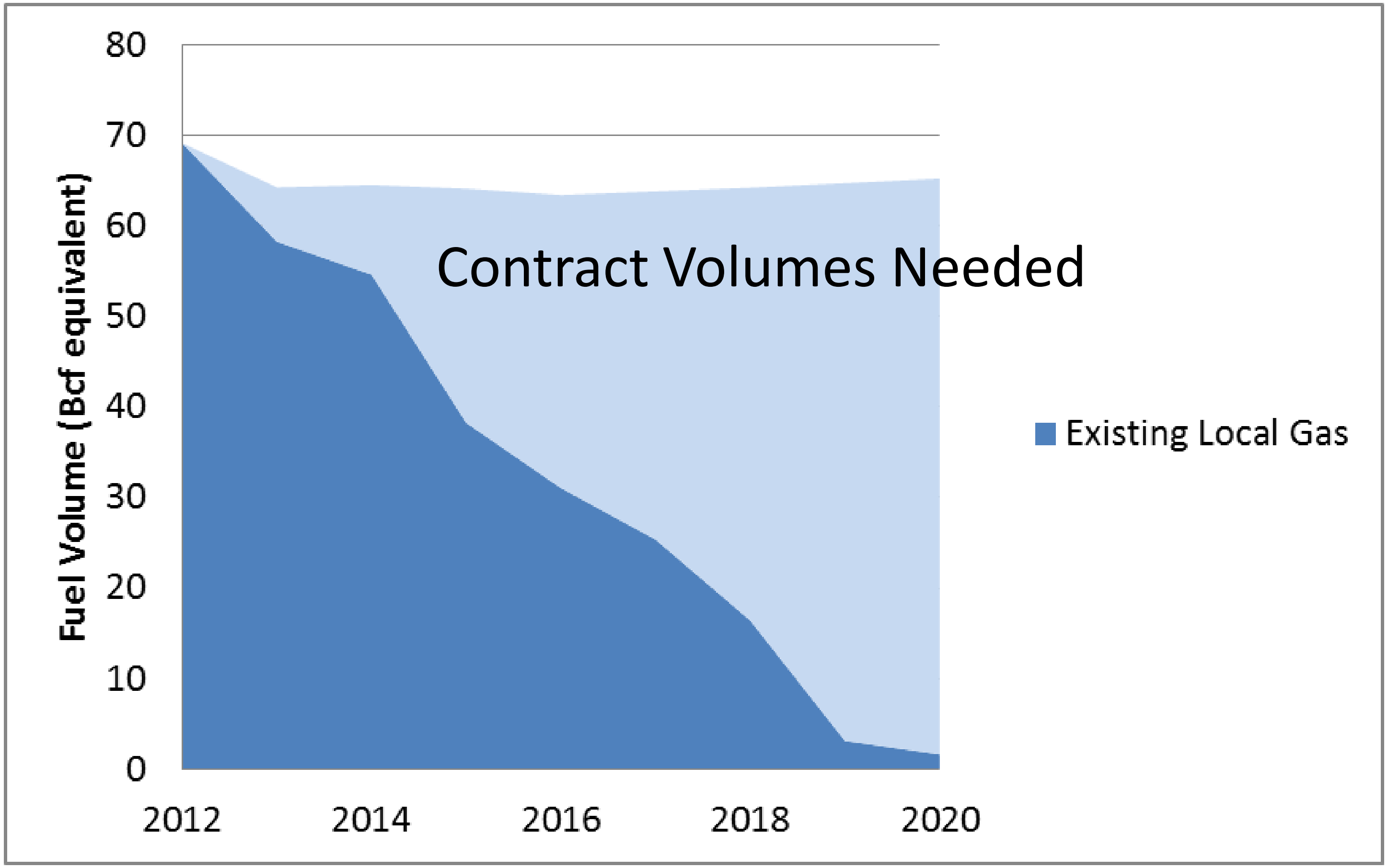
Cook Inlet Drilling Results

Period	Gas Wells Completed	Average Wells per Year	Initial Production (MMCF/day)
2001-2009	105	12.3	3.6 per well
2007-2009	34	13.6	3.1 per well
Nov-09 to Oct-10	5	5	3.7 per well
Nov-10 to Oct-11	6	6	1.7 per well
Nov-11 to Jun-12	4	6	5.4 per well

Moving Forward

- All stakeholders working towards adequate gas supply, however, utilities short contracted volumes
- PRA report still indicates Cook Inlet production shortfall by 2015
- Utilities can no longer wait for Cook Inlet market to respond

Need vs. Time



Fuel Volume (Bcf equivalent)
80
70
60
50
40
30
20
10
0
2012
2014
2016
2018
2020
Contract Volumes Needed
Existing Local Gas

Imported Gas: LNG or CNG

- LNG is a commodity that can be contracted for import into Cook Inlet
  - Use of existing infrastructure or other for re-gas
  - Recent Spot Prices: $12-$15/MCF
- Compressed Natural Gas (CNG) tankers is another option for importing gas
  - Possible range: $9 - $12/MCF

With timely engineering and permitting, LNG or CNG could be imported to fulfill short-term needs

Work Plan – Evaluation & Decision

- Northern Economics contracted to compare CNG with LNG
- Decision timeline – first quarter 2013
- Contracts to be negotiated
  - Gas supply agreement
  - Gas transport tariff
  - Transport (shipping) agreement
  - Load and unload (dock) facilities/equipment
  - Various permits
- Timeline is critical

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Summary: Possibilities to Meet Demand

- Infield drilling: Recent history of activity level does not predict this option will meet demand beyond 2015
- On-shore Exploration: If successful, will take time for development; could impact timing of shortfall
- Off-shore Exploration: Not proven; 3-5 years from discovery to production
- Instate Gas Line (ASAP): Will not be operational until 2020
- Imported LNG or CNG: May bridge demand shortfall until exploration and/or instate gas line provide sufficient supply

Conclusions

- Absent major, new discoveries that can be brought online in 1-2 years, the current pace of development could mean a shortfall in Cook Inlet supply to meet demand in 2014 or 2015.
- LNG or CNG import is the only “certain” method to ensure no shortfall.
- CINGSA storage is capable of storing Cook Inlet produced gas or imported gas for winter demand.

Questions?