01/25/13 WHO'S KEEPING THE LIGHTS ON? (PART 4)

<TARGET><BILL></BILL><SUBJECT>01-25-13 WHO'S KEEPING THE LIGHTS ON- (PART 4)</SUBJECT><COMM>SRES28</COMM></TARGET>

ALASKA STATE LEGISLATURE

Sen. Cathy Giessel, Chair
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Sen. Peter Micciche
Sen. Hollis French

State Capitol, Room 427
Juneau AK 99801-1182
907-465-4843
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Senate Resources Committee

Butrovich Room 205
Friday, January 25, 2013
3:30-5:30 p.m.

AGENDA

- **SB 29 CRUISE SHIP WASTEWATER DISCHARGE PERMITS**

  Public Testimony: Time limit 3 Minutes

- **"Who's Keeping the Lights & Heat On. Problems & Solutions"**

  Alaska Gasline Development Corporation
  Daniel Fauske, CEO/Executive Director of Alaska Housing Finance Corporation
  Frank Richards, Manager, Right of Way Alaska Gasline Development Corporation

  Cook Inlet Natural Gas Storage, Alaska [participants on line]
  Richard Gentges, Project Manager, CINGSA
  Moira Smith, VP & Gen.Counsel, CINGSA

  Fairbanks LNG Trucking

  Gene Therriault, AEA, Deputy Director Energy Policy Development

Testimony: By Invitation

Teleconference

ASAP

Alaska Stand Alone Gas Pipeline

Senate Resources Committee

ASAP Project Update

January 25, 2013

Who? AGDC and What? ASAP

April 2010: HB 369 mandated that **A**laska **H**ousing **F**inance **C**orporation (**AHFC**) facilitate development of a plan for an in-state pipeline ***project.***

July 2010: AHFC established the **A**laska **G**asline **D**evelopment **C**orporation (**AGDC**) as a subsidiary corporation to take over ***project*** planning and execution.

ASAP is that ***project:*** the **Alaska Stand Alone Pipeline**.
Also known as the in-state pipeline.

ASAP

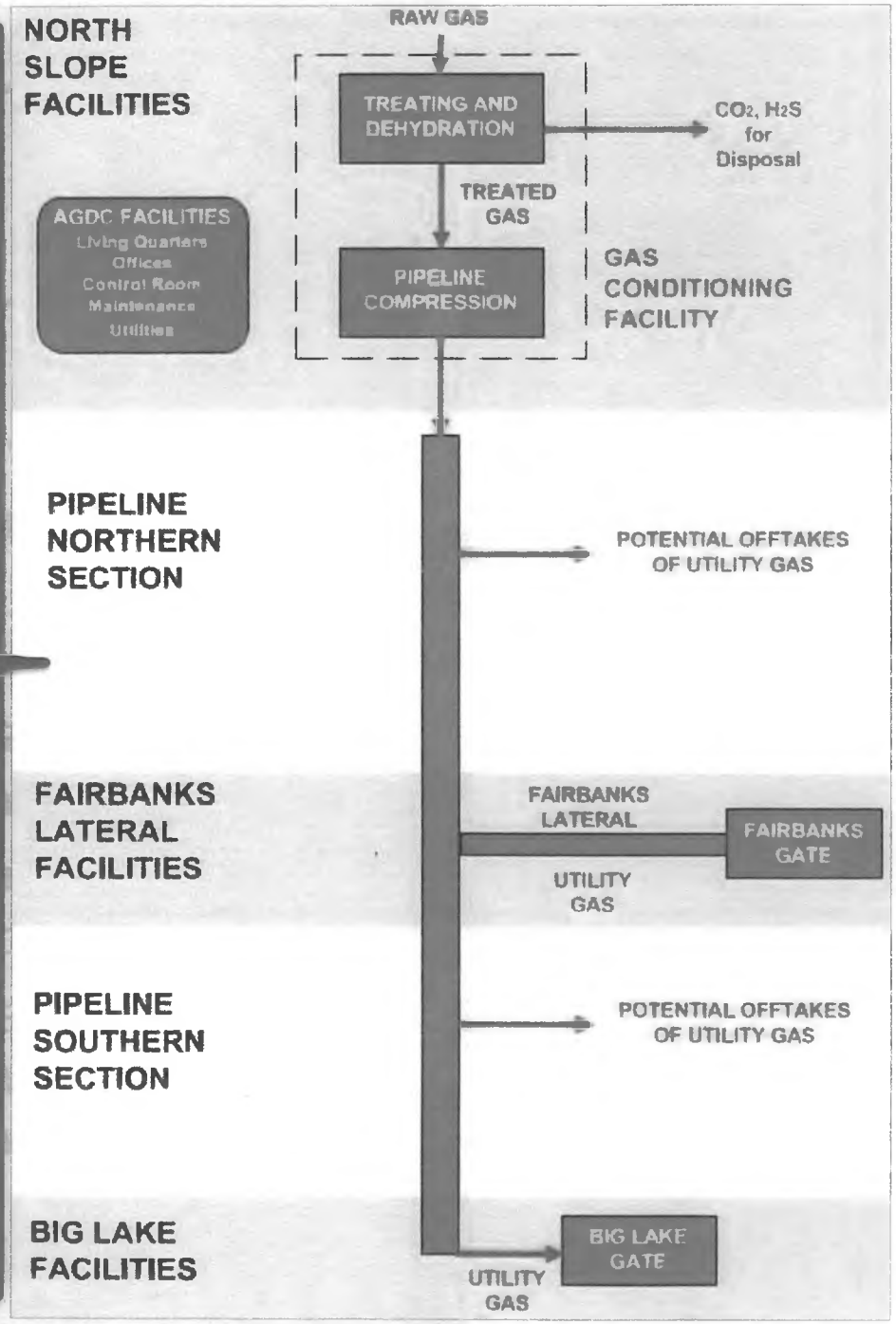
ASAP Progress Up-date

- 604 miles of State Right-of-Way lease; includes Fairbanks lateral
- Final Environmental Impact Statement (FEIS) completed November 2012
- FEIS Record of Decision expected January 2013
- AGDC team optimized the project plan to Lean Gas
- Up-dated capital costs and tariff models
- Contracted a facility design firm
- Identified enabling legislation required to move ASAP forward
- 2013 Summer field work plan in progress

ASAP

2011 Plan vs. Optimized Project Plan

- 36” diameter pipe
- 1,480 psi max
- Fairbanks Lateral: 12” diameter pipe, tie-in with mainline at MP 458
- North Slope GCF at Prudhoe Bay
- More off-takes possible

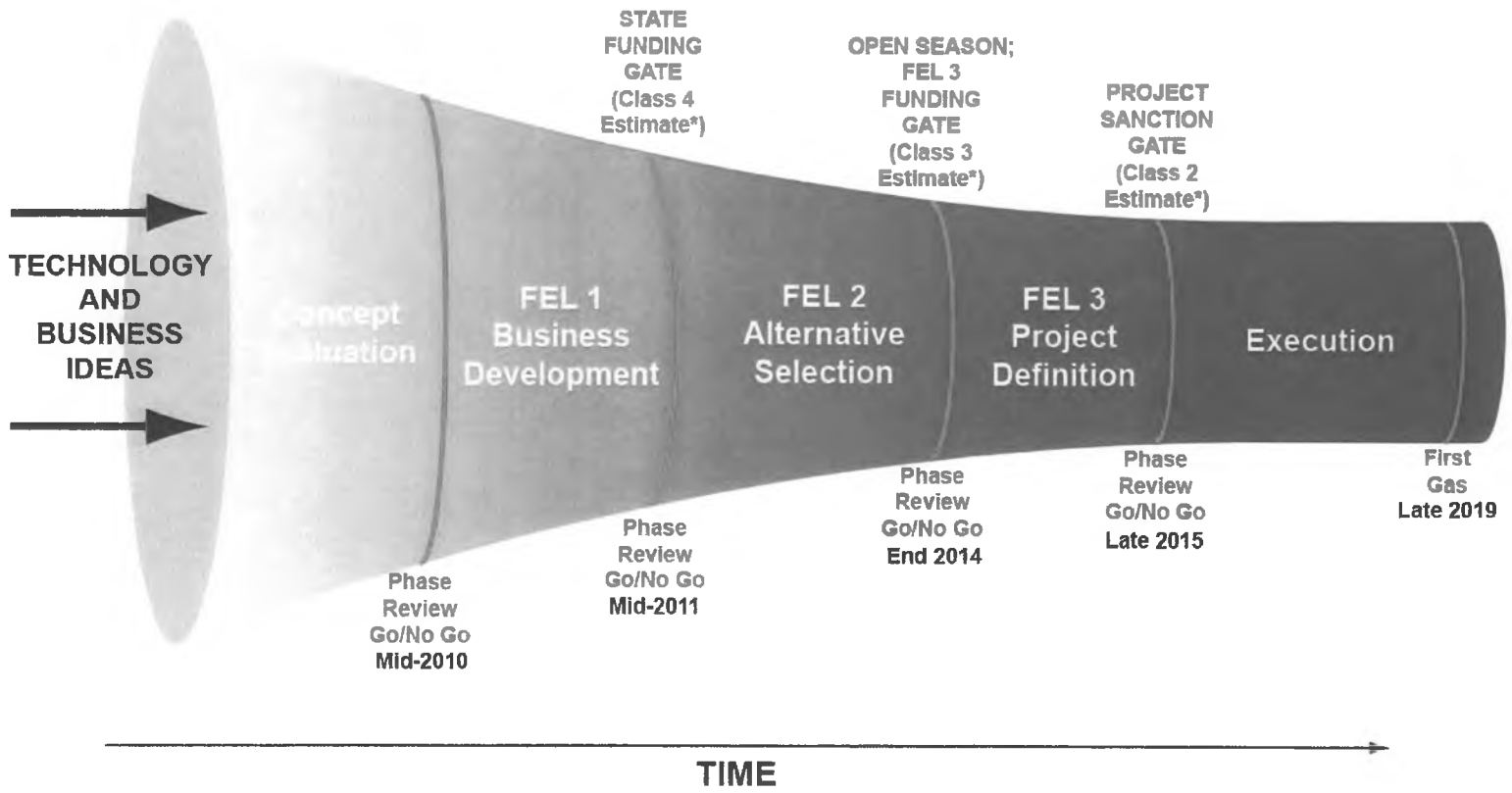


Optimized Project Plan Benefits

Issues	Optimized Project Plan (Lean Gas)	July 2011 Project Plan
Customers	▪ Easier and less expensive connections ▪ More off-take points ▪ More potential customers and greater access ▪ Deliver natural gas to Alaskans by 2019	▪ Costly connections ▪ Fewer off-take points for Alaskans
EIS/Permits	▪ Supplemental environmental document required with minimal impact to schedule ▪ Smaller footprint and reduced carbon impacts	▪ Risk of carbon tax ▪ More permits; greater complexity/impact ▪ FEIS complete (November 2012)
Complexity	▪ Less risk — One facility (GCF) with standard pressure & equipment ▪ Design process less costly ▪ Propane extraction still available for in-state demand	▪ 5 + facilities with high pressure pipeline and specialized materials and equipment required
Tariff	▪ Lower tariff	▪ Higher tariff
Cost	▪ $7.7B (+/- 30%) in $2012 ▪ Lower construction risk ▪ Lower O&M costs	▪ $7.5B (+/- 30%)in $2011 ($7.7B in $2012) ▪ Higher construction risk ▪ Higher O&M costs
Political / External	▪ Improved economics for Interior users ▪ Increased customer base with ease of connections ▪ Requires enabling legislation to more effectively and efficiently advance the project and schedule ▪ NOT viewed as competition to AGIA	▪ Petrochemical plant ambitions ▪ Lack of market for by-products ▪ Efficiencies not realized ▪ NOT viewed as competition to AGIA

Stage Gate Approach

Front-End Development Progressively Narrows Uncertainty of Cost and Schedule

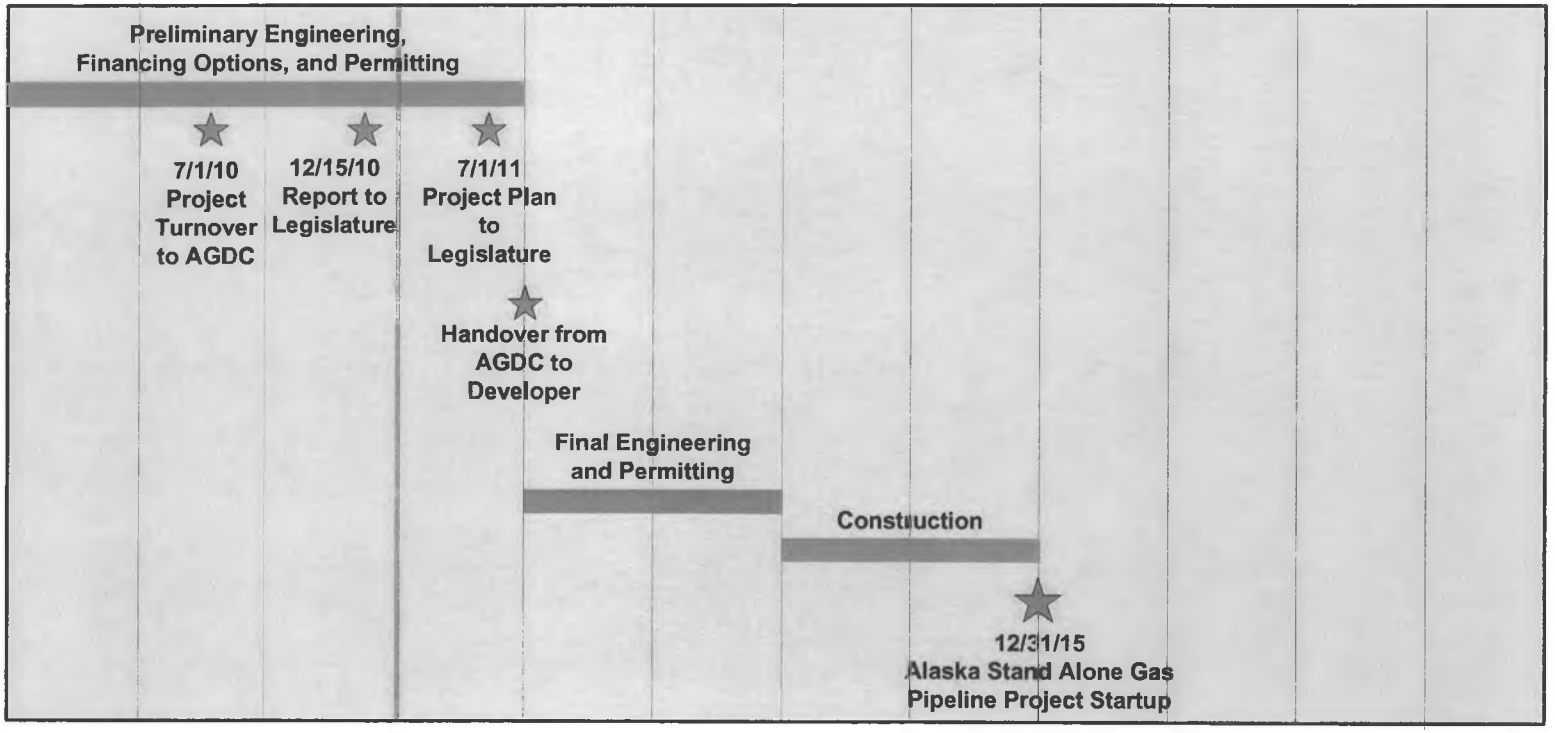


*Refers to AACE cost estimate classes (Association for the Advancement of Cost Engineering). The lower the class number, the higher the confidence in the accuracy of the estimate.

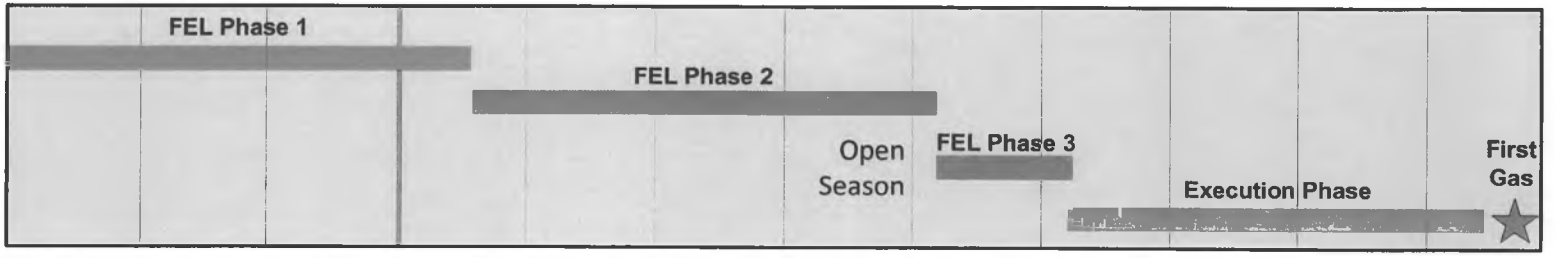
ASAP

ASAP Optimized Project Schedule

SCHEDULE MANDATED BY HOUSE BILL 369



OPTIMIZED SCHEDULE
(Front-end loaded)



Rev. 9/24/12

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ASAP Project Milestones

- Open season late 2014
  - ✓ Determine commercial interest
- Project sanction late 2015
- Procure pipe and long lead items 2016
- Construction 2017 - 2019
  - ✓ 2+ years (772 miles of pipeline including lateral)
- First gas in late 2019
- Full gas transmission 2020

ASAP

Optimized Project Tariff Update

- Longer term: 30-year levelized vs. original 20-year
- Updated capital cost estimates with more appropriate contingency
  - ✓ Pipeline now 10% vs. 5% (facilities 30%)
- Equity share and return on equity adjusted
  - ✓ Debt/equity split now 75/25 vs. 70/30
  - ✓ ROE 11% vs. 12%
- Year delay ($2011 -> $2012)
- 2.5% inflation per year

ASAP

Tariff Comparison

2012 Tariff Comparison Original Project Plan vs. Optimized Project Plan		
	ASAP 2011 Project Plan $/MMBtu	Optimization Update $/MMBtu
$ Levelized at Project Startup (Uninflated/Constant)	$2011	$2012
Fairbanks	$6.45	$4.25 to $6.00
Big Lake	$5.63	$5.00 to $7.25
$Levelized at Project Startup (Inflated/Nominal)		
Fairbanks	$8.99	$4.75 to $6.50
Big Lake	$7.75	$5.75 to $8.00
Cost Drivers		**Tariff Impact**
Capital cost : +/- $1 Billion for pipeline	Fairbanks Big Lake	+/- $.50/MMBtu +/- $.80/MMBtu
State of Alaska Contribution : +$1 Billion		- $.45/MMBtu
Rate of return on equity (ROE): +/- 1%		+/- $0.20/MMBtu
Useful life (bond length): + 10 years		- $0.75/MMBtu
Cost of 1 Yr. Delay to Entire Construction Schedule		+$0.20/MMBtu

ASAP

ASAP Costs

- **Cost to Alaskans**: $400M up-front cost to be recovered through gas royalty and taxes
- **Cost Benefit**: Long term natural gas supply for Alaskans
- **Project Cost**: $7.7 Billion* in 2012 dollars, +/- 30%
- **Cost of Gas to Consumers** (burner tip)

Anchorage

- Optimized $ 9 - 11.25/MMBtu in 2012 dollars
- Base case $ 9.63/MMBtu in 2011 dollars

Fairbanks

- Optimized $ 8.25 - 10/MMBtu in 2012 dollars
- Base Case $ 10.45/MMBtu in 2011 dollars

*Each year the project is delayed, 2.5% inflation is added to the cost of the project

Funding Required to Advance

- Achieving legislative objectives to advance an in-state natural gas pipeline for Alaskans is **contingent on legislative funding**
- Full funding will keep project on schedule
  - ✓ Advance facilities and pipeline engineering
  - ✓ Regulatory permitting activities and agency engagement
  - ✓ Engineering field investigations
- Partial funding will cause schedule delays
  - ✓ Limited pipeline and facilities engineering
  - ✓ Limited field investigation

ASAP

ASAP Requires Enabling Legislation

Critical legislation components:

- Ability to enter into confidential agreements
- Contract carrier status is needed to allow AGDC to enter into long-term contracts
- Authority to determine ASAP ownership structure is key to attracting shippers/buyers; financing; and pipeline tariffs
- Enabling legislation will significantly advance meeting the purpose of the original legislation: ". . . deliver natural gas to as many communities as practicable along the route .."

Thank You

Alaska Gasline Development Corporation

ASAP Project Office

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Phone: (907) 330-6300 • Website: www.agdc.us

Frank Richards, P.E.

Government Affairs & Pipeline Engineering Manager

Phone: (907) 330-6352

ASAP

Cook Inlet Natural Gas Storage Alaska

CINGSA

Senate Resources Committee

January 25, 2013

Cook Inlet Natural Gas STORAGE Alaska

CINGSA Overview

Cook Inlet Natural Gas Storage Alaska LLC

Original Design
- 11 Bcf of Working Gas
- 7 Bcf of Base Gas
- 150 MMscf/d Deliverability

Customers
- ENSTAR
- Chugach Electric
- Municipal Light & Power
- Homer Electric (2014)

Cook Inlet Natural Gas STORAGE Alaska

Permits Approved & Pending

Permit	Submitted	Approved
Dept. of Army Nationwide Permit	June 18, 2010	October 13, 2010
Coastal Zone Consistency Determination	June 28, 2010	September 9, 2010
Air Quality Owner Requested Limits	February 18, 2010	September 21, 2010
MG1 Permit (Drilling)	June 10, 2011	June 14, 2011
New Source Performance Standard Program (EPA Notification regarding air emissions)	September 21, 2011	No approval required
Gas Storage Lease	June 28, 2010	Approved July 1, 2011 Effective August 1, 2011
Plan of Operations	June 28, 2010	July 1, 2011
Surface Lease	June 28, 2010	Final Decision Issued November 9, 2010
Early Entry Authorization	June 28, 2010	November 16, 2010
Sub-surface Easement	June 28, 2010	Final Decision Issued November 9, 2010
Land Classification Order	June 28, 2010	November 5, 2010
National Pollution Discharge Elimination System	October 26, 2010	November 2, 2010
NPDES Multi-Sector General Permit	SWPPP will be developed as construction is completed	No approval required

Permits Approved & Pending

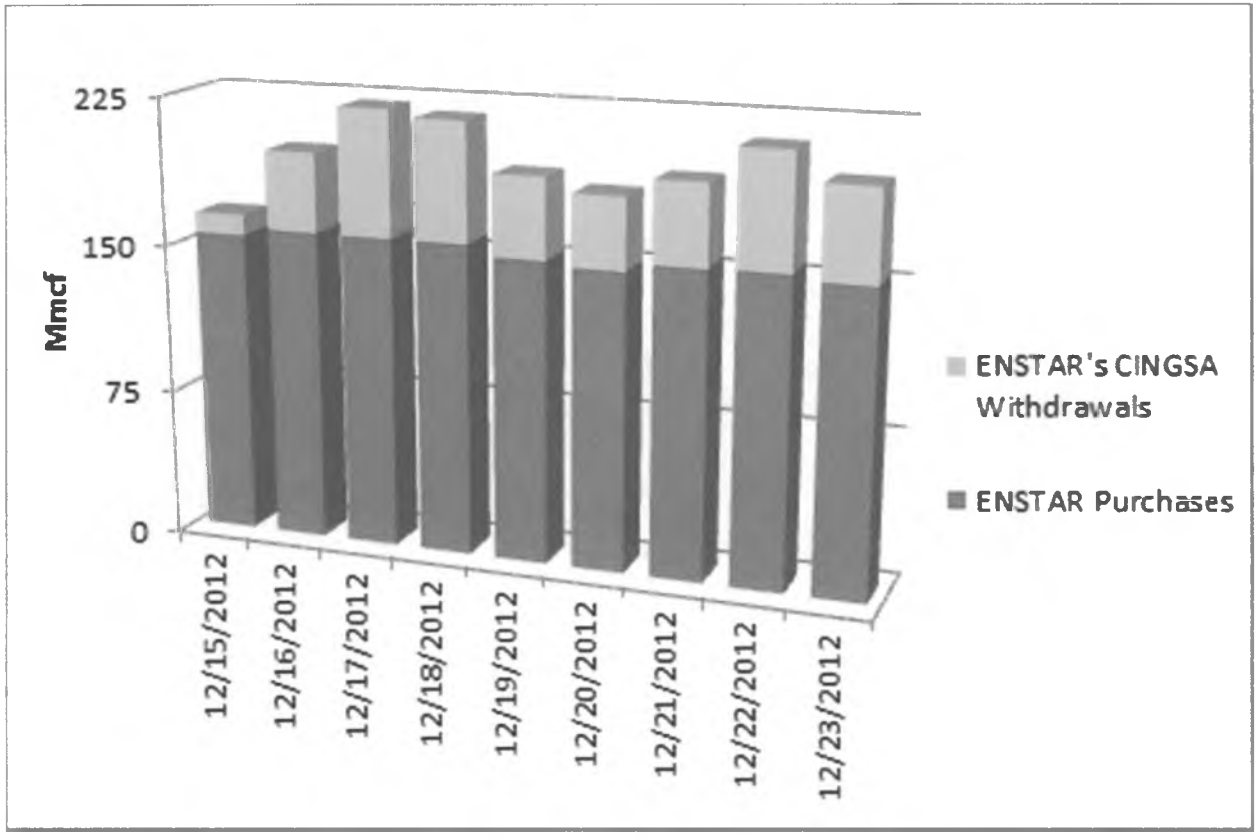
Permit	Submitted	Approved
Temporary Storage of Drilling Waste	June 29, 2011	June 29, 2011
Injection Order	July 27, 2010	November 19, 2010
Aquifer Exemption	August 17, 2010	November 17, 2010
Drilling Permits (AOGCC)	July 2011	CLU-3 August 4, 2011 CLU-4 September 21,2011
Contained Water Discharge Permit	Existing general permit	NOI Approved June 20, 2011
Excavation De-watering Permit	Existing general permit	NOI Approved June 20, 2011
Spill Prevention, Control & Counter-Measure Plan	Drilling Rig SPCC – Developed by Nabors Project SPCC – Will be Developed by CINGSA 1th Quarter 2012	Rig SPCC Active Required – 1st Quarter 2012
Cultural Resource Consultation	December 10, 2001	Survey Report complete
Obstruction Evaluation	February 17, 2010	March 25, 2010 & April 2, 2010
Utility Permit	16-inch Gathering Line – April 25, 2011 20-inch KNPL Connection – May 20, 2011 Water/Sewer – Expect to submit by end of July 2011	May 23, 2011 July 21, 2011 October 15, 2011

Permits Approved & Pending

Permit	Submitted	Approved
Bald Eagle Protection Act	August 31, 2010	October 13, 2010
Lane Closure Permit	September 9, 2010	October 28, 2010
Driveway Permits	September 10, 2010	December 2, 2010
City of Kenai Zoning Change	July 8, 2010	September 1, 2010
City of Kenai Building Permit	Numerous submittal dates	Compressor Bldg. – April 27, 2011 Office/Shop Bldg. – May 17, 2011 Auxiliary Bldg. – May 17, 2011 MCC Bldg. – June 8, 2011
City of Kenai Well Drilling Permits	June 13, 2011	June 21, 2011
City of Kenai Conditional Use Permit	September 10, 2010	October 13, 2010 Additional permit conditions issued on January 26, 2011
Regulatory Commission of Alaska CPCN	Hearings held November	December 17, 2010 Order Granting Application in Part, Order No. 8 Order on Reconsideration issued January 5, 2011
Regulatory Commission of Alaska Tariff, Terms & Conditions	July 28, 2010	Approved January 31, 2011

CINGSA Performance

Snapshot of December 2012 Actual Usage



CINGSA's Future Use

- Customers' Requests for Expansion
  - Expansion of the facility would yield capability to store up to 17 Bcf and inject/withdraw at sustained rates in excess of original design (likely 200-225 MMscf/d).

Conclusion & Questions




Alaska Industrial Development and Export Authority
Alaska Energy Authority

Senate Resources Committee
North Slope LNG to Fairbanks Project

Gene Therriault, AEA Deputy Director for Energy Policy Development

January 25, 2013

ALASKA ENERGY AUTHORITY

AIDEA

Status Report

- Project Goal
- Project Team
- Approach to Project Finance
- Schedule and Milestones

Project Goals

- Provide lowest cost energy to most Interior Alaska consumers as soon as possible
- Get gas first to Interior Alaska while assuring long-term access to gas from liquefaction plant for all Alaskans
- Utilize private sector mechanisms as much as possible

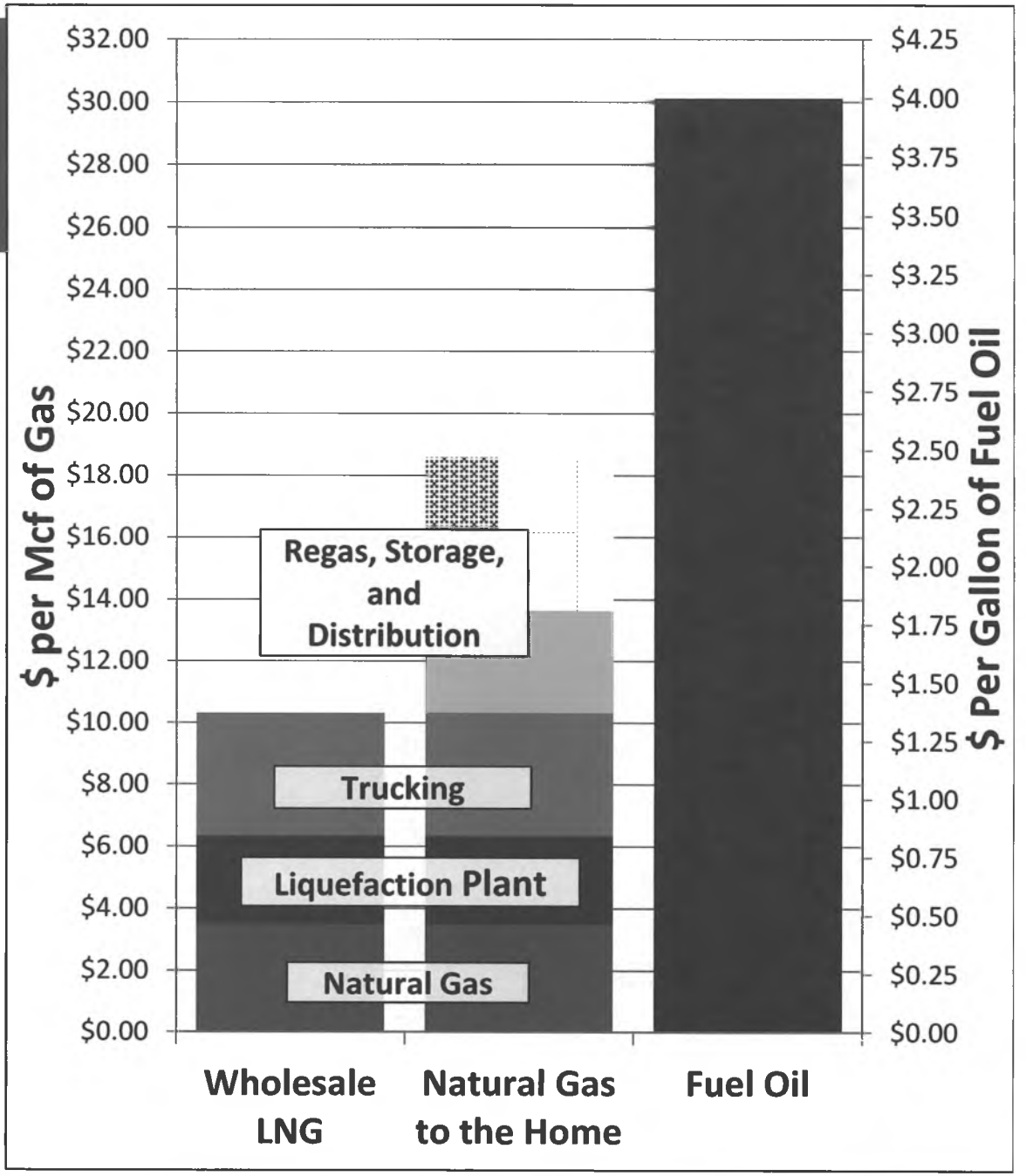
LNG Lowers Energy Costs

Key Assumptions

- 9 Bcf LNG Plant
- LNG plant bifurcated into two sections (industry and utility)
- $50 million capital cost reduction applied to the 4.5 Bcf utility section
- Regas, storage, & distribution costs are presented as a range

Expected Utility Price per Mcf

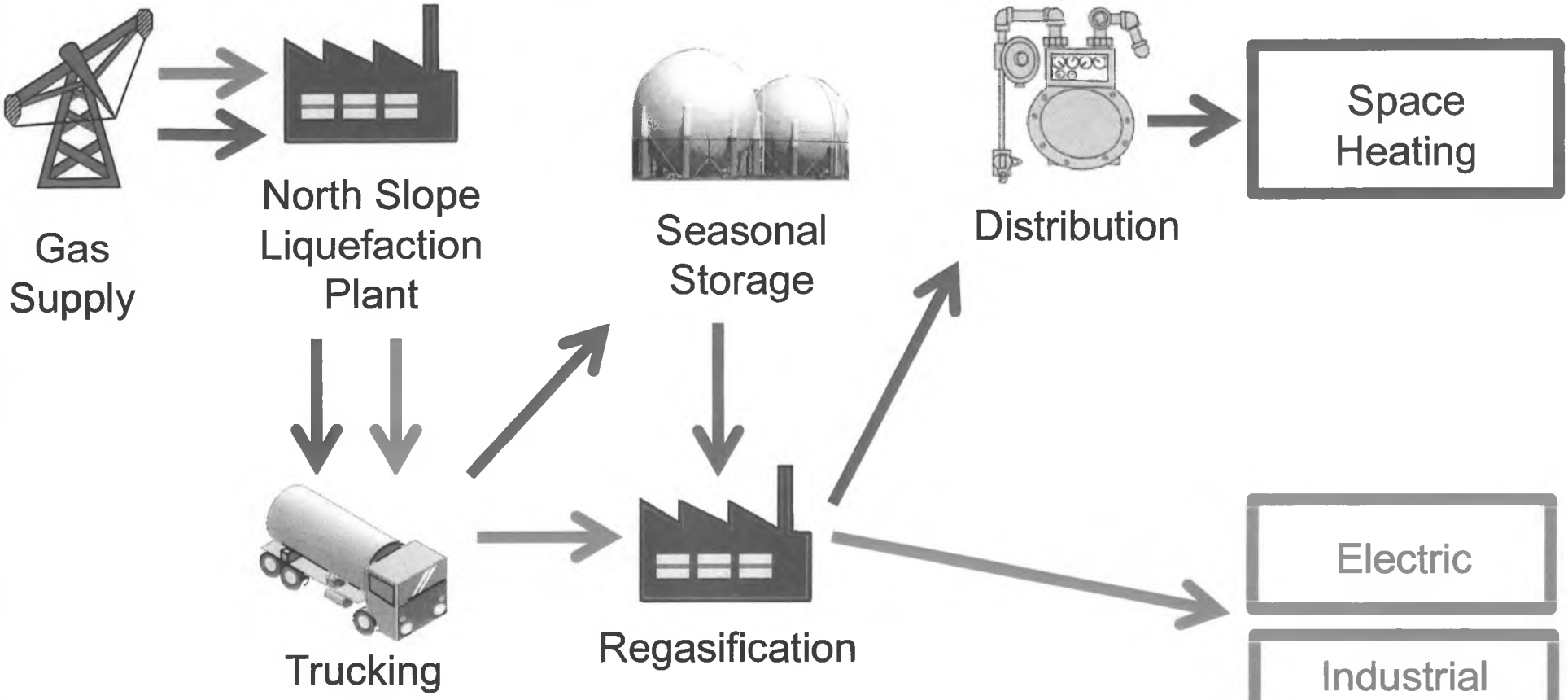
- Wholesale LNG: $10.33
- Natural Gas to Home: $13.63-$18.59



Project Description

- Natural gas will be liquefied on the North Slope and trucked to Interior Alaska
- Primary LNG demand anticipated to be Fairbanks and North Pole
- LNG will be temporarily stored and re-gasified in Interior Alaska
- Natural gas distribution system with storage to supply natural gas for heating

LNG Trucking Value Chain



Project Team

- AEA
  - Gene Therriault: Deputy Director, State Energy Policy Development
  - Kirk Warren: Technical Engineer
  - Nick Szymoniak: Project Economist

- AIDEA
  - Mark Davis: Deputy Director, Infrastructure Development
  - Jim Strandberg: Energy Development Finance Officer

Collaboration Structure

- AEA is leading the policy development of the project
  - Ensure that project goals are defined and consistent with the public interest
  - Engage the public, industry and elected officials
- AIDEA is developing the financing of the project
  - Examine finance options and commercial structure in collaboration with private party participants
  - Utilize available finance tools to meet project goals

Expert Consultation

- Engineering consultant
  - Expect hiring by January 31
  - Provide technical project support
- Project management consultant
  - Anticipate hiring in February
- Financial consultant
  - Mark Gardiner of Western Financial Group
  - Retained in November

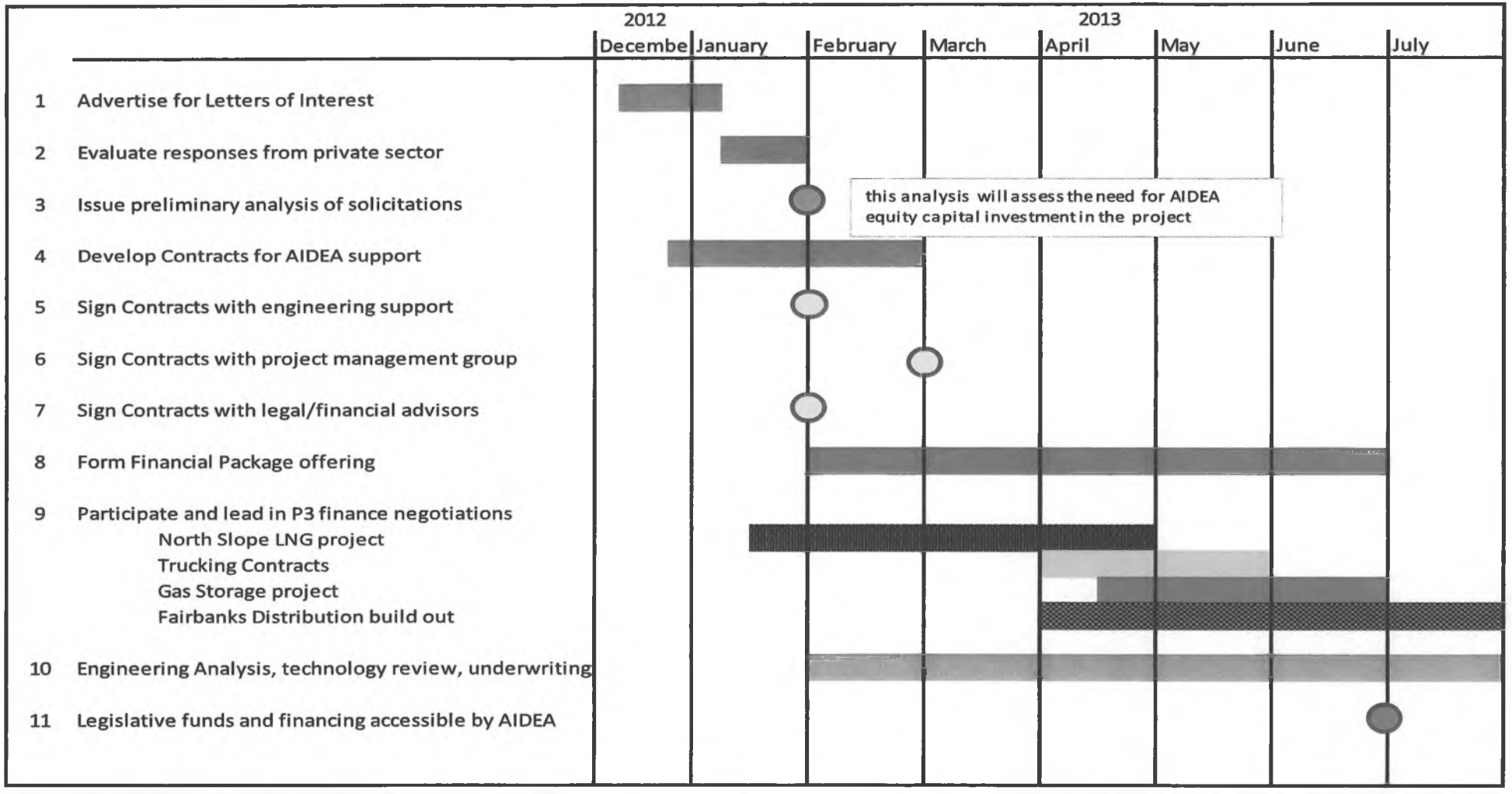
Project Finance Overview

- $325 million for project in Governor's finance plan
- AIDEA financing can be applied to different parts of the LNG supply chain
- AIDEA will use this finance package to leverage private investment

Governor's Finance Package

- $50 million General Fund appropriation
  - Directly reduces the cost of LNG
- $150 million AIDEA bonds
  - 3% interest rate (projected rate based on current market rates)
- $125 million SETS capitalization
  - 3% interest rate
  - Flexibility to provide optimal commercial structure
- **$325 million total package**
- $30 million natural gas storage credit
  - $15 million tax credit per qualifying storage tank
  - Created through previous legislative action

Schedules and Milestones



AIDEA and AEA

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