



Interior Energy Project

**Quarterly Report to the
Alaska State Legislature**

Interior Energy Project

July 15, 2017



TABLE OF CONTENTS

INTRODUCTION	1
DESCRIPTION OF PROJECT PROGRESS ON ALL COMPONENTS	2
Supply	2
Liquefaction.....	2
Transportation.....	3
Rail option update	3
Trucking update.....	3
Distribution.....	3
Systems Expansion	4
Systems Consolidation	4
Conversion	5
Consumer interest in conversion assistance	5
Property Assessed Clean Energy Financing.....	5
On-bill Financing.....	6
Identified funding sources for conversion assistance.....	6
UPDATE ON THE STATUS OF LOCAL DISTRIBUTION INFRASTRUCTURE BUILD-OUT.....	7
TO-DATE AND ANTICIPATED CONVERSIONS.....	7
To-Date Conversions	7
Anticipated Conversions	7
FINANCIAL ACCOUNTING OF FUNDS EXPENDED AND FUNDS ANTICIPATED TO BE SPENT, INCLUDING LOANS, GRANTS, AND BONDS	8
SUMMARY	9

LIST OF TABLES

Table 1: Proposed Volumetric Rate	3
Table 2: Proposed Fixed Monthly Cost Charge.....	4
Table 3: Natural Gas Customer Projection.....	7
Table 4: Expenditures from and Remaining Funds of Legislative Appropriation & Authorization(s).....	8

ACRONYMS LIST

AIDEA	Alaska Industrial Development and Export Authority
ARRC	Alaska Railroad Corporation
CDBG	Community Development Block Grant
FEED	Front End Engineering and Design
FID	Final Investment Decision
FNG	Fairbanks Natural Gas
FNSB	Fairbanks North Star Borough
HB	House Bill
IEP	Interior Energy Project
IGU	Interior Gas Utility
LNG	Liquefied natural gas
MOU	Memorandum of Understanding
PACE	Property Assessed Clean Energy
Pentex	Pentex Alaska Natural Gas Company, LLC
RUS	Rural Utilities Services
SETS	Sustainable Energy Transmission and Supply Development Fund
Titan	Titan Alaska LNG, LLC
USDA	United States Department of Agriculture

INTRODUCTION

House Bill (HB) 105 passed the 29th Alaska Legislature on April 27, 2015, and was signed by Governor Bill Walker on June 30, 2015. This legislation was enacted to advance the Interior Energy Project (IEP), a project designed to bring low-cost energy to as many residents and businesses of Interior Alaska as possible, as quickly as possible. The financing package designed by this legislation provides the Alaska Industrial Development and Export Authority (AIDEA) the tools necessary to develop an integrated supply chain bringing low-cost natural gas or propane to residents and businesses through local utilities.

HB105 requires AIDEA to provide written quarterly reports to the Alaska State Legislature on the status of the IEP. The specific bill language includes:

“The Alaska Industrial Development and Export Authority shall submit quarterly to the legislature a written report on the Interior Energy Project. The authority shall deliver the report to the senate secretary and the chief clerk of the House of Representatives and notify the legislature that the report is available. The report must include:

- (1) a description of project progress on all components;*
- (2) an update on the status of local distribution infrastructure buildout;*
- (3) to-date and anticipated conversions; and*
- (4) a financial accounting of funds expended and funds anticipated to be spent, including loans, grants, and bonds.”*

This is the eighth quarterly report submitted under the requirements of HB105. Each section of the report will correspond to one of the four items required by HB105. This report augments the information previously provided, and covers the period April 1, 2017, through June 30, 2017.

DESCRIPTION OF PROJECT PROGRESS ON ALL COMPONENTS

The IEP work effort is structured on the following project components: Supply, Liquefaction, Transportation, Distribution (including Storage and Regasification), and Conversions. As required by HB105, the status of each of these components is summarized below.

Supply

Based on progress to combine Pentex LLC (Fairbanks Natural Gas [FNG]) with the Interior Gas Utility (IGU) under IGU ownership, negotiations to contract for a natural gas supply continued during 2017. Securing this critical component is complicated by the need for a favorable price and flexibility on quantity obligations, in order to achieve the IEP goals. The IEP gas supply team continues to work with potential Cook Inlet natural gas sources on a long-term supply contract that would start in early 2018.

FNG has a current natural gas supply agreement for the existing Titan LNG, LLC (Titan) facility through April 2018. The IEP gas supply team is working on supplanting that contract with expanded supply for new liquefied natural gas (LNG) capacity capable of accommodating the future consolidated demand of the IGU and FNG service territories.

On June 29, 2017, the AIDEA Board approved Resolution No. G17-10 authorizing reimbursement of up to \$150,000 of IGU costs incurred for gas acquisition-related expenses. Funds for this effort are available from the FY 2014 capital appropriation made to the Authority to advance the Interior Energy Project.

Liquefaction

Work continues on contracts and supporting documents required to consolidate IGU and Pentex LLC, as agreed to by the IGU and AIDEA Boards in early January 2017. Final papering and closure of this agreement will utilize the capital funds appropriated to AIDEA in sec. 2, ch. 15, SLA 2012 and later amended in sec. 11, ch. 38, SLA 2015, page 32, lines 17 – 25 to “advance an Alaska liquefied natural gas production plant and distribution systems to serve Interior Alaska as a primary market.”

Following the consolidation, IGU will finalize the optimal design and commercial structure of the LNG plant expansion necessary to move the IEP into Front End Engineering and Design (FEED). During FEED, commercial agreements to secure the plant components and necessary construction services will be developed and negotiated into contracts. At the completion of FEED, IGU will decide whether to make the Final Investment Decision (FID). If the FID is approved, the commercial agreements will be executed, and work will commence on increasing the capacities of the existing Titan LNG facility and associated storage.

Transportation

Rail option update

FNG continues to explore the potential for future shipments of LNG with the Alaska Railroad Corporation (ARRC) as part of the overall IEP plans.

Trucking update

Two of the three additional large-capacity HEIL trailers ordered previously will be in Fairbanks by the end of July. The third trailer will be delivered by the end of August. In order to enhance future options to further reduce the cost of transporting LNG, Titan ordered the new HEIL trailers configured to facilitate adding a hitch at a later date that would allow pulling an additional “pup” trailer with each LNG load if this proves to be feasible.

Distribution

Existing FNG System Rates

On June 29, 2017, the AIDEA Board approved Resolution No. G17-07 approving the Fiscal Year 2018 budget for Pentex and adopting a proposed rate increase on an interim basis for FNG customers.

Prior to taking action on Resolution No. G17-07, the AIDEA Board reviewed costs budgeted for its 2018 fiscal year and rates necessary to recover those costs. AIDEA agreed that a rate increase is necessary for FNG to continue to operate on a reliable basis in an effective and efficient manner. FNG’s cost of raw gas and other major costs have increased since AIDEA’s purchase, and this rate increase offsets a portion of those increases.

Tables 1 and 2 below summarize FNG's historic and existing rates by customer class and shows the rate increase and fixed monthly cost charge approved pending AIDEA consideration of public comments. Once public input has been received, AIDEA will consider implementing the interim rates as permanent. Rates are shown on a thousand cubic feet basis (Mcf).

Table 1: Proposed Volumetric Rate

Customer Class	Volumetric Rate Prior to AIDEA	01/01/2016 – 07/31/2017 Volumetric Rate	New Volumetric Rate	% Change
Residential	\$23.35	\$20.20	\$20.81	3% ↑
Small Commercial	\$22.91	\$20.16	\$20.76	3% ↑
Large Commercial	\$22.66	\$20.10	\$20.70	3% ↑
AVERAGE	\$22.97	\$20.15	\$20.76	3% ↑

Table 2: Proposed Fixed Monthly Cost Charge

Customer Class	Current Fixed Monthly Cost	New Fixed Monthly Cost	Change/Month
Residential	\$9.20	\$12.00	\$2.80 ↑
Small Commercial	\$17.25	\$22.00	\$4.75 ↑
Large Commercial	\$57.50	\$72.00	\$14.50 ↑
Interruptible - Small	\$57.50	\$72.00	\$14.50 ↑

Systems Expansion

No major changes have been made to the distribution system since the October 1, 2015, IEP Quarterly Report. Detailed maps of the build-out accomplished in 2015 are included in that report, available at interiorenergyproject.com.

FNG will continue to work with the City of Fairbanks, the Fairbanks North Star Borough (FNSB), and the Alaska Department of Transportation & Public Facilities to coordinate pipe installs that may be efficiently constructed while major roadwork is taking place.

On June 29, 2017, the AIDEA Board approved Resolution No. G17- 09 authorizing Pentex subsidiaries FNG and Cassini to proceed with FEED work for the proposed Fairbanks LNG storage facility expansion in an amount not to exceed \$1,500,000. Funds for this effort are available from the FY 2014 capital appropriation made to the Authority to advance the Interior Energy Project.

Systems Consolidation

Following negotiations in 2016, a non-binding Utility Integration Memorandum of Understanding (MOU) was forwarded to the IGU and AIDEA Boards for consideration in early January 2017. The purpose of the MOU is to provide guidance and structure for documents required to form a single, investment-grade natural gas sourcing and distribution utility within the FNSB, through the consolidation of IGU with the AIDEA-owned Pentex natural gas system commonly referred to as FNG.

The IGU Board approved the MOU on January 10, 2017. The AIDEA Board considered and approved the MOU at its January 11, 2017 meeting through the passage of Resolution No. G17-01 which authorized the AIDEA Executive Director to sign the MOU and initiate preparation of documents to:

- Facilitate sale of AIDEA's limited liability company membership of Pentex to IGU.
- Provide IEP financing to IGU as outlined in the MOU.
- Compile an IEP Project Plan containing required components specified in the uncodified law of the State of Alaska enacted by sec. 9(a), ch. 39, SLA 2015.

Conversion

Efforts to assist consumers with conversion to natural gas have centered primarily on identification of low-cost loan funds and access to favorable financing mechanisms. Work has also been done with furnace and boiler manufacturers regarding new boiler components that may reduce the cost of individual customer conversion to natural gas.

Consumer interest in conversion assistance

The Cardno Entrix *Interior Energy Project Natural Gas Conversion Analysis*, finalized in January 2014, identified a high level of interest in converting to natural gas as a lower cost, cleaner source fuel for space heat if the delivered price approached the target of \$15 Mcf. At this price, many homeowners indicated a desire to forgo financing conversion and instead expressed a willingness to fund this action from personal savings. For individuals without personal funds for this purpose, the ability to finance all, or a portion, of the cost over an extended period of time scored high as a necessary tool to support their conversion to gas.

The ability to pass the obligation for repayment of conversion financing to a new owner of a building proved to be very attractive to residential owners. The ability to spread natural gas conversion costs over a 10- to 20-year period and the use of transferable financing are both attributes of two energy efficiency financing mechanisms described below that have achieved widespread use across the Lower 48.

The current lower price of home heating fuel oil increases the value of conversion assistance that will incentivize individual property owners in the FNSB to switch to natural gas when it becomes available. The original Cardno Entrix conversion estimates and demand model was modified to reflect the lower price of fuel oil and expected reduction in natural gas conversions. However, just as the price of home heating oil declined unexpectedly, the future price is uncertain.

Property Assessed Clean Energy Financing

Property Assessed Clean Energy (PACE) is a means of financing improvements that increase the energy efficiency of commercial buildings. The improvements are financed with repayment accomplished through a voluntary assessment placed on the annual property tax bill. PACE financing is often structured to allow a longer payback period than is possible with conventional business loans. The strength of the PACE collection mechanism results in low default/low risk loans, which may justify a lower interest rate.

PACE legislation (HB 80) was passed by the 30th Alaska Legislature on April 17, 2017. HB 80 is currently awaiting transmittal to Governor Walker for his consideration.

On-bill Financing

On-bill financing allows utility customers to borrow funds that are repaid via a voluntary line item added to their standard utility bill. This financing mechanism is often used by utilities to assist new customers in overcoming the initial cost of accessing a utility service.

The current ownership and governance structure of IGU and FNG allow these local utilities the flexibility to offer an on-bill financing mechanism. Previous conversion surveys and focus groups indicated that access to such a transferable financing mechanism would help incentivize conversion to natural gas. Coupling this tool with low cost loan funds will be helpful.

Although FNG and IGU currently have access to on-bill financing as a means of assisting consumers with conversion to natural gas, it is unclear whether utilities that are rate-regulated by the Regulatory Commission of Alaska have such latitude. As a result, there is some interest in legislation that would amend existing Alaska statutes to clearly allow this opportunity.

Identified funding sources for conversion assistance

The Local Conversion Working Group has identified the following possible funding sources for conversion assistance:

- I. Commercial lenders
 - a. Commercial loans as part of a community-wide conversion program
- II. Local government
 - a. PACE-enabled conversion loans
 - b. Possible local government back-stop funding for PACE loans
- III. State sources
 - a. Air quality programs
 - b. Community Development Block Grants (CDBG)
- IV. Federal sources
 - a. United States Department of Agriculture (USDA) Rural Utilities Service (RUS) Energy Efficiency and Conservation Loan Program
 - b. USDA RUS Rural Energy Savings Program loans
 - c. Clean Water Fund
 - d. Environmental Protection Agency Targeted Airshed Grants

CDBGs were added as a potential funding source based on work performed by IGU staff that identified specific areas within the combined FNG and IGU service territory with income characteristics that may support access to CDBG funds.

UPDATE ON THE STATUS OF LOCAL DISTRIBUTION INFRASTRUCTURE BUILD-OUT

No major changes were made to the distribution system in the last quarter other than work with the City of Fairbanks, the FNSB, and the Alaska Department of Transportation & Public Facilities to coordinate pipe installs that could be efficiently constructed along with roadwork taking place. Detailed maps of the build-out accomplished in 2015 were included in the October 1, 2015, IEP Quarterly Report.

TO-DATE AND ANTICIPATED CONVERSIONS

To-Date Conversions

No conversions are currently occurring, due to limited gas supply. Until the supply is increased, there is not sufficient gas in the winter to ensure uninterrupted service to additional customers. Expanded distribution lines installed previously have been pressurized and are available to supply gas to homes and businesses when additional natural gas is available.

Anticipated Conversions

The number of anticipated conversions provided in the October 1, 2015 IEP Quarterly Report was based on the analysis undertaken by Cardno Entrix. The report assessed “willingness to convert” based on a number of factors related to conversion costs, prior conversion history, survey data, and potential savings. A copy of that report can be found at interiorenergyproject.com/Resources%20and%20Documents/IEP_Conversion_Analysis_Final.pdf.

The significant change in the price of heating fuel required a fresh look at the “willingness to convert” with specific attention paid to the closing of the cost gap between heating fuel and the IEP natural gas price targets. Cardno Entrix was engaged to update the analysis of “willingness to convert” based on a range of scenarios of lowered heating oil prices. In the most conservative scenario, expected conversions were projected to drop by approximately one-third from the original analysis.

The change in projected willingness to convert, combined with an extension of the time needed to reach conversions from six years to eight years, results in a revision to the number of anticipated conversions and the anticipated demand for the project. Table 3 depicts the anticipated number of conversions, by year, based upon the revised Cardno Entrix analysis.

Table 3: Natural Gas Customer Projection

	2015	2016	2017	2018	2019	2020	2021	2022	2023
FNG	959	959	1,506	2,183	3,031	3,732	4,362	4,635	4,807
IGU	-	-	167	576	1,285	2,255	3,502	4,818	5,998

FINANCIAL ACCOUNTING OF FUNDS EXPENDED AND FUNDS ANTICIPATED TO BE SPENT, INCLUDING LOANS, GRANTS, AND BONDS

Table 4 outlines the IEP expenditures related to the \$57.5 million capital appropriation, the \$125 million of Sustainable Energy Transmission and Supply (SETS) fund capitalization, and the \$150 million of SETS bond authorization.

Table 4: Expenditures from and Remaining Funds of Legislative Appropriation & Authorization(s)

Expenditures* from and Remaining Funds of Legislative Appropriation & Authorization(s):				
	HCS CSSB 18 \$57.5 mill Cap Approp	SB 23 SLA 2013 \$125 mill SETS	SB 23 SLA 2013 \$150 mill Bonds	Total
Development Costs	IEP Phase 1 (Pre HB 105)			
	LNG Plant	7,585,150	-	7,585,150
	North Slope Pad	6,003,418	-	6,003,418
	Distribution	500,005	-	500,005
	Total	14,088,573	-	14,088,573
	IEP Phase 2 (Post HB 105)			
	Commodity	87,269	-	87,269
	LNG Plant	430,030	-	430,030
	Trucking	14,075	-	14,075
	Storage	13,185	-	13,185
	Distribution	26,000	-	26,000
	Project Management	397,919	-	397,919
	Due Dilligence & Deal Structuring	2,871	-	2,871
	Total	971,349	-	971,349
	Total	15,059,922	-	15,059,922
Loans & Investments	LNG Plant	-	-	-
	Trucking	-	-	-
	Storage	-	-	-
	Distirubtion	-	-	-
	FNG Loan	-	15,000,000	15,000,000
	IGU Loan	-	37,780,000	37,780,000
	Total	-	52,780,000	52,780,000
Total	Total Expenditure	15,059,922	52,780,000	67,839,922
	Remaining Funds	42,440,078	72,220,000	150,000,000
Notes				
Financial data per unaudited accounting system records as of 7/13/2017				
*Expenditures include Actuals, Encumbrances, and Commitments as of 7/13/2017				
Legislative Appropriation & Authorization(s) only include those identified above and do not include AIDEA operating, Economic Development Fund, or other sources.				

SUMMARY

This status report provides the eighth quarterly report on the status and progress of the IEP, specified in HB105. The IEP team will continue to work with Interior utilities and Interior community leaders to bring a project recommendation to the AIDEA Board for consideration in 2017. The plan brought to the Board will be consistent with the requirements of sec. 9(a), ch. 39, SLA 2015.

The next quarterly report is due in early October 2017.