

# Interior Gas Utility



Board of Directors Work Session & Special Board Meeting  
February 12, 2019 @ 4:00 PM  
100 Cushman Street, Suite 512, Fairbanks, Alaska

## **DRAFT AGENDA**

- I. Call to Order**
  - Roll call
  - Approval of Agenda
  - Public Comment – *limited to three minutes*
- II. New Business** (Board Discussion & Action)
  - Budget Revision & Purchase Authority - 5.25 Large Storage Tank Project .....Pages 2-7
  - Budget Approval for an Independent Review of Contracts
  - Commercial Usage Review.....Pages 8-11
- III. Other Business** (Board Discussion)
  - Action Items List.....Pages 12-13
- V. Closing Comments**
  - General Manager Comments
  - IGU Attorney Comments
  - Directors Comments
- VI. Adjournment**

*To participate via teleconference, call 1-800-315-6338; when prompted, enter 47499*

BOARD MEMORANDUM 2019-02  
BUDGET REVISION & PURCHASE AUTHORITY -  
5.25 LARGE STORAGE TANK PROJECT



**Interior Gas Utility  
BOARD MEMORANDUM  
No. 2019-02**

**Meeting Date: February 12, 2019**

**Approved: \_\_\_\_\_**

**From:** General Manager, IGU

**Subject: Budget Amendment and Delegation to IGU GM to Proceed with Related Contracts and Contract Amendments as Needed for the 5.25 MG LNG Storage Project**

On December 12, 2017 the Interior Gas Utility (IGU) Board consented to AIDEA authorizing Fairbanks Natural Gas (FNG) to proceed with the Engineer, Procure, Construct (EPC) contract to build a large (5.25 MG) LNG tank and authorized a budget of \$47 M for completion of the project in accordance with the Purchase & Sales (PSA) and Finance Agreements (FA) IGU had in place with the Alaska Industrial Development and Export Authority.

The FNG CEO subsequently awarded an EPC contract to Preload Cryogenics, LLC on December 22, 2017 for \$32,500,000.00 following public procurement procedures. This provided for an immediate start of major long-term construction components while allowing FNG to scope, solicit, and award contracts for other aspects of the project that include, among other items, the transport unloading and offloading portion of the facility, vaporization equipment, boil-off gas compression, control room and appropriate security and safety components; some of which were awarded by FNG prior to IGU's purchase of Pentex on June 13, 2018.

On September 18, 2018 the IGU Board was presented with a detailed breakdown of items that had affected various components of the project and increased the budget for the project to \$52.6 MM, including a contingency of \$2.4 MM.

The project costs have increased from what was previously authorized due to additional costs for design, refrigeration of soils outside of the tank area along critical infrastructure, thermal monitoring, tank slab heating, higher bids of Phase 4 work as the design became more fully developed, an increase in steel costs affecting both pipe and mechanical equipment, the need of additional construction management, commissioning of various aspects of the work, the need for staff training, the public procurement cost / bidding environment, and additional engineering coordination and complications. The IGU Board has been presented with a detailed breakdown of items that have affected various components of the project. The project cost is now estimated at \$56.7 MM and includes a contingency of \$0.5 MM.

In order to continue timely completion of contract awards, to meet critical project deadlines and to minimize administrative costs, it is recommended that the IGU GM be delegated authority to continue executing any contracts or amendments as needed to complete the project without soliciting prior Board authorization, up to the new budget total of \$56.7 MM; subject to the IGU GM following the IGU procurement manual and the IGU GM keeping the Board apprised on a monthly basis. This authorization is granted only for project costs as detailed and categorized in the Storage Project Budget Update (Dated 2-7-2019) as attached. Included in this authority is the authority to reallocate funds between authorized budget categories so long as the reallocation does not exceed 10% of any budget item and does not alter the total authorized budget.

Should the IGU GM become aware that the project cost may exceed the \$56.7 MM budget, the IGU GM will come back to the Board for additional authorization prior to committing any additional funds.

Prepared by: David J. Prusak, Project Manager,

Submitted by: Dan Britton, IGU General Manager

1 Approved:

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4 \_\_\_\_\_ \ \_\_\_\_\_  
5 Pamela Throop

Date

6 IGU Board of Directors Chair

7 Attached: LNG Storage Project Budget Update

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February 7, 2019

## Tria Road Large Storage Tank

### Budgeting affecting cost:

1. Design and contracting:
    - a. EPC for the Tank: a preliminary layout was prepared along with documents included in the RFP outlining the requirements under which this facility will be permitted along with specific requirements that FNG has for the operations of the facility. The selected contractor provided the detailed designs of various aspects of the project which were reviewed to ensure the design meet the requirements of the project. These additional costs include 1) vertical temperature monitoring wells and a calibrated temperature probe that allows FNG Operations to monitor the foundation temperature, meeting the requirements of 49 *CRF* 149; 2) additional work for foundation cooling utilizing a flat loop thermosiphon system in lieu of the vertical thermosiphons shown in the plan (simplifying the maintenance near the tank); and 3) the instrumentation necessary for the foundation heating system that are in addition to the hard dollar EPC costs for the tank.
    - b. The Balance of Plant (BOP) design and construction was designed to coordinate with the tank design and construction along with meeting the schedule requirements to have the facility operational before the end of 2019, thus qualifying for a tax credit from the state. The other component affecting the design was that foundations and configurations for the BOP changed as the project progressed to meet the specific requirements of each piece of equipment purchased through the process. When the project budget was prepared, no detailed design work was completed nor contracted for. Bids have now been received, exceeding what was originally contemplated prior to design. Some of these changes include larger pipe sizes, higher electrical and controls costs, coordination of timing the Phase 4 contractor working near the tank during wire winding operations, shared access on the dome roof during insulation installation and cryogenic insulation installation around piping.
  2. Tariffs have risen on metals which have affected steel, equipment and other materials including fencing.
  3. Adding redundancy in equipment to improve security of supply for customers at the delivery point increased costs.
  4. Equipment The public procurement process adds time and expense to the bidding process resulting in increased costs.
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1. The truck unloading pumps and system approach was modified affecting costs. In order to provide backup to the tank, this system will incorporate the ability to provide LNG directly from tankers into the natural gas system should the LNG tank not be able to be filled.

### Engineering

1. The Balance of Plant design has been challenging mainly due to the schedule. The design has been modified to address the various pieces of owner supplied equipment that have been awarded as the design effort progressed; other work included assisting in responding to contractor questions and issuing addendums and clarifications. The Bid Build process for Phase 4 will require the contractor to be tightly held to the contract. Additional engineering services will include the support during construction for submittal review, Design Clarification Verification Requests (DCVR), Requests for Information (RFI), tracking responses and progress inspections where appropriate by subject matter disciplines. The Process and Instrumentation Diagrams which form the foundation of the process design are commonly dynamic and will likely change as the contractor work is under way; input from the design and controls system engineering is anticipated. Near substantial completion the commissioning process will be required for the work of the Phase 4 contractor including the operational controls and for each of the owner furnished equipment components as the contractor will not be responsible for the complete functioning of the plant. The work also includes Operator training of the FNG staff responsible for taking over the facility.

ATTACHMENT 1 – Budget Update – THIS DOCUMENT shows the Total revised budget of September 18, 2018 and the proposed total budget. The explanation for the Budget modifications are available with more detail.

All Contracts, Change Orders and supporting documentation are in the project files and available for review.

ATTACHMENT 1  
Tria Road  
LNG Large Storage Project

Budget Update

5.25 MM Gallon LNG Storage Project  
Budget Update - 2/7/2019

			a	b	a + b = c
Line No.			Revised Budget (9-18-2018)	Budget Modifications	Revised Budget (2-7-2019)
1	EPC Tank & Foundation Contract		\$ 32,854,790	\$ 200,000	\$ 33,054,790
	BOP Budget				
12	Item 0.0	Phase 4	\$ -	\$ 9,835,694	\$ 9,835,694
2	Item 1.0 - 1.21	Equipment	\$ 5,390,166	\$ (876,000)	\$ 4,514,166
3	Item 2.0	Civil (3A, B, C)	\$ 3,966,704	\$ (954,064)	\$ 3,012,640
4	Item 3.0	Electrical	\$ 1,215,000	\$ (1,215,000)	\$ -
5	Item 4.0	Instrumentation	\$ 890,000	\$ (590,000)	\$ 300,000
6	Item 5.0	Mechanical	\$ 2,221,000	\$ (1,346,422)	\$ 874,578
0	Item 6.0	Inhouse Capital	\$ -	\$ 75,000	\$ 75,000
7	Legal/Insurance		\$ 150,000	\$ -	\$ 150,000
8	Engineering		\$ 2,300,000	\$ 825,000	\$ 3,125,000
9	Construction Management		\$ 932,000		\$ 932,000
10	Environmental Permits		\$ 300,000	\$ -	\$ 300,000
11	Contingency		\$ 2,364,282	\$ (1,864,282)	\$ 500,000
	Totals		\$ 52,583,942	\$ 4,089,926	\$ 56,673,868
	Costs Prior to October 1, 2017		\$ 1,694,880	\$ -	\$ 1,694,488
	Total Project Cost		\$ 54,278,822	\$ 4,089,926	\$ 58,368,356

Budget compared to original =

120%

# COMMERCIAL USAGE REVIEW



### Fairbanks North Star School District

Facility	Primary	Secondary
Administrative Center	DISTRICT HEAT	N/A
Anderson Elementary	STEAM	N/A
Anne Wein Elementary	NG	OIL
Arctic Light Elementary	STEAM	N/A
Barnette Magnet School *1	OIL	DISTRICT HEAT
Ben Eielson Jr/Sr High School	STEAM	N/A
Boreal Sun Charter School	NG	
Crawford Elementary	STEAM	N/A
Denali Elementary	NG	OIL
Effie Kochrine Charter School	NG	OIL
Facilities Management	OIL	N/A
Hunter Elementary	NG	OIL
Hutchison High School	STEAM	N/A
Joy Elementary	NG	OIL
Ladd Elementary	NG	OIL
Lathrop High School	DISTRICT HEAT	OIL
Midnight Sun Elementary	OIL	N/A
Nordale Elementary	NG	OIL
North Pole Elementary	OIL	N/A
North Pole High School	OIL	N/A
North Pole Middle School	OIL	N/A
Nutrition Services *2	DISTRICT HEAT	NG
Pearl Creek Elementary	OIL	N/A
Randy Smith Middle School	NG	OIL
Ryan Middle School *3	NG	LATHROP
Salcha Elementary	OIL	N/A
Tanana Middle School	NG	OIL
Tic Brown Elementary	OIL	N/A
Two Rivers Elementary	OIL	N/A
University Park Elementary	NG	OIL
Weller Elementary	OIL	N/A
West Valley High School	NG	OIL
Woodriver Elementary	NG	OIL

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1. Old part of Barnette is Oil only, newest part is District Heat/Oil
2. Building is Heated using District Heat, Steam for Food Production is via NG
3. A Heating Line from Lathrop runs to Ryan as a Secondary Heat Source

Fairbanks North Star Borough		
Facility	Primary	Secondary
Animal Shelter	NG	OIL
Big Dipper Ice Arena	NG	OIL
Birch Hill	OIL	N/A
Carlson Center	NG	OIL
Central Recycling Center	OIL	N/A
Chena Lake	OIL	N/A
Facilities Maintenance	OIL	N/A
Hamme Pool	DISTRICT HEAT	OIL
JHAC/Borough Administrative Center	NG	OIL
Mary Siah Recreation Center	NG	OIL
Noel Wien Library	DISTRICT HEAT	OIL
North Pole Library	OIL	N/A
Pioneer Park	OIL	N/A
Rural Services	OIL	N/A
Solid Waste	OIL	N/A
Tanana Lakes	OIL	N/A
Transit Center	STEAM	OIL
Transit Garage	NG	OIL
Transit/Air Quality/Animal Control Offices	NG	OIL
Wescott Pool	OIL	N/A

All facilities using oil are using #1 fuel oil.

There is a project going on identifying all buildings that could currently be converted to Natural Gas.

## January 2019 Usage

<b>Fairbanks North Star Borough School District</b>	<b>MCF</b>	<b>LNG Gallons</b>
Anne Wein Elementary	419.6	5,079
Boreal Sun Charter School	321.8	3,895
Denali Elementary	445.3	5,390
Effie Kochrine Charter School	298.2	3,610
Hunter Elementary	185.1	2,241
Joy Elementary	389.7	4,717
Ladd Elementary	341.5	4,134
Nordale Elementary	459.6	5,563
Nutrition Services	102.2	1,237
Randy Smith Middle School	408	4,939
Ryan Middle School	719	8,703
Tanana Middle School	682.8	8,265
University Park Elementary	298	3,607
West Valley High School	840.7	10,176
Woodriver Elementary	589.4	7,135
Total	6500.9	78,691

<b>Fairbanks North Star Borough</b>	<b>MCF</b>	<b>LNG Gallons</b>
Animal Shelter	318.2	3,852
Big Dipper	1013.4	12,267
Carlson Center	1530	18,520
JHAC/Borough Administrative Center	265.2	3,210
Mary Siah Recreation Center	477.7	5,782
Transit Garage	454	5,496
Transit/Air Quality/Animal Shelter Offices	29.4	356
Total	4087.9	49,483

<b>University of Alaska - Fairbanks</b>	1232	14,913
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<b>Fairbanks Memorial Hospital</b>	<b>MCF</b>	<b>LNG Gallons</b>
Visiting Physician Residence	0	-
Imaging Center	581.5	7,039
Hospital Main	204.1	2,471
Surgery Center	3.5	42
Total	789.1	9,552

## ACTION ITEMS LIST

## IGU Action Item List

Item	Action	Responsible	Date	Due Date	Status	Notes
1	Updated FEED scope to be completed and discussed with Braemar	Dan Britton	1/16/2019	2/5/2019	Completed	
2	FEED Update under GM Report	Dan Britton			Completed	
3	Ethical Procedures Developed	Director Nordale &	1/8/2019	Mid-February	Draft in progress	
4	Policy No. 05 Ethics and Conflicts of Interest updated	Director Nordale &		Mid-February	Draft in progress	
5	Policy No. 05 Ethics and Conflicts of Interest; Disclosure form created	Director Nordale &		Mid-February	Draft in progress	
6	Change the Code of Ethics	Director Nordale &		Mid-February	Draft in progress	
7	Schedule to include Action Plan Items	VC Haagenon	1/22/2019		Draft in	
8	Siemens Negotiations Update under GM Report	Dan Britton		1st & 3rd	Ongoing	
9	Finish modeling for comparisons	Brown Thornton		Ongoing	Ongoing	
10	Staffing plan for overall Project Management, Scope, Schedule and Budget	Dan Britton		Ongoing	Ongoing	
11	Identify gas supplies and negotiate price and terms	Dan Britton		Ongoing	Ongoing	
12	Global Plan going forward with the Utility, Update Capital Plan and	IGU Board		Ongoing	Ongoing	
13	Update Binders of Meeting Minutes & Attachments	Laura Steel	11/9/2018	Ongoing	Ongoing	
14	Siemens Negotiations Schedule sent to BOD	Dan Britton		Weekly	Ongoing	
15	Hire Financial Advisors (Request for Proposals No. 01-2019)	Dan Britton		RFP closed 1/31/2019	Proposals received	
16	Hire media company for updating and integrating IGU and FNG's online/internet presence	Michelle Hollowell	2/6/2019	3/6/2019	RFP Issued 02/06/19	
17	Discussion of Board Communications in compliance with Public Meetings Act	IGU Attorney	1/8/2019	Postponed from 1/15/19	Waiting for all Directors	
18	Insurance Coverage Summary - Hale & Associates invitation to BOD meeting	Dan Britton	1/22/2019	3/31/2019		
19	Political versus Legal View for N Slope Pad Return on Investment	IGU Attorney	1/22/2019	Feb or Mar 2019		
20	IGU Policy 09 Relationship Between the IGU Board of Directors and the General	IGU Board	9/4/2018	Tabled on 9/4/18		
21	IGU Policy 10 Delegation of Authority by the IGU Board of Directors to the General Manager	IGU Board	9/4/2018	Tabled on 9/4/18		
22	Policy Drafted on Public Records Retention	IGU Attorney	12/13/2018			
23	Consider forming a Board Improvement Committee	IGU Board	1/8/2019			
24	Tank Tour - FNSB Assembly, NP & Fairbanks City Councils	Laura Steel	1/15/2019			
25	Confirmation of Mat-Su Permitting	Dan Britton	2/5/2019			