



Interior Gas Utility

Board of Directors Special Board Meeting

December 12, 2017

4:00PM

100 Cushman Street, Ste. 501, Fairbanks, Alaska

Minutes

A Meeting of the Board of Directors of the Interior Gas Utility was held Tuesday, December 12, 2017, at the IGU, Fairbanks, Alaska. IGU Board Chairman, Mike Meeks, presiding.

Other Staff in attendance were: Jomo Stewart (IGU General Manager), David Prusak (Stantec), Zane Wilson (CSG – IGU Attorney - telephonic), Brown Thornton (Stantec/NewGen - telephonic), Patrice Lee – Public telephonic

I. Call to Order

- Roll call

Board Members Present:

Mike Meeks
Jack Wilbur
Frank Abegg – 4:47 PM
Bill Butler – 5:00 PM
Steve Haagenon - excused
Pamela Throop
Bob Shefchik

- Approval of Agenda

Director Shefchik moved to adopt the Agenda, Director Throop seconded. The Agenda was adopted.

- Public Comment – *limited to three minutes*

Gene Therriault

Sent an email on agreement on the Integration to be rolled into the AIDEA loan, is working with Staff to finalize invoice numbers.

II. New Business

- Fairbanks Large Storage Project
 - BM 2017-03Recommendation for IGU Concurrence to Proceed with the 5.25 MG LNG Storage Project

Mr. Stewart discussed the action last week for the PSA and AIDEA also took action last week to move forward with the Storage. This does represent an increase in cost from the \$42 M that was outlined in the MOU. Many of the cost increases have been taken into

account as part of the financial modeling. Staff are on line and present to answer questions.

Mr. Wilson asked Mr. Stewart to read the email sent out by Director Haagenson into the public record:

“I will be unable to attend the December 12th Special Board Meeting and therefore will be unable to vote on this concurrence.

Six months ago, I was developing optimization of liquefaction capacity, security storage and levelizing storage for the negotiating team. Brown Thornton was asked to determine whether it would be more economical to install additional liquefaction or use a 5.25 M gallon tank for levelizing. Brown built a family of curves that showed the least cost plan was the use of the 5.25 M gallon over a range of demands.

Several weeks ago, I was looking at the least cost capital plan for smaller liquefaction units, transportation, security and levelizing storage based on demand and found that bullet tanks were less expensive for two years after production, but thereafter the bullet tanks rapidly outpaced the 5.25 M gallon tank. The selection of the smaller bullet tanks will forego the addition of the field built tank at a future date. Once again, Brown Thornton was asked to evaluate this relationship issued the enclosed memo that was included in the Board packet.

The field built tank provides:

- Low cost increase of liquefaction capacity through levelizing.
- Added Security during a January liquefaction outage where the levelizing storage amount will be half consumed, so the remaining levelizing ($5.25 - 1.4 = 3.85/2 = 1.9$) can augment the security storage (1.4 M gallons) for an additional 6 days for a total of 11 days.
- Levelizing for pipeline usage to allow for optimal use of the pipeline and saving to the utility by filling the tank in the summer months and drawing on the tank during increased winter demands.

In my opinion, the best long-term approach is to build the 5.25 M gallon tank that will provide added security in the short term and levelizing benefits in the long-term.

Again, I will not be at the meeting to vote, but if I was I would vote YES and urge each of you to cast your YES vote.”

Director Wilbur asked what action the Board is being asked to take and the funds being contracted for.

Mr. Stewart explained that IGU is being asked to concur with the AIDEA action to advance the storage project including an increase of the FNG SETS loan total to \$45.5 M along with the \$1.5 M spent on FEED. Director Wilbur wanted to know what we know about contract costs and if they are estimates. Mr. Stewart explained that we have firm pricing on the tank and invited Mr. Britton to the table to discuss. Mr. Britton explained that proposals for the tank and associated civil work have been received and the EPC contract is nearing final negotiations. The tank is \$32-34M with firm pricing and an additional \$4 M in equipment pricing. The total of \$47 M is being considered,

\$1.5 M has been advanced for FEED. There is a 20% contingency for the Balance of Plant which is about \$9 M of work. Since the tank is a fixed price cost in EPC, there is not contingency carried forward for that item. Engineering is estimated at approximately \$1M, permitting is currently being advanced in part with the FEED funds. Director Wilbur asked about the contingency and is that sufficient, Mr. Britton discussed how the Scope is being very closely refined to limit the risk of potential change orders. The contractor is designing the project so they are building what they design. Hence, they are accepting the risk. Questions about the geotechnical issues may be a source of risk, therefore additional borings have recently been advanced to mitigate this. The EPC should cover a large portion of the risk.

Motion: Director Wilbur moved that IGU concur in proceeding with the advancement and construction of the 5.25 MG LNG Storage Project, as described in AIDEA Resolution G 17-20.

Seconded by Director Shefchik and the Board so moved.

Discussion:

Director Throop asked if Mr. Thornton took into account the \$47M in the project. He answered yes, referring to the analysis in the packet \$48.7M as it incorporated all cost to include previous costs. Director Shefchik asked about the modeling previously for the 3 scenarios, Mr. Thornton said that it was in the memo analyzing the costs today comparing bullet tanks verses a large tank and planning on \$48.7 M. He also said it was the \$44.5 M which included Davis Bacon wages and is calculated in the model.

Director Shefchik asked how the additional costs effect the rates, Mr. Thornton said it was negligible at about 2 to 5 cents additional.

Director Wilbur asked about sizing analysis, there were 2 choices of building either a field erected vs ASME tanks brought in. Mr. Britton discussed the process to determine how the storage will fit with LNG production, future demand and what fits in the area where the tank will fit within the land for code requirements. Additional consideration was to take advantage of the \$15M storage credit. Director Wilbur asked about firm customers, and will that increase. Mr. Britton confirmed it will. Large tank also allows production of LNG to occur year round rather than having to shut down the plant in summer. Mr. Britton said it also supports a pipeline, providing supply, redundancy, capacity in the system, and reducing demand charges on the pipeline.

Director Wilbur asked Mr. Thornton about page 5 of the analysis, wanted to understand the dollar numbers and what they mean. Mr. Thornton explained the impact of the 35% and 50% conversions. The funds were placed in the year that the tank was finished. Note that the relocation of tanks from Tria Road to North Pole. He explained also about the loss of being able to levelize production and why you need to increase production. The dollar numbers shown are the capital investment that is incurred in that year.

Mr. Stewart discussed what happens on day 6 with the bullet tank option, the large tank helps mitigate this being by providing storage well beyond the required 5 days.

Director Wilbur asked why bullet tank costs more in 2020 rather than the large tank. Mr. Thornton explained that you have to include both storage and LNG production because you cannot levelized, so must produce more LNG to meet demand.

The \$10M number shown in various scenarios is to super charge Titan 1. Scenario 5 did not contemplate doing this. Mr. Thornton described what each of the scenarios contemplated and the timing for each of the expenditures.

Director Throop said she was understanding there was \$10M to improve Titan 1 and asked if this is over and above the improvement necessary and planned to address safety issues. Titan 1 improvement is an option to move forward with to provide additional production and time to do additional LNG FEED. Those decisions will be brought before the Board in 2018 on LNG production.

Director Throop read somewhere that the storage credit funds we intend to get from the State is \$15M or something greater? Mr. Stewart explained that each project is capped at \$15M, and assuming we have these operational by 2020, it is planned now to get \$15M for Tria Road and approximately half that for North Pole.

Director Throop asked what happens if we miss the credit, Mr. Thornton explained it makes things more difficult and likely will have to be bonded.

Director Abegg asked about the cap which is 50% of the cost up to \$15M. He also stated concerned about the project and the EPC contract, saying if we planned to spend only \$30 or \$35 M tank in Tria Road and put another one elsewhere it would reduce risk. He would prefer multiple tanks. Mr. Thornton said size vs cost will drop you to about 1.5 M Gallons for \$30M of cost.

Mr. Britton discussed the opportunity for security storage and plans for risk mitigation to provide reliability at the storage site and the backup systems in multiple areas being planned for. The current plan is to keep Donald Road Storage operating, this with North Pole will have some redundancy also.

Director Shefchik asked about pressure differences from productions to unloading into the storage facility. Mr. Britton explained what is being done to address these issues.

Director Shefchik then asked about cost, and how will risks for construction be addressed and explained an interest to bring to the Board a consideration of rates to not just breakeven but to cover the risks as construction is going on. He will bring this to the Board next week as the Work Session. Mr. Britton explained that the large storage does give you other opportunity to have flexibility for LNG production.

Director Abegg discussed the \$42M in MOU and a project of this size carries risk. The approach taken to mitigate risk to eliminate cost overruns and how to mitigate them. Mr. Britton explained these costs will be managed closely.

Director Butler said he felt he needed further information before being comfortable to consider voting on the motion.

Director Shefchik moved at 5:20 PM to go into executive session to have Mr. Britton to brief the Board to go into Executive Session on the contracts, seconded by Director Throop. This is to include Jomo Stewart, Zane Wilson, David Prusak, Dan Britton, and Brown Thornton.

Director Throop	Yes
Director Abegg	Yes
Director Shefchik	Yes
Director Butler	Yes

Vice Chair Wilbur	Yes
Chair Meeks	No

Director Butler moved to leave executive session at 5:36 PM, second by Director Throop and the Board so moved.

Director Throop asked about cost of tanks that for every 10% decrease in size, the cost decreases by 5% for the tank cost. Mr. Britton concurred. Mr. Thornton provided additional backup as the Balance of Plant is estimated at approximately \$16.4 M. The driver for the large tank is that it gives you the opportunity to levelize LNG production and limits what options you have in those capital costs.

Mr. Britton described the long view for the larger tank and how smaller tanks will limit your ability for supply and security.

Director Butler asked how many days of security storage will be provided in the future, with 5.9 bcf, it is currently 15 days.

The vote was called:	Director Throop	abstain
	Director Abegg	Yes
	Director Butler	yes
	Director Shefchik	Yes
	Director Wilbur	Yes
	Chair Meeks	Yes
	Motion carries 5-0-1	

III. Other Business

- Next Agenda
 - i. Gas supply term sheet
 - ii. Will have an executive session on Gas supply
 - iii. Presentation by Seimens
 - iv. Audit presentation
 - v. FY 18 full year budget
 - vi. Capital Cost budget consideration

IV. Director Comments

Jack – Discussed email thread, was there an error starting with Steve? Mr. Wilson confirmed. Asked to have attorney if a director has the right to abstain from voting, Mr. Wilson will clarify.
 Meeks – Evaluations for the GM were sent out and need to be sent back to Mr. Meeks

V. Adjournment

Director Butler moved to adjourn at 5:56 PM. This was seconded by Director Shefchik and without objection, the meeting Adjourned.