ENERGIA CURA
5904 Old Airport Way, Suite 134, Fairbanks, Alaska 99709 - 907-452-3466

Fairbanks Pipeline Company

Fairbanks Pipeline Company (FPC) is developing a fit-for-purpose natural gas pipeline system to deliver affordable gas from Prudhoe Bay to Interior Alaska. Its project development approach is market-based. *The size and operating pressure* of its pipeline will be economically designed to transport known gas volumes to Alaskan load centers such as Golden Valley Electric Association, Fairbanks Natural Gas, mines and Military bases contracted over a twenty-year term. FPC's pipeline system will begin operation in 2014.

FPC's pipeline does not have to wait for global and domestic gas prices to increase four-fold to become viable. Gas pipelines in the common lower-48 markets are typically installed in markets where the prices of competing gas supply sources vary by 1% to 5%. This long overdue Alaskan project will reduce current Alaskan wholesale energy prices by close to 50%. This unarguably demonstrates its project feasibility as well as its socio-economic benefits.

Project Funding

FPC's gas pipeline is not receiving State or Federal subsidies. Instead, Energia Cura's principle partners are underwriting the cost of its development. The partners' intent for funding this project's development is to expediently reduce energy costs by 50% and to contain the wealth generated from these savings within the state. Energia Cura is a consultancy headquartered in Fairbanks, Alaska providing a range of services and products to the power, oil & gas and mining industries. It currently operates and maintains Alaska's second largest pipeline system on a throughput basis.

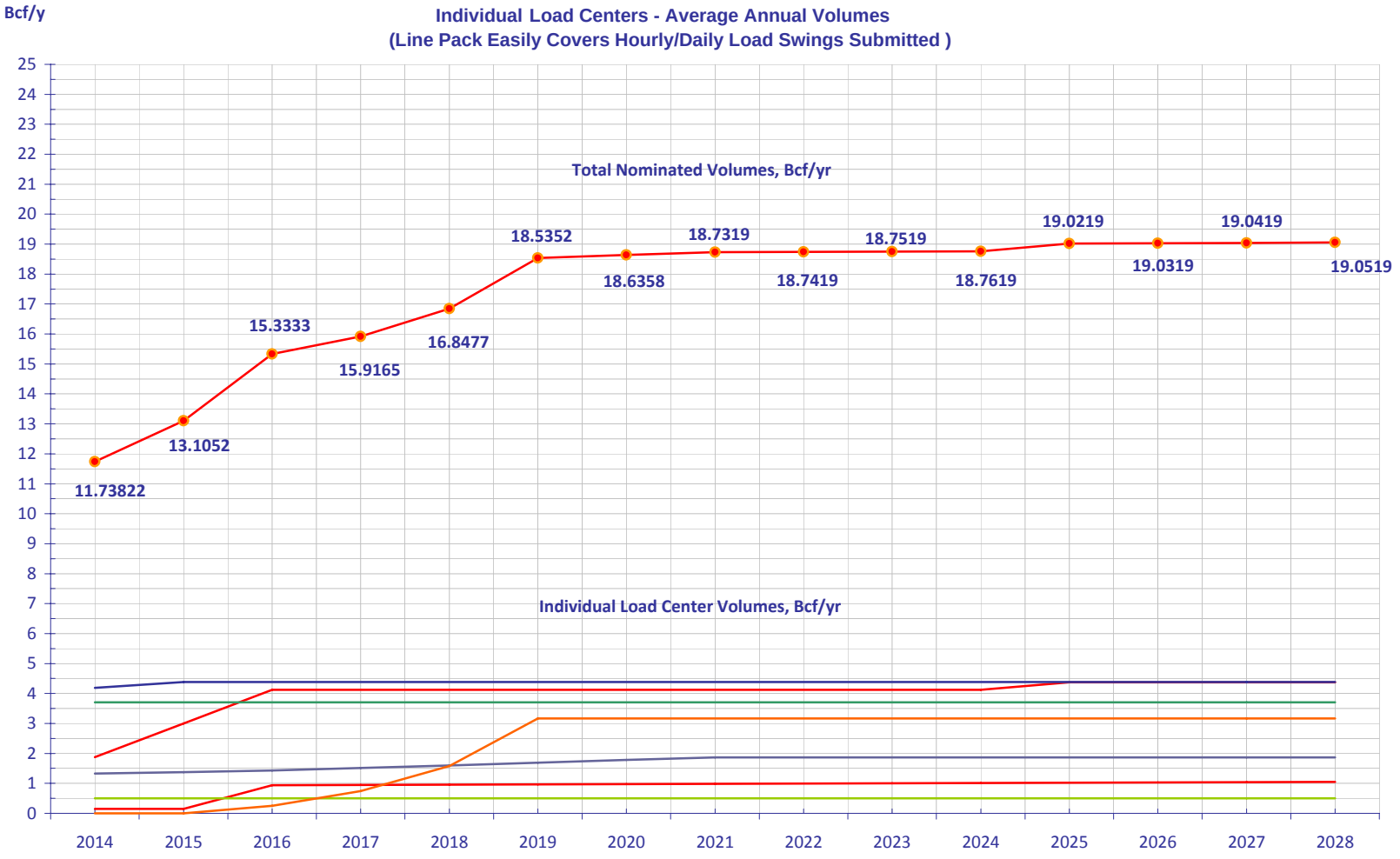
The Open Season

Our project objective is to provide expedient economic relief to thermal markets located along Fairbanks Pipeline Company's primary and secondary pipeline corridors by 2014, by supplying affordable natural gas to ready and willing load centers using proven, economic pipeline transportation methods. Energia Cura conducted the non-binding open season on behalf of the Fairbanks Pipeline Company. Participation in this first phase of the open season process is non-binding for all partaking entities. The second phase of FPC's open season will conclude by acquiring commitments (binding condition precedent agreements) from Alaskan load centers to purchase bundled gas volumes at a predetermined price to include both the gas and its transportation. Consequently, FPC will acquire gas commodities at their source and retain custody of these commodities until custody is transferred to Clients at their plants' (load center) curb.

FPC's open season procedures follow international standards that identify market demand prior to its establishing the design of its pipeline system. Correspondingly, the design criteria for FPC's intrastate natural gas pipeline system will be based on its total gas volumes nominated through the NBOS. When this final design criteria is set in March, 2011, FPC will be able to credibly determine its final cost of service (COS) required to enter into negotiations for establishing condition precedent binding agreements. Negotiations with gas producers for the acquisition of gas commodities started in September and are expected to conclude by March, 2011. Since FPC's offering to Interior load centers is a "bundled service", the commodity fundamentals, (or the cost of the gas commodities), also need to be determined prior to entering into FPC's binding open season.

FPC may elect to proceed with its Project without holding a subsequent Binding Open Season (BOS). FPC may elect to initiate discussions with Interested Parties (IPs) submitting non-binding bids herein to execute Binding Condition Precedent Agreements more expediently than a BOS permits. The NBOS target groups include those IPs interested in securing firm, bundled natural gas service of >0.25 bcf per annum and NGL supplies > 10,000 gal/ per annum. At its sole discretion, and not on an unduly discriminatory basis, FPC may elect to consider requests received after the close of its NBOS period, which occurred at 8 a.m. GMT, on October 1, 2010, including valid appeals to modify initial non-binding bid offer(s). See Attached Nomination curve.

Fairbanks Pipeline Company - Annual Gas Volume Curves



INDUSTRIES SERVED

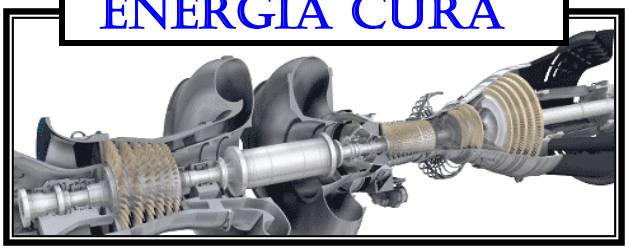
Oil & Gas

Power & Mining

Transportation

Municipal & Institutional

ENERGIA CURA



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SERVICES OFFERED

Project Development
Project Management
Process & Facility Management
Energy Management
Control & Automation Systems
Commodity Hedging
Metrology & CT Accounting

Our consultancy division specializes in energy and process economics. We assist Clients in the acquisition of process fuel and/or feed-stocks through the use of hedge instruments, and in negotiating long-term power purchase, power sales agreements or co-generation agreements. In addition, we assist in the development, financing, and construction of industrial facilities, improvements, and/or additions by performing due-diligence from project inception, through start-up, and commissioning. We take pride in our unbroken record of completing projects on time, within budget and meeting Client expectations.

Our product division supplies industrial control systems and HMI applications to fossil and renewable fueled electrical generation plants, oil & gas production facilities, hazardous liquids/gas gathering pipelines, LACT facilities, transportation pipelines (including leak detection and SCADA), oil & gas metering/custody transfer facilities, product terminal & dispensing facilities, municipal water facilities and ore concentration plants. We offer both green-field and incremental upgrades. Because of the good will maintained with its Clients, Energia Cura usually offers to demonstrate its systems as they operate within their respective process environments.

Our services division provides technical and administrative support to assist Clients in operating and maintaining their industrial facilities in a safe, profitable and compliant manner. Energia Cura's service offerings range from providing technical support "as needed, where needed" to long-term, turnkey service agreements.

Our metrology division provides third-party measurement and custody transfer services including sampling, scheduling and administration of analytical assays, terminal acceptance, and load-rack meter/instrument calibration and repairs, and NIST/API compliant meter proving. Energia Cura owns and uses a Calibron P-25.C3.C1.D3 compact ballistic meter prover capable of proving meters with flowing conditions up to 2,500 GPM at .02% repeatability and a Sartorius weighing platform/indicator certified for legal gravimetric metrology with sensitivity in the range of 1/150,000 grams with an EC rating of Class II.

RECENTLY COMPLETED PROJECTS

- Distributed control system and HMI for an LM-6000 Combined Cycle Power Plant in North Pole, Alaska
- HMI application for the British Petroleum Flow-2 Metering Facility located on the North Slope of Alaska
- Control and automated water dispensing system for Water Wagon in Fairbanks, Alaska
- In-Line-Inspection (pigging) of the mid-line TAPS connection pipelines in North Pole, Alaska
- Construction of the new PSI Refinery Crude and Residual Pipelines in North Pole, Alaska
- HMI for the British Petroleum Endicott Metering Facility on the North Slope of Alaska
- ECDA and physical assessments of TAPS, mid-line connection pipelines in North Pole, Alaska
- Alaska Rail-Belt power and gas market studies for Doyon Ltd.
- Power generation plant sizing and preliminary engineering in Nenana, Alaska
- Construction of the PSI Refinery Metering and Quality-Bank sampling facility

ON-GOING PROJECTS

- Technical support for Ft. Wainwright and GVEA, NPEP power generation facilities
- Operation and maintenance of the PSI Refinery Metering and Quality-Bank sampling facility

CURRENT SERVICE AGREEMENTS

- Petroleum Pipeline System administration and O&M services for the Fairbanks GVEA Pipeline Systems
- North Pole Connection custody transfer accounting and administrative services at the TAPS Midline Connection
- Metrological services for the TAPS, North Pole connectors, and power plants in Alaska
- Audit support for USDOT hazardous liquids pipeline protocol inspections

Please contact us at 907-452-3466 or at asg@energiacura.com if we can assist you in any way.

Scientia Sol Mentis

ENERGIA CURA
Alexander S. Gajdos

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General Experience

- *30+ years in project management, business development, financing, design, construction, and start-up of facilities serving the mining, oil & gas, power generation & defense (radar) industries*
- *Long-term management of power generation facilities, pipeline and utility systems*
- *Technical and industrial project development, construction, start-up, and operation*
- *Project feasibility assessment, capital financing, and management consultancy*
- *Commodity hedge management and contracting*
- *Energy auditing, process optimization, cost of service and tariff analysis*

Achievements

- *Capital planning, design, construction and timely start-up of the 16" GVEA ARC residual pipeline*
- *Development and implementation of tariff for the GVEA pipeline systems*
- *Capital planning, design, construction and timely start-up of the 8" PSI crude and ARC residual pipelines*
- *Development of 6.5 year hedge instrument program for power plant fuel feed-stocks at $14.32/Bbl resulting in $165MM in accumulated savings to Clients*
- *Negotiated consolidated connection & operating agreement between Alyeska Pipeline Service Company and GVEA Pipeline Division*
- *Successful completion of numerous power plant overhaul, re-powering, optimization, and green-field projects*

Alexander S. Gajdos

Mr. Gajdos is currently a managing partner of Energia Cura LLC providing services to industry as identified on Energia Cura's website page (attached). Prior to forming this company, he managed 201 Megawatts of power generation capacity and a pipeline transportation system located in Fairbanks, Alaska for Golden Valley Electric Association, Inc. with movements comprising approximately 30% of total flows running through the Trans-Alaska Pipeline System:

- 84,000,000 Bbls/year of ANS Crude Oil
- 58,000,000 Bbls/year of ARC residual oil

Power generation facilities previously managed by Mr. Gajdos include the following power plants:

- The 126 MW North Pole Combustion Turbine Power Plant
- The 32 MW Zehnder Combustion Turbine Plant
- The 32 MW Chena-6 Combustion Turbine & Diesel Plant

Before joining GVEA in 1990, Mr. Gajdos worked for RCA and GE for approximately 14 years. Mr. Gajdos was involved in developing business proposals to provide technical services to the US Department of Defense, US Joint Chiefs of Staff, and the US Air Force. Subsequent to successful award of these projects, Mr. Gajdos shared management responsibilities with project staff and was responsible for increasing revenues by developing and executing a severable work order program on a shared-savings basis. Some of his other endeavors include:

Project Experience

- Prime and General Contractor: PSI crude and residuum pipelines including the PSI Pigging and Metering Facilities.
- Project Manager: GVEA North Pole units # 1 and # 2 MS7001BR overhauls and regenerator retrofits in North Pole, Alaska.
- Project Manager: Negotiated the purchase and managed the rebuild and installation of Garrett regenerators at the GVEA North Pole Power Plant.
- Project Manager: Development, filing, and implementation of tariff for the GVEA pipeline systems and custody transfer facilities.
- Project Manager: Negotiated a Consolidated Connection & Operating Agreement for the North Pole Metering Facilities (between Alyeska Pipeline Service Co. and GVEA).
- Project Manager: Capital planning, finance, design, construction and start-up of the 16" GVEA ARC residual pipeline system.
- Project Manager: Capital planning, finance, design, construction, and start-up of the GVEA interconnection and pigging facilities.
- Project Manager: Construction and operation of various minimum attended radar facilities for the USDOD located in the Alaskan Bush.
- Owner Representative: Performed owner's due diligence on the construction of the TAPS North Pole Metering Custody Transfer Facility and GVEA's LM6000 combined cycle, naphtha-fired power plant.

ENERGIA CURA
Thomas R. Chapman

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Email: tchapman@energiacura.com

Thomas R. Chapman

Experience

- *25+ Years industrial process measurements and control.*
- *Energia Cura Owner/Partner, Industrial Instrumentation and Automation Specialists*
- *System Integration including control, communications & automation with a variety of legacy & contemporary instrumentation & controls*
- *Pipeline Leak Detection Systems – design, installation and operations*
- *Custody Transfer oil measurements, meter proving, pipeline terminal and rack loading*
- *Refinery plant balances, oil movements & storage, automated data reporting*
- *Direct digital process control, communications, and data acquisition systems*

Education

- *Tulane University, 1970*
- *B.A. Economics*
- *Minor: Math & Physics*

Achievements

- *Instrumentation instructor, Process Technology, Tanana Valley Community College*
- *Published technical papers with American Association for the Advancement of Science*

Measurement, Controls, Communications and Automation Technology

Mr. Chapman is currently an owner/partner of Energia Cura, LLC, principally responsible for the engineering & technical aspects of industrial process measurements and controls, metrology, instrumentation, and automation.

From 1996 through 2005, Mr. Chapman was the owner and sole proprietor of K&C Associates, specializing in industrial instrumentation for process control, flow measurement, automation and leak detection systems. Experience includes a variety of consulting and technical work for major oil producers, Alyeska, local refiners, GVEA, and local commercial companies in Fairbanks.

Mr. Chapman was employed by Alyeska Pipeline Company from 1981 through 1996, working at all TAPS facilities from Prudhoe Bay to Valdez. His many areas of expertise include process control, power generation and distribution, topping unit O&M, rack and marine terminal loading, oil movements and storage, and oil measurements for process control and custody transfer. Tom was responsible for a number of cost saving improvements, upgraded metering and control systems, and developed a reputation for his knowledge of custody transfer meter systems.

From 1976 – 1981 Mr. Chapman was employed by the Institute of Marine Science at the University of Alaska, Fairbanks. Prior to this, Mr. Chapman was employed by NOAA aboard a hydrographic survey ship working the Gulf of Alaska and Bering Sea.

Mr. Chapman also is an adjunct instructor with the *'Process Technology Program'* at the University of Alaska, Fairbanks, where he teaches industrial process instrumentation, measurements, control, and automation.

Project Experience

- Developed the control system communications architecture and graphic interface panels for a 60MW cogeneration facility in Fairbanks, Alaska. Also provided engineering and technical support during project design, as well as startup and initial plant O&M support. Responsibility included logic development and PLC network communications.
- Designed & developed graphic interface panels (HMI) for upgrades to BP crude oil measurement skids at Flow Station 2 and Endicott facilities in the Prudhoe Bay oil fields. Responsibility includes communications interface testing and development with the latest Emerson flow measurement equipment and software drivers.

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Thomas R. Chapman

Measurement, Controls, Communications and Automation Technology

Project Experience (cont.)

- Contributed to design, development, implementation and startup of instrumentation and controls for Forest Oils crude oil and gas production facilities in Cook Inlet, Alaska. Areas of responsibility included a new off-shore platform (Osprey), heater/treater facilities at Kustatan & West Mac, and the interface with other producers at the Trading Bay facilities.
- Designed and installed a pipeline leak detection system, for the GVEA pipelines carrying crude and return oil between the local refineries and Alyeska TAPS.
- Designed and installed an automated fuel accounting and reporting system for public utility power generation facilities with 0.5% accuracy of daily accountable balances in excess of 200,000 gallons.
- Provide independent third-party oversight of crude oil custody transfer measurements and meter proving for Alyeska Pipeline, GVEA, and local Fairbanks refineries.
- Design and technical support for refinery meter integrity and security of product load rack facilities, including automation of product load report summaries and refinery material balances.
- Designed and managed the installation of the first digital controllers for TAPS pump stations, which was used as a template for upgrading all other active pump station control systems.
- Design and install the first automated, PLC controlled, potable water dispensing system, open 24/7 to the general public, for water distribution in Fairbanks.

Fairbanks Daily News Miner
August 26, 2010

print

Fairbanks company announces another open season for gas pipeline

by dermotcole
08.26.10 - 04:07 pm

The latest twist to the gas pipeline saga is an announcement today from Energia Cura of Fairbanks for an open season to see if there is enough demand to justify a "small bore" private natural gas pipeline that would supply communities between Prudhoe Bay and Eielson Air Force Base by 2014.

The Energia Cura webiste says the company has completed a variety of projects in the Fairbanks area, including power plant and pipeline work at North Pole. The company points to studies that show that there is potential for developing a project before either a bullet line to Southcentral or a large-diameter pipeline to Canada.

The principal partners of the company are Alexander Gajdos and Thomas Chapman.

Here is the press release from the company:

Energia Cura, a Fairbanks-based energy services and consulting company, announced today that it notified State Officials on August 18th of plans to advance Fairbanks Pipeline Company's efforts to provide affordable natural gas to Interior Alaska communities located between Prudhoe Bay and Eielson Air Force Base by 2014. The non-binding open season, administered by Energia Cura, starts today and lasts until Friday, October 1, 2010. The results of this initial inquiry will determine the future direction of the Fairbanks Pipeline Company's proposed small-bore, fit for purpose pipeline project.

FPC officials stated that this private line is the most expedient option yet identified for universally lowering the Interior's cost of electrical power, LNG sourced natural gas, and heating oil. They point out that this project's supply of affordable fuel to companies such as Golden Valley Electric Association, Fairbanks Natural Gas, and local refineries will save Interior enterprises and consumers close to $1.72 billion over the next twenty years. FPC officials stress that participation by all Interior communities is necessary to make this project a reality.

Company officials also state that FPC's project does not aim to compete with any of the larger pipelines now under consideration. The proposed small-bore gas

Fairbanks Daily News Miner
September 3, 2010

Another Alaska natural gas pipeline idea is pondered

by Christopher Eshleman/ceshleman@newsminer.com
09.03.10 - 12:13 am

FAIRBANKS — A Fairbanks company is gauging interest in a plan to connect to North Slope natural gas fields with a 10-inch diameter buried pipe. Energia Cura is soliciting input from potential customers under a nonbinding "open season" process that opened last week.

Co-owner Alex Gajdos said the firm's owners have been studying the idea for a decade and think a pipeline could be built for about $500 million within four years, provided the plan clears various hurdles.

Gajdos, a former employee for both Golden Valley Electric Association and the Regulatory Commission of Alaska, said the pipeline would be smaller and cheaper than alternatives being considered by state officials and major energy companies. He said a line carrying at least 12 billion cubic feet of gas annually — more than 10 times Fairbanks' current consumption — would avoid the need for multibillion-dollar investments to reach Anchorage.

A bullet pipeline plan drew favor with many state lawmakers last spring. But Gajdos said he expects natural gas prices to remain low, Cook Inlet gas development to increase and Anchorage to seek supplies closer to home. That would leave Fairbanks searching for energy options.

The proposed line would hug the Dalton and Elliott highways to Livengood, where a major gold mine is planned, to the northern edge of Fairbanks. Gajdos said it would then branch toward large customers such as power plants, oil refineries and military bases.

Gajdos and partner Tom Chapman wrote to state officials last month asking for help, as the line would require access to hundreds of miles of state highway rights of way. The company would offer the state a small slice of ownership interest in exchange. Gajdos estimates natural gas could reach the Fairbanks area at a wholesale price of about $10 per thousand cubic feet, less than half the retail price now, under conservative volume estimates.

Gajdos said state agencies have offered limited feedback but said potential investors appear interested. He said he's surprised no one's shopped his idea before. But he acknowledged the potential hurdles inherent in such a plan — a "squeeze play," as he puts it, given physical and economic constraints — and said he hopes policymakers will appreciate and support the plan's simplicity.

Gajdos said an eventual builder-owner could offer equity ownership to private investors

and also could consider options such as traditional financing and public ownership. He estimates a pipeline would represent, largely through reduced energy costs, at least a $1.72 billion value to the Fairbanks area across 20 years.

Gajdos acknowledged plenty of questions remain in the plan. The builder might not be interested in getting into the utility business, he said, which means questions about local distribution are unresolved. He said it remains unanswered whether a dedicated gas treatment plant would be needed on the North Slope. But Gajdos said he and Chapman have sunk personal savings into the plan and think it represents Fairbanks' best short-term energy option.

Petroleum News

September 5, 2010

Petroleum News – Vol 15 No 36 Week of September 05, 2010

New effort to get gas to Interior led by Energia Cura of Fairbanks

After studying how to get reasonably priced energy to Alaska's Interior for 10 years, Fairbanks-based Energia Cura thinks there may now be enough demand to justify a small-bore, high-pressure gas line from the North Slope to the Fairbanks area.

The firm began a nonbinding open season Aug. 26 to see if there is enough interest to justify moving forward. The estimated annual volume for the line would be 12 billion cubic feet, some 33 million cubic feet per day. (The interstate projects proposed by Denali and TransCanada are based on volumes of about 4.5 billion cubic feet a day, an annual volume of some 1.6 trillion cubic feet.)

The Energia Cura nonbinding open season is being done on behalf of Fairbanks Pipeline Co.

Principles of both Energia Cura and Fairbanks Pipeline Co. are Alexander Gajdos and Thomas Chapman.

Operational by 2014

The issue Energia Cura is addressing is the cost differential Interior residents pay for energy, and the fact that large new enterprises proposed for the Interior face "significant, if not insurmountable barriers to entry" based on the cost of fuel, and uncertainty about fuel future availability, Gajdos said in a letter addressed to state and federal officials.

Another issue is timing: The FPC line could be operational by 2014, compared to 2026 at the earliest for an interstate line.

Energia Cura expects the current supply-demand imbalance in the natural gas market to continue for the next six and a half to 10 years and believes it will be 16 to 20 years before an interstate Alaska North Slope natural gas pipeline project makes natural gas available to Interior Alaska, Gajdos said.

In that time, Interior residents will spend “at least an additional $1.5 billion in avoidable outlays” for higher energy costs — and that’s if an interstate line is operational by 2026 — it could be 2030 or later, he said.

The FPC project does not intend to compete with an interstate gas project or with a bullet line to Southcentral.

The intention, Gajdos said, is “to deliver affordable gas to Interior consumers and to the builders of the interstate systems until such point in time as they are placed in service.” He said the intent is to design the FPC project to have residual value once a major line is in place.

If the North Slope to Cook Inlet bullet line is completed by 2020, “FPC will have already aggregated major Interior load increments into working service through its primary and secondary transmission segments” and FPC could interconnect north of Livengood with a gas line to Southcentral, Gajdos said.

But Gajdos questioned whether a line to Southcentral will actually be built.

Recent studies have indicated there may be large volumes of natural gas yet to be developed in Cook Inlet, he said, and with the last of the old gas sale contracts based on a stranded market set to expire at the end of this year, higher gas rates in recent contracts and state incentives for Cook Inlet development, “required investments will soon emerge” for additional drilling in the basin.

Interest in project

Gajdos said informal discussions with parties having a potential interest in a line from the North Slope to the Interior even raised the issue of whether the proposal to limit the line’s “gas transmission capacity to match tangible and incontrovertible interest” was a wise one.

He said Energia Cura has run hydraulic simulations and done cost of service evaluations over the last decade and those studies have all shown that the project needs to be “precisely regimented to size FPC’s delivery infrastructure to meet existing and/or guaranteed future demand” aggregating to “a specific minimum annual throughput.”

If sufficient volumes are identified in the nonbinding open season, “FPC’s fit-for-purpose approach will prove to be the most expedient and economic means for curtailing avoidable $1.5 billion in future outlays by Interior consumers to meet their challenging sub-arctic energy requirements.”

“These sums,” Gajdos said, “are far in excess of the installation capital and operating costs associated with FTP’s proposed transmission systems.”

The line pipe will be specified at higher pressure ratings than required for initial gas operations in order to accommodate modest growth with increased compression, he said.

Firms seeking investment opportunities have indicated they are interested in building segments of the pipeline in exchange for equity in the line, with four Alaska pipeline construction firms exploring in-kind or direct equity participation.

The proposal being discussed would have the firms build segments ranging from 112 to 150 miles, with overall construction management under a single firm.

Gajdos said that following closure of the nonbinding open season Oct. 1, and after FPC completes integrated hydraulic and cost of service simulations, the firm will approach the state for in-kind contributions including provision of Lidar data and right-of-way assignments adjacent to the state's Dalton and Elliott highway corridors.

In exchange, the state would be offered an equity position of 7.2 percent based on an industry average cost of right-of-way development.

(See part 2 of this story in the Sept. 12 issue of Petroleum News.)

—Kristen Nelson

Petroleum News
September 12, 2010

Vol. 15, No. 37 **Week of September 12, 2010**

Providing coverage of Alaska and northern Canada's oil and gas industry

Energia Cura proposing 10-inch main line

High-pressure line would run from Prudhoe Bay to Fox; high-pressure coiled tubing lines would connect to major load centers

Kristen Nelson

Petroleum News

Energia Cura, on behalf of Fairbanks Pipeline Co., began a nonbinding open season Aug. 26 to determine interest in a small-bore natural gas pipeline from the North Slope to Interior Alaska (see story in Sept. 5 issue of Petroleum News).

The company said its hydraulic simulations are based on a 443-mile 10-inch high-pressure line beginning near Pump Station 1 on the North Slope and ending in Fox, with an annual delivery of 12 billion cubic feet, less out-takes at connection points.

In its open season package Energia Cura noted a lack of distribution feeders to Interior Alaska's major load centers, indicated on a map as Fairbanks, Golden Valley Electric Association, Eielson Air Force Base, the North Pole refinery and Fort Wainwright.

The local natural gas utility, Fairbanks Natural Gas, delivers less than 1 bcf a year of re-gasified liquefied natural gas to residential and commercial customers using a 60-mile, low-pressure, plastic-pipe network.

Energia Cura said the Fairbanks Natural Gas system is capable of servicing residential and commercial loads, but "does not reach, nor can it handle the delivery volumes and pressures required to serve the Interior's major load centers."

The company plans to install high-pressure, coiled tubing feeder lines from its primary segments to service the Interior's industrial load centers, which could include points north of the Fox terminus, "depending on the best routes selected to connect the Interior's most significant load centers."

$500 million

Energia Cura partner Alex Gajdos said in a Sept. 8 release that the cost of the 10-inch line is estimated at $500 million and is projected to save Interior communities and businesses at least $1.72 billion in energy costs (electric, fuel oil and natural gas purchases) over 20 years.

The secondary transmission network of 5-inch high-pressure coiled tubing flowlines would have "moderate and discrete costs of service" based on the short distances needed to connect the Interior's

major load centers and FNG to the primary transmission segment.

Energia Cura said hydraulic and economic simulations project a price for transportation plus gas will be less than $10 per thousand cubic feet at the Fox terminus, based on 12 bcf per year, half of what is now paid by major load centers in the Interior and less than half of the $24 per thousand cubic feet residential rate for Fairbanks Natural Gas' LNG-sourced gas.

The base case for Fairbanks Pipeline Co. was completed after Energia Cura conducted a power evaluation study for a new gold mine proposed in Livengood, a mine with a prospective load of 2.8 bcf per year.

If volumes greater than 12 bcf a year were nominated in the nonbinding open season, the throughput cost would be lower; smaller quantities would result in a higher throughput cost.

Gas conditioning

Asked about gas conditioning, Gajdos told Petroleum News in an e-mail that one option would be to treat gas on the North Slope, return the 12 percent carbon dioxide content of the gas for sequestration and install compression.

Or, raw gas could be moved using existing 4,000 pounds per-square-inch discharge pressure, which would require no compression to be built.

He said that less than 10 percent of the targeted load centers require specification grade gas. Other uses — gas turbines, large furnaces and boilers, etc. — could use raw gas effectively, reducing the size of the gas treatment facility and allowing its construction near the terminus at Fox, avoiding North Slope construction costs.

The downside is that 12 percent of transmission capacity would be lost because CO2 would come down the line, and the ability to sequester that gas on the North Slope would be lost.

A treatment facility near Fox to treat only the 1 bcf per year used by Fairbanks Natural Gas for residential and commercial customers would mean that the 12 percent CO2 content of the gas would be released into the atmosphere, Gajdos said, either at the treatment plant or at the point of combustion for untreated gas, still "a vast improvement over the Interior's current rate of emissions resulting from its fixation on coal and distillates."

The 12 percent loss of capacity would also result in "significant impacts to our final cost of service."

Since volumes are small compared to the proposed interstate lines and the bullet line, smaller, more cost-effective, modular gas treatment equipment could be used than would be possible for the high-volume projects.

While treating gas on the North Slope would cost more, neither option is a deal buster, Gajdos said.

Because of the cost involved in evaluating the two treatment options fully they will not be evaluated until the conclusion of the nonbinding open season, but Gajdos said the evaluation of those costs "is highly prioritized and properly sequenced into our forthcoming and final hydraulic/economic simulations."

Alaska Journal of Commerce
Web posted September 23, 2010

Fairbanks firm pushes lower-cost gas pipeline to Interior city

By Tim Bradner
Alaska Journal of Commerce

A small Fairbanks energy services and consulting company has launched a bid to build a $500 million, 10-inch natural gas pipeline from the North Slope to the Interior Alaska city.

Alex Gajdos, a partner in Energia Cura, said the pipeline could be in operation as early as 2014 and could deliver North Slope gas to a junction with local gas distribution lines for $10 per million cubic feet or less, including transmission and purchase of the gas.

Gajdos said that is about half what Interior residents pay for heating oil or natural gas now delivered as liquid natural gas by truck from Southcentral Alaska. He believes the project could be competitive with a 24-inch bullet gas pipeline being planned by a state corporation.

However, if a large-diameter pipeline from the North Slope to the Lower 48 proceeds, Energia Cura's would provide Fairbanks-area distribution lines that could deliver gas to major load centers, such as Golden Valley Electric Association's oil-fired power plant and the Flint Hills and Petro Star refineries in North Pole, or the existing small residential gas distribution system now owned by Fairbanks Natural Gas.

Energia Cura currently manages the 16-inch crude oil pipeline that delivers oil from the Trans-Alaska Pipeline System to GVEA's power plant and the refineries. It also does power plant consulting work, including the Fort Wainwright power plant owned and operated by Doyon Utilities, a private firm.

Gajdos worked previously for GVEA and General Electric Corp. With GVEA, he was project manager for construction of the pipeline that connects TAPS to the power plant and refineries.

Chapman was previously with Alyeska Pipeline Service Co. and the University of Alaska's Geophysical Institute.

Energia Cura's partners have been mulling the idea for a small-scale pipeline since 2006, Gajdos said. The effort went into high gear in July, when the company completed a study of energy options for a new gold mine being developed by International Tower Hills in Livengood, north of Fairbanks.

Energy options for the mine other than gas aren't that appealing. GVEA's electrical system could be extended north to Livengood, but with the energy situation as it is in the Interior, the utility may be pressed to meet new demand from the mine. Trucking diesel fuel up the Elliot Highway from Fairbanks for on-site power generation isn't an attractive option either.

However, the mine would be located on the route of the pipeline and would be a major customer.

Gajdos said his company's plan envisions no state subsidy, but he has made an offer to the state to take an equity position in the project in return for allowing the pipeline to be buried alongside the state-owned Dalton Highway from the North Slope. Building pipelines parallel to roads is common in Canada, and would reduce the capital cost of the 10-inch pipeline by about 7 percent, Gajdos said.

The state also would have to grant permission for the pipeline to use the Yukon River bridge on the Dalton Highway, but this is true for any of the proposed pipeline projects.

Gajdos said the company is also hoping to negotiate an arrangement with North Slope producers to tie the pipeline into the central gas facility in Prudhoe Bay, where gas is now extracted from crude oil and processed, thereby avoiding much of the cost of building a separate gas treatment plant.

"Our concept is that we will do this step-by-step rather than all at once with a 24-inch pipeline built to Anchorage" from the Slope, Gajdos said.

There isn't enough gas demand in Southcentral Alaska to justify the 24-inch line, which could cost from $6 billion to $12 billion to build. The existing utility demand in the Anchorage area can use only about half of the gas delivered though the 24-inch pipeline.

Cook Inlet also has existing gas production and although fields there are declining, the entry of major new industry players like Apache Corp. indicate that the industry believes the region has potential for new discoveries.

However, a low-cost smaller-diameter pipeline like that proposed by Energia Cura could serve a market of 12 billion cubic feet per day that has been identified in the Fairbanks area, Gajdos said.

By displacing higher-cost heating oil or trucked LNG, the project could save Interior consumers $1.7 billion in energy costs over 20 years, Gajdos said.

Once completed to the Fairbanks area, an extension could be built to serve other parts of the state, even the Donlin Creek gold project on the middle Kuskokwim River. The Donlin Creek partners, Barrick Gold and NovaGold Resources, are now studying a 320-mile, 12-inch gas pipeline from Cook Inlet to the mine, which would like to use gas to power mining operations.

The idea of building the pipeline from Fairbanks instead isn't far-fetched, Gajdos said.

"It's only 60 miles farther, and there are no mountain ranges to cross," unlike the route from the Anchorage area, he said.

Energia Cura would not be involved in a pipeline extension to Donlin Creek, however. That would be a separate project developed and owned by others.

In concept, the 10-inch pipeline could be extended to Southcentral Alaska, Gajdos said, but a more practical first step would be to generate power with gas in Fairbanks and send surplus power to Southcentral utilities down the existing electric intertie. The intertie is used to send surplus power from Southcentral north to Fairbanks, but with the declining gas reserves in southern Alaska, there has been little to share.

Except for power shipped north by GVEA's coal plant in Healy, the intertie is not currently in use.

Sending electricity from Interior to Southcentral Alaska would allow the remaining Cook Inlet gas reserves to be used for residential and commercial space heating.

Fairbanks Daily News Miner
October 18, 2010

Fairbanks firm says there's high interest for it to build a gas pipeline

by Christopher Eshleman / ceshleman@newsminer.com

FAIRBANKS — A Fairbanks firm says it's received strong interest as it looks to pipe natural gas from the North Slope to Fairbanks.

The company, Energia Cura, said Friday a market review gauging demand for natural gas from major energy consumers suggests demand could exceed 15 billion cubic feet per year.

That would represent an exponential increase in Fairbanks' natural gas supply.

Energia Cura co-owner Alex Gajdos said the review justifies a second stage, where the firm would re-run economic models and prepare to solicit estimates from design and construction firms.

The proposal, a buried pipe between the North Slope's vast gas fields and the greater Fairbanks area, would aim to feed major customers — power utilities, military bases or retail distributors, for example — who would also, under the firm's plan, hold equity in a line.

Gajdos said the company has contacted lawmakers to help review the prospect of working with state agencies to address permitting and right of way questions.

"The message were sending here is that the best value to Alaskans for Alaska North Slope gas monetization is to keep it in state," Gajdos said Monday.

The firm's proposed line would hug the Dalton and Elliott highways to Livengood, where a major gold mine is planned, and then reach toward the northern edge of Fairbanks or to North Pole.

Petroleum News

November 7, 2010

Energia Cura says larger line possible

Company proposing small-bore natural gas line from North Slope to Interior says expanded line could allow for gas to Cook Inlet

Kristen Nelson

Petroleum News

Energia Cura believes its proposed 10-inch small-bore natural gas pipeline from Alaska's North Slope should be expanded to 18 inches and a flange provided at Livengood which would allow gas to be moved to Southcentral.

Beyond the flange, the line would drop down to 10 inches to serve Interior needs.

In an Oct. 28 letter to the Alaska Gasline Development Corp., Alexander Gajdos, a principal with Energia Cura, said expansion of the company's proposed line could be done "at a much lower capital cost" than building a 24-inch line from the North Slope to Cook Inlet.

A 24-inch bullet line from the North Slope to Southcentral is the project AGDC is working. The project team was established by the Alaska Legislature with House Bill 369 earlier this year work up a plan for an in-state natural gas pipeline. AGDC will present that project plan to the Legislature by July 1, defining a preferred reliable source of energy for Southcentral and Interior Alaska, with a startup date by the end of 2015.

Energia Cura is proposing a line just to Interior Alaska. It held a nonbinding open season and said after the open season closed in mid-October that it had received nominations in excess of 12 billion cubic feet per year (some 33

million cubic feet per day). The company said a volume of 12 bcf a year would allow it “to deliver natural gas to the Interior at less than half its current cost.”

In excess of 19 bcf per year

Gajdos said in the letter to AGDC that to date Energia Cura has received nominations in excess of 19 bcf a year, or more than 52 million cubic feet per day.

He told AGDC that increasing the diameter of the small-bore line from 10 inches to 18 inches provides capacity to supply all Cook Inlet requirements for at least the next 25 years.

And the company’s business model does not require state subsidies, he said.

Gajdos said that whether the state subsidizes Alaska North Slope natural gas or a pipeline to Cook Inlet markets, the state’s “attainable retained wealth from development and sales of both CI and ANS gas will be compromised.” He said the cost of a bullet line, recovered in tariffs, “will both drive gas prices well beyond those now set in current wholesale contracts and reduce the State’s net benefit from extraction and sales of these resources”; he also said the proposed 24-inch diameter for the bullet line would be some 70 percent excess capacity over current Cook Inlet demands.

Third-generation GTL

Gajdos said third-generation gas-to-liquids technologies, such as those Royal Dutch Shell is using at its Pearl GTL plant in Qatar, may allow North Slope natural gas to be exported as liquids within the next decade.

“If the Pearl GTL plant confirms Shell’s commercial assumptions that inspired its huge capital investment within the next five years, another decade and a half will most likely follow before a similar or more evolved plant can be made operational on Alaska’s North Slope,” Gajdos said.

The capital requirements for such a plant would be significant, he said, and the Shell plant is not estimated to begin operation until 2012.

But, he said, if a GTL plant could move North Slope natural gas to market as liquids, it would be at premium crude prices “where the energy in crude trades for 2.5 times the energy in gas today.”

Gajdos said that third-generation GTL technology, like shale gas, “has the power to instigate another paradigm shift in natural gas economies.”

Another perspective

Another perspective comes from David Gottstein, who told AGDC in a letter dated July that “any pipeline project is largely a combination of economics, logistics, finance and politics.”

With Southcentral running out of natural gas, he said the alternatives are waiting for the producers to build a gas pipeline — and importing liquefied natural gas in the short term — or “deciding to build an incredibly inefficient bullet or narrow gauge gas pipeline that will saddle Alaskans with high energy costs for decades. While at the same time severely handicapping the prospects for an export project.”

Gottstein recommended that the state invest enough money to get natural gas to an Interior hub in a large-diameter line. Oil and gas companies have to wait until they can fill a line before they commit to build, and he projects — based on uncertainty about both pricing and demand — that it could be five to 10 years before companies would actually fund a project.

The State of Alaska, he said, is the only entity in a position to invest money (specifically, “the $3 billion extra it would take to increase the size of a pipe from the North Slope to the Interior suitable for export capacity”), because the state makes most of its money from selling the resource rather than transporting it.

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Energia Cura looking to buy Slope gas

Company behind Fairbanks Pipeline Co. project would negotiate with producers to purchase gas; also wants contract for processing

Kristen Nelson

Petroleum News

Of the various projects to move North Slope natural gas to consumers, Energia Cura's Fairbanks Pipeline Co. would be the first, with startup pegged for mid-2014.

This small-bore high-pressure line would run from the North Slope to North Pole in Interior Alaska, and estimates from the ongoing nonbinding open season suggest that the annual volume could exceed 19 billion cubic feet, some 53 million cubic feet per day.

Alex Gajdos and Thomas Chapman of Energia Cura are behind the project and are funding development work.

The goal is to bring affordable energy to Interior Alaska, and to do it with an Alaska-based company, thus keeping value from the project in the state, Gajdos told Petroleum News in a Dec. 14 interview.

The project was originally pegged at a 10-inch line, but when expressions of interest for gas from the line rose from some 12 bcf a year to 19 bcf a year in the continuing nonbinding open season, the line diameter was increased to 12 inches. The 10-inch line was almost precisely scaled to 12 bcf a year, Gajdos said, so the increase to 19 bcf was good news.

While going from 10 inches to 12 inches increases the capital cost for the pipe roughly 32 percent, he said, it increases the capacity 62 to 63 percent. The nonbinding open season has been extended, and Gajdos said Energia Cura is working with the state's congressional delegation to have Eielson Air Force Base at least look at using North

Slope natural gas.

Market the issue

With the Alaska Gasline Development Corp. looking at a bullet line from the North Slope to Southcentral, Energia Cura has proposed increasing the size of the line from the North Slope to Livengood to 18 inches, with a 10-inch line to North Pole running along the Elliott and Richardson highways.

Gajdos said while AGDC is proposing a 24-inch line from the North Slope, that project has to find large industrial users to justify the line.

An 18-inch line would be more than adequate for Cook Inlet's needs well into the future, he said.

With that 18-inch line installed as far as the Interior, with a flange, and combined with price collars established in a recent Cook Inlet gas contract, known costs to move natural gas from the North Slope to Cook Inlet and an established line running as far as Livengood, Southcentral Alaska can wait and watch, Gajdos said.

If there is upward pressure on the price ceiling for natural gas in Southcentral, costs to build the line from the Interior to Cook Inlet can be updated and the line to Cook Inlet could be built if justified.

Working with producers

Gajdos said he has begun talks with the North Slope's major producers about selling gas to the project, which would offer a bundled package of gas and transportation.

The cost of service is essentially what others call a tariff, he said, and includes the capital cost (the pipe) and the operating cost; the bundled cost would also include the gas.

"For a bundled service, which includes the commodity delivered to the curb, you have to include the gas," Gajdos said.

Energia Cura has had preliminary meetings with all of the majors, he said. The company proposes to buy natural gas and also wants the producers to provide compression and treatment facilities and recapture their investment for those services, and required margins, through commodity sales.

It would cost about the same for Fairbanks Pipeline Co. to build the North Slope facilities, but operation and maintenance on the North Slope would be very costly for FPC, while the North Slope producers could leverage their existing facilities and personnel to operate and maintain the compression and treatment facilities, Gajdos

said.

The capital cost for the pipeline portion of the project is about $716 million, he said.

A GTL future for North Slope gas?

Gajdos said he's been following with great interest the gas-to-liquids plant Shell is building in Qatar, a third-generation Fischer-Tropsch facility.

"This plant will be a major, major step forward" in commercial opportunities for GTL, he said.

And if the numbers are correct for Shell's Pearl plant — which should be known fairly soon as the plant goes into operation in 2012 — then "a small GTL plant up north … could defeat any of these other plans (for major gas pipelines)," Gajdos said.

GTL takes gas out of the gas economy because GTL is a liquid, increasing its value.

And it doesn't require infrastructure to transport it to tidewater or to the Canadian border — it makes use of the existing trans-Alaska oil pipeline, he said.

GTL would be injected into the line, along with the crude oil, and would increase the volume of middle cuts such as gasoline and fuel oil, which have the highest value, enhancing the overall value of the liquid moved through the line.

Fairbanks Daily News Miner
February 2, 2011

Local pipeline firm says it hasn't heard back from governor

by dermotcole
Dermot Cole
Feb 02, 2011 | 639 views | 6 | | 6 | | | permalink

Energia Cura has named its proposed North Slope to Fairbanks pipeline the "Arctic Fox Pipeline," saying its is small, smart and quick, like the animal of the same name.

The Fairbanks Pipeline Company hopes to gets its pipeline running in three years and supply GVEA, mines, military bases and Fairbanks Natural Gas.

In a press release today, the company said it has presented details of the project to the governor's office, asking for a "due diligence review" as soon as possible.

"FPC has cautioned the Governor that delays in a natural gas pipeline will burden Alaskans, particularly Interior Alaskans, with continued unnecessary spending on high priced energy," the company said. "A response from the Governor's Office is still pending."

"We have substantiated the viability and profitability of an all-Alaska natural gas pipeline and we openly invite the public and our public officials to review our feasibility study and economic analysis," said Alex Gajdos, FPC co-founder. "We want our public officials to see that that there is a valid alternative to waiting for a big pipe. We can move gas to Alaskans now and prosper by owning the pipeline ourselves. We can get gas to Alaskans now."

Fairbanks Daily News Miner
Dermot Cole
February 3, 2011

PIPELINE PLAN: Energia Cura has named its proposed North Slope to Fairbanks pipeline the “Arctic Fox Pipeline,” saying it is small, smart and quick, like the animal of the same name.

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In a press release Wednesday, the company stated it has presented details of the project to the governor’s office, asking for a “due diligence review” as soon as possible.

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Energia Cura names pipeline Arctic Fox

A proposed small gas pipeline from Alaska's North Slope to the state's Interior now has a name: The Arctic Fox Pipeline.

Energia Cura, a Fairbanks-based energy consulting firm and parent to Fairbanks Pipeline Co., said in a Feb. 2 statement that the line was named after Congressman Don Young, R-Alaska, commented that the proposed line would be small, smart and quick.

Energia Cura met with Young Dec. 27 to discuss the value of the line, which would be a small-diameter high-pressure line moving volumes of gas justified for Interior markets.

Energia Cura said it has also met with Mike Nizich, chief of staff to Gov. Sean Parnell, to reiterate a request for a due diligence review of the project and continues to meet with Alaska leaders and others in the industry.

"We have substantiated the viability and profitability of an all-Alaska natural gas pipeline and we openly invite the public and our public officials to review our feasibility study and economic analysis," said Alex Gajdos, FPC co-founder. "We want our public officials to see that that there is a valid alternative to waiting for a big pipe. We can move gas to Alaskans now and prosper by owning the pipeline ourselves. We can get gas to Alaskans now."

FPC said it will continue to provide its documents to interested parties and will continue to post detailed updates on the firm's website, www.fairbankspipelinecompany.com.

Energia Cura has constructed pipelines in Alaska and operates and maintains a pipeline system connecting the trans-Alaska pipeline system to both North Pole refineries.

—Petroleum News