Petroleum news

page 5 McGuire focuses on Arctic role for Alaska, need for infrastructure

Vol. 19, No. 40 • www.PetroleumNews.com A weekly oil & gas newspaper based in Anchorage, Alaska Week of October 5, 2014 • $2.50

Shublik source rock

ALAN BAILEY

A sample of the Shublik source rock from Great Bear's Merak No. 1 well, together with a vial of oil collected from a Kuparuk interval in that well. Curiously, while the curved shapes on the side of the sample are the outlines of fossil shells, a circular object indistinctly seen in the top of the sample is a fragment of dinosaur bone. See story on this page.

Shell critiques BSEE's draft regs for Arctic offshore drilling

In conjunction with a review by the White House Office of Management and Budget of the Bureau of Safety and Environmental Enforcement's proposed new Arctic offshore drilling safety regulations, on Sept. 10 Shell met with government officials and expressed concerns about some aspects of the draft drilling rules, according to information published on the OMB website.

In the wake of the Deepwater Horizon disaster, BSEE has been preparing new drilling regulations for the Arctic offshore. The OMB review forms part of the regulation development process. Shell and other companies interested in exploring Alaska's Chukchi and Beaufort seas have been waiting to see the new regulations, to assess the potential impact of the regulations on the practicalities and economics of Arctic offshore drilling. Shell, in particular, is anxious to make a decision on whether to continue its Chukchi Sea drilling program in the summer of 2015.

A Shell presentation published on the OMB website in con-

see **SHELL CRITIQUE** *page 14*

Encana seizes Permian target

Encana has emptied out its piggybank and rolled the dice in its biggest play for years in the North American oil and natural gas casino.

DOUG SUTTLES

In deal funded almost exclusively with cash on hand, the Calgary-based company has offered US$7.1 billion (including US$1.1 billion of assumed debt) to acquire Athlon Energy and take a big stride towards remaking itself from North America's one-time leading gas producer to a liquids leader.

The objective is a long way from done and Chief Executive Officer Doug Suttles is remaining tightlipped about what, if anything, is next on Encana's shopping list.

But, if the Athlon offer is closed as scheduled by year-end 2014, the company will add the Permian basin of West Texas to what it views as stakes in North America's top tier unconven-

see **ENCANA'S LIST** *page 14*

EXPLORATION & PRODUCTION

Back to the field

Great Bear Petroleum plans to continue shale oil drilling program this winter

By ALAN BAILEY
Petroleum News

JUDY PATRICK

ED DUNCAN

Great Bear Petroleum plans to continue its Alaska North Slope shale-oil drilling program this winter, Ed Duncan, the company's president and CEO, told Petroleum News Sept. 30.

"The next tranche of wells is going to be stepping west of the Haul Road, so we're going to be looking at ice (pad) locations in the winter of 2015," Duncan said.

Duncan said that his company has secured the use of a drilling rig for the winter drilling season but that drilling may continue after the winter, using year-round drill sites near the North Slope Haul Road.

The company is working on the required permitting for the drilling and anticipates filing a plan of operations with the Alaska Department of Natural Resources shortly.

Great Bear last drilled in the fall of 2012, when it completed two vertical test wells, the Alcor No. 1 and the Merak No.1, at sites near the northern section of the North Slope Haul Road. The company subsequently suspended its drilling operations while it tested rock samples and analyzed the drilling results. The company has since continued with extensive 3-D seismic and LIDAR survey programs in its North Slope acreage, as well as commissioning a regional aquifer study and coordinating the compilation of a major dataset of North Slope geologic infor-

see **SHALE DRILLING** *page 18*

NATURAL GAS

Alaska LNG team in place

Legislators get update on North Slope export project; state team also in place

By KRISTEN NELSON
Petroleum News

JUDY PATRICK

STEVE BUTT

Three project offices for the Alaska LNG Project — in Anchorage, Houston and Calgary — are up and running, legislators were told Sept. 29 in Anchorage at the first public update on the project since enabling legislation was signed into law in May.

Steve Butt, overall manager for the Alaska LNG Project, said the leadership team for the pre-FEED, front-end engineering and design, phase of the project is in place — with 27 key leadership roles staffed, representing all the companies and with collectively "in excess of 800 years of experience." An additional 102 team members have been added, with a few more to go, for a total of 130 to 135 people full time on the project, compared to 35 to 40 people developing the project concept.

The project staff will work "with a wide range of contractors involving several thousand people to make sure the work gets done," Butt said.

The team is co-located — workers are put where the contractors and the work are — to get the work done at the lowest possible cost.

see **LNG TEAM** *page 19*

NATURAL GAS

A couple more options

Two businesses pursue ways of monetizing Cook Inlet gas through LNG production

By ALAN BAILEY
Petroleum News

With Alaska appearing to go from famine to feast in short order when it comes to proposals for bringing the state's abundant gas supplies to market, two businesses have come up with concepts for monetizing Cook Inlet natural gas through the development of new facilities for the production of liquefied natural gas, or LNG.

The companies, WesPac Midstream LLC and Resources Energy Inc., want to build their plants at Port MacKenzie, the newly constructed port across the waters of Knik Arm from the city of Anchorage. And the proposed plants, spawned from a resurgence in Cook Inlet gas development and production, would operate independently from any future gas line from the North Slope, instead just exporting gas from the Cook Inlet basin.

> ***Barnds said that his company has already negotiated an agreement with a Cook Inlet gas producer on terms for the purchase of a 100 percent working interest in sufficient gas reserves to meet the entire supply for the WesPac LNG project "on a long-term basis."***

see **MORE OPTIONS** *page 17*

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Shell critiques BSEE's draft regs for Arctic offshore drilling

Encana seizes Permian target

Alaska - Mackenzie Rig Report

Alaska Rig Status

North Slope - Onshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
Doyon Drilling			
Dreco 1250 UE	14 (SCR/TD)	Prudhoe Bay DS01-02, workover	BP
Dreco 1000 UE	16 (SCR/TD)	Prudhoe Bay S-108, workover	BP
Dreco D2000 Uebd	19 (SCR/TD)	Alpine CD4	ConocoPhillips
AC Mobile	25	Prudhoe Bay DS 14-22	BP
OIME 2000	141 (SCR/TD)	Kuparuk 2E.01	ConocoPhillips
Kuukpik	5	Prudhoe Bay	Available
Nabors Alaska Drilling			
AC Coil Hybrid	CDR-2	Kuparuk 2F-18	ConocoPhillips
Dreco 1000 UE	2-ES (SCR-TD)	Prudhoe Bay	Available
Mid-Continental U36A	3-S	Prudhoe Bay	Available
Oilwell 700 E	4-ES (SCR)	Prudhoe Bay	Available
Dreco 1000 UE	7-ES (SCR/TD)	Kuparuk	ConocoPhillips
Dreco 1000 UE	9-ES (SCR/TD)	Kuparuk	ConocoPhillips
Oilwell 2000 Hercules	14-E (SCR)	Prudhoe Bay	Available
Oilwell 2000 Hercules	16-E (SCR/TD)	Prudhoe Bay	Available
Emsco Electro-hoist-2	18-E (SCR)	Prudhoe Bay	Stacked
Emsco Electro-hoist Varco TDS3	22-E (SCR/TD)	Prudhoe Bay	Stacked
Emsco Electro-hoist Canrig 1050E	27-E (SCR-TD)	Deadhorse, under contract to ExxonMobil for 2015	
Emsco Electro-hoist	28-E (SCR)	Prudhoe Bay	Stacked
Oilwell 2000	33-E	Prudhoe Bay	Available
Academy AC Electric CANRIG	99AC (AC-TD)	Deadhorse	Availablel
OIME 2000	245-E (SCR-ACTD)	Oliktok Point	ENI
Academy AC electric CANRIG	105AC (AC-TD)	Deadhorse	Available
Academy AC electric Heli-Rig	106-E (AC-TD)	Deadhorse	Available
Nordic Calista Services			
Superior 700 UE	1 (SCR/CTD)	Prudhoe Bay Drill Site G-01	BP
Superior 700 UE	2 (SCR/CTD)	Prudhoe Bay Well Drill Site 18-07	BP
Ideco 900	3 (SCR/TD)	Kuparuk Well 1A-17	ConocoPhillips
Parker Drilling Arctic Operating Inc.			
NOV ADS-10SD	272	Prudhoe Bay DS 18	BP
NOV ADS-10SD	273	Prudhoe Bay DS W-59	BP

North Slope - Offshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
BP			
Top Drive, supersized	Liberty rig	Inactive	BP
Doyon Drilling			
Sky top Brewster NE-12	15 (SCR/TD)	Spy Island SP21-NW1	ENI
Nabors Alaska Drilling			
OIME 1000	19AC (AC-TD)	Oooguruk ODSN-02	Caelus Alaska

Cook Inlet Basin – Onshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
Miller Energy Resources			
Mesa 1000	Rig 37	Mobilized to North Fork to begin drilling this winter	Miller Energy Resources
All American Oilfield Associates			
IDECO H-37	AAO 111	Going over to Trading Bay to perform a workover starting on 10/3/14	Cook Inlet Energy
Aurora Well Services			
Franks 300 Srs. Explorer III	AWS 1	Sterling, Stacked out at D&D yard	Available
Doyon Drilling			
TSM 7000	Arctic Fox #1	North Kenai, stacked	Nordaq
Nabors Alaska Drilling			
Continental Emsco E3000	273E	Kenai	Available
Franks	26	Kenai	Stacked
IDECO 2100 E	429E (SCR)	Kenai	Stacked
Rigmaster 850	129	Kenai	Available
Saxon			
TSM-850	147	Ninilchik Unit, Bartolowits pad drilling Frances #1	Hilcorp Alaska
TSM-850	169	Swanson River	Hilcorp Alaska

Cook Inlet Basin – Offshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
XTO Energy			
National 110	C (TD)	Idle	XTO
Spartan Drilling			
Baker Marine ILC-Skidoff, jack-up		Spartan 151 Upper Cook Inlet KLU#1	Furie
Cook Inlet Energy			
National 1320	35	Osprey Platform RU-1, workover	Cook Inlet Energy
Hilcorp Alaska LLC (Kuukpik Drilling, management contract)			
		Monopod Platform, Drilling Trading Bay ST A-31	Hilcorp Alaska LLC
Patterson UTI Drilling Co LLC			
	191	West McArthur River Unit #8	Cook Inlet Energy
Kenai Offshore Ventures			
LeTourneau Class 116-C, jack-up	Endeavor	Port Graham	Buccaneer Energy Ltd.

Mackenzie Rig Status

Canadian Beaufort Sea

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
SDC Drilling Inc.			
SSDC CANMAR Island Rig #2	SDC	Set down at Roland Bay	Available

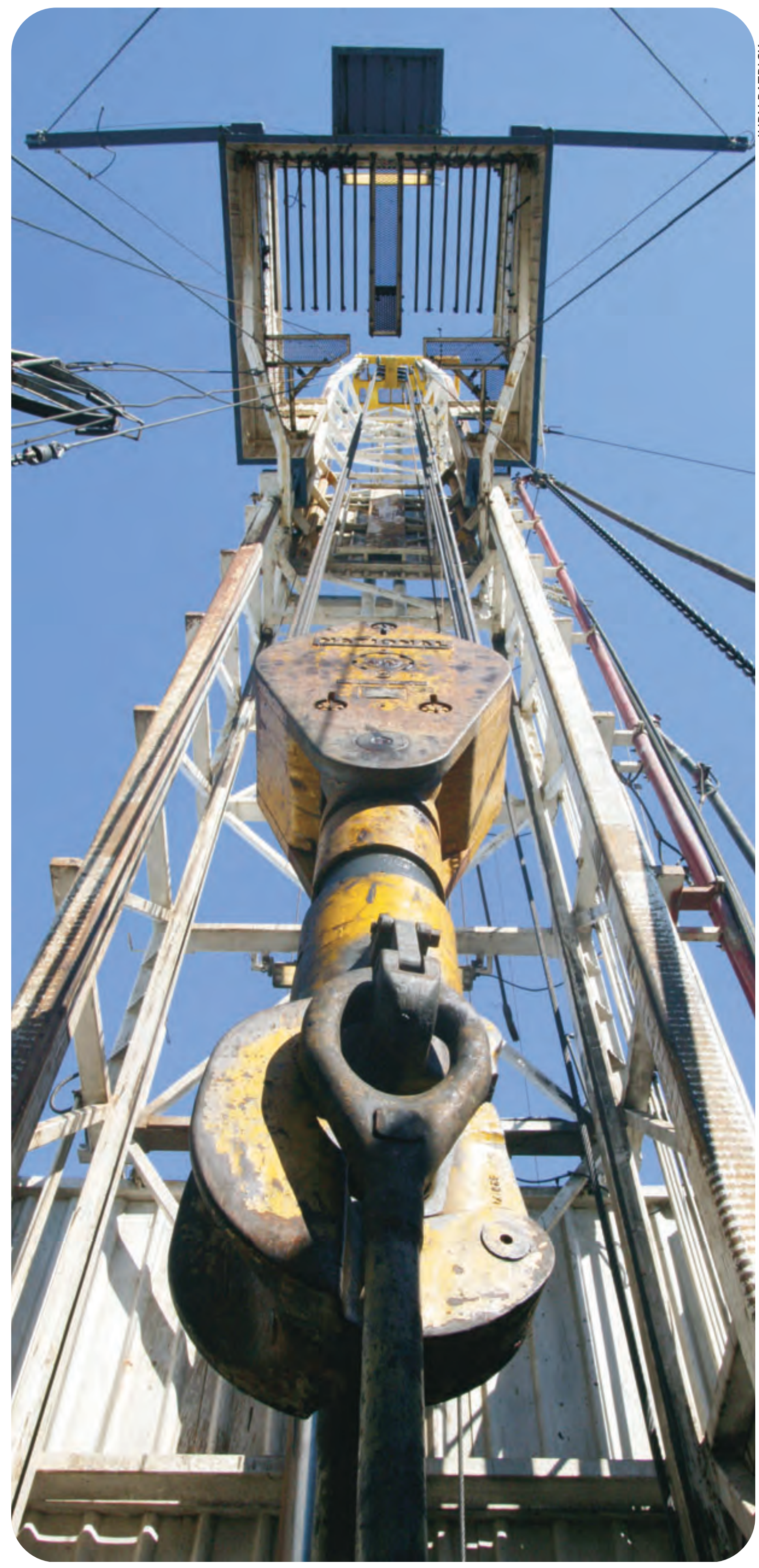
Central Mackenzie Valley

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
Akita			
TSM-7000	37	Racked in Norman Well, NT	Available

The Alaska - Mackenzie Rig Report as of October 5, 2014.
Active drilling companies only listed.

TD = rigs equipped with top drive units WO = workover operations
CT = coiled tubing operation SCR = electric rig

This rig report was prepared by Marti Reeve



JUDY PATRICK

Baker Hughes North America rotary rig counts*

	Sept. 26	Sept. 19	Year Ago
US	1,931	1, 931	1,744
Canada	429	377	390
Gulf	59	58	62

Highest/Lowest

US/Highest	4530	December 1981
US/Lowest	488	April 1999
Canada/Highest	558	January 2000
Canada/Lowest	29	April 1992

*Issued by Baker Hughes since 1944

The Alaska - Mackenzie Rig Report is sponsored by:

ARMSTRONG

● PIPELINES & DOWNSTREAM

More buffeting of pipeline plans

Kinder Morgan keeps running afoul of opposition to expansion; Enbridge faces Canadian appeal court challenge from First Nations

By GARY PARK
For Petroleum News

Another week, another round of tussling in British Columbia between crude pipeline proponents and their opponents.

Kinder Morgan, which is locked in a battle with the Metro Vancouver City of Burnaby over plans to triple capacity on the Trans Mountain system to 890,000 barrels per day, has taken its argument to the streets in an effort to win over residents.

The company distributed a letter in the neighborhood around its Westridge marine terminal accusing the city of refusing to give serious consideration to its alternative route option.

Kinder Morgan said approval of its preferred plan to tunnel through Burnaby Mountain would "avoid several private homeowners and minimize community disruptions."

An Enbridge spokesman said the company has no current plans to change the Northern Gateway route, noting that would require a new application to the National Energy Board.

But if it is unable to complete survey work soon "we may have to pursue our alternate route through city streets," the company said.

Although the City of Burnaby has the support of several municipalities in Metro Vancouver, notably the City of Vancouver, it narrowly failed on Sept. 23 to gain the backing of delegates to the Union of British Columbia Municipalities annual meeting.

A motion to oppose the Trans Mountain expansion was defeated by 50.7 percent to 49.3 percent, but the municipal leaders did endorse a Burnaby resolution to seek changes to the National Energy Board public hearing process.

Under new rules, the federal regulator has denied hearing interveners the right to directly question applicants. All comment must now be submitted in writing.

However, the City of Burnaby did notch one victory Sept. 25 when the NEB dismissed a Kinder Morgan request for the agency to bar Burnaby from blocking the survey work on the mountain.

The NEB said Kinder Morgan was essentially asking it to override city bylaws, which "raises a constitutional question."

Worse problems for Enbridge

Whatever problems confront Kinder Morgan they seem to pale alongside rival Enbridge's Northern Gateway project, which now faces a federal court challenge from 18 First Nations in northern British Columbia, along with a refusal by Mayor Jack Mussallem and the port authority at Prince Rupert to move the tanker terminal from Kitimat to their community.

The Federal Court of Appeal granted leave Sept. 26 to the Gitxaala Nation to apply for a judicial review of the federal cabinet's approval of Northern Gateway.

Rosanne Kyle, a lawyer representing the Gitxaala, said that given the 17 other lawsuits filed by First Nations and the number of parties involved, it is unlikely the court will be in a position to hear submissions for several months, adding it is possible the court will hear all of the cases together.

Whatever date is set, the process is another delay for Northern Gateway, which is years behind its original schedule, raising questions about the staying power of shippers who are contracted to export 525,000 barrels per day of oil sands crude to Asia.

Gitxaala acting Chief Clarence Innis said in a statement that the Canadian government failed to provide reasonable accommodation and consultation regarding the First Nation's aboriginal rights and title.

"We played by Canada's rules, but all of our concerns were ignored," he said.

The First Nation said the federal government relied on "an unlawful and unreasonable Joint Review Panel report" when it approved Northern Gateway, while attaching 209 conditions.

Kinder Morgan, which is locked in a battle with the Metro Vancouver City of Burnaby over plans to triple capacity on the Trans Mountain system to 890,000 barrels per day, has taken its argument to the streets in an effort to win over residents.

Kyle also said Northern Gateway would interfere with the Gitxaala's economic, cultural and spiritual way of life.

If the project were to proceed "huge tankers would travel through traditional Gitxaala harvesting territory which provides 80 percent of their food," she said.

Prentice urges rerouting

Meanwhile, newly elected Alberta Premier Jim Prentice urged Enbridge to reroute the pipeline to Prince Rupert, but Mussallem said his resource-dependent community will not play a role in shipping Alberta crude to Asia because of the risks posed to the local fishing community which employs hundreds of people.

"Overwhelmingly people in my community are much more comfortable with liquefied natural gas, with wood pellets and with coal than any oil product," he said.

Aside from that, a spokesman for the Prince Rupert Port Authority said there is no room for Enbridge to build a terminal at the port even if it wanted to, adding that the only two large vacant lots are earmarked for LNG projects.

However, Enbridge does have an alternative, having purchased a C$20 million land parcel near Prince Rupert in 2013, although the company said it had only earmarked the property for "future business opportunities."

Prentice, who was seeking agreement with First Nations before he re-entered politics, told the Globe and Mail that the Haisla First Nations opposition to a Kitimat terminal made it "pretty tough" for the project to go ahead.

An Enbridge spokesman said the company has no current plans to change the Northern Gateway route, noting that would require a new application to the National Energy Board. ●

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OWNER: Petroleum Newspapers of Alaska LLC (PNA)
Petroleum News (ISSN 1544-3612) • Vol. 19, No. 40 • Week of October 5, 2014
Published weekly. Address: 5441 Old Seward, #3, Anchorage, AK 99518
(Please mail ALL correspondence to:
P.O. Box 231647 Anchorage, AK 99523-1647)
Subscription prices in U.S. — $98.00 1 year, $176.00 2 years
Canada — $185.95 1 year, $334.95 2 years
Overseas (sent air mail) — $220.00 1 year, $396.00 2 years
"Periodicals postage paid at Anchorage, AK 99502-9986."
POSTMASTER: Send address changes to Petroleum News, P.O. Box 231647 Anchorage, AK 99523-1647.

GOVERNMENT

McGuire focuses on Alaska's Arctic role

Anchorage Republican wants to see public-private infrastructure development to allow state's economy to grow based on its location

By STEVE QUINN
For Petroleum News

Alaska Sen. Lesil McGuire says she is relieved the oil tax debate is of the past and is encouraged by progress being made toward building a natural gas pipeline and LNG export facility.

With those items off the lawmakers plate — at least for the upcoming session starting January — the Anchorage Republican believes the focus should be on the Arctic, be it policy, research, resource development or a broader economic development.

McGuire is co-chair of the state's Arctic Policy Commission, which has one more meeting in November before finalizing a report for the Legislature in January.

SEN. LESIL MCGUIRE

McGuire says the work shouldn't stop with the report. Rather, it's a chance for Alaska to establish itself as a leader before the United States becomes chair of the Arctic Council in April.

McGuire gave Petroleum News a look back and a look ahead on all of these topics.

Petroleum News: Let's start with a look at what's happened during the interim dovetailing off legislation, with oil tax issue off the table for the foreseeable future, so you think the Legislature can move forward unencumbered?

McGuire: Yes I do. I was one of the lawmakers fairly active in the dialogue encouraging Alaskans to allow SB 21 to move forward. I talked openly to Alaskans about the fact that ACES had seven years to move forward and had been unsuccessful in the goal of creating a competitive environment for Alaska to reassert its place as one of the leading regions to invest in oil and gas projects. I was thrilled to see that Alaskans — albeit narrowly — put their trust into the legislative and executive branch.

You will continue to see with every move by the companies there will be an interpretation by both sides. I hope there will be a settling here in the next couple of years that ultimately benefits Alaska. It's been my premise that the more profit any government takes from any business — whether it's an oil business or a tourism business or a business that grandma has in arts and crafts — the less opportunity that business has when competing against others. The less competitive it can be in the global market place.

So my hope is SB 21 will move forward and continue to bear fruit and take us into the next 50 years of success in Alaska's economy. Part of the message that I was trying to get forwarded is, it's not just important for the oil left to recover in the Arctic and the mainland area with heavy oil and shale, but it's also important in natural gas. The signals that you send to places like Japan who are looking to us for the next 20 or 30 years of their country's energy security is very important.

Right now our government is sitting down with them actively in LNG negotiations. In the wake of their natural disasters, they are trying to find some energy security. If that vote had gone the other way, it would have been difficult to explain to the leaders of their country about how we make decisions. That's an important thing as a leader in the energy sector.

Petroleum News: You have the competitiveness review board, which was a priority of yours. What value can it bring to the state as it monitors any success SB 21 has moving forward?

McGuire: My hope is that it will bring a lot of comfort, education and information to the dialogue moving forward and raise the level of trust between the oil industry and Alaskans. I brought it up with a lot of Alaskans I talked to as an important topic that was missing. This competiveness review board was modeled after the exact conversation that Alberta had with its people, its elected officials, its industry when they adopted a similar taxation policy as oil prices rose to $147 a barrel globally. Their elected officials also enacted a windfall profits tax very similar to Palin's ACES policy. It backfired with industry. What happened was industry pulled up stakes and moved to Saskatchewan. Alberta formed a competitiveness review committee right away to assess what they could do to their industry alongside reducing the taxation to more competitive levels.

So I think this will be something that will be enduring and a part of Alaska's policy making that's been missing. If we want to be the very best — right now we are No. 4 in the U.S. scheme — at oil and gas economics, and attracting those companies, you ought to know what it means to be the best. It's more than fiscal policy. We've tasked this group the first year with looking at regulation. We want to find out how long does it take to permit a well. We've heard complaints that it takes a lot longer than Texas, a lot longer than California, a lot longer than North Dakota. If that's true, then by how much and what are the hang ups? Is there an opportunity to create a better system that is still environmentally sound?

Then there are access issues. We've heard some independents, who were also for SB 21, have said that getting access into the Prudhoe Bay unit area has been a challenge. Let's find out about that. I think having the competitiveness review board report back to the Legislature is very important. My frustration has been that we have addressed oil and gas taxation issues through a political lens. That's unhealthy. So having a commission that's tasked to show us how does Alaska want to position itself to be the very best most competitive place with our best partner — our best partner — that has paved the way for new schools, PCE opportunities for rural Alaska, new roads, new fire stations. All of those things have been made possible by the partnership with the oil and gas industry. That's a fact.

Petroleum News: On to other legislative follow-up, what are your thoughts on the LNG export facility and pipeline developments since adjourning? Is this the progress you hoped for?

McGuire: I am excited. They are in pre-FEED (Front End Engineering and Design). In my 14 years, this is the furthest we've come. I said this during a couple of the final hearings and I think you've finally seen as good as a balance as you're going to get. If I were to have a blank sheet of paper and I were able to write out what I would like to see for a project what would it look like, number one I would like to see Alaska have an equity share. Ten years ago, I don't think that was a good idea politically. I remember discussing the idea and having constituents coming back at me and saying, "What do you think this is, Lesil? Russia?"

I think that we've come a long way in our thought process. Alaska having an equity share is very important because it helps with alignment. It helps Alaskan lawmakers understand what the risks are, how tariff making is done, what it means to invest in a project of this magnitude. The other part of it as well is that it brings return to Alaska. I think Alaska has to start thinking about projects in a different way.

Alaska has a tremendous amount of money socked away. Billions. By the time you have billions, you need to start thinking differently.

It's not about these smaller projects where you are getting X millions. You need to start thinking like a big investor. That's what we benefit our children and grandchildren. This makes us more of a more sophisticated actor.

The next part was having the big three coming together. Next was TransCanada. I was not a fan of AGIA. I felt it was forced. I thought it was artificially created. I didn't like that we're giving away half a billion dollars. It wasn't a natural partnership. But in this instance, I do like having TransCanada as a partner because I think the alignment is good for Alaska. They have the same interest as we do. They are not a producer. They are a shipper.

Looking at Alaska's interest of keeping the basin competitive, we want more people to explore for gas. We want to bring in the Armstrongs and the Repsols. We want them to explore and feel welcome to come in on that line. While it's a contract line and not a common carrier line, having TransCanada on the partnership is going to lean on it being a common carrier. So I think it's as good a partnership as it's going to get.

Petroleum News: So with those two heavy-hitting items off the books, at least for next session, could dis-

see MCGUIRE Q&A page 15

● PIPELINES & DOWNSTREAM

Polar Discovery headed to Korea

ConocoPhillips exports cargo of Alaska North Slope crude oil; Sen. Murkowski says this first export of ANS outside US since 2004

By KRISTEN NELSON
Petroleum News

ConocoPhillips Alaska has a tanker load of Alaska North Slope crude oil en route to South Korea.

Genscape Vesseltracker AIS reported Sept. 29 that its vessel monitoring data showed that a cargo of ANS crude oil loaded Sept. 26 at Valdez for delivery to the Yeosu refining center in South Korea.

ConocoPhillips Alaska confirmed that the company had "entered into a sales agreement to export a cargo" of ANS for delivery to Asia in the fourth quarter. The company said terms of the deal were confidential.

"ConocoPhillips has the capability to export a limited amount of its ANS crude oil production to non-U.S. customers as allowed by law. This will enable the state of Alaska and ConocoPhillips to potentially realize a higher value for this important natural resource," the company told Petroleum News in an email statement.

Genscape said ConocoPhillips told it the transaction was the result of higher bids from Asian customers than from West Coast customers for the trading period, allowing the company "a higher realized price for the crude oil after all incremental costs were taken into account."

Genscape reported that the U.S.-flagged tanker Polar Discovery sailed from Valdez for East Asia, and said the 775,000 barrel per day GS Caltex-operated refinery at Yeosu is the fourth largest in the world.

First cargo in a decade

"This is the first North Slope cargo to leave Alaska for overseas markets in a decade," U.S. Sen. Lisa Murkowski, R-Alaska, said in a statement. "I am encouraged to see Alaska increasing its participation in global oil markets. It's my hope that Lower 48 oil will soon follow suit," the senator said.

Murkowski has been advocating elimination of U.S. bans on oil exports.

The Sept. 29 statement from Murkowski's office provided background on crude oil exports from Alaska.

Federal law authorized Alaska exports in 1995 and there was a presidential national interest determination in 1996. The law and decision were preceded by a Department of Energy study, which found there would be "a significant number of benefits to the United States from allowing the export of ANS crude."

The background information provided in the senator's statement included Alaska crude oil exports by destination from 1996 through 2004, the most recent year in which crude oil was exported from the state, with 805,000 barrels going to China in that year. There were exports to China, Japan, South Korea and Taiwan every year from 1996 through 1999, and exports to Japan and South Korea in 2000, with volumes ranging from 553,000 barrels to Taiwan in 1999 to 13.46 million barrels to South Korea in 1999. ●

Contact Kristen Nelson at knelson@petroleumnews.com

● NATURAL GAS

Bluff or bargaining — BC not sure

With final decision only months away, Petronas CEO has second thoughts about LNG investment; Clark calls it negotiating tactics

By GARY PARK
For Petroleum News

Petronas, Malaysia's giant global energy player, spent C$5.8 billion acquiring Calgary-based Progress Energy to lock up the natural gas resources needed for its C$16 billion Pacific NorthWest LNG project and recently reported it had proven half the 15 trillion cubic feet goal it has set for making a final investment decision either this year or early in 2015.

It has been running 25 to 30 rigs in its British Columbia and Alberta holdings and is well advanced in planning the construction of a C$11 billion gas liquefaction and LNG export facility at Prince Rupert and C$5 billion for a planned pipeline to be built by TransCanada.

Petronas, while retaining a 62 percent stake in the venture, has assembled a stable of Asian-based buyers — China's Sinopec, Indian Oil Corp., Japan Petroleum Exploration and Petroleum Brunei — as partners.

Providing a satisfactory agreement can be reached with the British Columbia government on fiscal terms for Pacific NorthWest, initial exports are targeted for 2018, starting at 12 million metric tons a year and growing to 18 million metric tons a year.

Although Petronas has not disclosed how many millions of dollars it has spent so far on arranging debt financing, negotiating with communities and First Nations, working on front end engineering and design work and gaining an export permit from the National Energy Board, everything points to a strong commitment and nothing suggests the company has any intention of bailing out.

But Shamsul Abbas, the outspoken chief executive officer of Petronas, set off a frenzy in late September, starting with comments to the Financial Times of London that he was "ready to call off" the project because of delays in the regulatory process, the British Columbia government's proposed two-tier LNG tax — to collect an initial 1.2 percent of LNG profits, rising to 7 percent once capital costs had been recovered — and a "lack of appropriate incentives."

"Rather than ensuring the development of the LNG industry through appropriate incentives and assurance of legal and fiscal stability, the Canadian landscape of LNG development is now one of uncertainty, delay and short vision," Abbas said.

Pacific NorthWest is considered to be the closest of 17 LNG plans on the table in British Columbia to corporate sanctioning.

Withdrawal would be a calamity for the British Columbia government of Premier Christy Clark, who predicted during a provincial election campaign 15 months ago that LNG could be a major economic driver in coming decades, creating a fund of C$100 billion over 30 years.

She viewed Abbas' comments as more bluff and bluster than a threat to be taken seriously.

"We're negotiating and this is part of negotiations," she said at a meeting of delegates from China's Guangdong province.

"What Petronas is doing is ... trying to get the absolute

see **LNG INVESTMENT** *page 8*

Hydro dam or LNG, but not both

A power struggle between Canadian governments and First Nations over natural resource projects has moved up a notch, posing an added challenge to proponents of LNG schemes.

A delegation of aboriginal leaders from British Columbia delivered a message to the Canadian government on Sept. 24 telling the Canadian and B.C. governments that they will agree to either a hydroelectric dam or LNG development in the province's north, but not both.

The ultimatum gained clout in June when the Supreme Court of Canada ruled that infringements on aboriginal land or treaty rights can only take place if they meet a test aimed at reconciling those rights with the broader public interest.

The court verdict has already triggered lawsuits by First Nations challenging a number of proposed economic development projects.

Chief Roland Willson of the West Moberly First Nation said his community has title to land in the Peace River region of northeastern British Columbia under a century-old treaty, which has been bolstered by the Supreme Court.

see **POWER STRUGGLE** *page 8*

● FINANCE & ECONOMY

Statoil buckles under project costs

By GARY PARK
For Petroleum News

Just nine months after ending a joint venture in northern Alberta's oil sands, Statoil has delivered a follow-up blow.

The company, which is two-thirds owned by the Norwegian government, said Sept. 25 it was shelving plans for a 44,000 barrels-per-day expansion of its thermal-recovery Corner project, with about 70 people likely to lose their jobs.

In the process, it joined a list of oil sands projects that have been put on hold because of cost concerns, including the Joslyn project operated by France's Total, which resulted in the loss of 150 jobs.

The most glaring recent example of soaring costs was reflected in an 18 percent hike in the budget for Imperial Oil's Kearl project.

Stale Tungesvik, president of Statoil's Canadian subsidiary, offered two simple reasons: Rising costs for materials and labor and the shortage of pipelines to access markets, with the stalled Keystone XL and Northern Gateway pipelines at the top of that list.

He said the rising costs over recent years are "working against the economics of new projects" in the oil sands at a time when operators are under pressure to make their assets and operations "more profitable and more cost-efficient."

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"Market access issues also played a role (in postponing the multibillion dollar expansion) including limited access which weighs on prices for Alberta oil, squeezing margins and making it difficult to achieve sustainable returns," Tungesvik said.

He said the decision is in line with Statoil's strategy to assigned capital to the "most competitive projects in its comprehensive global portfolio and is consistent with our stepwise approach to the oil sands."

Acquired in 2007

Statoil bought the Kai Kos Dehseh oil sands operation — which includes its Leismer and Corner projects — when it acquired North American Oil Sands in 2007 for C$2.2 billion, then took on Thailand's state-owned PTTEP Exploration as a 40 percent partner in 2011.

Earlier this year, unhappy with the outlook for the sector, Statoil divided its leases, keeping 100 percent of Leismer, which is in production with a capacity of 20,000 bpd, and Corner, and turning control over three other leases to PTTEP.

Although Statoil did not release estimates, Michael Dunn, an analyst with FirstEnergy Capital, said Corner would probably have cost C$2 billion to complete, based on the industry yardstick of C$50,000 per barrel of production.

Dunn suggested Statoil faced the special challenge of developing Corner as a greenfield project, unlike Cenovus Energy and MEG Energy which move to adjoining leases to achieve growth.

However, Statoil is not retreating on all fronts in Canada, remaining committed to its joint venture with Husky Energy to develop a major oil field discovered offshore Newfoundland last year, with drilling due to start soon in the Bay du Nord area. ●

Contact Gary Park through publisher@petroleumnews.com

LAND & LEASING

Fall oil, gas lease sale set for Nov. 19

The Alaska Department of Natural Resources has set Nov. 19 as the date for its fall oil and gas lease sales.

DNR said bids for the annual North Slope, Beaufort Sea and North Slope Foothills areawide oil and gas lease sales will be opened at 9 a.m. at the Dena'ina Civic and Convention Center in Anchorage.

The state and the federal Bureau of Land Management have coordinated fall lease sales in recent years; the BLM date had not yet been published when Petroleum News went to print.

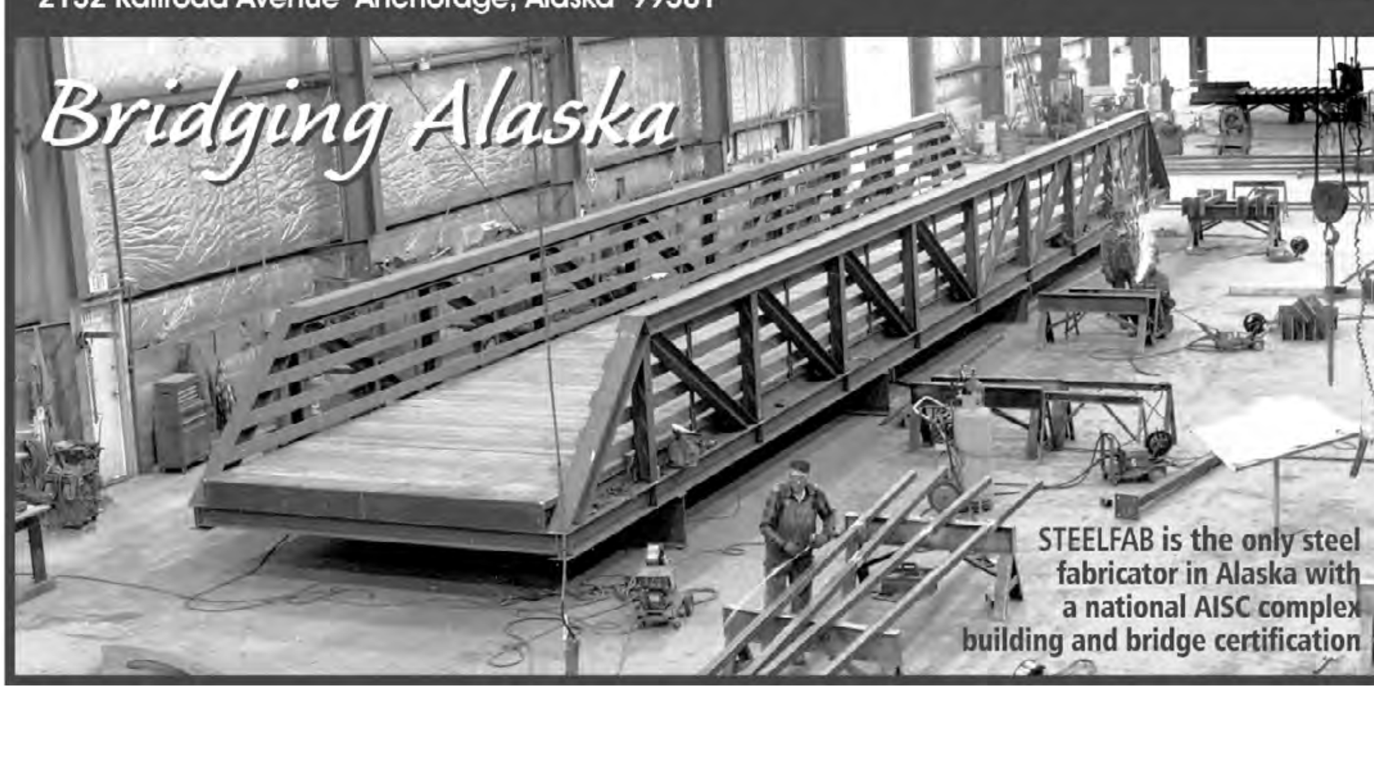
The entire lease sale area is some 14 million acres, DNR said, and bidding methods, minimum bids and lease terms remain the same as for sales held from 2011 to 2013.

"The North Slope and Beaufort Sea sale areas continue to include terms and conditions to incentivize exploration of tracts adjacent to federal lands, which include the National Petroleum Reserve-Alaska and the Arctic National Wildlife Refuge," DNR said.

Bill Barron, director of DNR's Division of Oil and Gas, said "results from the past three sales show that investors have continued interest in obtaining new state oil and gas leases for exploration in northern Alaska."

Bidders must be qualified by 4 p.m. Nov. 14 and bids must be received by 4 p.m. Nov. 17.

—PETROLEUM NEWS



FINANCE & ECONOMY

Bond handing over reins of Linc Energy

Linc Energy Ltd. CEO and Managing Director Peter Bond is stepping down.

The long-time head of the Australian independent will become executive chairman of the board while Craig Ricato will move into the leadership position, Linc announced Oct. 1.

Ricato joined the company in 2008, as general counsel and company secretary.

Bond acquired the small company in 2004 and oversaw effort to expand operations around the world and take the company public. Today, among its operations, Linc is developing the Umiat oil field on the North Slope and is evaluating the feasibility of underground coal gasification in the Interior region and across the Cook Inlet basin.

Ricato joined the company in 2008, as general counsel and company secretary. He moved into his prior position of executive director of legal and corporate affairs in October 2010.

"While a number of candidates were considered," Bond said in a statement, "a major determining factor for Craig's appointment was the board's desire to appoint someone who not only had the experience required for this role, but also someone who knows the business and its history very well and understands the immense opportunities that are available to us; particularly our significant prospective shale oil resource in the Arckaringa Basin (surrounding Coober Pedy) in South Australia and the enormous commercial potential of our proprietary Underground Coal Gasification technology, which is currently growing into some exciting commercial avenues."

—ERIC LIDJI

continued from page 6

LNG INVESTMENT

best deal they can for their shareholders ... and we're trying to get the best deal for British Columbians.

"I'm very hopeful the Petronas deal will go ahead. But, ultimately, the decision is in their hands," Clark said.

Natural Gas Development Minister Rich Coleman, the government's point man on LNG, said he does not believe Pacific NorthWest is at risk, given how much Petronas has already spent on the project.

"I know what's going on at the table," he said. "And I know there's good progress. (Abbas) knows there's a balance to be struck for competitiveness."

Coleman said he spoken with a Petronas executive after Abbas made his comments and determined that "negotiations are going fine."

Michael Moore, a professor of energy economics at the University of Calgary, said that even if Abbas is posturing he should still be taken seriously, noting that British Columbia is lagging behind other jurisdictions vying for a spot in LNG markets.

David Watt, HSBC's chief economist and an expert on Canada-Asia trade matters, said there is pressure on the British Columbia government to settle its LNG fiscal regime, given that the United States is close to converting its LNG import facilities into export outlets, gaining an infrastructure advantage in the process.

"For companies that want to start exporting LNG from B.C. they are going to have large capital needs over the next few years and so they will want to start as soon as possible," he said.

What makes many observers edgy is the announcement by Apache that it is pulling out of the Chevron-operated Kitimat LNG project, after being the first to receive an LNG export permit from the National Energy Board.

Clark has promised to finalize all government-imposed LNG conditions by Nov. 30, including taxes, the cost of meeting environmental standards and compensation for First Nations.

Faced with these uncertainties, Abbas fired his first warning shot in May when he urged the British Columbia government not to "slaughter the goose before it has a chance to hatch the golden egg. This is a once-in-a-lifetime opportunity for British Columbia. We must be careful not to squander it by banking on unrealistic expectations and misconceived perception." ●

continued from page 6

POWER STRUGGLE

At stake is British Columbia's planned-for C$8 billion Site C hydro dam that would flood 13,800 acres over a 50-mile stretch of valley and generate 1,100 megawatts of electricity, capable of serving 450,000 homes and the development of natural gas to support LNG operations.

If the British Columbia government wants to "push Site C we're not going to be in favor of any LNG projects, or any of the pipeline projects," Willson said.

He said the West Moberly people are not opposed to resource development, but multiple ventures would be too much.

British Columbia Energy Minister Bill Bennett said announcements are expected in October on environmental certificates for Site C from the Canadian government and the province's Environmental Assessment Office.

If Site C receives a go-ahead, a final decision from the province could come in November, he said.

Bennett has previously said his government wants as many First Nations as possible involved with Site C through business contracts and employment.

The government-owned British Columbia Hydro said the dam is needed to help meet the province's clean energy targets.

Tensions between aboriginal people and the Canadian government increased in late September when Prime Minister Stephen Harper told reporters at the United Nations on Sept. 24 that aboriginal people do not have a "veto" over resource development in Canada.

The same day, the United Nations General Assembly essentially reiterated a 2007 declaration, starting that governments must obtain "free, prior and informed consent" before adopting administrative or legislative actions that might affect indigenous peoples.

The Canadian government, in a separate caveat, said the UN declaration should not be seen as giving veto power to First Nations, an interpretation which the aboriginal leaders said was "inflammatory" and misinterpreted the UN document as well as disregarding the Supreme Court of Canada decision.

—GARY PARK

● NATURAL GAS

Guide to Alaska natural gas projects

By BILL WHITE

Researcher/Writer, Office of the Federal Coordinator

(Editor's note: This is part 2 of a summary of Alaska natural gas projects by the Office of the Federal Coordinator. Part 1, published in the Sept. 14 issue of Petroleum News, includes the Alaska LNG Project, a partnership of BP, ConocoPhillips, ExxonMobil, TransCanada and the Alaska Gasline Development Corp.; a smaller-scale LNG project in Southcentral proposed by Resources Energy Inc., a Japanese company; and a pipeline to Alberta, a project active until 2012.)

BILL WHITE

Pipeline to Southcentral

A 737-mile, 36-inch buried pipeline from the Prudhoe Bay field on Alaska's North Slope to the Big Lake area north of Anchorage. From there, the gas could flow to consumers, utilities and other industry via the local distribution pipelines of ENSTAR Natural Gas Co. The pipeline also would supply the Fairbanks area.

The line would parallel the trans-Alaska oil pipeline from Prudhoe Bay to just north of Fairbanks, then continue south to Big Lake, roughly parallel to the Parks Highway.

The pipeline would move up to 500 million cubic feet of gas per day. The project also is known as the "bullet line," the in-state line and the Alaska Stand Alone Pipeline, or ASAP.

Sponsor

Alaska Gasline Development Corp., a state agency the Legislature created in 2010. The state-led effort is a backup if the larger producer-led LNG-export project stalls.

Estimated cost

$5.4 billion to $10 billion (2012 dollars). Sponsor is using midpoint of $7.7 billion as a working number.

1 2 SERIES

The cost includes a gas treatment plant at the Prudhoe Bay field to remove propane, butane and other gas liquids as well as water, carbon dioxide and other impurities from the gas, then compress the gas before it enters the pipeline. The cost also includes a separate 35-mile spur line between the main pipeline and Fairbanks.

Project cost does not include a local gas distribution network needed for Fairbanks. The local gas pipeline network already exists in much of Southcentral.

Gas for Alaskans

Gas for Alaskans was the main idea when the state Legislature funded a feasibility study in 2010.

Status

The feasibility study issued in July 2011 provided a preliminary plan. In 2013, the Alaska Legislature appropriated about $355 million to continue design, permitting and commercial work. That's in addition to $72 million in funding for 2010-2012. The Legislature in 2013 also granted the state gas pipeline corporation unlimited authority to issue bonds to pay for construction, with the restriction that the state is not legally or morally responsible for the debt. Bond buyers would be repaid from revenue collected from the pipeline's customers, including utilities and large commercial customers.

Possible timeline

2013-2015 — Project sponsor sharpens engineering and cost estimate, obtains permits.

2016 — Customers solicited to ship gas on the pipeline, called an "open season." Customer response will help determine the project's economic viability.

2016 or later — Final decision on whether to build project.

Construction would take an estimated three years, with gas then initially flowing to Fairbanks, followed by gas flows to Southcentral Alaska a year later.

Pluses

•Short-term economic boost to Alaska during construction of multibillion-dollar project.

•Assuming the pipeline operates at full capacity and preliminary construction-cost estimates hold true, Alaska's Railbelt consumers could be assured of an affordable gas supply for decades. In Southcentral Alaska, the gas could supplement Cook Inlet supplies used for heating and power generation. Delivering natural gas to Fairbanks could greatly lower that community's high cost of energy.

•The project might feed the Kenai Peninsula LNG plant. That plant exported gas from 1969 through 2012. It then shut down due to a lack of Cook Inlet gas supply. When more Cook Inlet supply became available, the plant restarted in 2014 under a federal authorization to resume limited exports to 2016.

Problems

•Requires the state gas line corporation to issue billions of dollars in revenue bonds for construction, and could need direct state funding if the pipeline lacks enough customers to carry the full cost. The state Legislature would need to approve direct financial aid.

•The construction cost estimate is soft until more engineering work is done. A much higher cost than the midpoint $7.7 billion estimate would alter the project economics.

•Requires major gas shippers to make long-term commitments to use the pipeline.

•The project would produce far less state revenue than a larger pipeline for an LNG export project due to the small volume of gas moved.

•Requires the state to bear all of the preconstruction cost because no private developer will do so.

•The cost of gas to Alaskans would be higher than gas from the larger LNG export project.

•The project would not spark as much Arctic oil and gas exploration as the bigger pipeline.

*The project relies on assumptions about customer demand that must come true to meet the pipeline rates and consumer prices predicted for the project. These include:

1. A major mine, such as the Donlin gold prospect in Western Alaska, will start up by 2019 and contract for a significant volume of gas down the line.

2. A utility or utilities will build a local gas distribution pipeline network in Fairbanks by the time the pipeline from Prudhoe Bay is ready.

3. Cook Inlet gas production will fall to such a point that power plants and the local gas utility in Southcentral Alaska will consume a lot of North Slope gas.

4. A revived liquefied natural gas export plant on the Kenai Peninsula or other large-volume industrial customer(s) will contract for much of the pipeline's capacity.

Cook Inlet gas

Out of concern that aging Cook Inlet fields might not produce enough gas for local needs after doing so for nearly 50 years, two Anchorage electric utilities and a gas utility in 2011 jointly began considering the idea of importing liquefied natural gas or compressed natural gas to Southcentral Alaska. Other utilities soon joined the effort. In particular, the utilities were concerned they didn't have enough gas supply under contract for coming years.

Since then, their sense of urgency has eased as Cook Inlet producers are stepping forward to offer increased gas production to cover the next several years.

Also, in June 2011 the U.S. Geological Survey said the Cook Inlet region still holds an estimated 19 trillion cubic feet of natural gas that could be produced using current technology.

That's about double the total Cook Inlet gas production over the past 50 years. But how much of the gas could be produced profitably with current technology likely is a much smaller number, possibly as little as 10 percent.

Separately in June 2011, the Alaska Division of Oil and Gas estimated that Cook Inlet alone could continue to profitably supply all of the region's natural gas needs until 2018–2020, at which time supplemental supplies would be needed. The study said the gas industry must continue investing in the Inlet for this prediction to hold.

The state Legislature in recent years has approved incentives to boost Cook Inlet gas exploration and production.

New players, led by Hilcorp, which acquired Chevron and Marathon's holdings in Cook Inlet, have boosted oil and gas production.

In 2010, state lawmakers passed tax credits and other incentives to encourage development of an underground gas storage facility on the Kenai Peninsula. The goal was to help utilities meet peak winter demand by storing surplus spring-and-summer production. Such a storage site opened in 2012.

Gas to Fairbanks by truck

Ideas have been floated for getting North Slope natural gas to the Fairbanks area, where energy costs are much higher than in Southcentral Alaska and only a little natural gas is available, via truck deliveries from a privately owned LNG plant north of Anchorage.

In 2013, the Alaska Legislature approved a $333 million cash-and-loan package requested by Gov. Sean Parnell for a small-volume North Slope LNG plant as well as storage and distribution infrastruc-

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PROJECT GUIDE

ture in the state's Interior. A year earlier, state lawmakers approved $30 million in tax credits for the LNG storage tanks the Fairbanks area would need to receive trucked deliveries. Escalating heating-oil bills in the Fairbanks area prompted the state to act.

With private money added, the Interior Energy Project, as the state named it, could total $430 million or more. This total would include building gas distribution pipelines in a limited area of the Fairbanks region; the state estimates expanding the grid could cost an additional $200 million.

At the center of the funding is the Alaska Industrial Development and Export Authority, a state agency that supports economic development. With the state's financial assistance for the project, AIDEA believes LNG will be more affordable than oil-based fuels.

AIDEA would use the $57.5 million cash appropriation from 2013 for an equity stake in the LNG plant and perhaps other aspects of the project. AIDEA also is authorized to lend $125 million at a low interest rate and issue on the open market $150 million in other low-interest debt to raise money for the project.

The plan is for a private operator or operators to:

•Build the gas liquefaction plant on the North Slope.

•Own and operate a fleet of LNG delivery trucks running between the plant and Fairbanks. The trucks were not included in the state's cost estimate for the project.

•Build and operate aboveground LNG storage tanks.

•Build and operate "regasification" equipment to warm the gas back into a vapor and feed it into a distribution grid for delivery to residences and businesses around Fairbanks.

The LNG plant would be designed to process up to 9 billion cubic feet of gas a year — averaging 25 million cubic feet a day — slightly more than the forecasted Fairbanks-area demand 10 years after start-up (capacity would be greater than demand to accommodate seasonal swings in demand, AIDEA says).

In January 2014, the AIDEA board chose global infrastructure firm MWH Americas Inc. to develop and run the LNG plant at Prudhoe Bay. MWH proposed to invest $82.5 million in equity and debt. MWH needs to lock in a gas supply from North Slope producers as well as buyers for the gas before building the plant.

The LNG would be used as a fuel to heat buildings, including homes, and generate electricity.

The project sponsors foresee three main customers:

Fairbanks Natural Gas, a small, privately owned local utility that already has a limited pipeline network in the city of Fairbanks. The company now distributes LNG trucked from Southcentral Alaska.

Interior Gas Utility, a new utility that the cities of Fairbanks and North Pole set up in 2012 and that the Fairbanks North Star Borough eventually took over. In December 2013, the Regulatory Commission of Alaska chose this utility over Fairbanks Natural Gas to provide gas to North Pole and other somewhat densely populated areas outside the city of Fairbanks. Interior Gas plans to install a local gas-pipeline distribution system to be ready when LNG deliveries begin. The North Pole population totals only a little more than 2,000 people, but a sizable power plant is there.

Golden Valley Electric Association, the regional power company with a generating plant in North Pole that currently burns diesel and naphtha. The naphtha turbine could be converted to burn natural gas instead.

In 2014, the outlook for Fairbanks demand became fuzzier. Flint Hills stopped processing crude oil at its North Pole refinery. Flint Hills could have been an important industrial customer of the trucked-LNG project, substituting less expensive natural gas for oil to fuel operations. Flint Hills also has been an important commercial customer of Golden Valley, including as naphtha supplier to the power utility's North Pole plant.

AIDEA says that if the proposal's many parts come together easily and quickly, the first LNG could move to Fairbanks in 2016. But AIDEA acknowledges that schedule is "aggressive." And the agency says it is exploring alternatives, such as burning Cook Inlet gas in the Fairbanks area. ●

Federal Coordinator Larry Persily contributed to this article.

Editor's note: This is a reprint from the Office of the Federal Coordinator, Alaska Natural Gas Transportation Projects, online at www.arcticgas.gov/guide-alaska-natural-gas-projects.

Part 1 of this story appeared in the Sept. 14 issue of Petroleum News.

PIPELINES & DOWNSTREAM

CIPL to replace west side pipe section

Cook Inlet Pipe Line Co. has applied to the U.S. Army Corps of Engineers for work required to replace a 6,000-foot section of the crude oil pipeline which runs along the west side of Cook Inlet.

CIPL, owned by Hilcorp subsidiary Harvest Alaska, needs Corps authority for a temporary gravel pad to support a rig for horizontal directional drilling and associated equipment. Construction of the 1.2-acre temporary gravel pad is scheduled to begin in December, with reclamation of the pad in March 2015. Gravel and geotextile material would be removed upon completion of the project.

A new 20-inch pipeline would be installed via horizontal directional drilling parallel to the existing pipeline and in the existing pipeline right of way, with the existing pipeline to be abandoned in place.

The 20-inch onshore pipeline runs between the Granite Point tank facility and the CIPL Drift River terminal facility — both on the west side of Cook Inlet.

Portions of the work not requiring Corps authorization include a 6,000-foot pipe laydown area, extraction of pit run gravel from an existing material site owned by Hilcorp Alaska and a 3.5-acre equipment staging area in uplands on Hilcorp-owned land. Work areas would be accessed via an existing public access road and existing gravel spur road. The Corps authorized the 42-mile pipeline in 1966.

The integrity of the line was assessed in 2012 using smart pig technology and the pigging survey identified pipe wall anomalies at a number of locations, a number of which were repaired in 2013 and 2014.

The Corps said CIPL chose to replace the 6,000-foot section after previous attempts to repair this section using excavation repair and reburial were unsuccessful due to difficulty of getting necessary equipment to the area, which is in wetlands.

—KRISTEN NELSON

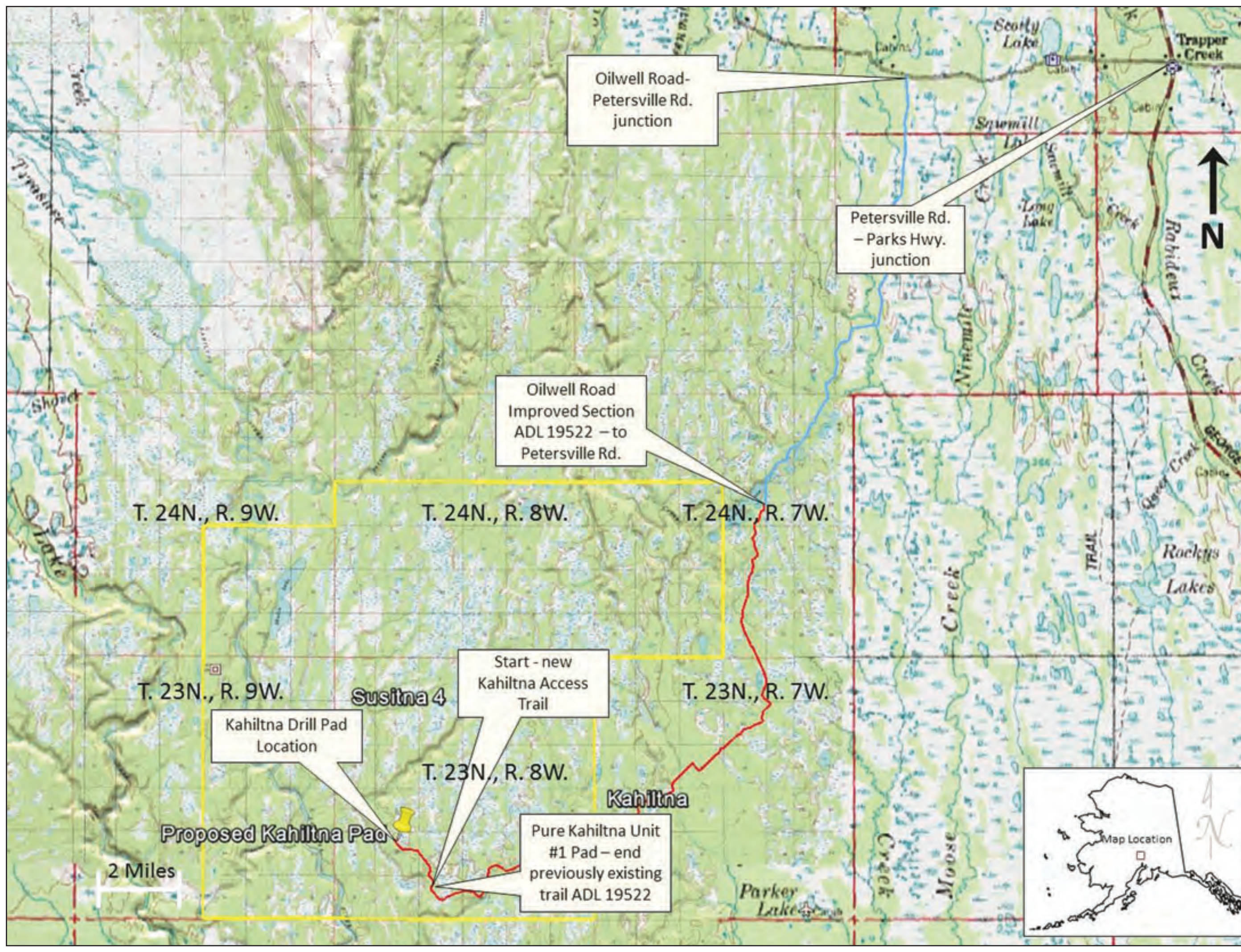
● EXPLORATION & PRODUCTION

Cook Inlet Energy to drill gas prospect

Kahiltna No. 2 exploratory well planned on licensed state acreage in Susitna basin; drilling to proceed sometime in next two winters

By WESLEY LOY

For Petroleum News



COOK INLET ENERGY

Cook Inlet Energy LLC is planning to drill an exploratory well on its Kahiltna natural gas prospect in the Susitna basin.

The Anchorage-based company lays out the project in a plan of operations filed recently with the Alaska Division of Oil and Gas.

Cook Inlet Energy holds exploration licenses on extensive state acreage within the Susitna basin, located north of Anchorage.

The Kahiltna No. 2 exploratory well is planned within Susitna license area No. 4, which encompasses 62,909 acres. The 10-year license, which took effect in April 2011, carries a $2.25 million work commitment from Cook Inlet Energy.

Road upgrades required

The drilling project will involve quite a bit of preliminary groundwork, including road improvements and construction of a drill pad, the plan of operations shows.

Cruz Construction Inc. will act as Cook Inlet Energy's contractor, the plan says.

The drill site will be southwest of Trapper Creek, a community along the George Parks Highway.

To access the site, Cook Inlet Energy plans to upgrade Oilwell Road, a 29-mile former logging road terminating at the Pure Kahiltna Unit No. 1 pad. Pure Kahiltna was an exploration well drilled in 1964.

Cook Inlet Energy's proposed Kahiltna No. 2 drill site is west of Pure Kahiltna. To reach it, Cruz will clear a 1.6-mile trail intended for winter use only, the plan of operations says. Cruz will then construct a drill pad covering 3.6 acres.

'Straight-hole design'

Cook Inlet Energy is aiming to drill the gas well during the upcoming winter, or in the winter of 2015-16.

"The pad will be located over a structure CIE has identified and named the Kahiltna prospect," the plan of operations says. "This structure was identified by CIE from previously acquired seismic data."

The well is planned as a "straight-hole design" about 6,000 feet deep.

Cook Inlet Energy plans to use its rig 37, formerly known as the Glacier rig.

In the event of a commercial gas discovery, the company says it might apply to convert the winter trail to a year-round road. It adds that no pipelines are planned at this point.

Susitna is a huge "frontier basin" that the state would like to see more thoroughly explored.

Cook Inlet Energy has spoken of a number of gas prospects in the basin, including the Kroto Creek prospect.

Miller's new adviser

Cook Inlet Energy is a subsidiary of Tennessee-based Miller Energy Resources Inc., a publicly traded company listed on the New York Stock Exchange.

In a Sept. 26 filing with the U.S. Securities and Exchange Commission, Miller said it had entered into a consulting agreement with Nix Venture Partners LLC to "provide general strategic and business advice to us regarding capital structure, future development of our assets and related matters, as well as advice in connection with our contemplated acquisition of certain operating assets of Buccaneer Energy that we are currently considering, as previously announced."

The filing indicates Miller will pay Nix with company stock.

Nix is a private equity and venture capital firm based in West Palm Beach, Florida, its website says.

Miller on Sept. 15 announced it had a nonbinding letter of intent to buy "substantially all" of the Alaska operating assets of Buccaneer Energy for $40 million to $50 million. Buccaneer, which has been active in the Cook Inlet region, is going through bankruptcy proceedings. ●

Contact Wesley Loy at wloy@petroleumnews.com

FINANCE & ECONOMY

Buccaneer seeks more time for plan

Buccaneer Energy Ltd. wants more time to work on its reorganization plan.

The Australian independent recently asked the U.S. Bankruptcy Court for the Southern District of Texas for a 30-day extension to its exclusivity period for filing the plan.

The extension would give Buccaneer until Oct. 28 to file the plan with the court and until Dec. 27 to solicit the plan to its creditors for a vote. Without an extension, Buccaneer would still be able to propose a plan but would have to compete with other proposals.

The bankruptcy code gives a debtor an exclusive period of time to propose a reorganization plan to its creditors and solicit the plan for a vote — usually 120 days for the former and 180 days for the latter from the time of the initial petition for bankruptcy.

The deadline for Buccaneer to file the plan was Sept. 28.

Buccaneer and its largest unsecured creditors reached a settlement in late August that resolved some outstanding issues around the plan. The court approved the settlement.

"While significant progress has been made towards a consensual chapter 11 plan, the debtors submit that a brief extension of the exclusivity period is necessary in order for them to broker a path to maximize value for all of their stakeholders without the disruption that is likely to be caused by the filing of competing plans by non-debtor parties," William R. Greendyke, a Buccaneer attorney, told the court in a Sept. 26 filing.

—ERIC LIDJI

GOVERNMENT

McCarthy outlines GHG policy rationale

During an event on Sept. 25 at Resources for the Future, an environmental and natural resources research organization, Gina McCarthy, administrator of the Environmental Protection Agency, spelled out the Obama administration's rationale behind its greenhouse gas policies, including the recent proposed rule to limit carbon dioxide emissions from U.S. power stations.

Likening the war against carbon dioxide emissions to an international effort 40 years ago to ban the use of chemicals that were damaging the Earth's protective ozone layer, McCarthy said that the United States needs to be a leader in facing the threats that climate change poses.

And far from undermining the nation's prosperity, the battle against climate change can lead to both a healthy environment and a healthy economy, McCarthy said. In fact, the most expensive thing that people can do is do nothing, she said.

"We no longer project tomorrow's impacts, we tally up today's damages," McCarthy said. "This decade was the hottest on record. The streets of Miami flood on sunny days. Ocean acidification threatens Washington State's oyster industry. Across the country, people grapple with floods, fires and severe weather. Today, California is facing historic drought, with projected job losses of more than 17,000."

The warming climate creates hugely expensive natural disasters. And as seas rise, so do insurance premiums, medical bills and food prices, McCarthy said.

But rather than just taking defensive measures against climate change, it is possible to view climate action as an opportunity, taking actions such as modernizing the power industry and building a low-carbon economy. Fuel efficiency standards for cars and trucks are cutting pollution and reducing family motoring costs while also creating a resurgence in the auto industry. And emerging technologies such as wind and solar power are creating thousands of jobs, McCarthy said.

Although climate change is a global problem needing a global solution, the United States can set the pace for progress, McCarthy said.

"When the United States leads, other nations follow," she said.

—ALAN BAILEY

UTILITIES

Enstar names Jared Green new president


JARED GREEN


COLLEEN STARRING

Enstar Natural Gas has named Jared Green as president. Green succeeds Colleen Starring, who is moving into a new position at Enstar's parent company, AltaGas Ltd., as senior vice president of Canadian utilities and chief executive officer of Pacific Northern Gas.

Green has been vice president and corporate controller at AltaGas Ltd. and has more than 15 years of industry experience, Enstar said in an Oct. 1 press release.

"I'm very pleased to be handing over the reins to Jared, his experience with AltaGas' utilities and understanding of working in a northern environment make him the right candidate for this role," Starring said in a statement. "Jared inherits a strong leadership team with in-depth experience within the industry and across the state," she said.

Green said he looks forward to working with the Enstar team "and becoming part of the Alaska community" and said the Alaska team "will continue to provide our customers with safe and reliable service."

—PETROLEUM NEWS

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SHELL CRITIQUE

junction with a record of the Sept. 10 meeting makes it clear that Shell feels that the proposed regulations are too prescriptive, rather than setting performance-based safety targets that give some discretion to operators over how to meet safety requirements.

Three features

Shell's critique focuses on three features of the draft regulations that the company says will increase exploration costs without necessarily bringing improved safety. Those features are the need to have a back-up drilling rig available for the drilling of a relief well, if necessary, before the end of a drilling season; a drilling blackout period at the end of a season, to allow time for the relief well drilling, should need arise; and a requirement for a drilling operator to have available the necessary resources for the mechanical recovery of all spilled oil from a worst case oil-spill scenario.

A relief well is a secondary well drilled following a well blowout, to enable cement to be injected into the problem well bore, to permanently seal the well. Shell argues that since detailed records of well incidents began in 1971 there has been no instance of a relief well bringing a well blowout under control. And new well capping technology coupled with improved well integrity management can effectively reduce the probability of a loss of well control, the presentation says.

The late-season drilling blackout represents a major cost to an oil explorer while over emphasizing the value of drilling relief wells, the presentation says. Regulations should recognize alternatives to relief well drilling, with end-of-season dates reflecting an assessment of an operator's ability to manage drilling risks, the presentation says.

The requirement for the capability to be able to conduct a mechanical recovery of all spilled oil ignores the relative effectiveness of alternative techniques such as the use of in-situ burning or oil dispersants. Moreover, this requirement would increase both the cost and the environmental impacts of a drilling operation by, for example, necessitating the deployment of more vessels, the presentation says.

Drilling regulations need to consider the unique features of Arctic operations, while also taking into account the net economic benefits to the United States of offshore Arctic oil development. And the high regulatory costs associated with the region are difficult to justify when comparing Arctic projects with opportunities elsewhere in the world, the presentation says.

—ALAN BAILEY

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ENCANA'S LIST

tional resource plays, having already secured positions in the Eagle Ford and Western Canada's Montney and Duvernay formations.

The Athlon assets include 140,000 net acres (with a 90 percent working interest), 5,000 potential gross horizontal well locations, or 10 years of inventory, and a net resource potential of 3 billion barrels of oil equivalent.

Current production from the properties is 30,000 barrels of oil equivalent per day (60 percent oil, 20 percent natural gas liquids and 20 percent natural gas), which Suttles said Encana plans to increase to an average 50,000 boe per day in 2015 through capital spending of US$1 billion.

It also hopes to generate a netback of US$50 per boe, based on West Texas Intermediate prices of US$90 per barrel and Nymex gas prices of US$4 per thousand cubic feet.

The company is forecasting the Permian holdings will contribute an average 200,000-250,000 boe per day by 2019, with liquids accounting for 50 percent of corporate production in 2017, of which oil will be 75 percent.

Towards that end, Encana said it aims to replace low-margin natural gas production with high-margin liquids as its total production grows by about 3 percent a year in the 2013-17 period.

Grandfather a pioneer

Suttles, the third generation oilman in his family, indicated sentiment may have played a role in the decision to bid for Athlon, noting that his grandfather was a pioneer in the Permian in the 1930s.

Asked if any consideration had been given to the Bakken, he said that as Encana "looked across North America as part of our strategy," deploying a new team whose mission is to "own tomorrow's portfolio."

He said that over the past year that unit studied a number of "what we consider to be the best unconventional basins in North America — the Eagle Ford and Permian being two of those. We also looked carefully at the Bakken."

Some analysts noted during conference calls that Encana estimated the new assets were triple those listed by Athlon, to which Suttles said Athlon had placed most of its emphasis on drilling vertical wells, while Encana plans to advance the use of horizontal wells and multiwell pad development.

The company said it has a "tremendous opportunity to enhance and accelerate value by applying our technical expertise."

'Resource-play hub model'

Without saying why the Bakken missed out in the selection process, Suttles said Encana puts its emphasis on creating value by using its "resource-play hub model" which includes pad drilling and integration of facilities, "things we've done numerous times, very effectively."

The company's war chest for the Athlon move has been deftly accumulated since Suttles moved into the top job in mid-2013, starting with the spinoff of freehold royalties in southern Alberta, launching PrairieSky Royalty for proceeds of US$4.3 billion, then only three months later jettisoning the remaining stake for US$2.6 billion.

It was a key move in Suttles' dramatic strategy to lay out a new course for Encana, which had been sucked into a natural gas price whirlpool, punished for its ill-timed decision to spin off liquids production to create Cenovus Energy and steered astray by what he described as a scatter-shot approach to capital spending in numerous operating regions.

With its pockets bulging, Encana was being closely watched for a power play, which observers narrowed down to about four options — share buybacks, increasing its stake in the Duvernay and, despite high prices and scarce opportunities, a move on either the Bakken or the Permian.

The Permian is a "transformative acquisition (that) further accelerates our strategy and provides us with a prime position in what is widely acknowledged as one of North America's top oil plays," Suttles said, suggesting the corporate turnaround is two years ahead of schedule.

"Our portfolio now aligns with our vision of being a leading North American resource play company," he said.

The surprise for outsiders was that Athlon had given no indication it was for sale at a time when it was growing, had a strong cash position and was raising guidance. But the acquisition offer was at a 25 percent premium over Athlon's trading price on the previous trading day.

David Meats, an analyst with Morningstar, said the deal is "pretty exciting ... it's a very high quality asset and a perfect strategic fit. The price seems pretty reasonable, perhaps a little bit on the high side, but with huge potential."

—GARY PARK

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GOVERNMENT

Arctic Policy Commission seeks comments

The Alaska Arctic Policy Commission is seeking public comments on a revised version of the Implementation Plan for Arctic policy, available online at www.akarctic.com, with revisions reflecting public testimony at recent Nome and Kotzebue meetings, the commission said Sept. 25.

Recommendations fall into four areas: promoting economic development of Alaska's Arctic resources; addressing the response infrastructure gap in Alaska's Arctic; supporting healthy communities; and strengthening an Alaska Arctic science and research agenda.

The commission said more work is needed on recommendations for economic development, noting that its discussion has generated several potential topics for new recommendations: small business development; access to capital; onshore and offshore development; and fostering entrepreneurship.

Listening session schedule

Comments can be made at the commission's listening sessions or in writing, with a number of listening sessions scheduled for October:

•Nome Oct. 6 from 11 a.m. to 1:30 p.m. at the Nome City Council Chambers.

•Kotzebue Oct. 8 from 11:30 a.m. to 1 p.m. at the Northwest Arctic Borough Chambers.

•Barrow Oct. 10 from 11:30 a.m. to 1 p.m. at the North Slope Borough Chambers.

•Anchorage, Oct. 10 from 5:30-6:30 p.m. in the Dillingham/Katmai Room in the Hilton Hotel.

Phase II of public comment is open Sept. 15 to Nov. 15. Comments may be made at listening sessions or submitted in writing. The commission said suggestions for new recommendations should be submitted as a completely filled out strategic action plan worksheet to Nikoosh Carlo, AAPC executive director, at nikoosh.carlo@akleg.gov or to the general AAPC email address at aapcgovernance@gmail.com.

—PETROLEUM NEWS

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MCGUIRE Q&A

cussions on Arctic research, policy and development take a lead?

McGuire: I think it's going to have an even bigger role than it's ever had. In the spring the United States is assuming the chair of the Arctic Council and the president has finally appointed a team of ambassadors to the Arctic in Admiral (Robert) Papp and Fran Ulmer. You are finally starting to see — finally — the government saying, yes we are an Arctic nation and we are because of Alaska.

It's also reminds me of how our country has done things. We are behind the power curve sometimes. We are innovators, but we are also not big planners. We are not Sweden and we are not Asia planning 20 or 30 years ahead.

It's one of the biggest reasons why our commission will matter. It's starting to matter to the rest of the United States. What you've seen, like any commission on a new subject, Bob (Herron) and I have sort of shaken down the main issues. It took 26 of us from all of the different spectrums on the subject matter to get into that room, try out the hardest arguments on the far end, then synthesize down the main points into about 20 percent of where you think Alaskans are going to care and where we can accomplish things.

Now what remains in what the Legislature can do in partnering with the feds and the coast guard, to develop the infrastructure, to attract private sector interest, to actually accomplish something? The question remains whether or not we are going to push forward with a private-public sector commission or a legislative commission. I'm pushing to keep it the way it is. I prefer to have private-public dialogue. I think it works. It raises the level of conversation and the level of relevance.

That's not to say the committees we have in the Legislature don't take in private sector testimony. Obviously they do. But when you're talking about shipping routes, fishing, maritime assets, drilling, I'm in favor of keeping it the way it is and moving forward with the group that we have. I don't think there is enough subject matter in the Legislature with just the committee of just lawmakers looking at the topic.

I think it's absolutely the hot topic versus five or six years ago when I was president of PNWER (Pacific Northwest Economic Region), talking about it and people would say, that's interesting Lesil, let's talk about something else. They would pat me on the back and say that's cute, I'm glad you're studying the Arctic.

Petroleum News: So what can the Legislature do — and the executive branch — to advance the state's status on Arctic policy, research and development?

McGuire: We've got to put a policy in place. That's one of the things you've got to do to establish a level credibility. We've got to start moving forward with an infrastructure funding package and what do we want to see happen. It's going to mean partnering on some kind of deepwater port. We are going to have to create some level of funding to be able to draw in private sector partners that want to help create assets in the Arctic. We don't have any. Russia has 36 polar class icebreakers. They have ports all along the northern sea ridge. They are attracting tourists. They are attracting shippers.

They are building an Arctic economy for their future. We are not. That is something the Legislature is going to have to engage in a meaningful dialogue the way we have about commercialization of North Slope gas. It's been quite deliberate. This Legislature needs to sit down and decide that we are an Arctic state, we are what makes this country an Arctic nation and we want an Arctic economy. We will benefit from an Arctic economy. That's going to take a proactive, meaningful engagement in that process: the creation of assets, the creation of a deepwater port, the partnership with AIDEA in attracting some $100 billion worth of private capital. It's currently going into the Russian Arctic, the Icelandic Arctic, the Swedish Arctic, the Finlandia Arctic. It's going into the Arctic, just not our Arctic.

Petroleum News: So your priorities are infrastructure?

McGuire: Yes: Infrastructure. All the companies want to come, but they are nervous about setting up shop because there are no infrastructure assets currently. Think about that. That is the number one thing a company looks at. In that regard, we are like a third-world nation. We are compared to other places in the world that are third-world.

It's not because we are unsophisticated as a people. It's simply because we do not have assets. If you are going to pull your giant boat into a harbor, you are not going to be able to do it until you reach Dutch Harbor. And oh by the way when you get there, you may not have a spot because that boat harbor is already full.

I've been to places like Iceland and I've heard people from the Guggenheim who say there is no brighter economic prospect on the earth than the Arctic. This is it. The Arctic is the economic future so if Alaska wants to be part of that, we have to catch up and we have to partner.

Petroleum News: So getting back to the Arctic Policy Commission, what work remains as you head into session?

McGuire: We need to put a policy in place. We need to put money into an infrastructure partnering fund. I can tell you what I'd like us to accomplish, but there will be a lot more to come. At the very least, I want Alaska and the Legislature to start thinking Arctic. It's a new way of thinking about Alaska's future. It's the most exciting thing, as exciting as the prospect of marketing North Slope gas, maybe more exciting because it's more comprehensive. It's a new way of thinking about Alaska's future. Our children and grandchildren, there won't be anything about their lives that won't be Arctic related. Think of all the shipping possibilities and the tourism possibilities. If you want access to a new good, you've got a wonderful opportunity. That's been a challenge for Alaska — our location on the map. Then suddenly, there we are.

Petroleum News: What's it going to take to get past all of these lawsuits to have safe development on the Arctic?

McGuire: Leadership. We need leadership. We have people at the federal level, including Lisa Murkowski, and other partners in the United State Senate, who understand the importance of developing the Arctic for United States energy security. One of the things I would like to continue to educate people about with regards to energy policy. We do it best. We do it safely with a small footprint. We are a nation that should take care of itself, and the Arctic is the best way to do that. The more we have leaders like Lisa and Mary Landrieu in the Senate Energy Committee pushing that through, I think we succeed. I think science and research is important in putting us on the front of the debate in showing that we are picking the right places to develop, and we are working with the Native communities to determine where the whale migration patterns are taking place.

The Burger prospect alone has the potential to push through 1 million barrels a day through TAPS.

Petroleum News: So that's on the policy side, what about the industry side with Shell having its setbacks? What do they need to do?

McGuire: I think they need to enhance their maritime policy. From the beginning that's been their weakness. I've been spending time talking to (Shell's) Pete Slaiby and Edison Chouest about developing a new arm of Shell. If you look at what happened with BP in the Gulf of Mexico, large companies get good at what they are doing, and they have a lot of subcontractors. When you get that big, you run the risk that there is an accident waiting to happen in a sector that's not your expertise. My belief is the obvious weak point is the maritime arm. I think what they need to do is bring the best people on the earth who know maritime shipping, and bring them on. Then bring in Edison Chouest and Harvey Gulf — those are the two best companies I know of who do that kind of work in the United States — and have team meetings, talk to them about operating in Arctic waters and come up with a new strategy. Then announce that strategy, to the president and all the powers that be, then move forward. ●

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Oil Patch Bits

Landis Pennock joins URS team

URS Corp. said Landis Pennock has recently joined its team as marketing coordinator. Pennock recently graduated from the University of Alaska Anchorage with a Bachelor of Business Administration degree in marketing and in management. He brings his backgrounds in marketing, sales, and business management to the team.

LANDIS PENNOCK

Country's largest floating drydock coming to Portland

Vigor Industrial said that the country's largest floating drydock, the Vigorous, was delivered to its Portland shipyard on the Willamette River.

Fully assembled, the drydock will be 960 feet long; however, it is currently in three parts, which are stacked aboard a 738-foot heavy lift ship for delivery. The delivery provides unique opportunities to see both the new drydock and the specialized ship carrying it up river.

Vigor invested more than $50 million to build and deliver the Vigorous. The drydock will allow Vigor to service vessels such as cruise ships, tankers and cargo ships. It also will free the company to send another drydock from Portland to Seattle, expanding capacity there.

Frank Foti, Vigor CEO, says the new drydock will allow the company to better serve a range of customers with large vessels at a time when total large drydock capacity on the West Coast has been shrinking. Two large vessels, Maritime Administration cargo ships, are already booked for repairs when the drydock enters service in November.

"The drydock is attracting new business and new jobs to the region," said Foti. "Without the Vigorous, these large ship repair projects and the family-wage shipyard jobs they create would just go somewhere else."

"Skilled shipyard workers can earn between $40,000 to $80,000 per year, and more with overtime," Foti said. On average, servicing the Algol and Capella cargo ships will create about 130 jobs each while those projects are underway at Vigor. For more information on visit www.vigorindustrial.com/vigorous.

Brice's new equipment helps reduce carbon footprint

Brice Equipment, a subsidiary of Calista Corp., has invested in two new pieces of equipment that will help companies operating in Alaska greatly reduce their fuel consumption and dramatically lower carbon emissions. Brice Equipment is the only Alaska dealer for the JetHeat Micro-Turbine heater, the most advanced industrial heater on the market. It's the only diesel-fired portable heater in the world converting more than 98 percent of fuel input into useable heat output. The result is a savings of more than $500 per day in fuel. The JetHeat offers sub-

see **OIL PATCH BITS** *page 18*

Companies involved in Alaska and northern Canada's oil and gas industry

All of the companies listed above advertise on a regular basis with Petroleum News

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MORE OPTIONS

During presentations to the board of the Alaska Industrial Development and Export Authority, or AIDEA, on Sept. 25, WesPac and Resource Energy executives talked about their companies' LNG development concepts.

WesPac

WesPac Senior Vice President Brad Barnds told the AIDEA board that his company proposes a two-phase project, with the first phase involving a small-scale plant that would process about 25 million cubic feet per day of Cook Inlet gas, outputting the LNG into specialized LNG containers for shipment by rail, truck or boat to Alaska locations. Phase 2 would be a much larger 150 million cubic-feet-per-day system, with facilities for loading LNG into LNG tankers for export, as well as continuing the container-based shipments within Alaska.

Barnds said that New York-based WesPac specializes in infrastructure development and has extensive experience of LNG facility construction. Owned by Oaktree Capital and Highstar Capital, the company has access to major private funding, he said. In recent years WesPac has been involved in discussions with Alaska utilities over the potential shipment of LNG from the south, to bolster declining Cook Inlet gas supplies. But, with an unexpectedly rapid turnaround in the Cook Inlet gas industry, the company is now pursuing an Alaska LNG production option, Barnds said.

Barnds said that his company has already negotiated an agreement with a Cook Inlet gas producer on terms for the purchase of a 100 percent working interest in sufficient gas reserves to meet the entire supply for the WesPac LNG project "on a long-term basis." That would give WesPac control over the cost of its gas supplies and, with the company also able to manage the shipment of its produced LNG, the LNG market would be the only significant uncertainty in WesPac's business model.

REI

Resources Energy Inc., or REI, on the other hand has a prime focus on exporting LNG to Japan, to meet some of Japan's high gas demand following the 2011 Fukushima nuclear disaster, Mary Ann Pease, REI's general manager and vice president in Alaska, told the AIDEA board. REI consists of a consortium of Japanese industrial companies, gas companies and government entities, interested in building, owning and operating a Cook Inlet LNG plant, with purpose of delivering LNG to Japan in a timely manner and at an acceptable price, Pease later told Petroleum News.

With a 1 million ton-per-year LNG capacity, the facility would process about 150 million to 160 million cubic feet per day of Cook Inlet gas, Pease said. And Japan has committed to the purchase of gas from Cook Inlet only if the local in-state gas needs can be met, she said.

Barnds explained that Port MacKenzie is ideally located for the WesPac project, given its access to road, rail and marine transportation. However, rail access assumes completion of a rail extension that the Mat-Su Borough and the Alaska Railroad are in the process of constructing to the port from the existing railroad line at Houston. A 16-inch gas line would connect the LNG facility to an existing nearby gas transmission line operated by Enstar Natural Gas Co.

Pease also commented that a gas-supply linkage with Japan would prove particularly fortuitous, because Japanese gas demand peaks in the summer, while Alaska demand peaks in the winter. REI's proposed facility would have its own power plant, with the possibility of delivering any excess power into the Alaska Railbelt power grid, Pease said.

WesPac: ideal site

Barnds explained that Port MacKenzie is ideally located for the WesPac project, given its access to road, rail and marine transportation. However, rail access assumes completion of a rail extension that the Mat-Su Borough and the Alaska Railroad are in the process of constructing to the port from the existing railroad line at Houston. A 16-inch gas line would connect the LNG facility to an existing nearby gas transmission line operated by Enstar Natural Gas Co.

WesPac is particularly interested in using containers to ship LNG to Fairbanks by rail or truck. The company sees this as an alternative to shipping LNG from the North Slope, as is envisaged under the Interior Energy Project, a project for the supply of gas to Fairbanks and the Alaska Interior that is receiving state funding assistance through AIDEA.

Barnds said that the phase 1 WesPac project could deliver LNG by container to a wide variety of destinations in rural Alaska, as an alternative energy source to expensive diesel fuel, and that, without any need for state funding assistance, the company could deliver LNG to Fairbanks at a price of between $14.37 and $14.57 per thousand cubic feet. The Interior Energy Project has set a target maximum delivered price of $15 per thousand cubic feet in Fairbanks for its North Slope gas.

Barnds commented that the viability of gas supplies to Fairbanks would depend on the availability of adequate gas storage facilities in the city, to accommodate the wide swings in gas demand between summer and winter. Perhaps the state could assist the city with the establishment of the necessary storage, he suggested.

Fast-track phase 1

Because phase 1 of the WesPac project only involves the production of gas for use within Alaska, the project would not require a Federal Energy Regulatory Commission license, thus greatly simplifying the permitting requirements, Barnds said. And, by using off-the-shelf LNG plant components, the project could be fast tracked, potentially coming online in 2017. The phase 1 project would cost in excess of $600 million, Barnds said.

Michael Cox, a WesPac executive who has been working on the company's development plan in Alaska, said that the phase 1 facility would occupy a site directly behind the existing Port MacKenzie structures, sharing the use of the port with other organizations. However, the phase 2 project, with a need for an LNG pipeline across the port for connection to LNG tanker vessels, would involve WesPac taking over the entire dock, Cox said.

Barnds also commented that, with an LNG storage tank on site and the possibility of regasifying some of the gas in that tank, the phase 1 project could also act as a backup gas storage facility for Southcentral Alaska gas and power utilities, with the possibility of delivering up to 120 million cubic feet per day of gas to temporarily support peak winter gas demand.

Another intriguing possibility would be the supply of LNG for vessels that have converted to the use of natural gas as a fuel. TOTE, the shipping line that operates cargo vessels to Alaska, is converting its fleet to use LNG — WesPac has been discussing LNG fueling options with TOTE, including the possibility of fueling operations in Cook Inlet for vessels plying the Alaska route, Barnds said.

REI: enough gas reserves

Pease said that REI plans to build its LNG facility near the existing Port Mackenzie site, but with its own dedicated port facility for loading LNG onto about two tankers per week for shipment to Japan. REI has completed a confidential Cook Inlet gas reserves analysis and has concluded that the planned LNG facility would require about 35 percent of proved and probable gas reserves in the Cook Inlet basin over a period of 20 to 25 years, Pease said.

The facility would provide a much-needed market outlet for Cook Inlet gas, supporting the continuing development of Cook Inlet gas fields, and thus having a moderating influence on future Cook Inlet gas prices, Pease said.

She said that REI has hired engineering firm KBR to carry out a feasibility study for the REI project. The results of that study, due for completion in October, will provide clarity over some of the project details. KBR is a worldwide expert in LNG manufacturing, with experience of building LNG plants around the world, Pease said.

Pease also said that REI has a memorandum of understanding with AIDEA to share the costs of an evaluation of how the REI project may support both the competitive development of Cook Inlet gas and LNG contract pricing. That study will help AIDEA assess whether to participate in the project.

Preliminary economics

Meantime REI has developed some preliminary economics for the project and has begun the process for acquiring a facility site. The company has estimated the total cost of the facility at about $1.35 billion, with about $1.5 billion of investment needed to bring aggregated gas supplies from Cook Inlet to market over a 20-year period, Pease said. REI anticipates the plant going into operation prior to 2020, she said.

REI is also holding discussions with a "very large company based in Houston" as a potential operator of the LNG facility and as an aggregator of the gas supplies for the facility, Pease said.

By the end of this year REI anticipates having conditional agreements with Japanese and U.S. partners, including conditional LNG offtake agreements. And REI anticipates having the pieces in place to start moving the project forward in January or February, Pease said.

Pease emphasized that she does not view the REI project as being in competition with a project to bring North Slope gas by pipeline to tidewater in the Cook Inlet. There is more than enough demand for LNG in Asia to support both projects, she said.

Although not mentioned during the AIDEA board meeting, there are two existing facilities for the export of Cook Inlet gas. An LNG plant at Nikiski, on the east side of the Cook Inlet, is owned and operated by ConocoPhillips and is primarily used to export gas from that company's aging North Cook Inlet gas field. A mothballed fertilizer plant, also at Nikiski, could also provide a market outlet for Cook Inlet gas — Agrium Inc., the plant's owner, has been considering restarting that plant. ●

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SHALE DRILLING

mation.

And with all of this data now coming together, the company has identified potential drilling locations and is ready to start turning the drill bit again, Duncan said.

Bought leases 2010

Great Bear created something of a stir in Alaska in October 2010, when it took more than 500,000 acres in a state North Slope lease sale, saying that it was embarking on a program of shale-oil exploration and development, akin to the style of development that has proved so successful in plays such as the Eagle Ford and the Bakken in the Lower 48 states. The company's acreage, with some additions in 2011, covers a fairway south of the producing North Slope oil fields, in an area where the major North Slope oil source rocks are thought to have generated oil.

The concept was to drill into the source rocks in areas where they would have been most productive and then, using horizontal drilling and hydraulic fracturing techniques, produce oil directly from the sources. Great Bear was particularly interested in seeking oil in the Shublik, a prolific North Slope source rock that bears striking similarities to productive rocks in the Eagle Ford play. However, the company also wanted to investigate two other source rock horizons: the lower Kingak and the Hue shale/HRZ.

The company permitted six drill sites along the Haul Road with the intention of drilling through the source horizons, logging the wells and testing source rock samples from the wells. Should the source rocks have exhibited appropriate properties, there was the possibility of drilling horizontal lateral wells, to test oil production from the rocks.

Drilling suspended

But, after drilling the two most northerly of the wells, Great Bear suspended its drilling operation, continuing instead with a lengthy program of surveying, testing, data collection and evaluation.

Duncan told Petroleum News that, at the start of the drilling, Great Bear had just three very widely separated data points for the Shublik, from previous wells in the region. The idea of the wells along the Haul Road was to obtain a north-south transect of data characterizing the geochemical and mechanical properties of the source rocks, to help verify the way in which the oil generating thermal history of the source rocks has varied across the region.

Under current thinking for unconventional oil development, shale-oil drilling best targets oil source rocks in the "volatile oil window," the zone in which the rocks have been heated sufficiently to generate both oil and some solution gas, with the solution gas providing the drive for the flow of oil into production wells, Duncan said.

Analysis & data acquisition

With Great Bear's drilling rig contract expiring at the end of 2012, it was not possible to continue drilling that winter, Duncan said. And, although Great Bear logged and collected rock cores from those two initial wells, the geochemical testing of the well samples took nearly a year to complete, he said. Meantime, the company decided on a major program of surveying, data acquisition and data analysis, to identify "sweet spots," the locations with the highest likelihood of successful shale-oil production. The idea was that, rather than drilling large numbers of wells to try to find productive locations, the company would use state-of-the-art data acquisition and analysis techniques to identify potential drill sites, Duncan explained.

And the results from those first two wells had proved promising, with the source rock penetrated by the wells being in the volatile oil window, Duncan said. "It was absolutely spot-on with our pre-drill prediction of thermal maturity and source richness," he said.

Seismic surveys

As part of its program of data acquisition, Great Bear has conducted three 3-D surveys in its acreage, in the winters of 2012, 2013 and 2014, and the company plans to conduct another survey during the coming winter. Duncan sees the seismic data as a key to finding those sweet spots, enabling insights into the orientations and intensities of fractures in the subsurface, for example. The seismic is also revealing a number of conventional oil prospects, thus providing the enticing possibility of drilling at locations with multiple conventional and unconventional targets, Duncan said.

However, Great Bear's continued drilling will primarily target source-rock oil, with wells planned to penetrate to depths 150 feet below the base of the Shublik, he said.

Great Bear has now conducted two summers of LIDAR surveying in its acreage. LIDAR — Light Detection And Ranging — uses a laser beam to map surface topography with incredible precision and has enabled Great Bear to develop highly detailed and accurate surface maps of its acreage, and to obtain information about the water depths of lakes. The result is an ability to conduct regional drilling and development planning at a pace unachievable by other surface mapping techniques, enabling potential land access and usage problems to be anticipated rather than be dealt with reactively, Duncan explained.

Great Bear also commissioned a study that involved using well and seismic data to assess the quality and extent of subsurface aquifers. That study identified the presence of large volumes of subsurface water, which, being brackish, is unsuitable for human consumption but is usable for the hydraulic fracturing of wells, Duncan said.

Massive database

At the core of Great Bear's search for source-oil sweet spots, the company has been working with a team of geoscientists, including prominent North Slope geologists Ken Bird and Les Magoon, to assemble a massive database of source-rock-related geologic data from existing wells across the whole of the central North Slope, from the eastern National Petroleum Reserve-Alaska to the western side of Point Thomson, and down to the southern end of the Slope. In addition to compiling available data from the wells, in some cases the scientists have tested rock samples from archived well cores in the Alaska Geologic Materials Center, Duncan said. The results of the data compilation exercise have now been incorporated into Great Bear's continuing work program, he said.

Asked about the potential economics of Alaska shale-oil development, given the high cost of drilling on the North Slope, Duncan said that the state's fiscal system, the combination of tax credits and tax rates, has tilted the economic playing field in Alaska's direction, making the state competitive with other regions of the United States. The possibility of testing multiple oil plays with a single well is also a huge factor in the appeal of the North Slope's prolific oil province, he said.

"The conventional plays can provide a good mechanism for driving infrastructure development across our leases, while the unconventional is developing," Duncan said. ●

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OIL PATCH BITS

stantially reduced CO2, NOx and SO2 emissions, meeting stringent air permitting requirements.

"JetHeat uses less than half the fuel of any comparable heater on the market. As a result it is carbon neutral," said Barry Lindquist, general manager of Brice Equipment. "The exhaust output is so clean it is breathable air for use in confined spaces by federal standards."

Brice Equipment also exclusively offers the Puritan Arctic Heat Generator. The AHG eliminates problems associated with continuous idling of larger diesel assets in cold weather regions. Idling and insufficient engine loading cause heavy exhaust output that damages equipment. The AHG allows operators to shut down the primary engine, which greatly reduces both the fuel burned per hour and sooty emissions output. Not only does this help the environment, it saves companies from costly repairs associated with engines continually running cold. For more information visit www.briceinc.com.

Editor's note: All of these news items — some in expanded form — will appear in the next Arctic Oil & Gas Directory, a full color magazine that serves as a marketing tool for Petroleum News' contracted advertisers. The next edition will be released in March.

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LNG TEAM

Some $100 million has been spent to date gathering regulatory data in the field and preliminary design work and that will be leveraged by spending about five times that much "to advance the regulatory and design work required to determine whether we go into FEED," he said.

Alignment

"Alaska LNG project participants are the owners of 99 percent of the gas on the North Slope," Butt said, and those owners are the producers who bought leases in the 1960s and 1970s and the state of Alaska.

"It creates a very different dynamic for the project" to have the state as an equity participant, Butt said, making the project "one of a kind."

The project has both "unprecedented challenges and unprecedented opportunities," he said, and with the state at the table the question "everybody needs to ask themselves is as owners of this gas — what's the best thing for the owners of the gas to do?"

There are three touchstones for answering questions about the project, Butt said: "How does something influence alignment? How does something influence risk? And how does something influence cost?"

If questions are addressed unilaterally, or win-lose, "it's a lot more difficult to move something of this complexity forward than if we try and think what is an aligned position that has something that works for all the owners?"

Risk reduction is the goal of the pre-FEED phase, Butt said, which "is all about identifying and mitigating uncertainties."

When it comes to an investment decision, it isn't about should the money be invested, he said, but if the money is invested, have the risks been thought through so that "everything that is within my ability to influence has been mitigated," providing the confidence to tell investors, "yes, if you put up the resources required to do this work we'll be able to generate the revenues and benefits that we've all forecast from this work."

Cost reduction is important because driving down the cost of infrastructure reduces the cost of supply. Natural gas is a commodity, he said, and a buyer wants to pay "just a little bit less than they'd pay anybody else. If they have to pay a little bit more, they're probably going to go to somebody else."

Keeping the cost down is about competitiveness, Butt said: "LNG projects with high cost of supply do not survive because markets go up and markets go down; the only projects that survive are the ones that continue to deliver energy at a cost below their competition, so it's a competitive imperative: How do I keep my costs down so that this project succeeds so that in a competitive environment the LNG buyers chose to buy LNG from Alaska."

What can the state do?

Asked what major obstacles to the project the state should be aware of, Butt cited commercial and fiscal uncertainty.

"I know that sometimes when we talk about fiscal and commercial uncertainty it sounds like one party trying to get something out of the other party. I would respectfully suggest that's not the case at all," he said. "I would suggest that all the owners need some durable and predictable terms so that when they talk to their constituents or their stakeholders or whatever they are accountable to, they understand that if they invest the type of resources required to execute a project of this magnitude it will generate the kind of benefits that will really help them in the future."

Rep. Mike Hawker, R-Anchorage, who had asked the major obstacles question, also asked what the commercial parties were doing to protect themselves against the risk that the state would change direction and ask for a bigger piece of the pie or more unilateral control over the outcome.

Butt said it wasn't just the state. "All these parties as owners have certain issues that are unique to them and challenges to find ways for them to be aligned," he said.

As to what the producers would do if the alignment in the heads of agreement and the joint venture agreement is compromised, Butt said the answer to that is in the gated process "designed to incrementally increase resource investment into the project as certainty is built."

If the state — as both regulator and owner — isn't ready to move forward, "this project is so big and so complex that without the state in lockstep it's going to be very difficult to move from pre-FEED to FEED. And we'll have done a lot of great work and we'll have moved this project to a place where it's never been before, but we will end up in the same place where it has been before — which is stopped.

"And I hope that doesn't happen, but I lose a lot of sleep on that one," Butt said. ●

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State LNG team in place

Commissioner of Natural Resources Joe Balash and Commissioner of Revenue Angela Rodell told a joint meeting of the House and Senate Resources committees Sept. 29 that state employees and contractors are both part of the state's Alaska LNG team.

On the DNR side, 10 staff from the Division of Oil and Gas are working issues related to lease modification, gas offtake and balancing agreements, royalty in-kind determinations and disposition arrangements for state LNG, while consultant Black and Veatch is under contract to continue to provide technical and commercial support.

Sixteen staff from Revenue are assisting in efforts related to upstream work, economic analysis and financing, supported by consultant Gaffney, Cline.

The Department of Law has Greenberg Traurig under contract to provide commercial legal expertise.

State's executive team

Experts the state has brought onboard include Leslie "Fritz" Krusen, whose appointment as Alaska Gasline Development Corp. vice president Alaska LNG, was previously announced. Krusen was formerly with ConocoPhillips and has 26 years of LNG experience, including six years at Conoco's Kenai LNG plant and four years as project manager for Alaska Gas Commercialization.

Steve Wright, formerly with Chevron on the North Slope and in Cook Inlet, has been named AKLNG executive upstream manager. Wright spent more than 10 years focusing on North Slope gas commercialization.

David de Gruyter, formerly with BP and more recently with TransCanada's Keystone XL Pipeline, was named director of the State Pipeline Coordinator's Office in February and is now AKLNG executive midstream manager.

Audie P. Setters, formerly with Chevron — where he was involved in the development of three green field LNG projects — has been named AKLNG executive marketing manager.

Steve Swaffield, an independent consultant with 30 years experience, and most recently president of BG Canada where he led development of the Prince Rupert LNG project, has been named AKLNG executive commercial manager.

Confidentiality agreements

Information presented Sept. 29 was all public, but legislators will also be briefed and consulted in executive sessions, and for those sessions, confidentiality agreements will be required.

In fact, Balash told lawmakers, such confidentiality agreements — with protocols and training — are already in place for personnel on the executive branch side.

A draft confidentiality agreement for the legislative branch was sent to the Legislature's Legal Services Division for review. Once the confidentiality agreement is firmed up "and we get similar protocols for the handling of confidential information, then we can get individual legislators and their agents signed up and make certain other information that you won't see here today available," he said.

As an equity participant in the project, Balash said, keeping certain information confidential is necessary in negotiating contracts for work on the project, and also in dealing with buyers, who "are going to take every opportunity they can to drive the sales price lower."

The confidentiality agreements, he said, are to protect the interest of Alaskans in the resource and in the value of the state's royalties and production tax.

Balash said the draft agreement was sent over to Legal Services at the close of business Sept. 26. He said the administration spent a couple of months going back and forth between the Department of Law and lawyers for other project parties, "so I think that we've taken care of most of the thorny issues that need to be handled."

—KRISTEN NELSON