

Web posted Friday, June 12, 2009

Lawmakers get another wake-up call on Inlet gas supply

By Tim Bradner

Alaska Journal of Commerce

It's a tough thing to say, but the days will start getting shorter soon and January is only six months away. The usual midwinter cold snap is almost surely in the cards, and the gas distribution system serving consumers and local electric utilities is likely to be strained once again. No one wants their supply of natural gas to be cut when it's minus 20 degrees.

There's nothing very secure, or simple, about the supply of natural gas in Southcentral Alaska, however. Aging gas fields in the region are being depleted and gas wells, many 30 years old, can't produce enough now to guarantee meeting midwinter demand.

What keeps disaster at bay is the liquefied natural gas, or LNG, plant near Kenai, which stops making LNG in very cold weather so gas can be diverted to the local utilities. The LNG plant may close in 2011, however, when its federal license to export LNG expires.

So far the utilities have no plan B for that possibility, although they are working on one.

There are large reserves of gas on the North Slope, but without a pipeline there's no way to get the gas to the state's largest communities. Studies are now underway by the state for a 24-inch bullet pipeline to bring gas to Southcentral from the Slope but no one knows how much this will cost. It couldn't be finished until 2016 to 2018 in any event.

There's also more gas to be found in Cook Inlet but there's little new drilling, for a complex set of reasons.

State legislators got an earful about all this on June 5, when the Senate Resources Committee, meeting in Anchorage, listened to managers of gas producing companies, utilities, and state and federal officials, as well as private landowners.

State Sen. Bill Wielechowski set a sober tone for the meeting.

"Cook Inlet gas production has declined considerably," he said. "In the last three years it has declined by more than 50 billion cubic feet annually. Current demand is about 140 billion cubic feet per year, so this is significant."



Cook Inlet oil and gas platforms supply natural gas to local utilities as well as crude oil for the Tesoro Alaska refinery near Kenai. The platforms are more than 30 years old, and are approaching their economic limits.

Photo/Rob Stapleton/AJOC

By 2012, annual in-state demand will exceed supply from existing wells. This assumes no export of Cook Inlet gas, Wielechowski said.

"We have three years before we have a supply problem if we look at production from existing wells," he said.

State oil and gas director Kevin Banks said it's almost certain that oil and gas companies will add reserves in the producing fields if they drill more wells.

But petroleum companies told legislators too few new wells are being drilled, and that consumers and local utilities aren't doing enough to promote energy conservation, which is the cheapest way to ease the tight supply situation. Companies also said the Regulatory Commission of Alaska is too focused on price and should weigh energy security for consumers in its decisions as well.

John Zager, Chevron Corp.'s Alaska manager, said Cook Inlet is not attracting sufficient investment capital to offset the reserve declines, and that remaining resources are likely to be in smaller gas deposits that will be more expensive to drill.

Zager said he believes government estimates of remaining reserves in the Inlet are too optimistic. Estimates are that 1.3 trillion cubic feet to 1.7 trillion cubic feet of proven gas reserves remain in producing gas fields.

The State Division of Oil and Gas plans to have an updated estimate of gas reserves by early fall, said Kevin Banks, the division director.

For now, the economics just aren't right for drilling a lot of new production wells. "People have to accept the concept that the (gas) price must be high enough to encourage investment, and there are recent indications that this is not the case. The recent state lease sale in the Inlet was a no-show," in terms of bidding, Zager said.

Zager and Marathon Oil manager Carri Lockhart criticized regulatory agencies for inconsistencies and creating an environment of uncertainty as to whether gas sales contracts with utilities will be approved. The uncertainty that creates is almost as important as the price of gas.

A contract negotiated several years ago with Enstar Natural Gas Co., but rejected by the regulatory commission would have met all of Enstar's needs until 2016, Lockhart said. The utility now has short-term gas supply contracts and after 2011 it will have only two-thirds of the gas it needs under contract, Mark Slaughter, Enstar's gas supply manager, told legislators.

"It's a situation we don't like to be in," Slaughter said.

Lockhart also said regional electric utilities should focus more on power plant efficiency. "There should be dual-fuel capability when new generation capacity is built," she said, an indirect criticism of Chugach Electric Association for its plan to build a new gas-fired power plant in south Anchorage without also adding standby capability to use oil as a standby fuel. Anchorage's city-owned Municipal Light and Power has dual-fuel capability in one of its power plants.

Zager and others said there must be investment in gas storage, facilities that can store gas produced in the summer, when demand is low, for use during peak demand periods in

winter. Chevron and Marathon both maintain some storage capabilities of gas in depleted gas reservoirs for their customers, but this isn't enough to meet the total need.

The LNG plant near Kenai could play a long-term role in storage, or even imports of LNG if the export license ends in 2011.

Dan Clark, ConocoPhillips' asset manager for south Alaska, whose responsibilities include the LNG plant, said it is possible that facilities at the plant could be available for gas storage or even regasification of LNG that would be imported if LNG exports end in 2011.

"It's possible," Clark told the legislators. "There are marine terminal facilities and storage tanks, although added investment would be needed."

Zager said gas producers have invested in some storage but in other U.S. states utilities invest in and operate gas storage. Suzanne Gibson, Chugach Electric's gas supply manager, said Chugach, ML&P and Enstar are working jointly to determine how much storage might be needed, but there are concerns as to whether enough suitable underground reservoirs are available, because not all depleted gas reservoirs can be efficiently to store gas.

Above-ground storage could supplement underground storage but that will be costly, she said. The utilities may need state assistance.

Also, gas stored underground in depleted reservoirs is usually withdrawn gradually as used to supplement gas wells through the winter. It's difficult to get large volumes of gas at short notice needed to meet unexpected needs during a cold snap.

Stored LNG is very efficient at meeting this "peaking need," however, because the LNG can be regasified fairly quickly. LNG regasification facilities have been built in many parts of the U.S. to handle mid-winter peaks.

Facilities at the existing ConocoPhillips-Marathon LNG plant could help support a long-term storage role, but some utility managers think the plant's facilities are too big, too aged, to be efficiently used to support a small regional market.

New, smaller LNG regasification units, like those commonly used in the Lower 48, might be more appropriate, said Jim Posey, manager of Anchorage's ML&P.

Storage will help resolve the issue of meeting mid-winter peaks but it's not a solution when overall annual production from the gas fields dips below annual demand. At that point new gas is needed from somewhere, either from new discoveries, by pipeline from the North Slope, or through imports of LNG.

Energy

Gassing up

Rena Delbridge

Dec 27, 2009

Southcentral's 350,000 residents are snug this winter in homes with plenty of heat and Christmas lights twinkling.

But the sense of security fed by light and warmth is a false one in the state's major population area, where utilities are a step or two away from rolling power outages if the weather turns bitter cold -- cold enough to put out of order the complex metal machinery that pushes natural gas through lines and into homes; cold enough to push demand off the charts.

And by the winter of 2011-12, deliverability could be an issue beyond peak demand in the coldest spells.

Natural gas, used to heat buildings and to generate 90 percent of the region's electricity, is probably not going to be available in quantities enough to meet peak demand on cold winter days -- this winter, or next -- under certain scenarios.

Along with deliverability challenges, a recent state geological report shows there's about 10 years worth of gas left in Cook Inlet, should companies choose to invest their global dollars in production for a limited, small market.

One company, a TransCanada subsidiary, wants to build a storage facility to warehouse gas produced in summer months, when demand is one-fourteenth of peak winter loads. The resource could be drawn out in winter.

The company's proposal is a dream come true for some -- a private-sector solution that isn't seeking a dime from the government. All that Cook Inlet Natural Gas Storage, LLC, needs is assurance that the Regulatory Commission of Alaska will allow utilities -- its customers -- to recover storage fees in rates charged to consumers.

But lawmakers, state officials and even utility chiefs could tangle over whether gas storage facilities -- new to the 49th state -- should fall under the Regulatory Commission of Alaska's jurisdiction. If they take too long sorting that out, TransCanada's plans will be delayed -- possibly enough to leave Southcentral facing a nightmare by winter 2012 or 2013.

"On the coldest day of the year, what will we pay to stay warm?" Sen. Hollis French asked. "You'll probably pay anything, which is a bad place to be as a consumer. You don't have an alternate source for your natural gas supply. You want to have some oversight so there's not price gouging at a time when you are most vulnerable."

The problem

To be clear, Cook Inlet isn't near running out of gas next year, or in the next five years. On the contrary, the state estimates there are hundreds of trillions of cubic feet remaining, although that gas is more difficult to access -- and thus, more expensive to produce and purchase.

The real problem is deliverability. Utility and municipal managers, lawmakers and others are seriously concerned that when Southcentral soaks up huge amounts of gas to ward off Alaska's bitter winter temperatures, the supply may not hold.

Municipality of Anchorage Mayor Dan Sullivan drafted an energy task force that's studying the potential for emergencies and running tabletop exercises to test procedures in case of extreme shortages or -- more likely -- breakdowns in the machinery that pushes gas to pilot lights.

"If we had to go to that extent, to call upon people to conserve ... and go to rolling blackouts, at least we have a procedure in place," Municipal Manager George Vakalis said. "We know how to do it."

Since 1969, the liquefied natural gas export plant at Nikiski has provided a buffer for the supply and demand swings -- in essence, offering companies an outlet for gas that the Southcentral market couldn't absorb. However, a shortfall in annual production supply is anticipated in 2012 or 2013. The federal LNG export permit runs out in March 2011, and ConocoPhillips hasn't announced whether it will apply for an extension.

"We're faced with a unique environment in Cook Inlet with the demand swings," said John Sims, Enstar's spokesman. "The LNG facility is very important. It creates incentive for (companies) by having that large, industrial export customer."

ConocoPhillips, financially strapped after the past year's global economic downturn, hasn't said yet whether it will close or sell the facility, turn it into storage, or seek continued exports.

Solution on the table

Cook Inlet Natural Gas Storage, the newly formed TransCanada subsidiary, wants to build a 19 billion cubic foot gas storage facility near Kenai. A member of TransCanada's project team, Bob Gibb said the company is working on land purchases and, if regulatory issues can be sorted out, is ready to start construction next summer.

The timeline is tight, and critical work must be done in summer, Gibb said. He figured the schedule has enough flexibility to still meet an in-service date for winter 2012-13, if politics delay immediate approval.

Gibb confirmed the company is talking with prospective clients Enstar, an anchor tenant; Municipal Light & Power; and Chugach Electric Association, which is representing two smaller electric utilities, Homer Electric Association and Matanuska Electric Association.

He isn't releasing cost estimates at this point.

CINGS wants to build 20-year contracts with its clients, with warehousing fees to be paid out equally over the full term -- also called levelized rates. The big question is whether the

RCA will allow some certainty that the long-term rates are acceptable, and that the utilities will be allowed to recoup their gas-warehousing costs from customers.

To regulate or not to regulate?

Attorneys, policymakers and company reps packed an RCA meeting room in Anchorage in early December for a daylong workshop on storage. The participation was significant, with nearly all parties involved discussing solutions, potential hangups and how rate payers could fare under different gas storage scenarios.

"We were very encouraged by the workshop," Sims said. "That not only shows the urgency that everyone realizes, but also how willing everyone is to work together and try to resolve the issues."

At the heart of the discussion was whether or not gas storage should fall under the RCA's jurisdiction, which would involve time-consuming hearings but, in return, offer consumers some protection in rates charged.

But the RCA statutes don't allow for regulation of storage facilities that supply to utilities. Instead, the commission's authority rests in regulating utilities that supply consumers, and approving the contracts those utilities make with suppliers to ensure customers are getting a reasonable deal.

TransCanada reps at the meeting said they don't mind being regulated, and in fact, storage operations in the Midwest are regulated. But they need to know, and soon, whether they'll face regulation and the filings, hearings and challenges that come with it and could soak up so much of the construction timeline that the company may have to forfeit next summer.

"There are pros and cons with both," Sims said. "The nice thing about it being regulated is there would be some sort of surety from Enstar's standpoint for rate recovery."

The utility needs to know whether it will be able to recover storage costs in rates -- and if so, to what extent. CINGG needs that assurance, as well.

"We need to have surety ... before we can close on some of the properties and move forward with some of the construction," Gibb said. "It is critical."

Lawmakers step in

Some lawmakers are heading out in front with bills they'll file when the session starts Jan. 19 enabling a storage facility and, ideally, additional drilling.

In December, Sen. Hollis French, an Anchorage Democrat, released a draft of a bill he plans to introduce during the session allowing a substantial tax credit of 20 percent of capital costs for companies who invest in storage to serve Southcentral gas needs. He expects to tack on a caveat once the session starts, enabling the credit only if the storage facility owner agrees to come under the RCA's jurisdiction.

The RCA issue is the biggest one for Southcentral's gas problems, French said.

"At least one avenue is to get away from the gas storage operation, and focus more on the contracts that CINGG strikes with the utilities, which is a function the RCA is far more experienced with," he said.

A farther-reaching bill, the Cook Inlet Recovery Act, was proposed last week by House Speaker Mike Chenault of Nikiski and Rep. Mike Hawker of Anchorage, both Republicans. Their working draft offers incentives for storage, but also smoothes state bureaucratic processes to spur private investment in finding new reserves.

"This bill is narrowly focused on Cook Inlet production," Hawker said. "It's all about the urgency of the issue. We need to address these challenges and address them now ... Every penny of cost relief or credit we can provide here ultimately flows through as savings to consumers. Adding storage, which is critical, is going to add money. It's not going to be cheap."

The bill also included direction for the RCA to consider the consequences of saying no to a matter -- something the commissioners haven't had the authority to do. Beyond that, changes to the commission's authority aren't addressed in the draft, in part because of the potential for prolonged conflict in the Capitol.

"If the extent of the RCA's authority becomes an uncertainty because the legislature has thrown it into the ping pong match, no one is going to move one step forward on any project until that issue is totally resolved," Hawker said.

Chenault said he couldn't say yet whether storage should be regulated.

"But if you have people out there interested in doing it, and you have a need, then the decision needs to be made," he said. "We can't wait around for years. The longer you wait, the less opportunities you have and, probably, the more it's going to cost."

Enstar and CINGS haven't formed opinions on the legislation yet.

"We are moving forward with our contracts as if there were no additional input from the Legislature," Gibb said. "If it comes into being, we'll consider it as it does."

Contact Rena Delbridge at rena_alaskadispatch.com

CORRECTION: This story was updated Jan. 7, 2009, to correct the spelling of Bob Gibb, a member of TransCanada's project team, and to clarify TransCanada's anticipated timeline