

**ALASKA STATE LEGISLATURE  
SENATE RESOURCES STANDING COMMITTEE  
ANCHORAGE LIO**

June 5, 2009

1:06 p.m.

**MEMBERS PRESENT**

Senator Lesil McGuire, Co-Chair  
Senator Bill Wielechowski, Co-Chair  
Senator Charlie Huggins, Vice Chair  
Senator Bert Stedman  
Senator Hollis French  
Senator Gary Stevens  
Senator Thomas Wagoner

**MEMBERS ABSENT**

All members present

**OTHER LEGISLATORS PRESENT**

Senator Dennis Egan  
Senator Gene Therriault  
Senator Johnny Ellis  
Representative Paul Seaton - via teleconference  
Representative Mark Neuman  
Representative Mike Chenault  
Representative Pete Peterson  
Representative Chris Tuck  
Representative Les Gara  
Representative Craig Johnson  
Representative Wes Keller  
Representative Jay Ramras

**COMMITTEE CALENDAR**

Incentivizing Cook Inlet Natural Gas

-Chevron Alaska - John Zager, Alaska Assets Manager  
-ConcoPhillips Alaska - Dan Clark, Cook Inlet Manager  
-Marathon Oil Company - Carri Lockhard, Alaska Production  
Manager  
-Aurora Gas, LLC - Bruce Webb  
-Armstrong Oil and Gas - Ed Kerr, Vice President, Land and  
Business Development  
-Escopeta Oil Company - Bruce Webb

-DNR/Office of the Governor - Kevin Banks, Acting Director, Division of Oil and Gas  
-Regulatory Commission of Alaska (RCA) - Chairman Bob Pickett - Gas Pricing  
-Gas Storage & Other Infrastructure Issues - Mark Slaughter, Enstar's Manager of Gas Supply; Ethan Schutt, Senior Vice President, CIRI Land & Legal Affairs; Kevin Banks, Department of Natural Resources (DNR); Bob Pickett, Chairman, RCA; and Suzanne Gibson, Chugach Electric Association  
-Access Issues - Robin West, Refuge Manager, Kenai National Wildlife Refuge - Ethan Schutt, Senior Vice President, Land & Legal Affairs, CIRI

**PREVIOUS COMMITTEE ACTION**

No Previous Action to Report

**WITNESS REGISTER**

JOHN ZAGER, General Manager  
Chevron Alaska

**POSITION STATEMENT:** Commented on Cook Inlet natural gas development issues.

DAN CLARK, Cook Inlet Assets Manager  
ConocoPhillips Alaska

**POSITION STATEMENT:** Commented on Cook Inlet natural gas development issues.

CARRI LOCKHARD, Production Manager  
Alaska Operations  
Marathon Oil

**POSITION STATEMENT:** Commented on Cook Inlet natural gas development issues.

BRUCE WEBB, Manager  
Land and Regulatory Affairs  
Aurora Gas, LLC.

**POSITION STATEMENT:** Commented on Cook Inlet natural gas development issues.

ED KERR, Vice President  
Land and Business Development  
Armstrong Cook Inlet  
Subsidiary of Armstrong Oil and Gas

**POSITION STATEMENT:** Commented on Cook Inlet natural gas development issues.

BRUCE WEBB, Manager  
Land and Regulatory Affairs  
Aurora Gas

**POSITION STATEMENT:** Commented on Cook Inlet natural gas development issues.

KEVIN BANKS, Acting Director  
Division of Oil and Gas  
Department of Natural Resources (DNR)

**POSITION STATEMENT:** Commented on Cook Inlet natural gas development issues.

JOE BALASH, Intergovernmental Coordinator  
Office of the Governor

**POSITION STATEMENT:** Commented on Cook Inlet natural gas development issues.

BOB PICKETT, Chairman  
Regulatory Commission of Alaska (RCA)

**POSITION STATEMENT:** Highlighted the statutory role of the RCA with natural gas development.

MARK SLAUGHTER, Gas Supply Manager  
Enstar Natural Gas Company  
Representing Enstar, a division of Semco, and  
The Alaska Pipeline Company, a wholly-owned subsidiary of Semco  
**POSITION STATEMENT:** Commented on Cook Inlet natural gas development issues.

SUZANNE GIBSON, Director  
Energy Resources  
Chugach Electric Association (CEA)

**POSITION STATEMENT:** Commented on Cook Inlet natural gas development issues.

ETHAN SCHUTT, Senior Vice President  
Land and Energy Development  
Cook Inlet Regional Inc. (CIRI)

**POSITION STATEMENT:** Commented on Cook Inlet natural gas development issues.

ROBIN WEST, Refuge Manager  
Kenai National Wildlife Refuge

**POSITION STATEMENT:** Commented on Cook Inlet natural gas development issues.

KIM CUNNINGHAM, Director  
Land and Resources  
Cook Inlet Regional Inc. (CIRI)

**POSITION STATEMENT:** Commented on Cook Inlet natural gas development issues.

**ACTION NARRATIVE**

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**CO-CHAIR WIELECHOWSKI** called the Senate Resources Standing Committee meeting to order at 1:06 p.m. Present at the call to order were Senators McGuire, French, Huggins and Wagoner, Wielechowski.

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**Incentivizing Cook Inlet Natural Gas**

CO-CHAIR WIELECHOWSKI said the purpose of today's meeting was to identify and discuss any potential barriers to additional investment by natural gas producers in Cook Inlet. Put another way:

What can the state do to encourage or facilitate additional investment? Cook Inlet production has declined considerably. In the last three years it has declined by more than 50 bcf. Current demand is about 140 bcf; so the decline is significant. By 2012, annualized instate demand will exceed supply from existing wells. This assumes no export of Cook Inlet gas. It also does not consider the fact the peak demand could exceed supply as early as this coming winter. By 2019, annualized instate demand will exceed supply from development of probable reserves in the region.

In other words, we have three years before we have a supply problem if we looked at production from existing wells only. We have an additional seven years if we assume probable reserves will be developed; additional exploration could give us more years. But time is of the essence. Because of its proximity to Anchorage and other Railbelt population centers, Cook Inlet gas could be the least expensive energy source available to more than half the state's population.

CO-CHAIR WIELECHOWSKI said they would hear from six Cook Inlet explorers and producers, the Department of Natural Resources (DNR), the Governor's Office, the Regulatory Commission of Alaska (RCA), Enstar, Chugach Electric, Cook Inlet Regional Incorporation (CIRI), and the Kenai National Wildlife Refuge.

**Chevron Alaska - John Zager, Alaska Assets Manager**

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JOHN ZAGER, General Manager, Chevron Alaska, said that more production and deliverability is needed to meet peak needs, and made the following points:

- There are no quick fixes to annual production in Cook Inlet, but peak deliverability can be addressed in two or three years.
- Peak deliverability can potentially be increased more quickly through new storage within two-three years

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MR. ZAGER said the Cook Inlet basin has infrastructure, resources, and a market, but incentives are needed to attract sufficient capital to develop them. However, the remaining resources are not similar to the current ones. Large existing fields are declining and new fields will be more difficult to develop because the reservoirs are smaller and other infrastructure will be needed.

So, Mr. Zager said, the risk-reward appears to be out of balance. He summarized that the Inlet has significant geologic risk because the new reservoirs are smaller and discontinuous and that makes them more difficult to predict; the costs are high in terms of the reservoirs being in remote locations along with all the other higher costs from developing in Alaska - like wages and vendors.

Market risks exist as well - one is that demand is cyclical, which means you need excess capacity to serve summer peaks and - for new entrants especially - they have an extra problem of paying for exploration without having a contract to sell the gas and at the same time of not being able to get a contract without having any proven reserves to sell.

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There is also regulatory risk in the form of once you agree with a party it has to be approved by the Regulatory Commission of Alaska, which takes more time and significant money.

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MR. ZAGER said the state does not control a few things like the geology, the high cost environment, and the attractiveness of outside investments.

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SENATOR WAGONER asked how a bullet line coming down from the North Slope (NS) into the same market in Cook Inlet would affect current exploration and production of gas there.

MR. ZAGER answered that in general it would suppress exploration in the Cook Inlet. However, if you had an existing contract in Cook Inlet and didn't have any NS gas, you might choose to continue to explore in the Inlet to fulfill your contract from local markets. But new entrants would have another significant obstacle to exploration in Alaska.

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MR. ZAGER said to encourage more production and deliverability the state needs to promote or at least allow a competitive gas price in Alaska. Nobody shows up at Cook Inlet gas sales now, but they used to. The price must be sufficient to attract applicants no matter where in Alaska it comes from.

He said that today Union Oil, a subsidiary of Chevron, has a 2001 contract with Enstar, the last gas contract approved by the RCA delivering any gas to customers. It was controversial because it tied their price to the three-year rolling Henry Hub price, the first time it had been pegged to an outside number. He thought it a very successful contract because they originally committed to spending \$10 million in exploration, but they spent several hundred million dollars since then - exploring, developing, putting in pipelines and the first gas storage in the Cook Inlet - all in preparation to serve that market. So, today they sell 19.5 bcf/yr. to Enstar and provide approximately 60 percent of their market. They are backing off this level in the out years, because they don't feel they have sufficient gas.

Storage in all forms should be promoted, Mr. Zager said. All storage in the Inlet today is below-ground using depleted natural gas reservoirs. Storage facilities are also owned by Marathon. Storage investment could be promoted through tax credits, and he argued that he thought the state got a much better bang for the buck on storage investments than it did on a single well, because storage can be there year after year and it

can help move larger volumes of gas from the summer to the winter and manage the existing peak issues.

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CO-CHAIR WIELECHOWSKI asked if he envisioned storing in depleted wells or building large storage tanks.

MR. ZAGER replied that Chevron would look at underground storage first because that is where their experience is. Other companies because of their characteristics, in terms of how much volume they could ship and how much peaking they could get for a given volume, might have different solutions. To manage this situation well they would need to have a portfolio of storage opportunities going forward.

He suggested treating storage costs like transportation costs that are deductible for royalty purposes. He said that storage adds value to gas in moving from summer to winter, but the cost of preparing that gas for market is not recognized.

Another suggestion he had was to lower costs where possible by streamlining permitting and expanding the annual access period to the west side drilling in the State Refuge. He explained that they have a couple of fields in the Refuge and now they are limited to drilling only in the coldest months of the winter. This adds costs and makes it a remote operation similar to a NS operation.

Another suggestion was to try to remove other barriers - like encouraging access to public lands for exploration. The current RCA process is a disincentive and should be streamlined. For a smaller contract you have to wonder whether if even the cost of going through the RCA process is justified. Many interveners in the process are marginally related to the direct issue at hand and try to use the process for other needs.

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Finally, he said the RCA should prioritize security and supply over price. Over the last couple of years it has tried to get the best price even at the risk the people may not want to serve that contract because of the peaking requirements in it.

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MR. ZAGER said having a year-round industrial market is important, because restarting a field would be more difficult and costly than just diverting the gas that is already in the line to - the LNG plant, for instance. Production costs would be

higher, too, because a lot of the same fixed overhead costs would have to be allocated amongst much smaller volumes. With no summer market then there would be no winter back stopping.

Finally, he explained that a year-round industrial market encourages investment not only by offering a summer market, but by providing alignment amongst the working interest owners, many of which co-own the peak units in the basin. So, if one company didn't have a market that would make it much harder for the other companies to go ahead and invest - and stay aligned on development plans in the field.

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MR. ZAGER clarified that Chevron is not exporting LNG, and they have no ownership of the plant. He strongly advised that conservation should seriously be promoted by everyone - especially during peak times!

SENATOR HUGGINS asked what Chevron's storage capacity is and what they would like to achieve.

MR. ZAGER replied that their capacity is in the 3-5 bcf/annual volumes, and they haven't studied basin-wide storage because of their market size.

**ConocoPhillips Alaska - Dan Clark, Cook Inlet Manager**

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DAN CLARK, Cook Inlet Assets Manager, ConocoPhillips Alaska, said he had four main discussion points: a description of ConocoPhillips assets in Cook Inlet and their Kenai LNG facility, a highlight of the recent agreement with Chugach Electric Association, and what they see is the major issue confronting the Cook Inlet gas developer.

He said that ConocoPhillips has operated in the Cook Inlet for over 40 years and has three assets: the on-shore Beluga River unit, the off-shore north Cook Inlet unit, and the Kenai LNG plant. Between the Beluga River and the north Cook Inlet unit they operate approximately 180-190 mcf/day of natural gas production. It has invested almost \$100 billion/gross throughout the life of these three assets, and has played a significant role in developing and maintaining those gas supplies and a market outlet in the Cook Inlet for decades. They are currently in the process of executing development programs in both fields.

During 2008-09 they anticipate investing over \$150 million/gross in six new wells plus an additional major work-over of another one. ConocoPhillips does not hold any prospective exploration acreage in the Cook Inlet, and their future developments are finite and in the two fields; so the extent of the future development depends on the success of their current work program.

MR. CLARK stated that the Kenai LNG plant has played a vital role in providing a market outlet for gas as well as providing significant employment opportunities and revenue to the state. Additionally, the ability to divert volumes from the plant into the local market in order to meet peak demand during times of extreme cold temperatures has been very beneficial to the Southcentral Alaska gas market. ConocoPhillips and Marathon, the joint owners of the LNG plant, have a federal license to export LNG through March 2011.

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Pursuing another extension of their export license depends on the result of their ongoing development program, the deliverability from other fields in the Inlet, and the level of support from the various stakeholders. ConocoPhillips is currently in the process of evaluating the performance of their ongoing development program dependent on those results and considering the other factors he just mentioned. They will decide in consultation with Marathon whether to pursue another export license extension or not.

MR. CLARK said with respect to local utility demand, they have recently signed a seven-year 68-bcf gas sales agreement with Chugach Electric that has been submitted to the RCA for approval. It will provide a substantial portion of Chugach's unmet needs going forward. The contract provides a fair compromise on the key contractual terms and they hope for prompt approval. With respect to the future in the Cook Inlet, ConocoPhillips will continue to produce natural gas to honor their commitments to the local market.

The major issue that confronts the Cook Inlet gas developer is a limited amount of room to place gas into the market, he stated. Furthermore the local gas market is relatively small and highly cyclical. The combined local demand is approximately 85 bcf/year or an average of 230 mmcf/day for the entire year. A huge swing in demand happens between winter and summer primarily due to variations in required space heating. A peak day demand could be

upwards of 450 mmcf/day and the lowest about 100 mmcf/day, a significant variance.

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If wells flow only seasonally, they are at risk of water encroachment and possible loss of producability. Such negative operational impacts will lead to less supply and deliverability being available to the market. So, from a producer's perspective it is very important to have assurance that gas will be able to flow into the market at stabilized flow-rates from the wells. This provides some economic predictability and allows the possibility that both rate and reserves can be maximized.

MR. CLARK observed that the Cook Inlet needs more gas storage to levelize production, and anything that can be done to increase the overall demand in the market such as continued operation of the LNG plant and/or the reopening of the Agrium facility would be very helpful in creating a stable market into which producers could flow gas consistently. ConocoPhillips feels that this issue must be adequately addressed in order for additional deliverability to be developed.

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SENATOR FRENCH asked what storage ConocoPhillips has in place now.

MR. CLARK answered that the only storage they have is at the LNG plant and they don't have any underground storage.

SENATOR FRENCH asked if their focus is on existing ConocoPhillips assets or were they exploring.

MR. CLARK replied that they are focused on existing assets.

SENATOR FRENCH asked how many wells they will drill over the next three years.

MR. CLARK answered depending on the results of this phase of development, they will go forward.

SENATOR FRENCH asked how ConocoPhillips will report those results.

MR. CLARK replied that they have conversations with the DNR as part of the annual plans of development (POD) approval process.

SENATOR FRENCH asked if they are drilling year-round.

MR. CLARK answered that drilling is dependent on the location. At Beluga River it has been seasonal in the summer when they can get access; at the north Cook Inlet unit they drill through the winter.

SENATOR FRENCH asked for any other good news.

MR. CLARK responded that the drilling rig had just been "demobed" at the north Cook Inlet unit and those wells were just brought on line. At Beluga River, last year's well was producing for a few months, but it had mechanical issues and those are being worked on right now. So, it's too early to tell.

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CO-CHAIR WIELECHOWSKI asked if they have the ability to increase the amount of gas they export out of their LNG plant.

MR. CLARK replied that their license limits the amount for export. The plant is currently operating at half-capacity - about 120 mmcf/day. "So, there is room beyond that for essentially up to 230 mmcf/day."

CO-CHAIR WIELECHOWSKI asked if ConocoPhillips was even able to import LNG to solve the short term problem.

MR. CLARK answered yes they could use their marine terminal to import gas, but they would have to invest in modifying their facilities to regasify the LNG that came in. "It's definitely possible."

CO-CHAIR WIELECHOWSKI asked the quality of Cook Inlet gas.

MR. CLARK replied it's dry and clean, and has a high methane content - not a lot of other heavier components.

**Marathon Oil Company**  
**Carri Lockhard, Alaska Production Manager**

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CARRI LOCKHARD, Production Manager, Alaska Operations, Marathon Oil, said the Southcentral Alaska natural gas supply gap has been recognized for a year. In 2006, the Alaska Oil and Gas Conservation Commission (AOGCC) and local municipalities sponsored the Southcentral Alaska Energy Forum at which Science Applications International Corporation (SAIC) Manager, Charles Thomas, showed the Department of Energy (DOE) Natural Gas Supply

and Demand chart prepared with data from the 2004 Southcentral Alaska Natural Gas Study. It predicted that supply would equal demand on an annual basis by the year 2012. She said the question is: Do ongoing efforts across the entire value chain facilitate overall resource developments in energy reliability?

At that same forum Mr. Thomas also concluded that Alaska has potentially 15 tcf of undiscovered resources in the Cook Inlet, but large portions of the land are federal and State Wildlife Refuge and parks; potentially 30-50 percent of the prime exploration areas have restricted access or are otherwise off limits. So, she said another question is: Is enough being done to open up exploration areas to tap these potentially abundant undiscovered resources? And is history doomed to repeat itself?

At the same forum, Carolyn Dunmire, Dunmire Consulting, presented a report prepared for the Alaska Natural Gas Development Authority (ANGDA) that listed both energy supply and demand alternatives for the Cook Inlet. This leads to the question: Is enough being done to introduce other energy alternatives or to replace or retrofit gas-fired electrical generation with dual-fuel capabilities to address natural gas conservation and a demise of an unusually low natural gas pricing environment.

MS. LOCKHARD stated that in the Lower 48, the FERC-regulated wellhead prices started in the 1930s because of concerns regarding monopolistic tendencies of interstate gas pipelines. It set artificially low price ceilings for natural gas which resulted in strong demand surging. Consumers received good value, but at a cost to producers that received little incentive to invest capital for exploration and development of new reserves. Gas shortages resulted in 1976-77 forcing many public schools and factories in the Midwest to close. Due to these negative consequences, wellhead gas prices were fully deregulated in 1989.

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So, another question is: Should the role of regulation be to help insure long-term energy security, supply to consumers, or to simply focus on gas price?

She said their region is facing a future supply gap, but an even more immediate issue is the Cook Inlet's challenge to meet contractual daily peak demand requirements for the utilities from natural gas fields that were primarily discovered in the 1960s. Although these gaps in supply and deliverability have

been discussed over recent years, little has been accomplished that remedies the pending situation. A significant effort now is being focused on the apparent larger term solution of bringing NS gas into Southcentral Alaska. He stated:

However, if they do not fill the immediate and short term supply and deliverability gap, it is Marathon's view that the decision must be made now and plans implemented that will address the short term and medium term realities. We believe that all stakeholders should recognize and accept key ingredients and compromise in efficient, effective and competitive natural gas markets, namely - with no intent to prioritize - access to resource, access to market and the correct pricing signals that allow new sources of gas supply to be explored and developed. Gas storage should be developed as required including proprietary and third party storage.

MS. LOCKHARD said it is important to point out that demand, conservation and access to market are not mutually exclusive. Gas exploration and drilling in Cook Inlet is a very high cost proposition. There is room for small funded producers; they play an important role in meeting the overall demand, but it is unlikely they alone can help meet the needs of Cook Inlet. The local Cook Inlet market is relatively small and by itself it is unlikely to be sustainable.

"If a significant natural gas discovery were to be made today, the local Cook Inlet market simply could not support the economic development of the resource," she said. Additional demand would be required. Without having a large industrial consumer acting as the base tenant, the high deliverability swings and the cost of gas to the local utilities will increase dramatically. She said actions should be taken to ensure that new exploration, drilling and production activity takes place in Cook Inlet. The state should provide the proper fiscal, legal and economic incentive to insure a natural gas supply to meet the needs of consumers in Southcentral Alaska.

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To insure energy reliability from the supply side, she said, Marathon believes that Cook Inlet needs new investment, not only in new production projects, but also gas storage peaking facilities, transmission infrastructure and utility redundancy projects. Companies need market access, effective and fair regulation, fiscal certainty, available surface access and

reasonable returns that enable projects to compete at the corporate level for finite funding.

In this regard she offered the following:

First, fiscal incentives and predictability are necessary to compensate for project risk and high cost of exploration and development.

Second, state statute should provide clarity on regulation jurisdiction, and procedures should be well-defined. Current sales to regulated utilities are subject to unduly burdensome procedures. These procedures may be well-intended, but in our view have been subjected to inconsistent regulatory guidance and have been unduly influenced by a number of provincial commercial interveners with narrow self-serving focus. This eliminates any potential for reward for risk-taking, and as a result places the public at risk for supply reliability. Undue regulatory demands cost companies and consumers, alike, millions of dollars in recent years without facilitating long-term natural gas reliability.

Three, companies large and small must have access to market - market-driven pricing entrance and transparency. Contrary to prior decades, the current environment in Cook Inlet is no longer conducive to long-term full deliverability contracts. Projects in Alaska must compete with projects world-wide for finite funding on an annual basis. To be clear, this means companies generally invest in projects that provide the best economic returns in this competitive environment and economic projects are left unfunded in today's environment.

Four, winter peak deliverability requirements must be fully valued to facilitate storage development and other peaking mechanisms. Additional storage projects must be developed to provide system flexibility and efficiency in meeting seasonal and [indisc.] peaking demands. The best way to make this happen is to have independent storage development where real value or costs can be recognized in the market place and in the regulatory process. This all comes out of costs regardless of whether the deliverability is fully utilized or not. Unfortunately, Marathon's experience

in the APL-5 docket demonstrated that the commission was unable to appropriately recognize the value of this service.

Five, the Cook Inlet has limited surface assets. Given the amount of federal acreage and the ongoing uncertainty with the critical habitat designation as part of the Endangered Species List, access to federal acreage to explore for new hydro-carbon deposits is an option not only to fill the shorter-term supply gap, but also should be used as a comparator metric for longer term options such as gas from the North Slope. So, in essence, it is an access issue, and without the land, we can't even assess for the resource potential as defined by the DOE and USGS report.

In terms of natural gas pricing, there is a wide divergence of opinion. Assuming that the other market essentials are in place, it is intuitive that if natural gas prices are too low over a period of time, the result will be reduced supply availability. If prices are high over a period of time - for example, if prices are higher than the next best alternative - that will result in further demand destruction. It is critical that we have an environment where free market forces are embraced.

Insuring energy reliability is also a function of demand efficiency. The state must provide proper incentives and regulatory oversight to encourage energy efficiency and conservation, such as at power plant efficiency projects, energy diversification and consumer conservation. Consumer conservation isn't highlighted in Mr. Zager's talk, and that is something that has pretty immediate response, more so than an exploration project. So, I believe conservation plays an important role in this, certainly during peak winter demand.

In the light of the current situation, we continue to recommend that the total local utilities install dual firing capabilities at the proposed generation projects at the very least to meet peak demand requirements.

In closing, decades of abundant supplies-driven behaviors created expectations, and perhaps influenced

the ability to adapt. Maintaining the status-quo will have unintended and undesirable consequences in the not-too-distant future. Peak deliverability is declining and industrial demand continues to be destroyed. Stabilizing and maintaining the supply reliability will not be possible without vision, commitment, cooperation, collaboration, process efficiencies and appropriate action by all. It is not an obligation by one party, nor can one party solve the problem of shared demand and supply responsibility. Together we must establish the proper regulatory framework and incentives to attract new investment for exploration, development and production of natural gas. Simultaneously, we must provide proper incentives and regulatory oversight to drive energy efficiency and conservation.

We at Marathon have a long-standing commitment to be a good partner with industry, government, regulators and community to help find and implement appropriate solutions to challenge we all face. We have been a major provider of energy to the local market for 55 years and we are the largest natural gas producer in the Cook Inlet. We have always reliably met our contractual obligations to our customers in Cook Inlet and we will continue to do so. The corollary of this is that we have not and will not take on supply obligations which we cannot meet.

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SENATOR WAGONER said they negotiated two contracts in the last 7-8 years that had been disallowed by the RCA, and he asked what the terms of the first contract were and what the gas would have been sold for.

MS. LOCKHARD replied that she didn't have the exact terms, but it was a 60 bcf contract over a ten-year period which would have met all of Enstar's unmet needs at that time. That was based on a Henry Hub price, a precedent the Chevron contract set a couple of years earlier. That contract was declined because of the ties to Henry Hub, because at that time the RCA felt that was not appropriate pricing.

They went back to the Commission with a 38 bcf contract for five years, and this time it had a different pricing mechanism; but again it was disapproved, so that left a significant gap for Enstar. Since then, they are working under an 8 bcf two-year

contract and [indisc.] pricing that didn't need Commission approval. She said a two-year contract makes it difficult to engage in exploration because it doesn't provide the proper line of sight for the security of being able to get rid of the gas. In addition, they have nothing to show after five years of negotiation for their efforts, which has literally cost them millions. It has taken a toll on their plans as far as development goes.

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SENATOR WAGONER stated that ConocoPhillips testified earlier that it cost them an average of \$45 million to drill an exploratory well, and he asked if it was the same for Marathon.

MS. LOCKHARD replied that their costs are different as they are with many companies. It depends on what fields you are in - offshore, onshore, and what type of completions you need to install. They have invested nearly a half-billion dollars over the past six years in Cook Inlet for about 60 wells. So, it's \$8-10 million. It's not just about wells costs, but infrastructure - compression and maintenance.

SENATOR FRENCH asked if they are still going to drill four wells this year.

MS. LOCKHARD replied yes; that is an average of 40-60 percent reduction in number of wells they typically drill in a year.

SENATOR FRENCH said one of the drawbacks of this format is that the RCA doesn't get to respond to some of the things she said now, but they would get a chance later. One of the things he thought they would say about setting the contract prices is that they have recommended to the legislature that it explore more deeply what Marathon's actual cost of production is, since it is sort of one of the hidden elements in Cook Inlet gas pricing.

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MS. LOCKHARD replied that the value of gas is not based on costs, but on the next best alternative, and "That's where the focus needs to be." She is not convinced that any business would open their books to make direct comparisons to the competitors. Business just doesn't work that way.

Her portfolio is very different from Chevron's and ConocoPhillips'. Ninety percent of her gas is from wells drilled over the past decade in a very high cost environment. The focus

needs to be on value and not on costs, because it doesn't work that way. What she gets from her projects have to compete with those in equatorial Ghana, and Texas and the Rockies.

SENATOR FRENCH asked if he was to compare Cook Inlet natural gas to hydro power developed by the Chakachamna Dam, how could he know she wasn't setting natural gas prices a penny above or below that without knowing what it costs to get the gas out of the ground.

MS. LOCKHARD replied she had no idea what hydro or other alternatives cost, but she said that reports are out there that provide general data to the industries.

CO-CHAIR WIELECHOWSKI asked if it's just not affordable to drill for gas in Cook Inlet or does it have limited gas resource.

MS. LOCKHARD replied that Cook Inlet has opportunities, no doubt, but they are limited because of access. She explained that their supply has been from wells drilled in the 50s and 60s and it is a by-product of oil production.

CO-CHAIR WIELECHOWSKI asked what kind of storage is needed, and if they have storage to lease or sell to Enstar.

MS. LOCKHARD replied that they have developed storage for their proprietary interest so they could execute on their contracts. It would be very difficult to open it up to a third party due to existing commercial arrangements. Their portfolio has other opportunities that are likely storage candidates. All options should be on the table both above and below ground. But this is not a producer issue; it is a utility issue to service customers unless Marathon agrees to take on more full-requirement contracts, which would be difficult for them to do.

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CO-CHAIR WIELECHOWSKI asked when Marathon decides it is more profitable to drill somewhere else, and they don't drill on leases that they own in Cook Inlet, do they give them back to the state.

MS. LOCKHARD replied that Marathon has no leases with the exception of one drilling obligation where they will be engaging in an exploration well at the end of the year if they can get the final approvals.

CO-CHAIR MCGUIRE asked if Marathon would take advantage of tax credits for capital investment in storage.

MS. LOCKHARD replied that it would be considered, but she would have to look at where the opportunities lie.

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CO-CHAIR MCGUIRE asked how the tax incentives the state put into place for Cook Inlet five years ago have worked out and asked if she would be looking for more of an incentive.

Ms. LOCKHARD answered that five years ago the environment was very different; now there is more a sense of urgency to engage in further exploration and development. Some companies have been able to take advantage of the incentive and have helped Marathon to successfully get projects through the corporate hurdles in Ninilchik. Carrying that forward would be very beneficial for all of them.

2:06:08 PM

CO-CHAIR WIELECHOWSKI asked how having a big enough market for a big find could be remedied.

MS. LOCKHARD replied that is a good question; the whole overall market structure has a problem. The regulatory process could be changed, but she said she would have to do more thinking on it. Having negotiated contracts with utilities declined by the RCA is an impediment to having free market choices.

CO-CHAIR MCGUIRE asked if she considered adding another ship for their LNG facility.

MS. LOCKHARD replied that they had two ships in the past and just recently went down to one, but it is an ongoing question with their partners, ConocoPhillips.

CO-CHAIR MCGUIRE asked if she knew that FERC just permitted the first LNG receiving terminal on the West Coast in a decade - in Oregon. Some of them just had discussions about how to expand Alaska's market and know from FERC and DOE that they will not be approving export licenses out of the country, but she thought Oregon might be a market for Marathon.

MS. LOCKHARD responded that other legalities would have to be explored to make that happen, and she leaves that to her marketing group.

CO-CHAIR WIELECHOWSKI said he was interested in all of their ideas about how they could streamline the regulatory process or encourage storage.

**Aurora Gas, LLC - Bruce Webb**

[2:09:25 PM](#)

BRUCE WEBB, Manager, Land and Regulatory Affairs, Aurora Gas, LLC, said from Aurora's perspective the problem is fairly simple:

Available gas is decreasing to levels that will fail to meet demand in the near future and despite the obvious need for more supply, the investment necessary to avoid shortages are not being made. By available supply I mean proven reserves, reserves that have been drilled and are available to be sold into the market. This should not be confused with total reserves. Numerous studies have estimated tremendous amounts of natural gas that remain in the Cook Inlet. They are not available until someone invests the money and takes the risk to drill them. Alaska is reported to have more oil and gas resources than any other state; yet we consistently have the lowest operating rig count in the country.

Two weeks ago the Cook Inlet areawide lease sales produced one of the most dismal results ever in the history of such lease sales with bids on only four of the 815 tracts available, a mere 7,000 of the 4 million acres that were offered. Not one of the existing operators in the Cook Inlet, including Aurora, bid on any tracts. In fact, none of the apparent high bidders had an exploration or production history at all.

Recent announcements indicate that some companies with operation plans are planning to significantly reduce their drilling budgets. We have to ask ourselves why with such obvious need for more natural gas in Cook Inlet in a geologic basin with considerable additional reserves waiting to be explored and developed is no one buying leases or trying to drill a gas well on state land. Aurora submits for your consideration the following reasons:

1. Lack of access to market
2. Lack of adequate financial incentive

### 3. Lack of access to the resource

Access to the market is limited contractually and physically. For the entire history of natural gas production in the Cook Inlet the market has been dominated by relatively few players, utilities, and major producers. With the luxury of market and oversupply, utilities were constantly able to contract for supply many years in advance for the contracts that obligated the major producers to meet all of the utilities requirements. In exchange, the producers expected to sell all of their gas that the utility required. These are the so-called 'full-requirement contracts.'

Full requirement contracts are the two-edged sword. They provide the utility with the badly needed security of supply and they provide the producer with the economic incentive to drill and produce gas. However, they also close the market to potential competition thereby setting the stage for future shortages.

Recent contracting between utilities and major producers have trended away from full-requirements. With the contracts currently in place, we are still in a situation whereby a new company that desires to drill for gas in the Cook Inlet has no assurance that they can sell their gas for several years out if they are successful in finding it. Unlike the Lower 48 states, there is no spot market for gas in the Cook Inlet. Therefore, we are compounding the geologic risk of drilling with development and commercial risk.

In addition to the contractual barriers to the market, there are also physical barriers to the market. The same network of a utilities and major producers that control the gas contracts also operate and control the pipeline infrastructure in Cook Inlet. Their reaction to the shrinking supply situation in Cook Inlet is to tighten-down the system with more rules for the delivery of gas. Aurora believes that tariffs should protect the integrity of the pipeline and its reliability of service. However, the rules need to make sense and not serve to discourage additional new resources of gas coming into the system. The rules should not create a playground whereby only a select

few players get to play in it. We need more flexibility in the system, not less.

The lack of adequate financial incentives can also be described as price uncertainty. None of us has a crystal ball that tells us what the prices will be in the future, but in Alaska the situation is worse because we can't even agree on an appropriate pricing mechanism for the gas. This situation must be resolved. Alaska's Cook Inlet is a high cost environment and natural gas exploration is a high risk proposition. The Cook Inlet Basin is competing with other basins around the country and around the world, and they compete for a limited amount of investment dollars. Those dollars will simply go elsewhere if the basin doesn't yield competitive reserves that provide the explorer the adequate financial incentives.

2:15:00 PM

Low prices benefit the consumers, but if they are too low, the benefit only lasts for a short term. Ultimately they will pay the price associated with the lack of supply because drilling will cease. The state has the ability to offer financial incentives to encourage additional drilling in the Cook Inlet. These incentives can be structured in a variety of ways, but they must be clear and easy to administer. All too often well-intentioned incentives passed by the legislature are complicated subject to interpretation and administration by and agency whose primary job is to protect the state's interests. This makes it very difficult for the explorer or producer to actually get those incentives without a fight.

The third case we see for the lack of Cook Inlet drilling is a lack of access to the resource. Similar to the access to the market, the lack of access to the resource also has both contractual and physical aspects. Contractually the lack of access manifests itself in the regulatory and permitting process. For many years the industry has been united and consistent in its pleas to the state for easier access to lands for purposes of exploration and development. The state's permitting process is overly burdensome, onerous and expensive. It serves only to incent those seeking to drill wells.

It seems to us that the message from the top levels of government, that is we are open for business and drill, baby, drill simply do not get communicated effectively into the trenches of the few specific agencies charged with permitting and overseeing oil and gas exploration and development. Aurora has experienced several recent unreasonable permitting snags which have only served to delay and discourage our desire to drill for natural gas on state lands. In one case our application to permit a one-acre temporary gravel pad, which is immediately adjacent to the existing gravel road known as the Beluga Highway, and in an areas surrounded by four other producing gas fields between the Enstar Pipeline and the Chugach Electric Power lines was denies on the basis that it would cause an unacceptable impact to the coastal use and resources resulting in an irreparable level of damage to the peat bog habitat. This one-acre pad sits amidst the 270,000 acre state game refuge. Aurora is now faced with the probability of the leases expiring and the associated potential gas reserves totaling approximately 70 bcf going undrilled. Alternatively, had we had the funding earlier, we could have drilled the well in the winter time at a significantly higher cost and subjecting our crews to harsher less safe work conditions.

In a more pressing example, Aurora is extremely frustrated with our current efforts to permit the next well in our exploration development plans at Nikolai Creek number 11. As a result we are forced to drill another well on CIRI land and after that well, we may be forced to stack the rigs until the Division of Coastal and Ocean Management can complete a 50-day review process. That review process has not even yet begun.

While it is probably not appropriate to get too far into the specifics of this permit application in this forum, we stand willing to provide you with more details if you are so interested. Cook Inlet needs new exploration; we can no longer simply rely on infield drilling of existing reservoirs to keep up with the long-term demand. The permitting process must be streamlined and managed by people who understand the big picture. Physically the lack of access to the

resource results in a lack of infrastructure and appropriate access to areas with prior disturbance. Explorers need roads and bridges and areas adjacent to existing roads and areas with prior surface development need to be opened for exploration. Any of the prospective lands are either difficult and expensive to reach or burdened by excessive and unreasonable restrictions.

2:19:40 PM

Aurora's operations are approximately 60 miles from Anchorage, and we have to barge or fly virtually everything and everyone in and out. We could give you specific recommendations about road and bridges, but that would be selfish and specific to our case. That's why under reasonable restrictions I sight the mismanagement of the Susitna Flats State Game Refuge, specifically in and around the Beluga industrial development. The general idea I want to leave with you is that throughout Cook Inlet if there were more roads and bridges, and less restrictions it would lead to more drilling and natural gas suppliers.

Aurora Gas is committed to its ongoing efforts to develop and produce natural gas in the Cook Inlet. Alaska needs more companies like Aurora Gas and the state needs to incentivize us and others to continue this effort.

1. We need contractual access to the market. We need to know if we are successful in the search for natural gas that we won't have to wait for years to sell the gas.
2. Physical access to the market. Pipeline tariffs should be structured in a manner that does not provide advantage to existing players and makes it difficult for new smaller players to deliver gas.
3. Adequate financial incentives. Clear pricing signals that encourage companies to take the risks associated for drilling gas.
4. Contractual access to the resource. More flexible lease terms, a streamlined centralized permitting process managed by agency personnel that can adequately waive the need for proper oversight balanced by the urgency and benefit of promoting additional drilling instead of discouraging it.
5. Physical access to the resource. New roads and bridges are ways that oil and gas exploration can be

made more attractive. Access to lands without unreasonable restrictions are a must.

6. Gas storage. We note that gas storage is on the committee's agenda this afternoon. We wanted to let you know that Aurora Gas is actively pursuing the storage project at our Nikolai Creek unit on the west side of the Cook Inlet. Preliminary technical review by our consultants has revealed that we do, in fact, have a viable reservoir conducive to gas storage operations. We plan to present a technical presentation of the project to all interested parties in the near future and assess the interest level of the third parties that may be interested in contracting for the storage services. Aurora does not yet have a gas storage lease with the State of Alaska that would give us the right to move forward with the project, but we are working with the Department of Natural Resources to obtain such lease terms comparable to those extended to other producers in the Cook Inlet that have developed storage units.

The extent to which our project may or may not be subject to regulation by the RCA is being evaluated and we certainly intend to keep them informed on our progress along the way.

**Armstrong Oil and Gas - Ed Kerr, Vice President, Land and Business Development**

[2:24:04 PM](#)

ED KERR, Vice President, Land and Business Development, Armstrong Cook Inlet, a subsidiary of Armstrong Oil and Gas, said this issue is the highest priority for the RCA, Chugach Electric, Enstar, the Legislature and so many more.

MR. KERR said that while he was going to sound redundant, he felt it was important for legislators to get a true cross-section of outlooks from various entities with differing perspectives. "In order to be successful in increasing production within the Cook Inlet I believe it will take a concerted effort from multiple disciplines within various companies and agencies."

He listed the following key parameters or issues that are stumbling blocks to increasing production in the Cook Inlet:

1. The reality that recoverable reserves on a per well basis have been consistently shrinking over the past 50 years. It is difficult to quantify the severity and impact of this decline until it has already occurred.

As evidence of this they used an IHS data set to make certain observations. His slide showed that during the 1960s the peak four-year production for gas wells drilled resulted in a gas recovery of 11.9 bcf/per well. During the 1980s the peak gas production for all wells drilled resulted in a gas recovery during the same period of 5.1 bcf/per well. During the timeframe of 2000-2008 the peak four-year gas production was 3.2 bcf/per well. The conclusion they reached is that it is taking more wells to obtain fewer reserves. Obviously, more wells require more capital to explore, find and produce gas.

MR. KERR stated that Cook Inlet has some of the best gas wells in the world, but they are now very old and declining rapidly. New gas wells are much smaller, and as such, more wells are needed to achieve substantive increases in production.

[2:27:31 PM](#)

2. Next issue they identified is there simply are not enough companies looking for gas in Cook Inlet. Ninety eight percent of gas within the Cook Inlet is produced from wells operated by just three companies. This gives such a high concentration risk for so much of the reserve base. He hastened to add that Chevron/Texaco, Marathon and ConocoPhillips have done an excellent job there; they represent the best of the best. The fact that they are not drilling more wells is purely a function of this area not providing them with the rate of return that is competitive with their other opportunities for capital investment across the world.

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3. A lack of wells being drilled in Cook Inlet - 1,298 wells have been drilled. Their opinion is that Cook Inlet is a vastly underexplored province and with good signs that there is a tremendous amount of gas yet to be found in the area. In 2007 according to IHS a total of 14 wells were drilled by three operators in Cook Inlet. Conversely two similar basins within the Lower 48 show a much higher level of activity. In the San Juan Basin a total of 45,884 wells have been drilled to date; and 999 wells were drilled in 2007 by 56 different operators. In the Big Horn Basin a

total of 14,080 have been drilled; 107 wells were drilled in 2007 by 17 different operators.

Finally he said the combination of higher costs due to a lower number of wells being drilled, smaller reserve size on a per well basis, wide swings in production due to realities of Alaska's climate and challenging prices dictate that something new must be done to avert the decline in gas production.

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MR. KERR said their opinion is that the solution is drilling more wells, especially exploration wells. They believe it can only be achieved by the following:

1. Increasing the price paid for the commodity. Ultimately all oil companies are driven by economics, especially independents who make up over 90 percent of the gas wells being drilled in the U.S. today. Oil companies must be incentivized to take the risk of exploring for and producing natural gas in the Cook Inlet.
2. Considering additional tax incentives - although he thought the State of Alaska has already done a good job of creating a favorable tax environment for the Cook Inlet - but it is a way of enhancing the economics for companies and that ultimately drives what will get wells drilled.
3. Streamlining approval of gas contracts. The RCA is in a difficult situation in needing to approve gas contracts and looking over the best interests of Alaskans, but somehow companies need to know that they can get an agreement approved in a timely manner so that the logistics of permitting, shooting geophysical data, obtaining rights-of-way and necessary equipment, procuring drilling contracts, purchasing tubular, mud and all of the other things that come into play when drilling and producing gas wells can be done as efficiently as possible. If companies do not feel they can get a gas contract approved, no one will develop the huge reserve potential in the Cook Inlet.

[2:32:08 PM](#)

At ease

**Escopeta Oil Company - Bruce Webb, spoke for Danny Davis,  
Consultant**

[2:38:33 PM](#)

CO-CHAIR WIELECHOWSKI called the meeting back to order at 2:38.

BRUCE WEBB, Manager, Land and Regulatory Affairs, Aurora Gas, said he is also the owner of the Webb Petroleum Service that

provides consulting to independents like Escopeta Oil, Pacific Energy Resources and Fox Petroleum. He is also the President of Webb Exploration and Production and holds three offshore Cook Inlet leases. Prior to becoming an employee for Aurora Gas, he worked for 20 years for the State of Alaska, 11 of which he spent in the Division of Oil and Gas in lease administration, permitting and compliance. Before that he spent five years working on drilling rigs on the North Slope and on the Kenai Peninsula.

He said there are currently only five natural gas exploration well plans in the Cook Inlet on state lands; two are with Aurora Gas, two are with Fox Petroleum and one is with Escopeta Oil Company. He prepared all five of those permits. In permitting these exploration wells it was his goal to have an arch going across the Cook Inlet following the Enstar natural gas pipeline. By permitting several wells in sequence explorers can share certain things like drilling fluids, cost of ice road construction, and things of that nature. Of the five wells that are currently in the process of being approved or permitting, four of them have been stalled in the ACMP process. The Nikolai Creek 11 wells, which Aurora was planning to drill after its current well is held up with technicalities in the review process.

The Hanna well's special area permit, which is in the Susitna Flats State Game Refuge, has already been denied. The Coastal Management Program has considered the denial of that permit as an insufficient application, so they are refusing to start that permit review.

Fox Petroleum's Two Catchers' Mitt Prospects - the Grand Slam and the Home Run - are also stalled in the ACMP process. That leaves only one well, Escopeta's North Alexander, and it was permitted last year in March; but Escopeta is not going to drill that well unless they can do cost sharing agreements with Fox Petroleum on the expensive cost of the ice road. That leaves zero; and no other exploration wells are planned on state lands for natural gas in the Cook Inlet. They just need the process to work a little better.

SENATOR WAGONER said that Escopeta has said for years it was going to bring a floating drill rig to the Kitchens Unit, and he asked what the status is of them getting together with other people in the Cook Inlet with that drill rig.

MR. WEBB answered that the DNR had coordinated the Corsair Unit, the Kitchen Unit and the Northern Lights Unit into one consolidated unit which is going to be called the Kitchen Lights Unit. The application is in the process of getting approved this month. Danny is getting the other investors necessary to bring the jack-up rig to the Cook Inlet to start drilling in the Kitchen Lights Unit; he has the Jones Act waiver and is negotiating a couple of drilling rig contracts. Costs of contracts on drilling rigs are going up in the Gulf of Mexico because of the economy. The current plan is that by March 2010 the drilling rig will be on its way to the Cook Inlet and the first well needs to be drilled according to the plan of exploration by December 2010.

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At ease

**DNR/Office of the Governor - Kevin Banks, Acting Director,**  
**Division of Oil and Gas**

[3:01:57 PM](#)

CO-CHAIR WIELECHOWSKI called the meeting back to order at 3:01.

KEVIN BANKS, Acting Director, Division of Oil and Gas, Department of Natural Resources (DNR), showed a slide of what would happen to production in Cook Inlet with no new exploration. It is what is called "the waterfall slide." He said the blue line showed how peak demand is satisfied in the Inlet while the average production for the year is considerably lower. A forecast of demand is the black line that indicates current production at 140 mmcf/day now, assuming after 2011 no new exports are licensed.

[3:04:54 PM](#)

The P1 reserves are based on the productivity of existing wells; behind the pipe reserves (P2) are reserves that are accessible from existing gas fields, but need further investment in new drilling. Most of the gas production in the past several years has been drawn from these kinds of reserves.

MR. BANKS said a possible 470 bcf of gas is available in the Cook Inlet. Folks are drilling today and converting P1 to P2 kinds of reserves to meet their commitments to the Cook Inlet consumers. The division is revising these graphs and is working with the DGGs to quantify potential undiscovered resources. They want to target incentives to the resources where the economics

play out. As that information is developed, they engage with the producers about costs. They have had a few meetings already.

It is fair to say he is sensitive to Carri Lockhard's remarks that cost represents part of the equation for calculating price and he has to accommodate for the fact that risks are involved so that the cost of a single well does not represent what the cost of an exploration play may really be.

He said that the Cook Inlet is fairly deep - 25,000 ft. at the deepest place, and a lot of oil has been developed on both sides of it. Federal lands are not accessible to oil and gas development within the Inlet. CIRI land includes a lot of subsurface underneath the Kenai Wildlife Refuge; U.S. Fish and Wildlife owns the surface. Some land is owned by Mental Health and the University; some is now owned by the Beluga Habitat, another influence from outside of the state determining whether surface access can be attained. The areas in the Knik and Turnagain Arms have critical habitat rules that prohibit any kind of surface entry. So, not a lot of acreage is left in prospective areas.

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The disappointing last lease sale where only four leases were acquired happened because little acreage has come back into the market as leases have turned, and because some of the most prospective areas are already under lease. Some of the most prospective areas in the Cook Inlet lie under federal control.

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CO-CHAIR WIELECHOWSKI asked if companies are aggressively exploring on areas already leased.

[3:15:55 PM](#)

MR. BANKS replied that they just heard Mr. Webb describe the wells he is trying to drill and how most of them are being held up and how Ms. Lockhard is meeting their commitments. Not a lot of exploration is going on in the Cook Inlet to bring undiscovered resource into a reserve.

CO-CHAIR WIELECHOWSKI asked what efforts the state is making to make sure the lessees are meeting their obligations to develop.

MR. BANKS answered that the state had done "a pretty good job." The Kitchens Unit is an example of converting what seemed to be an intractable situation where investment money from a couple of companies is drying up. Escopeta is committed to bringing a

jack-up rig into the Cook Inlet to begin exploring there. He is planning to drill by December 31, 2010, but he has also made a commitment to drill a well each year after that for four wells.

CO-CHAIR WIELECHOWSKI asked if he agreed with the criticisms of the regulatory and permitting processes.

MR. BANKS said that was difficult to answer; the department tries to be as progressive as it can, but Cook Inlet has resource conflicts everywhere.

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CO-CHAIR WIELECHOWSKI asked to what extent his division or the department deals with storage issues. Do further steps need to be taken to incentivize storage?

MR. BANKS answered they have done a couple of things already. Cook Inlet already has three storage facilities on state land with Marathon and Chevron. Chevron also has storage in the Swanson River field, which is a federal property. Aurora has asked them for storage in one of their units and he is drafting a lease that would allow for a third-party use of that storage, an important advancement.

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JOE BALASH, Intergovernmental Coordinator, Office of the Governor, briefed them on the incentives that are currently available under the Alaska tax code. Under the state's production tax in AS 43.55, there are basically two functioning components that help drive exploration and development incentives; the deductions allowed for single-year capital write offs and the credit that may be claimed.

How that works on the North Slope, depending on what tax bracket you are in (if progressivity has kicked in or not), you get to write off capital expenditures in a single year, and that has the effect of being a 25 percent incentive. If you are into the progressivity zone above the trigger price, that rate could be even higher. This works for the deduction side of the equation on the North Slope.

On the credit side when a capital expenditure is made, depending upon the area in which that exploration target is - seismic or drilling - if it's far enough away from existing wells or units, it can qualify for as much as a 40 or 30 percent credit. Even if it doesn't qualify as an exploration credit under the rules, it would still be eligible for a 20 percent qualified capital

expenditure credit that is available not only in the North Slope, but also in the Cook Inlet.

MR. BALASH said the exploration credit rules vary a little bit in the Cook Inlet region because of the maturity of the basin; some of the distance requirements are shorter, but they are still available for what would be considered "rank" exploration outside of known reserves.

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The biggest difference between the North Slope and Cook Inlet is in the operation of deductions due to the transition-type of work that was done in the production tax code when it was moved from the ELF-based system in 2006 into the net-based under PPT and ACES. Under ELF a large number of producing fields in Cook Inlet were at a zero percent tax rate, primarily the oil fields and some of the gas fields were down in the 4-5 percent range. To prevent any jarring tax increases for either oil or gas, a ceiling was put in place to grandfather in the old ELF-rates. He explained further:

So, when you take an expenditure in Cook Inlet and start deducting that from the production value, that comes down and brings the overall production value lower, but unless you have a significant expenditure, you're not ever going to fall below the old ELF ceiling. As a consequence, you don't see the tax benefit of a deduction in Cook Inlet the same way you do on the North Slope. As a consequence you don't have the same combination of incentives to apply to exploration projects in the Cook Inlet that you do up in the North Slope and in the Brooks Range and NPRA. So the bottom line is that we do have tax credits, but because the tax rates are low the opportunity for the additional incentives in the capital deductions are not present in Cook Inlet.

SENATOR FRENCH asked if North Slope credits are transferable out of the Cook Inlet Basin.

MR. BALASH replied the credits can be applied to production tax due in other regions, but the deductions can't be exported outside of the Cook Inlet Basin.

CO-CHAIR WIELECHOWSKI asked what he thought about Chevron's suggestion about making tax credits available for storage

investments and treating storage costs like transportation making them deductible from royalty.

MR. BALASH replied the manner of determining what qualifies as a deduction under the tax code is a defined term in the point of production, and storage takes place above or beyond the point of production. So, it would require changing the definition, which would have to be done very carefully, because a it would affect not only the Cook Inlet, but the North Slope as well.

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As the economic impacts of where that line is are examined, one can see potential enormous changes in the way of looking at the economics - particularly in Prudhoe Bay gas development where a gas treatment plant that would cost billions of dollars. By moving the point of production to a place where storage would be included, he couldn't imagine how the definition would be written without including treatment first.

CO-CHAIR WIELECHOWSKI suggested stopping it at the North Slope, because one of the key issues in Cook Inlet is storage.

[3:27:51 PM](#)

MR. BALASH replied that providing credit for storage could be "bolted on separately" in a couple of ways without creating other problems; definitions wouldn't have to be changed. He observed because of the ways they have tried to treat Cook Inlet differently than the North Slope, they just need to be very careful in making changes to the code so as to not create what might be considered loopholes between the two basins.

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CO-CHAIR MCGUIRE asked if he could use her bill on capital investment for alternative energy that has an earned tax credit that gets applied generally as a model.

MR. BALASH replied that could be considered. The question is who would have access to that credit - the producers, utilities or third parties? It would be a policy decision.

SENATOR FRENCH for summaries of what DNR's ideas are for solving the Cook Inlet gas issues.

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MR. BANKS recapped that the department has been called upon by many parties to offer some kind of baseline information with respect to reserves and resources and possibly costs in order to

help inform to date. To a certain extent that is what the Division of Oil and Gas is trying to do, and they should have a better estimate of reserves by the end of the summer; the resource estimates would take longer. They are at the "very front end" of cost information and they haven't completely scoped out what kind of work that might entail in terms of offering potential solutions.

He said he had been prepared to talk about direct subsidies for gas exploration, but he hadn't heard a lot of people asking for that. They seem to be more concerned about access to the market, access to land, and price, all of which are beyond the department.

**Regulatory Commission of Alaska (RCA) - chairman Bob Pickett -  
gas pricing**

[3:32:05 PM](#)

BOB PICKETT, Chairman, Regulatory Commission of Alaska (RCA), said he would first highlight the statutory role of the RCA. They do not regulate producers of natural gas in the Inlet, but they do evaluate gas sale agreements to the utilities. Their standard review considers whether the utility acted in a prudent manner and if the terms of the agreement are reasonable, and whether the gas sale agreement insures reliable and reasonably-priced utility service. They are guided by AS 42.05.431(a) and under this subsection, the RCA has to determine if terms of a gas sale agreement are unjust, unreasonable, unduly discriminatory or preferential. The RCA makes this determination on the basis of the record developed for each gas sale agreement.

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He explained that the gas sale agreements are filed as tariff actions (TA filings) and are publicly noticed. After the public notice period is over, the Commission will evaluate all the comments that are filed and then make a determination as to whether they will allow the filing to go into effect or suspend it into a docket for further investigation. Because of the critical importance of the gas sale agreements most have been suspended into dockets. They are a huge component of a utility's electric bill or in the case of Enstar, it probably accounts for 80 percent of their dollar figures. The record is developed through successive rounds of prefiled testimony and discovery on the prefiled testimony, and further developed through evidentiary hearings and commissioner enquiring. The Commission must base its findings of law in findings of fact on the record.

When the RCA decisions don't afford all the parties their due process rights based on the record, they are subject to reversal by the Superior Court or the Supreme Court - as what happened with the 2004 RCA decision concerning an Anchorage utility.

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He commented that the Cook Inlet gas market is truly unique, because it is isolated, and the gas was found as a result of looking for oil - so the costs associated with the initial exploration which identified the largest Cook Inlet fields were by and large borne by the oil side of the equation at a time when the cost structure was entirely different. There is no commonly accepted pricing mechanism in Cook Inlet for natural gas. It has been only since 2001 that a variety of pricing proxies have been considered by the utilities, the producers, the attorney general and the RCA, but none have resulted in an RCA-approved GSA that currently delivers gas to utility customers.

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MR. PICKETT explained that utility gas supply agreements use a variety of pricing mechanisms - the Henry Hub averages, crude oil futures, NYMEX 36-month future contracts, contractual terms tied to specific base prices identified in some of the legacy contracts with an index escalator, and in the case of Enstar, the "weighted average cost of gas" for Cook Inlet (WACOG), which is \$8.75(2009). For reference he said the July 2009 NYMEX was \$3.80.

He said they should factor in some recent development into their decision-making process. After the conclusion of the last sale agreements (E0858) in which Enstar relied on a tariff provision allowing them to enter into agreements with producers as long as the price doesn't exceed the weighted average cost to Cook Inlet gas (the two one-year contracts that were referenced), the Commission realized that several key points were identified - one is that storage is a critical component of the immediate future and it is going to be the shock absorber that will get us them through deliverability crunches, and he said, "I fully believe we do have a severe deliverability problem."

He said that Enstar recognized the problem in 2007 after a cold snap and again in January 2009 when the average temperatures were no lower than -15 when the system was stretched "from the wellhead clear to the burner tip." This needs to be factored into their thought processes collectively.

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MR. PICKETT allowed that the RCA has not done an adequate job of describing the Cook Inlet gas situation to the public. He is at the receiving end of many phone calls and the RCA is at a balancing point trying to strike the right balance between the utilities and the ratepayers. That is what the legislature in AS 42.05 tasked them with. He has heard the RCA referred to as a rubber stamp for the producers, but he thought Enstar "would be quite shocked to hear that characterization." But when they are hit with 22 percent rate increases, they are frustrated and are looking for some sort of relief.

In February the RCA decided to investigate at their public meetings whether there was a need for regulations or a rule-making (R-dockets) docket on the issue of natural gas storage. Before entering into that, they had a scoping process in which affected parties are offered the opportunity to comment. After reviewing comments on the storage issue and with some input from the Department of Law that there were some jurisdictional issues, commissioners decided not to proceed with a docket at this time because it would probably have a chilling effect on investment in storage. If a utility is going to be directly investing in natural gas storage for utility purposes they are clearly covered under AS 42.05, but as far as producer storage, the RCA has jurisdictional issues and other "gray zones" that are better to not take up now.

The Commission did feel it was important to have a scoping process on how the gas pricing and gas sale agreements work. So, comments were solicited and in April they received comments from four producers, four utilities, land owners, the Attorney General, DNR, ANGDA, and a member of the legislature. The nature of the comments ranged from some strong encouragement clear to "this is a fool's errand." As a result, the RCA decided to open a docket and issue a notice of inquiry covering a couple of different areas. First is the issue of whether the RCA even has jurisdiction in gas sale agreements (raised by one of the utilities) and the Department of Law is looking at. The RCA is also reviewing the practice of prior approval of gas sale agreements. One option is that the utility negotiates it and then down the road some place in the context of a rate case the RCA evaluates it. Given recent history, he didn't think the utilities would do that. In the absence of some certainty, utilities are not going to be second-guessed in the rate case. That's why the practice of prior approval has evolved over the years.

He said the RCA would also be looking at the standard of review for the gas sale agreements and then look at the question if there is a role that the RCA currently has under statute for creating incentives for natural gas exploration and production - a big question mark.

MR. PICKETT remarked that on May 12, the gas supply agreement between Chugach Electric and ConocoPhillips was filed with the RCA along with a request for an expedited public notice period, which was granted. It has been noticed and comments are due back to the RCA by June 19, 2009. He said the RCA website has the three-page notice with a description of the pricing points. As a further consideration for this contract Chugach Electric agreed to drop its appeal before the Ninth Circuit Court of Appeals on the DOE/King Island LNG export license and authorization.

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SENATOR STEDMAN joined the committee.

CO-CHAIR MCGUIRE asked what he thought about Marathon's testimony earlier that the way a price is considered competitive or not is to compare it to the alternatives that are available as opposed to the market itself.

MR. PICKETT said he would speak for himself, because the five commissioners have very different personalities and approaches to things. He thought it was fair to say that some elements of the record point to that opinion. The Commission was criticized by a number of different entities that it did not take cost considerations into account, but from his read of the 10,000-page record of three and a half weeks of hearings is that none of the parties ever introduced cost elements into the record.

He said it is very unclear that the Commission has a role in incentivizing exploration; obviously approval of gas sale agreements is a critical component just because it creates the market for the producers. But he didn't think the Commission was well equipped to make judgments on exploration costs because it was very fast moving. The collapse of the commodity markets makes it even truer today than it was a year ago. Different companies have entirely different rates of return (ROR) and he didn't think they wanted to put the Commission in a position of evaluating on a field by field basis what the ROR should be.

CO-CHAIR MCGUIRE said Mr. Banks testified that he had seen evidence that people are converting their P2 fields to P1 fields to meet existing contracts, and she wondered if part of the

crisis they are facing is because of the lack of fiscal certainty surrounding the long term contracts that could be associated with exploration.

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It appears in that one example movement is detected when there is an underpinning contract. This dovetails into a larger question which is that the RCA has a statutorily defined role on behalf of consumers and she wanted to know to what extent availability of a resource comes into play.

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MR. PICKETT answered that is a good question and if you go back to 2001, the Mineral Management Service (MMS) had an estimate of 2.7-2.8 tcf of proven and probable reserves in the Inlet. In February Mr. Banks had an estimate of 1.35 tcf and it sounds like that may be on the conservative side. The fact is that the proven and probable reserves have been "on a fairly relentless decline in this decade, at least." That means the fields are being developed. So part of the answer is incentives, but it's important that the market as a whole can function. That is why in E0858 the Commission strongly supported the export license.

Availability of the resource is an overriding consideration, but the RCA has to make decisions based on the record. The courts have and will overturn their decisions; and the Commission doesn't have time to redo them. Perhaps the Legislature could go into the statutory citation about the standard of review for gas sale agreements and arrive at some kind of pricing mechanism that made sense in the overall state's best interest. The Constitution mandates particular for the resources that they are managed for all Alaskans, and that isn't just the ratepayers in Southcentral Alaska.

**Gas storage & other infrastructure issues - Mark Slaughter,  
Enstar's Manager of Gas Supply &  
Ethan Schutt, Senior Vice President**

[3:50:49 PM](#)

CO-CHAIR WIELECHOWSKI said he wanted Enstar's thoughts on incentivizing gas exploration in Cook Inlet and on storage.

MARK SLAUGHTER, Gas Supply Manager, Enstar Natural Gas Company, representing Enstar and the Alaska Pipeline Company, said that Enstar is a division of Semco, and the Alaska Pipeline Company is a wholly-owned subsidiary of Semco. They serve about 128,000 customers and that translates into about 350,040 citizens of the

state. They run 350 miles of high pressure transmission lines and another 2,800 miles of distribution lines.

He said they do not have a gas contract currently; the Unocal 2001 contract is the last one. They have entered into negotiations and contracts between various parties using pricing methods that the Commission indicated would be acceptable prior to their hearing and review process, but then they were rejected.

In 2011 they will have a shortfall of roughly 10.5 bcf of gas, which is a third of their portfolio. They do not like to be in this position and would normally contract for long periods of time like 10-20 years. He said they are actively negotiating with producers and he was optimistic that they would bring something forward before then, but he hoped the RCA process would not be too difficult.

CO-CHAIR WIELECHOWSKI asked if he had talked to anyone about using depleted wells for storage.

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MR. SLAUGHTER replied they had been evaluating storage for several years. With the APL6 contract they had a commitment for purchasing storage gas and were in negotiations with storage field owners to purchase the storage field. In 2011 Enstar knows it will need approximately 1.2 bcf gas with a deliverability rate of 50 mmcf/day. He said they had spent a significant amount of time evaluating properties, but only a limited number of fields in Cook Inlet are reasonable storage facilities, and even then some risk is involved. For perspective, he said, even if they were to start on storage today, one entity has estimated that it would take until 2013 to get a storage field on line. This is too late.

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CO-CHAIR WIELECHOWSKI asked what the legislature should do to incentivize Cook Inlet gas production in relation to the Enstar issue.

MR. SLAUGHTER replied that they need to be able to enter into contracts with producers that will be approved by the RCA. They are not interested in a retroactive cost approval basis. Storage is needed, and Enstar is actively working on it.

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SENATOR WAGONER asked what they are going to do if ConocoPhillips' plan is not approved for export in 2011 and they don't have that as a backup for their shortfall.

MR. SLAUGHTER replied that the plant is only licensed through March 2011, and their peaking shortfall right now is 87 mmcf. They will try to contract for it and they are trying to get storage developed storage by that time. The gas that is being diverted from that plant is going to Enstar to CEA to meet other contractual obligations. That is why they are hearing storage is needed in the Inlet.

Enstar has received rough estimates of \$25-30 million for installing the regasification facility on the plant. If the plant is shut down, one idea is that they can fill the tanks up at the end of the 2011 and then they would be able to get through 2012. But who would operate it? And the plant is too large to keep a number of people employed year-round just to fill the tanks up once a year (about 2.2 bcf).

4:01:00 PM

SUZANNE GIBSON, Director, Energy Resources, Chugach Electric Association (CEA), said there are no easy answers in Cook Inlet. One thing they can all readily agree on is that third-party storage is critical to the development of a competitive liquid natural gas market. Storage would provide needed summer time markets for Cook Inlet producers and create opportunities to reduce dependence on producers' ability to provide critical winter time peak demand. It would improve flexibility and reliability for both electric and gas utilities; it would allow new producers to enter into the Cook Inlet market because it reduces the risk that they will not be able to find a market.

However, third-party storage is not without its difficulties, she said. It would be the beginning of a spot market in Cook Inlet, which means that utilities would have the ability to purchase gas on a daily basis to meet their needs. They could also make decisions about whether to store that gas and burn it at a later time, which would require some refinements to current regulatory rules about having preapproval for certain portions of natural gas contracts.

MS. GIBSON said the largest hindrance to a new third-party gas storage facility is that as far as Chugach is aware, there are no empty reservoirs in Cook Inlet that are available for utilities or an independent storage operator to come in and utilize in order to provide the necessary tool that will bridge

the gap between what producers can produce on a daily basis and what utilities require.

As was pointed out, the ConocoPhillips LNG facility is not capable of regasifying the gas that goes into the facility and returning it to the local utility market at this point. FERC recently ruled that any modification to the LNG facility will require the whole facility to be brought up to code. So in addition to adding the regasification, other regulatory hurdles will have to be met.

MS. GIBSON concluded that Chugach believes that third-party storage is the gateway to real price discovery and the genesis of a spot market that reflects the true value of gas in Cook Inlet.

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SENATOR FRENCH asked in other jurisdictions, is it typically the producer or the utility that takes authority over storage.

MS. GIBSON replied that producers can own their own storage; it is also very common for independent storage operators and utilities to own and operate storage. In some cases those storage facilities are regulated and sometimes not.

SENATOR FRENCH asked in the absence of a reservoir and an LNG regasification facility, what other options are there.

MS. GIBSON replied that they need a third party to get their hands on a reservoir, and she didn't know how to get that to happen.

SENATOR WAGONER asked if a facility for compressed natural gas could be built to help smooth out peak demand.

MS. GIBSON replied that she didn't have any first-hand knowledge about the cost of such a facility, but all options should be on the table at this point.

CO-CHAIR WIELECHOWSKI asked how to incentivize storage facilities.

MS. GIBSON replied that Chugach is a not-for-profit non-taxable entity; so from a utility perspective they need capital and the ability to get an adequate reservoir. She couldn't speak to tax incentives.

[4:06:54 PM](#)

CO-CHAIR WIELECHOWSKI asked how big of a storage facility is needed in Cook Inlet.

MS. GIBSON replied that Chugach, Enstar, and ML&P are working on consolidating their needs to figure that out. Most likely one single reservoir wouldn't provide a the whole solution.

CO-CHAIR WIELECHOWSKI said the open market hadn't taken care of this problem, and he asked if she thought the state needed to do something.

MS. GIBSON replied that there is a free market, but not a liquid market, and "the two kind of go hand-in-hand." She stated:

It's difficult to value storage at anything other than cost unless there is a market. That kind of leads you down the path of a utility-owned regulated storage facility. To incent independents to come in and build storage which will be utilized by utilities, it would necessitate spot market. I don't think that you can have one without the other. But if you have storage....it opens up all kinds of opportunities. Because now it means if an independent comes in and drills and they have gas, the utility can buy it because they are not tied up with full requirement contracts that don't allow them to purchase gas from anyone who can't meet some portion of their full requirement. So it is, I believe, the genesis of the improvement of this market, and also it will lead to true price discovery.

CO-CHAIR WIELECHOWSKI asked if Enstar agrees.

[4:10:34 PM](#)

MR. SLAUGHTER responded that from Enstar's perspective, storage is one aspect of the whole equation. If the price is high enough to absorb the dry well or cost overruns, people will take the exploration risks. A third-party independent doing storage services will want a market rate instead of a cost of service model. So, then you get back to the question of how the utility will be able to store gas in a storage facility if the storage operator wants market rates. Then you're going to go down the path of what their costs are to operate that storage facility, and it's doubtful that a producer "will open up their books on that."

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ETHAN SCHUTT, Senior Vice President, Land and Energy Development, Cook Inlet Regional Inc. (CIRI), said he would talk about CIRI's storage infrastructure. CIRI has reservoir and reservoir lands, so they have perspective structural storage, but today they come to the meeting as a third party that has looked at participation in the private market to develop a non-producer, non-utility storage solution that would be available to utilities or independent producers. He said they have perceived a need for storage by smaller independents. Normally the term "producers" refers to Unocal and Chevron or Marathon, the large incumbent producers.

He said that this uncertain market environment makes it an unattractive proposition for private investment to develop an independent and open storage market. To serve this market they probably need storage on both sides of the Inlet - subsurface structural storage for peak needs as well as surface storage that would help ease the utilities' costs as the contracts transition over to having punitive clauses for missing predicted gas rates with their producers to supply their gas. It's not easy to alleviate those hourly shortfalls with structural storage because you have the issue of whether you can produce more gas out of your geological structure that was probably once a gas field in its own right.

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MR. SHUTT said the real uncertainties that make this unattractive have to do with the utility customer market uncertainty. He explained that Chugach is the largest generator right now of electricity on the Railbelt, but two of their large wholesale customers are coming up on the ends of their contracts - Homer Electric and MatSu Electric. Both of those are talking about their own energy systems. So, at this point it isn't clear who the utility customers will be. Couple this with the uncertainty that the RCA would regulate third-party storage just because the customers are utilities and it's not clear the developing a third-party storage would be able to achieve an attractive rate of return.

A third layer of uncertainty is the market uncertainty and the perception that a desperate situation is looming for energy supply to the Railbelt. Developing a storage facility is not a cheap undertaking and when you talk about bullet lines or the construction of a large LNG import facility as solutions to a desperate problem, one doesn't want to invest a lot of capital

in large storage facility that might be unnecessary before being able to recover amortized costs for developing it.

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CO-CHAIR WIELECHOWSKI asked how much storage would be needed.

MR. SCHUTT replied it's hard without knowing what the utilities would need. A lot of the facilities are old and inefficient and everyone is talking about installing new gas turbines, but they should work together to try to quantify what is needed.

SENATOR FRENCH asked if CIRI land has producing gas wells.

MR. SHUTT answered yes on both sides of Cook Inlet.

SENATOR FRENCH asked who operates them.

MR. SHUTT answered Marathon, Aurora, and a few others.

SENATOR WAGONER asked when they are going to start drilling Sunrise.

MR. SCHUTT answered that is slated for November/December.

**Access issues - Kenai National Wildlife Refuge, Robin West, Refuge Manager, and CIRI Ethan Schutt, Senior Vice Pre**

[4:19:50 PM](#)

ROBIN WEST, Refuge Manager, Kenai National Wildlife Refuge, said the Refuge was established in 1941 as the Kenai National Moose Range. Shortly after that came a growing interest in petroleum production in the area. The only legal guidance in those days was the Minerals Leasing Act of 1920. In 1957, the Secretary of Interior at the time carved off part of the Kenai National Moose Range and opened it to oil and gas activities. The remainder was placed off-limits. Those lines haven't changed much over the years. They have seen additional withdrawals and additions with the Alaska Native Interest Land Claims Settlement Act (ANILCA), the Wilderness Act and the Refuge Administration Act.

They have three lease areas: the Swanson River field which came on in 1957, the Beaver Creek Filed in 1967, and Birch Hill which is not yet in production. CIRI has access rights to nearly a quarter million acres of subsurface oil, gas and coal that are adjacent to existing federal leases under ANILCA. The areas that are adjacent to those in the uplands and foothills are close either by law or regulations.

More acres are closed than are open, but he has been told 80 percent of the open lands have the potential for exploration. Last year a six-mile road was built in the Refuge out to the satellite project at Sunrise, and probably in January the drill rig will go in there.

On June 2 a pre-application meeting was held with Nordic Energy, Inc. on a proposed 2.5-mile ice road to do a subsurface exploratory gas well for CIRI. So, he will be issuing a special use permit for their survey within a few weeks. Union Oil has also applied for a right-of-way permit to build a three-mile permanent road to access Birch Hill, and that project will begin this winter.

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CO-CHAIR WIELECHOWSKI said people have heard there are large reserves in the Kenai National Wildlife Refuge, and he asked what the state could do to access them.

MR. WEST replied in the 14 years that he has been a Refuge Manager, he has had no requests to explore outside of authorized areas, and he has never denied a permit in the areas that have interest.

[4:25:02 PM](#)

KIM CUNNINGHAM, Director, Land and Resources, CIRI, said they hold significant surface and subsurface acres in Cook Inlet and also within the Kenai National Wildlife Refuge. They have received 186,380 acres of the subsurface within the Refuge through their entitlement. CIRI is seeking responsible lessees to explore their subsurface estate both inside and outside the Refuge. Most of their research indicates that Cook Inlet has significant resources remaining that need to be discovered and explored.

Within the Kenai National Wildlife Refuge, CIRI has ownership interest in the productions coming from the Beaver Creek Unit operated by Marathon, the Swanson River Unit operated by Chevron, and the Birch Hill Unit that has gas, but it is not being produced yet. In addition, CIRI has leased acreage to Marathon and Nordic Energy. Of the total CIRI acreage in the Refuge, Union holds approximately 21,000 acres, Marathon holds approximately 26,000 acres and Nordic Energy has 11,000 acres.

MS. CUNNINGHAM said their lessees have many prospects within the Refuge, but it is time consuming and costly to obtain the

permits required to explore in the Refuge. She remarked that from the lessees she works with on a regular basis, they are very complimentary regarding how well everyone works together.

She said an example of the process for a lessee interested in exploring for oil and gas in the Refuge is best served by talking about the Sunrise prospect, on which Marathon will drill one exploratory well this winter. This requires permitting for the road, pad, and an initial well. There are and have been at least seven agencies and programs involved - the Department of Interior, the U.S. Fish and Wildlife Service, U.S. Corps of Engineers, the U.S. Environmental Protection Agency, the Alaska Department of Fish and Game, Division of Habitat, the Alaska Coastal Management Program, and the Office of Project Management and Permitting.

Participants have to determine who the lead agency will be before they do anything else at the time they start to plan for an exploration program. In the case of Sunrise, it was determined that it would be the U.S. Department of the Interior, U.S. Fish and Wildlife Service.

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She said the most important permit is the Environmental Impact Statement (EIS) because it sets the guidelines for the entire project and is subject to both agency and public comment. It helps determine which state agencies and permits are required for project approval. The lead federal agency has a 16-month window to complete its review of the EIS for projects within the Kenai National Wildlife Refuge. This timeline is from a provision in ANILCA giving Native groups the right to develop resources within an in-holding selected under the ANCSA. Without the ANILCA stipulation, agencies have no mandated timeline or due date for approving the EIS.

Producing an EIS takes extensive research on the part of the applicant who has to gather environmental data before they begin the application process in order to meet the schedule. Data gathering is seasonal work - mostly in the summer - and can take up to a year and a half to complete. After completing the EIS, a Coastal Zone Consistency Determination for the project is required for the issuance of the necessary state and federal permits. While the EIS requires addressing the full scope of the project, the consistency review can be phased to accommodate first, and once they know they have something worth pursuing they would proceed with the development component.

In the case of Sunrise the initial permitting for the EIS began in late 2000 and was completed in January 2003. It included issuance of the right-of-way permits by the Department of Interior and also in their case, to transfer that permit when they had operator issues. Once the transfer was complete in early 2004 they applied for the consistency determination and had all the permits in hand by the end of 2004. At this point in time, the lessee has moved forward and followed through with a seismic program and processing of the seismic data - looking at it to make sure the well is at the most optimal location. They are trying to allocate their resources and in the light of recent economics figure out how to meet their commitment to do the exploration, a condition CIRI built into the lease.

In addition to the EIS, the Corps of Engineers was also involved in the application process to obtain approval to construct the access road across wetlands. State agencies were also involved in permitting the Sunrise project; a permit from ADF&G was necessary because the road crossed the tributary to the Swanson River, and the ADEC had to review water quality impacts as part of the 401 process associated with the 404 permit, which is issued by the Corps of Engineers. If after the well is drilled, Sunrise is determined to be an economic discovery, a second round of permitting will begin. This phase is necessary because you need to know what type of facility is needed before they get permitted.

If Sunrise is determined to be a large project, the Office of Project Management and Permitting will become involved. Air permits may be required and modifications for the right-of-way for the pipeline may be required. New EPA guidelines have extended the Corps of Engineers' permitting process which can take over 120 days. Gas is easier to permit than oil.

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In closing, she said, their concern in leasing to somebody is that smaller independents don't have the sophistication necessarily to do everything that has to be done to get an exploration started in the Refuge.

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CO-CHAIR WIELECHOWSKI asked if there is anything the state can do to change the process since that is a federal refuge.

MS. CUNNINGHAM replied that she didn't think they could impact the federal permitting process, but in the Lower 48 BLM has had a pilot project in which they have been looking at the timelines

for permitting. After two years of that pilot project, they came out with a report in February 2009 that significantly reduced permitting time by coordinating the efforts of all the agencies. So it may be possible to find ways for agencies to work and coordinate their information better.

Also, as a person who hears from lessees, particularly some of the new independents, she has heard that they need access to pipelines and markets. If they find gas they are not sure who they can sell it to. Nordic Energy is one of their lessees and this is their first foray into the Kenai National Wildlife Refuge, a good prospect. Armstrong Oil and Gas is another lessee; they drilled a well in the North Fork Unit and they also have acreage around that, but the problem for them also is pipeline access and the ability to get that gas to market.

CO-CHAIR WIELECHOWSKI asked if they are having problems with pipeline access.

MS. CUNNINGHAM explained that the North Fork Unit is not CIRI's and it doesn't have a pipeline. She understands the gas from that unit was being trucked, and Armstrong doesn't want to do that.

[4:42:08 PM](#)

CO-CHAIR WIELECHOWSKI closed public testimony and thanked everyone for their excellent testimony. He outlined six areas he wanted the committee to look into: promoting conservation because it is the cheapest and quickest way to start saving gas, looking at ways to incentivize storage, streamlining of permits, increasing access to lands, exploring AS 42.05.431 to see if the regulatory structure needs to be changed, and expanding access to the market. He also wondered why the LNG plant is operating at only half capacity. He also didn't get a sense that taxes were a prohibiting factor in getting people to do more exploration. He invited people to submit their ideas. There being no further business to come before the committee, he adjourned the meeting at 4:42.