ALASKA STATE LEGISLATURE
HOUSE SPECIAL COMMITTEE ON ENERGY
January 23, 2013
8:04 a.m.

MEMBERS PRESENT

Representative Doug Isaacson, Co-Chair
Representative Charisse Millett, Co-Chair
Representative Neal Foster
Representative Pete Higgins
Representative Shelley Hughes
Representative Benjamin Nageak
Representative Andrew Josephson

MEMBERS ABSENT

All members present

OTHER LEGISLATORS PRESENT

Representative Mike Hawker

COMMITTEE CALENDAR

OVERVIEW (S): COOK INLET GAS SUPPLY STUDY - 2012 UPDATE

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

DAN SULLIVAN, Mayor
Municipality of Anchorage
Anchorage, Alaska
POSITION STATEMENT: Gave introductory comments related to the Cook Inlet Gas Supply Study 2012 Update.

WILLIAM VAN DYKE, Petroleum Engineer
Petrotechnical Resources Alaska (PRA)
Anchorage, Alaska
POSITION STATEMENT: Provided a PowerPoint presentation entitled, "Cook Inlet Natural Gas Study 2012 Update" at the request of Anchorage Municipal Light & Power (ML&P).

MOIRA SMITH, Vice President and General Counsel
ENSTAR Natural Gas Company
Anchorage, Alaska
POSITION STATEMENT: Provided the PowerPoint presentation entitled, "Long-term Gas Supply Work Group."

BRADLEY EVANS, Chief Executive Officer
Chugach Electric Association
Anchorage, Alaska
POSITION STATEMENT: Answered questions during the presentation entitled, "Long-term Gas Supply Work Group."

JAMES M. POSEY, General Manager
Anchorage Municipal Light & Power (ML&P)
Anchorage, Alaska
POSITION STATEMENT: Answered a question during the presentation entitled, "Long-term Gas Supply Work Group."

ACTION NARRATIVE

8:04:21 AM

CO-CHAIR CHARISSE MILLETT called the House Special Committee on Energy meeting to order at 8:04 a.m. Representatives Foster, Higgins, Hughes, Nageak, Josephson, Isaacson, and Millett were present at the call to order. Also in attendance was Representative Hawker.

OVERVIEW (S): COOK INLET GAS SUPPLY STUDY 2012 update

8:05:55 AM

CO-CHAIR MILLETT announced that the only order of business would be presentations on the Cook Inlet Gas Supply Study 2012 update.

8:06:10 AM

DAN SULLIVAN, Mayor, Municipality of Anchorage, gave introductory comments prior to the presentation. He said securing a long-term energy future for Southcentral is one of his top priorities, and is an issue across the state wherever energy costs are very high or there are shortages of fuel. The Mayor's Energy Task Force has been working for the past three years, planning for the worst case scenario to ensure that if there is a disruption, the utilities, the producers, and the large users are prepared. In fact, last December temperatures

were low enough that Anchorage came close to having an incident. He observed that although emergency planning is important, the task force seeks to work in a preventive mode and secure energy to avoid emergencies. One way to do this is voluntary conservation by the public which - in some instances - could "save the day." He recognized the legislature for its work on effective oil and gas legislation in 2010, and specifically for the gas storage facility which came online this year. Mayor Sullivan acknowledged that there is a tremendous amount of oil and gas activity in Cook Inlet; nevertheless, there remain shortages in production and deliverability thus Southcentral must look at options for gas that may not come from Cook Inlet. He expressed concern that the utilities do not have sufficient gas under contract to provide heat and light to their customers for the winter of 2014-15; however, Hilcorp Energy Company has purchased Chevron and Marathon's assets in Cook Inlet, and will be surveying the utilities to see what it can do in terms of gas supply.

8:10:01 AM

CO-CHAIR MILLETT invited Mr. Van Dyke to begin the presentation.

8:10:35 AM

WILLIAM VAN DYKE, Petroleum Engineer, Petrotechnical Resources Alaska (PRA), informed the committee he was presenting the Cook Inlet Natural Gas Study Update 2012, at the request of Anchorage Municipal Light & Power (ML&P). He noted that the primary author of the study was Peter Stokes of PRA. Mr. Van Dyke said he would focus on the first item - Southcentral Alaska Gas Supply/Demand 2012-2020 - and noted that PRA began its study of the Cook Inlet gas supply in 2010 at the request of a utility group consisting of ENSTAR Natural Gas Company, Chugach Electric Association, and ML&P. The purpose of the study was to look at the Cook Inlet gas supply and to review other related studies. When looking at proven gas reserves, the numbers from the Department of Natural Resources (DNR) study [in 2009] and the PRA study are "very close;" however, the DNR study also looked at probable and possible reserves, contingent resources, and other categories of gas that may be in the inlet, but the utility group was interested in proven reserves because contracts with producers can be signed only on proven reserves.

8:13:09 AM

The committee took an at-ease from 8:13 a.m. to 8:14 a.m.

8:14:47 AM

MR. VAN DYKE continued to slide 4, entitled "Annual Supply - DNR 2009 Report," which was a chart showing the historical production of gas for 1995-2010, and production forecasts for different categories of gas for 2010-2035. Proven reserves forecast by DNR match the PRA study, although Material Balance Reserve calculations are difficult in Cook Inlet because there is water in the gas. Slide 5 was a comparison of the DNR and PRA studies on Decline Curve Analysis (DCA) and he advised the differences between the studies are insignificant. Slide 6 was the PRA study summary of historical production, and a production forecast up to 2020, which indicated in 2020 "... there's a big difference between what we need in supply, and what we forecast production is going to be." Again from a DNR study [2011], slide 7 indicated the amount of investment needed to rely on a supply of gas from Cook Inlet, and he cautioned that PRA does not consider the New Wells Pay Category Geologic Analysis portion of the forecast to be proven reserves because, "if you are a utility, and you want guaranteed gas supply, you really can't count on the green part [New Wells Pay Category Geologic Analysis] of that production forecast or the grey part [Development Leads] or even all of the orange part [Base Decline Reserves]."

MR. VAN DYKE said in 2012 PRA was asked to update the 2010 study and look at new wells, drilling, and compression. In 2010, the shortfall was predicted for 2013; but as a result of additional drilling and compression, the shortfall at this time is forecast for 2014. Slide 9 illustrated the PRA actual production forecast base case with no added investment, assuming no additional wells are drilled, and with the existing compression in the fields. Slide 10 showed the projected users of gas for 2014-2019, and Mr. Van Dyke pointed out that oil and gas fields and the Tesoro refinery use fuel also. The expected demand over the next few years is about 80 billion cubic feet (BCF) per year with a jump in 2020 after Donlin Creek gold mine opens. Slide 11 indicated that the utilities are very much reliant on a supply of natural gas in the amount of over 60 BCF per year. Slide 12 indicated the volume of gas that has existing contracts and the volume that is needed that is not under contract, beginning in 2013.

8:19:54 AM

CO-CHAIR ISAACSON asked Mr. Van Dyke to explain the declining utilization of gas on slide 12.

MR. VAN DYKE answered that gas under contract means the producers have agreed to supply a certain amount of gas in a certain year. Because production from the fields is declining, the amount of gas available to put under contract declines.

CO-CHAIR ISAACSON clarified that on slide 12, gas not under contract is demand, not available gas.

8:21:27 AM

CO-CHAIR MILLETT anticipated many questions for PRA and the commissioner of DNR on the true and actual gas supplies in Cook Inlet, because there seems to be conflicting information and an ongoing debate. She expressed her hope that the discussion at this meeting will point out the fundamental disconnect between the administration and the utilities.

MR. VAN DYKE turned to slide 13 which indicated the natural decline of the gas fields. All fields are at a 16-17 percent annual decline as a result of the depletion of the gas from the reservoir which reduces pressure, deliverability, and volume. This is a loss of tens of millions of cubic feet of deliverability per year, therefore, keeping production flat requires finding a lot of new gas.

CO-CHAIR MILLETT asked for clarification between DNR's stance that there is an unlimited supply of gas in Cook Inlet, and PRA's forecast of an annual decline rate of 16 percent. The utilities and PRA are talking about importing gas causing concern among her constituents.

8:24:37 AM

MR. VAN DYKE explained that there are different approaches to the studies that were done; for example, DNR looked at "theoretically how much gas could be in Cook Inlet," and - hypothetically - how much could be developed and produced. The utilities are interested in how much gas could be found and produced in the future, but for the utilities "... it comes down to 'What can the wells produce next year, what can they produce in 2015, what can they produce in 2020?' It's not theoretically if we drilled a couple hundred exploration wells how much gas might we find."

8:25:55 AM

REPRESENTATIVE HAWKER recalled the commissioner of DNR said the prospect of sizeable gas reserves in Cook Inlet coming to market would undermine the need for other long-term solutions such as a small diameter gas line from the North Slope, or the import option currently being discussed by the utilities. He asked whether Mr. Van Dyke would bet the energy security of his community on the speculative prospects of major gas finds and development in the inlet.

MR. VAN DYKE said no, and added that utilities need a guaranteed gas supply. He gave two examples of wells that were drilled that have never produced oil: Mukluk on the North Slope and Sunfish in Cook Inlet by ARCO.

CO-CHAIR MILLETT observed that Cook Inlet gas supplies are critically low, yet for five years [the legislature] has been assured that the fields in Cook Inlet are prolific. She stressed that importing liquefied natural gas [LNG] is a possibility without the construction of an instate gas pipeline to provide the gas supply to her community.

REPRESENTATIVE HIGGINS, upon learning that Mukluk was drilled in the early '80s and Sunfish was drilled in the early '90s, stated that technology today has advanced in the past ten years. He surmised DNR has science behind its forecast.

8:31:00 AM

MR. VAN DYKE questioned whether DNR is relatively certain about the presence of gas. The department's studies are probabilistic; no wells have been drilled, no gas has been discovered. These probabilistic studies do not meet a high enough standard for the utilities to use as a business plan.

8:31:46 AM

REPRESENTATIVE HAWKER recalled a year ago Furie Operating Alaska-Escopeta Oil Co. announced a mega-find of 3.5 trillion cubic feet (TCF) of natural gas which was not proven, and has now been reduced to a maximum estimate of .75 TCF in place.

8:32:36 AM

MR. VAN DYKE agreed with Representative Hawker's statement. In further response to Representative Hawker, he said PRA's future

projections include "everything that we - in our professional opinions - thought was proven gas, proven reserves." Mr. Van Dyke continued to slide 14, explaining that the red line on the graph plots the total Cook Inlet demand, the blue line plots the production forecast for the base case, and the red bars are the shortfall per year.

8:34:20 AM

CO-CHAIR MILLETT, noting that Southcentral needs gas in 2014, asked what could "fill that gap."

MR. VAN DYKE answered that production could be accelerated in the existing fields by drilling more wells, which may solve the problem for the next couple of years; however, there would then be less gas afterward. Also, there may be gas from exploration wells online from the Kenai Peninsula, where there is existing infrastructure. In further response to Co-Chair Millett, he concurred this is speculative. In fact, slide 15 shows that eight gas wells completed from November 2011 to October 2012 averaged new production of about 3.6 million cubic feet (MMCF) per day. However, the decline rate was about the same. Petrotechnical Resources Alaska anticipates there will be additional drilling, but the base case does not assume new drilling in order to depict various scenarios. The scenario on slide 16 begins with the base case and adds 10 million standard cubic feet (MMSCF) of production per day for each of the next seven years, which amounts to an addition of about 150 BCF of gas to the Cook Inlet gas supply, some of which may be exploration gas and behind-pipe gas as projected by DNR. He opined this is a reasonable assumption, but the shortfall remains. Similarly, the scenario illustrated on slide 17 adds 20 MMSCF per day for each year over a seven-year period, adding about 350 BCF of new gas - a significant addition - but which still does not produce the way out of a shortfall. There is a "good chance" this is possible, but the message here is that a lot of activity does not eliminate the predicament.

CO-CHAIR ISAACSON asked for a realistic picture for expanding the current supply of gas.

8:40:06 AM

MR. VAN DYKE opined that the utility group is using an average between the slide 16 and slide 17 scenarios. In either case, however, there are shortfalls, and slide 17 depicts the maximum possibilities for new gas. In further response to Co-Chair

Isaacson, he explained that an operator must first drill one to three wells to delineate the reservoir, and then follows the permitting process and final investment decisions. The timetable for development onshore along the Kenai Peninsula is two to three years, but on the more remote west side of Cook Inlet, three to four years.

CO-CHAIR ISAACSON surmised the shortfall in each of the models accounts for the lag time from discovery, to permit, to delivery to the utility.

MR. VAN DYKE said this is not a direct calculation, but the scenario adds an additional volume of gas each year, beginning in 2013; the 2013 gas that was added must be from development finished in 2012.

CO-CHAIR ISAACSON said, "So this is a realistic time projection - it's not an optimistic one, in and of itself."

MR. VAN DYKE further explained that the scenario assumes there is ongoing exploration every year and that an exploration-delineation-development continuum is always in motion. This is evidenced by slide 15 which shows wells were being completed each year from 2001; however, the new gas is not available in the volume needed to prevent the shortfall.

8:44:05 AM

REPRESENTATIVE HAWKER acknowledged that eight new gas wells were completed last year, but his understanding is that most of the exploration taking place is for oil, not gas. He asked whether this interest could be turned to gas and if so, the amount of investment required by the industry to complete six to eight new successful wells.

MR. VAN DYKE said his work experience leads him to believe that the completion of six to eight new wells is very realistic with an investment of $75 million per year; the cost is also dependent on the location of the find. He agreed that oil is "where the money is," but expressed certainty that gas prices will go up in the next five years and the gas market will become more attractive to producers. Possible explorers are: Hilcorp, Cook Inlet Energy, and ConocoPhillips Alaska. In response to Representative Hawker, Mr. Van Dyke advised that there will be a mix of infield drilling in existing fields, to locate gas pockets that are not producing right now, and exploration.

REPRESENTATIVE JOSEPHSON asked how much LNG has been imported into Alaska since the 1950s.

MR. VAN DYKE said none.

REPRESENTATIVE JOSEPHSON then asked what the price to the consumer would be if LNG is imported.

MR. VAN DYKE deferred to the representatives of the utility group who will be speaking later in the meeting. In further response to Representative Josephson, he said liquid fuels and propane are currently imported.

8:49:07 AM

REPRESENTATIVE JOSEPHSON observed that the decline in the supply of gas is not entirely correctable in the short term, and asked whether there is a political undercurrent that "a great oil-producing state shouldn't be importing LNG."

MR. VAN DYKE said he was unsure whether importing natural gas gives the state "a black eye," but opined that is a better choice than a blackout.

CO-CHAIR MILLETT assumed importing LNG will affect the cost of gas in Anchorage and the Railbelt.

MR. VAN DYKE deferred to representatives of the utilities to respond. He called attention to slide 18 which depicted a map from the DNR, Division of Oil & Gas web site. Possible exploration and infield development to accelerate production, such as behind-pipe gas reserves, were listed.

CO-CHAIR MILLETT sought the probability - not the possibility - of curbing a 16 percent decline before 2014.

MR. VAN DYKE opined the projection illustrated on slide 17 of adding 20 MMSCF per day of gas for each of the next 7 years is the best case; even with that, the utilities need to address a shortfall. Slide 19 listed possible infield development and accelerated production, and slide 20 listed current onshore explorations that are underway.

8:54:25 AM

CO-CHAIR MILLETT asked what the timeline would be to develop new fields from exploration to the time of delivery.

MR. VAN DYKE estimated that on the Kenai Peninsula it would be two to three years to find, permit, delineate, develop, and put gas online. Permitting on state land in Cook Inlet "has been going [well]."

CO-CHAIR MILLETT concluded that the new gas would be online in 2016, at the earliest.

MR. VAN DYKE noted that some new gas will be available this year and next.

REPRESENTATIVE HUGHES called attention to slide 19, and pointed out that Hilcorp is investing $203 million in 2012 to develop oil and gas.

MR. VAN DYKE said Hilcorp and others are spending significant amounts of money, "but I think for the most part that money is chasing oil, rather than chasing gas."

REPRESENTATIVE HUGHES questioned whether $75 million in investment per year needs to be specifically targeted for gas.

MR. VAN DYKE said yes, this would be the estimated "round number" cost to drill six to eight new gas wells. He pointed out that ConocoPhillips, ML&P, Armstrong, Buccaneer, and Hilcorp are spending.

8:57:55 AM

REPRESENTATIVE HAWKER has heard statements that additional gas from the North Slope through any diameter of pipe will derail plans for additional exploration for gas in Cook Inlet. However, last year during testimony on HB 9, all of the major Cook Inlet explorers and producers said that additional gas from the inlet would not compromise their efforts to explore. He stressed that "more gas in the inlet ... creates a bigger, stronger, more dynamic market for everyone." Representative Hawker cited his experience with the utilities and asked what the representatives of the utilities think needs to be done and what their concerns are.

MR. VAN DYKE opined there will be a gas line, but not soon enough to alleviate any shortfalls in 2015, 2018, or 2020. He concluded by expressing his hope that the committee will appreciate that the shortfalls are real and significant.

CO-CHAIR ISAACSON surmised from Mr. Van Dyke's testimony that imported gas will cost utility users more in Cook Inlet. He stated his concern that importing gas will reduce the incentive to produce gas, thereby permanently reducing the oil and gas industry's workforce in Alaska, as seen with the shutdown of Agrium Inc., and at the Flint Hills Resources refinery. He challenged the idea that consumers should pay whatever the market will bear, and asked whether - after gas is imported - the price for Cook Inlet gas will ever go down.

MR. VAN DYKE expressed his belief that exploration, development, and production in Cook Inlet will always be competitive against the price of imported gas; in fact, imported gas will not drive local Cook Inlet operators out of business, although he was unsure of how high future gas market prices will be.

REPRESENTATIVE HIGGINS returned attention to slide 23 and asked whether North Slope LNG delivered by trucks could meet the shortfall.

MR. VAN DYKE estimated that hundreds and hundreds of trucks and 700 or 800 truck drivers would be needed. In further response, he acknowledged that this is one of the options under study - and could be done - but may not be feasible.

9:05:47 AM

CO-CHAIR ISAACSON suggested that the use of the Alaska Railroad from Fairbanks is a more conceivable scenario, depending upon the capacity of the North Slope liquefaction plant.

MR. VAN DYKE pointed out that a truck and rail transportation system requires more handling and more equipment.

REPRESENTATIVE HUGHES inquired how the cost of trucking gas compares with the cost of importing gas to the consumer.

MR. VAN DYKE deferred to representatives of the utilities on the price. He added that big liquefaction and gas conditioning plants would be required on the North Slope, along with lots of trucks and fuel.

9:07:16 AM

MOIRA SMITH, Vice President and General Counsel, ENSTAR Natural Gas Company (ENSTAR), informed the committee members of the Long-term Gas Supply Work Group - ENSTAR, Chugach Electric

Association, Inc. (Chugach), Anchorage Municipal Light & Power (ML&P), Donlin Gold, Matanuska Electric Association (MEA), and Homer Electric Association, Inc. (HEA) - are working very closely together as a utility group to confront, address, and assess the problem they are facing with Cook Inlet gas supply. She began a PowerPoint presentation entitled, "Long-term Gas Supply Work Group" dated January 23, 2013. Ms. Smith stated her intention is to provide the utilities' perspective on the gas supply decline curve. Slide 2 was a graph of the existing local gas available and the contract volumes that are needed from 2012 to 2020. As an aside, she noted that the utilities have been granted certificates of public convenience and necessity from the Regulatory Commission of Alaska (RCA), thus the responsibility of serving Southcentral Alaska with its gas needs rests with them. Speaking for ENSTAR, she said ENSTAR has been serving Southcentral since 1961 using only Cook Inlet gas; it is ENSTAR's primary goal to continue to do that at a reasonable price for its customers. However, the decline curve shown on slide 2 points out the need to ensure a supply of gas. Slide 3 was the PRA update "middle case" scenario of current production and additional production of 10 MMSCF per day. In response to Representative Isaacson's question, she said ENSTAR would contract for any new gas immediately. Although commercial arrangements between the utilities and the producers are complex, there is strong cooperation between the parties at this time to deliver gas to customers. Slide 4 opened a discussion of the Cook Inlet Natural Gas Storage Alaska (CINGSA) facility, which was provided for by the Cook Inlet Recovery Act (CIRA) legislation passed in 2010. Built and operated by ENSTAR, the facility's customers are Chugach, ML&P, and ENSTAR. The storage facility was built in anticipation of needing additional gas deliverability. It is important to understand the difference between a volumetric shortfall - how much gas is produced in Cook Inlet in a year, and a deliverability shortfall - how much gas can be delivered on a given day. Deliverability problems on very cold days are expected, thus the need for a storage facility. Gas injections into CINGSA began in April 2012, and ENSTAR began withdrawing gas from storage on November 9, 2012. The graph on slide 4 illustrated ENSTAR's purchases of gas and withdrawals of gas out of CINGSA from 12/15/12 to 12/23/12.

9:13:02 AM

CO-CHAIR ISAACSON asked for a summary of CINGSA.

MS. SMITH gave a brief background on CINGSA. The facility was built from an almost-depleted natural gas reservoir in the

Cannery Loop Unit, south of the city of Kenai. Industry experts identified the reservoir as an ideal storage facility and injected pad gas, which stays in the reservoir, and the working gas, of which Chugach, ML&P, and ENSTAR each have a certain contracted quantity to withdraw as needed. The facility will not solve a volumetric shortfall problem, but was designed to address a deliverability shortfall. As a result of the cold weather in December 2012, ENSTAR was drawing gas from CINSGA to meet its basic needs, because not enough gas could be purchased through the daily bid process. She cautioned that from a deliverability point of view, the situation this winter indicates that the system works on a very close margin, with little of the redundancy or flexibility of the past.

9:17:03 AM

REPRESENTATIVE NAGEAK asked for an explanation of the purchases and withdrawals of gas.

MS. SMITH explained that CINGSA, which is a public utility, owns the reservoir and has contracted out capacity to the utilities.

9:18:39 AM

REPRESENTATIVE FOSTER asked for the current volume stored in CINGSA at this time.

MS. SMITH answered that ENSTAR has about 3.4 BCF of gas stored, and added that the reservoir is not filled to capacity.

CO-CHAIR MILLETT asked whether CINGSA can be filled to capacity next summer.

MS. SMITH said that depends on variables such as weather, commercial decisions made by the producers, and plans for the LNG export facility. The storage capability will allow the utilities to evenly purchase a gas supply all summer even though demand is low.

CO-CHAIR MILLETT asked, "If say, February is the coldest month in history and we really do have a deliverability problem, how much is CINGSA helping you, and when is it not?"

MS. SMITH advised that the contracted withdrawal quantity from CINGSA is 136 million [cubic feet] per day. The largest withdrawal last December was about 70 [mmcf]. However, production failures or compression failures would lead to a

"diesel situation." She acknowledged it is possible ENSTAR could deplete its CINGSA volumes and be unable to meet deliverability.

REPRESENTATIVE HIGGINS asked whether withdrawals from CINGSA result in higher utility bills for customers.

MS. SMITH said yes. The CINGSA rate is structured to include both a storage reservation fee to "rent" the space in the reservoir, and an injection withdrawal fee. In response to Representative Nageak, she confirmed that the charge is passed on to the consumer. Ms. Smith assured the committee that operators in Cook Inlet are actively working and are in close communication with the utilities, and that wells are being drilled, although she could not say what percentage are oil or gas. For their part, the utilities have acted by building CINGSA, the Southcentral Power Project (SPP), and Fire Island Wind.

9:25:03 AM

BRADLEY EVANS, Chief Executive Officer, Chugach Electric Association, informed the committee that the utilities have taken other paths to diversify the "demand side of the problem." Capital expenditures have been used to bring online the state's largest wind farm, which is offsetting power that can be put in storage in order to maximize the benefit of the storage system. An even larger investment built the SPP which is 25-35 percent more efficient than its predecessor. The first turbine spin for the power plant was 10/18/12, and it led to a 25 percent reduction in gas demand. Additional expansion at hydroelectric facilities, conservation, and efficiencies will add up to about a one-third reduction in Chugach's gas demand by 2015. These actions show that Chugach has taken this problem seriously for some time by making investments on the demand and supply sides. All of these measures have been accounted for in the analytics and are added on to the base case; however, the shortfall still looms. Mr. Evans suggested that Chugach's biggest concern is an obligation and responsibility to its membership to consider all options, although there are not enough answers on which to make decisions at this time.

9:28:47 AM

CO-CHAIR MILLETT recalled discussion about the decline in Cook Inlet and asked whether Southcentral is in peril, even with all of the options that are being considered. The Mayor's Energy

Task Force and the utility working group have been looking for solutions but the committee continues to hear "two sides of the story," from DNR and the utilities. She assumed Southcentral is to the point of solutions of last resort - importing LNG or trucking - because the situation has been neglected.

MR. EVANS recalled that his previous testimony over the past years warned about this problem, but acknowledged, "I think I fell prey to the optimism of the Cook Inlet renaissance." However, now a rational decision must be made to put into play what may be "a less than optimal solution." Science, analytics, calculus, data, and experts have revealed a shortfall that must be dealt with.

CO-CHAIR MILLETT observed that for the most part the general public is not aware of Southcentral's dire situation; in fact, the difficult decision to import LNG may become necessary to prevent blackouts. She asked, "Do you think there is a general understanding with your membership on exactly where we are in our energy supply situation?"

MR. EVANS responded that Chugach has communicated to its membership that there is a problem, but he agreed details and the history of the situation are not understood. His utility publishes a monthly newsletter and takes advantage of public meetings to raise the awareness of members.

CO-CHAIR MILLETT surmised the tabletop exercises conducted by the tri-borough mayors would have been better received had the public been more aware of the gravity of the situation.

MR. EVANS opined the results were muted because the [energy conservation] exercises are held in the fall, thus the 5 percent saved on a voluntary basis does not have the same effect as during a time of peak gas demand. Nevertheless, the response to the exercises indicates that the public is aware of the problem. After three and one-half years, the many steps in Chugach's procedure for reducing demand have evolved.

REPRESENTATIVE HIGGINS asked what percentage of gas goes to the turbines and what percentage goes to customers for heating.

9:37:54 AM

MS. SMITH referred to slide 10 of the PowerPoint presented by PRA, pointing out that the third largest users of Southcentral's

future demand are oil and gas field operations [13 percent], and Tesoro is listed as sixth [7 percent].

REPRESENTATIVE HIGGINS has heard that private enterprises are "trying to put energy on the grid; they're having a hard time doing it, for whatever reasons." He asked whether Mr. Evans sees a problem there.

MR. EVANS responded that Chugach has engaged energy from independent power producers (IPPs) such as Fire Island Wind, has encouraged the expansion of the Bradley Lake Hydroelectric plant, and supports the diversification of fuel sources. One project under consideration is to unify the present multi-owner grid system in order to facilitate the acceptance of independent sources of power.

CO-CHAIR ISAACSON asked Mr. Evans to describe the difficulty in getting excess capacity down the transmission lines from Fairbanks to the Cook Inlet.

9:41:55 AM

MR. EVANS explained that the Railbelt consists of three load centers: Fairbanks, the Southcentral/Matanuska-Susitna (Mat-Su) area, and the Kenai Peninsula. Between these areas there are small and weak interties thus power from a project produced by an alternative fuel in one community cannot be easily moved to another community because of the limitations of the interties. There are proposed projects to strengthen the interties so regions can help each other; now however, the utilities cannot transfer all of their capability from one to another. Strengthening the grid would also facilitate power from IPPs coming into the system. In further response to Co-Chair Isaacson, he said an optimistic estimate of the time needed to strengthen the interties is a tough question - given the uncertainty of permitting - but after financing, it is a three to five year process.

MS. SMITH, returning to slide 7 of the work group PowerPoint, said the bottom line is that the utilities need to supplement Cook Inlet gas production. She stressed that the ideal solution must: avoid discouraging new Cook Inlet production; be scalable to market needs in response to new production from Cook Inlet; create price signals to encourage local supply; and be flexible to allow for a portfolio of future options. Even though not ideal, all of the closest solutions that have been found are expensive. Any import project involves a major capital

investment, but a project that has minimal impact on the market would only last five years, so amortization over a short period, or paying for an escape clause, will be costly. Over the past years, the work group's requests for information led to the following options: three marine compressed natural gas (CNG) providers; five marine LNG providers; and the possibility of LNG trucking from the North Slope.

9:46:08 AM

CO-CHAIR MILLETT asked for the difference in cost to the consumer between short- and long-term contracts for the importation of CNG or LNG.

9:46:34 AM

MS. SMITH advised that the work group's analysis of costs will be complete in February, and at this time, every option is being considered. For example, the group received a proposal from a marine CNG shipper based on a fifteen-year contract and has requested another cost estimate based on a five-year contract. She cautioned that Southcentral has benefitted from a low-cost source of gas for a long time, but the new sources are sure to be "a lot more, that's all we can say with certainty." She continued to explain that the problem has been broken down into short- and long-term timeframes due to the time needed to build the necessary infrastructure.

CO-CHAIR ISAACSON asked whether using diesel fuel is a realistic short-term alternative.

MS. SMITH deferred to Mr. Posey, because he manages the only utility with a diesel option.

9:50:06 AM

JAMES M. POSEY, General Manager, Anchorage Municipal Light & Power (ML&P), informed the committee ML&P can burn about 180 megawatts on a five to nine day schedule with the oil it has in place; however, the system is over thirty-five years old and cannot run continually without the risk of failure. Also, ML&P is considering retrofitting its plants to burn diesel but that poses air quality permitting problems.

MS. SMITH concluded that if diesel is chosen as a short-term alternative, capital investments are needed. Another short-term alternative are spot LNG imports.

REPRESENTATIVE NAGEAK asked if capital costs for new technology are passed along to consumers.

MR. EVANS explained that costs for capital investments are rolled into rates and passed on to consumers; any benefit related to a capital investment affects the rates as well. For example, the SPP project required a substantial investment but reduced the consumption of fuel - although the decrease may not offset the increase for the total cost of the improvements. Furthermore, RCA regulates the utilities' rates to guarantee against unwarranted increases.

9:53:51 AM

MS. SMITH returned to slide 11 and noted that long-term solutions of ten to fifteen years include CNG/LNG/trucking options with fuel from various sources. Slide 11 illustrated a possible future supply scenario that would require significant capital investment to convert SPP to a dual fuel facility, improving ML&P's generation unit, and relying on MEA's diesel. She warned of the permitting and air quality issues associated with burning fuel oil. Ms. Smith concluded that the utility group is completing an economic, engineering, and political/regulatory analysis of all of the options presented and anticipates receiving recommendations from its consultants next month. At that time, the group will determine the most economic and secure solution for Southcentral.

9:55:24 AM

REPRESENTATIVE HUGHES asked for the deadline that utilities set to have signed contracts in place.

MR. EVANS answered that deadlines are different for each utility; Chugach is isolated and cannot buy gas from its neighbors, therefore it needs to have reserves. For Chugach, "the rule of thumb" is about ten years ahead.

9:57:17 AM

CO-CHAIR MILLETT invited the utility group to return in February after it has more information and to discuss contingency plans and possible legislation. She restated the urgency of the issue for Southcentral, acknowledging the diligent work being done by the utilities and the Cook Inlet explorers.

9:58:46 AM

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Energy meeting was adjourned at 9:58 a.m.