ALASKA STATE LEGISLATURE
HOUSE RESOURCES STANDING COMMITTEE
March 2, 2016
1:02 p.m.

MEMBERS PRESENT

Representative Benjamin Nageak, Co-Chair
Representative David Talerico, Co-Chair
Representative Kurt Olson
Representative Paul Seaton
Representative Andy Josephson
Representative Geran Tarr

MEMBERS ABSENT

Representative Mike Hawker, Vice Chair
Representative Bob Herron
Representative Craig Johnson

COMMITTEE CALENDAR

HOUSE BILL NO. 247
"An Act relating to confidential information status and public record status of information in the possession of the Department of Revenue; relating to interest applicable to delinquent tax; relating to disclosure of oil and gas production tax credit information; relating to refunds for the gas storage facility tax credit, the liquefied natural gas storage facility tax credit, and the qualified in-state oil refinery infrastructure expenditures tax credit; relating to the minimum tax for certain oil and gas production; relating to the minimum tax calculation for monthly installment payments of estimated tax; relating to interest on monthly installment payments of estimated tax; relating to limitations for the application of tax credits; relating to oil and gas production tax credits for certain losses and expenditures; relating to limitations for nontransferable oil and gas production tax credits based on oil production and the alternative tax credit for oil and gas exploration; relating to purchase of tax credit certificates from the oil and gas tax credit fund; relating to a minimum for gross value at the point of production; relating to lease expenditures and tax credits for municipal entities; adding a definition for "qualified capital expenditure"; adding a definition for "outstanding liability to the state"; repealing oil and gas exploration incentive credits; repealing the

limitation on the application of credits against tax liability for lease expenditures incurred before January 1, 2011; repealing provisions related to the monthly installment payments for estimated tax for oil and gas produced before January 1, 2014; repealing the oil and gas production tax credit for qualified capital expenditures and certain well expenditures; repealing the calculation for certain lease expenditures applicable before January 1, 2011; making conforming amendments; and providing for an effective date."

- HEARD AND HELD

PREVIOUS COMMITTEE ACTION

BILL: HB 247
SHORT TITLE: TAX;CREDITS;INTEREST;REFUNDS;O & G
SPONSOR(s): RULES BY REQUEST OF THE GOVERNOR

01/19/16	(H)	READ THE FIRST TIME - REFERRALS
01/19/16	(H)	RES, FIN
02/03/16	(H)	RES AT 1:00 PM BARNES 124
02/03/16	(H)	Heard & Held
02/03/16	(H)	MINUTE(RES)
02/05/16	(H)	RES AT 1:00 PM BARNES 124
02/05/16	(H)	Overviews Continued from 2/3/16 Meeting:
02/10/16	(H)	RES AT 1:00 PM BARNES 124
02/10/16	(H)	Heard & Held
02/10/16	(H)	MINUTE(RES)
02/12/16	(H)	RES AT 1:00 PM BARNES 124
02/12/16	(H)	Heard & Held
02/12/16	(H)	MINUTE(RES)
02/13/16	(H)	RES AT 1:00 PM BARNES 124
02/13/16	(H)	-- Public Testimony Postponed --
02/22/16	(H)	RES AT 1:00 PM BARNES 124
02/22/16	(H)	Heard & Held
02/22/16	(H)	MINUTE(RES)
02/24/16	(H)	RES AT 1:00 PM BARNES 124
02/24/16	(H)	Heard & Held
02/24/16	(H)	MINUTE(RES)
02/25/16	(H)	RES AT 8:30 AM BARNES 124
02/25/16	(H)	Heard & Held
02/25/16	(H)	MINUTE(RES)
02/25/16	(H)	RES AT 1:00 PM BARNES 124
02/25/16	(H)	Heard & Held
02/25/16	(H)	MINUTE(RES)
02/26/16	(H)	RES AT 1:00 PM BARNES 124

02/26/16	(H)	Heard & Held
02/26/16	(H)	MINUTE(RES)
02/27/16	(H)	RES AT 10:00 AM BARNES 124
02/27/16	(H)	Heard & Held
02/27/16	(H)	MINUTE(RES)
02/29/16	(H)	RES AT 1:00 PM BARNES 124
02/29/16	(H)	Heard & Held
02/29/16	(H)	MINUTE(RES)
02/29/16	(H)	RES AT 6:00 PM BARNES 124
02/29/16	(H)	Heard & Held
02/29/16	(H)	MINUTE(RES)
03/01/16	(H)	RES AT 1:00 PM BARNES 124
03/01/16	(H)	Heard & Held
03/01/16	(H)	MINUTE(RES)
03/02/16	(H)	RES AT 1:00 PM BARNES 124

WITNESS REGISTER

JARED GREEN, President
ENSTAR Natural Gas Company
Anchorage, Alaska
POSITION STATEMENT: During the hearing on HB 247, assisted in providing a PowerPoint presentation regarding his utility's requirements as the largest purchaser of natural gas from the Cook Inlet.

MOIRA SMITH, Vice President, General Counsel
ENSTAR Natural Gas Company
Anchorage, Alaska
POSITION STATEMENT: During the hearing on HB 247, assisted in providing a PowerPoint presentation regarding her utility's requirements as the largest purchaser of natural gas from the Cook Inlet.

BRIAN CLEMENZ, Chair, Government Affairs Committee
Board of Directors
Alaska Support Industry Alliance
Anchorage, Alaska
POSITION STATEMENT: During the hearing on HB 247, assisted in providing a PowerPoint presentation.

DOUG SMITH, President, CEO
ASRC Construction Holding Company
President, CEO, Little Red Services
Member, Board of Directors, Alaska Support Industry Alliance
Anchorage, Alaska

POSITION STATEMENT: During the hearing on HB 247, assisted in providing a PowerPoint presentation.

TOM WALSH, Geophysicist, Managing Partner
Petrotechnical Resources of Alaska (PRA)
Member, Board of Directors, Alaska Support Industry Alliance
Anchorage, Alaska
POSITION STATEMENT: During the hearing on HB 247, assisted in providing a PowerPoint presentation.

PHIL STEYER, Director
Government Relations & Corporate Communications
Chugach Electric Association, Inc.
Anchorage, Alaska
POSITION STATEMENT: During the hearing on HB 247, assisted in providing a PowerPoint presentation.

MARK FOUTS, Director
Corporate Planning & Analysis
Chugach Electric Association, Inc.
Anchorage, Alaska
POSITION STATEMENT: During the hearing on HB 247, assisted in providing a PowerPoint presentation.

ACTION NARRATIVE

1:02:08 PM

CO-CHAIR BENJAMIN NAGEAK called the House Resources Standing Committee meeting to order at 1:02 p.m. Representatives Seaton, Olson, Josephson, Talerico, and Nageak were present at the call to order. Representative Tarr arrived as the meeting was in progress.

HB 247-TAX;CREDITS;INTEREST;REFUNDS;O & G

1:02:55 PM

CO-CHAIR NAGEAK announced that the only order of business is HOUSE BILL NO. 247, "An Act relating to confidential information status and public record status of information in the possession of the Department of Revenue; relating to interest applicable to delinquent tax; relating to disclosure of oil and gas production tax credit information; relating to refunds for the gas storage facility tax credit, the liquefied natural gas storage facility tax credit, and the qualified in-state oil refinery

infrastructure expenditures tax credit; relating to the minimum tax for certain oil and gas production; relating to the minimum tax calculation for monthly installment payments of estimated tax; relating to interest on monthly installment payments of estimated tax; relating to limitations for the application of tax credits; relating to oil and gas production tax credits for certain losses and expenditures; relating to limitations for nontransferable oil and gas production tax credits based on oil production and the alternative tax credit for oil and gas exploration; relating to purchase of tax credit certificates from the oil and gas tax credit fund; relating to a minimum for gross value at the point of production; relating to lease expenditures and tax credits for municipal entities; adding a definition for "qualified capital expenditure"; adding a definition for "outstanding liability to the state"; repealing oil and gas exploration incentive credits; repealing the limitation on the application of credits against tax liability for lease expenditures incurred before January 1, 2011; repealing provisions related to the monthly installment payments for estimated tax for oil and gas produced before January 1, 2014; repealing the oil and gas production tax credit for qualified capital expenditures and certain well expenditures; repealing the calculation for certain lease expenditures applicable before January 1, 2011; making conforming amendments; and providing for an effective date."

1:04:20 PM

JARED GREEN, President, ENSTAR Natural Gas Company, assisted in providing a PowerPoint presentation to the committee about the company's use of Cook Inlet gas. Turning to slide 2, "Natural Gas Supply Needs," he said ENSTAR Natural Gas Company ("ENSTAR") is the largest purchaser of natural gas in the Cook Inlet today. Ultimately, he pointed out, ENSTAR's customers are a beneficiary of the tax credit program that has been in place since 2012. The customers of ENSTAR depend on natural gas from the Cook Inlet to heat their homes, businesses, schools, hospitals, and industries. Fundamentally, ENSTAR's interest is in the fostering of a stable and appealing natural gas environment for the Cook Inlet. This environment needs to exist in the short, medium, and long term. ENSTAR's number one priority is safe, reliable natural gas service to its customers. The company was founded in 1959, the same year as statehood.

MR. GREEN noted that ENSTAR's customers use, on average, about 33 billion cubic feet (Bcf) of gas a year. In a really warm year that can drop to as low as 30 Bcf and in a really cold year

it can be as high 35 Bcf. He recalled that enalytica, the legislature's consultant, has said that the total in-state use is about 80 Bcf. So, on average, ENSTAR is about 33 of that 80 Bcf a year. He explained that ENSTAR has very high seasonality to its gas needs, varying from about a 12 to 1 ratio of winter to summer gas needs. There is also the aspect of substantial daily variability in gas demand due to weather. With its current customer base ENSTAR has a potential daily gas demand of 287 million cubic feet per day (MMcf/d) during a cold snap in January. But, during a warm snap on that very same day in January, ENSTAR has the potential of burning less than 100 MMcf/d; for example, the system is currently at 102.5 MMcf/d.

1:06:59 PM

MR. GREEN explained that when ENSTAR plans its natural gas portfolio it looks many years in advance. Because ENSTAR operates in a small, closed supply network, very long lead times are required when putting together what the portfolio will be. The utility needs to know that it will have firm gas set for its customers at least two years in advance; anything less puts the marketplace at risk to supply shortages. No matter what, ENSTAR must have gas available for its customers on those coldest days. When it is 20 degrees below zero in January and dark, every single one of ENSTAR's 140,935 customers must have their full gas needs met. These customers represent over 50 percent of Alaska's population.

MR. GREEN stated it is challenging to be a natural gas supplier in the Cook Inlet today. The largest purchaser of natural gas, ENSTAR has very demanding needs. Between the Cook Inlet Natural Gas Storage Alaska (CINGSA) facility and producer contracts, ENSTAR needs to have that 287 MMcf/d available. However, ENSTAR does not need this amount each and every day. This means that the producers and CINGSA need to have the significant capacity well beyond what the average production rates are. It also means that ENSTAR's producers need to have the operational capability to ramp up their production but then also throttle it back when weather is getting warmer. This is a very different world than in the Lower 48, he stressed, which has an integrated transmission and storage network. Producers in the Lower 48 can simply drill a well, open up their taps 100 percent, and the very large market absorbs it.

MR. GREEN added that from the utility perspective it is also a nice easy world in the Lower 48. Utilities have lineups of marketers trying to sell them gas. If a utility has a contract

in place that isn't fulfilled for any reason, the utility can simply go back to its trading screen and source the gas from one of the other thousands of suppliers. But that luxury is not had up here. [Southcentral Alaska] is a very small and illiquid market with a handful of buyers and an even smaller number of suppliers. Layered onto that is that ConocoPhillips Alaska, Inc., is selling its assets in the Cook Inlet, taking another supplier out of the market. It also shrinks the buying side because it effectively makes Municipal Light & Power (ML&P) self-supplied; ML&P will no longer be purchasing from the active market, leaving ENSTAR with a very delicate marketplace.

1:09:43 PM

MR. GREEN stressed he is not saying the sky is falling as ENSTAR is in a much better place than it was in 2012. The utility has transitioned from a time when it was looking at shortages, both from a total supply and a deliverability perspective. A key contract to ENSTAR's gas supply portfolio has been signed with Hilcorp Alaska, LLC ("Hilcorp"). This contract will take ENSTAR out through 2023, which is just beyond the short-term window of what ENSTAR looks at. Right now ENSTAR has very good visibility out to 2021 as to where its gas is going to come from and decent visibility out to 2023. With continued activity by Hilcorp and others, and hopefully new players entering the marketplace, ENSTAR is optimistic that its supply horizons will move out past 2025. But, that statement hinges on the continued activity of these and new producers in Cook Inlet; an environment that keeps the producers engaged must be encouraged and fostered.

MR. GREEN said he strongly feels that the utilities have a very significant role and responsibility in encouraging this marketplace. He said ENSTAR has designed its portfolio to balance its number one priority of safe, reliable natural gas service with the need to foster the long-term viability of the inlet. The utility has put its support behind development of the Kitchen Lights Unit, but ENSTAR has also left open 10 percent of its supply portfolio for other producers to be able to come into. Since 2012 the state has also provided a huge support to the viability of the market in the Cook Inlet. While cognizant of the short-term budget challenges currently facing the state, ENSTAR would love to see the state continue to help the encouragement of this marketplace in whatever form that encouragement may be to keep this as an attractive investment for producers.

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MR. GREEN stated that things are in a relatively good place in the Cook Inlet right now. However, he pointed out, weather has been very advantageous for ENSTAR over the last two years and so far in 2016 as well. If [Southcentral Alaska] had experienced three cold winters the current facilities may have been stretched. He reminded members that there is one well into the Kitchen Lights Unit, no gas-producing wells into the new Cosmopolitan play, and four very large fields that are very old and aging more every single year. There is no contingency of significant backup alternatives should there be cold weather or if one of the existing platforms or fields has an issue. There are no interties to the Lower 48 or to Canada and ENSTAR is 100 percent dependent on this small, illiquid market to keep half of the state's population warm.

1:13:05 PM

MOIRA SMITH, Vice President, General Counsel, ENSTAR Natural Gas Company, drew attention to slide 3, "Supply and Demand." She said the graph illustrates why ENSTAR is a challenging customer for producers of natural gas in Cook Inlet. She related that any producer will say it would like to produce wells at a consistent rate - open up the flow, sell into a liquid market, and let the market bear what the price will be. But, ENSTAR does not purchase gas that way; the graph shows the variability in the daily demand of ENSTAR's customers, as well as ENSTAR's actual daily supply in 2014 and 2015. The graph is actual data as to which companies supplied gas on a day-to-day basis. The black line that tops off most days on the graph depicts how much gas was consumed on each day of the two years.

MS. SMITH pointed out the day-to-day variability seen on the graph, noting that [demand] changes every day as the temperature changes. She further pointed out the seasonal variability - the peaks and valleys on the chart associated with winter and summer demand. In winter, she explained, ENSTAR customers can consume as much as 12 times more gas in a day than they do in the summer. She noted the blue color at the bottom of the graph represents CINGSA injections and withdrawals, injections being seen below the line and withdrawals above the bottom line. On cold days ENSTAR withdrew significant volumes of gas from CINGSA to meet customer demand. For example, cold weather occurred in mid-November 2015 and the peak in the graph represents those cold days. Similarly, the winter of 2015 was pretty warm, but a cold snap in mid-February is directly represented on the graph. On warm days ENSTAR injects gas into CINGSA. The withdrawal

ability from CINGSA is 91 MMcf/d, about one-third of that key number of 287 MMcf/d. The rest of ENSTAR's daily withdrawal ability has to be contracted under firm contracts with producers in the Cook Inlet. Having CINGSA available is critical in light of the declining deliverability available out of Cook Inlet wells, which was detailed by enalytica at a previous hearing. Ms. Smith brought attention to the orange line at the top of the graph, noting it represents the golden 287 MMcf/d that is needed on the coldest of cold days. Such a day only comes along once every 10 years or so, with four such days in ENSTAR's history. But, when that day comes, ENSTAR must be there with reliable gas to keep its pipelines pressurized and serving all its customers.

1:16:17 PM

MS. SMITH said the bar chart on slide 4, "Seasonal Average Deliverability," further illustrates the seasonality of ENSTAR's demand, showing ENSTAR's average daily deliverability in each month in 2019. She reiterated that ENSTAR's goal is to have 287 MMcf/d under contract or available from storage on each and every day of the year. The dark blue in each bar represents firm deliveries under the Hilcorp contract and the light blue is the optional volumes that can be pulled from that contract. Stacked on top of that are the firm deliveries [dark green] and the optional volumes (light green) under the new contract with Furie Operating Alaska, LLC ("Furie"). Looking throughout the year, it can be seen that ENSTAR's demand from producers in the middle of winter is quite different from its demand in summer and producers must be prepared to deliver that on a day-to-day basis. In addition are the withdrawals from CINGSA. The chart shows that in January, typically the coldest month, ENSTAR only has 150 MMcf/d under contract in 2019. When the 91 MMcf/d of contracted withdrawal capacity from CINGSA is added to that ENSTAR is still only at 241 MMcf/d, leaving a gap of 46 MMcf/d that ENSTAR will be looking to fill in the marketplace.

MS. SMITH turned to the bar chart on slide 5, "Supply Contracts 2016-23," to discuss ENSTAR's projected gas supply. The years 2016 and 2017 have a lot of different contracts, she noted, all of which will taper off in 2018. She recalled that in late 2014 ENSTAR faced a future wherein there was sort of a cliff with no gas under contract as of 2018 and beyond. The utility sent out a request for proposals (RFP) and a request for bids from all producers, potential and otherwise, in Cook Inlet asking them to provide ENSTAR with a bid to provide all of that firm gas for ENSTAR's customers. The utility then engaged in intensive, protracted negotiations with multiple producers and potential

producers throughout 2015 on up until [2/26/16]. The first priority was to secure an anchor contract at reasonable prices which could form the foundation for gas supply in the post-2018 world. These negotiations took a year and resulted in APL-14, the contract with Hilcorp that was just filed on [2/29/16] with the Regulatory Commission of Alaska (RCA) for its approval.

1:19:12 PM

MS. SMITH addressed slide 6, "(TA 280-4) APL-14 GSA," explaining that APL-14 is the new agreement [with Hilcorp] under which deliveries will commence on 4/1/18. The agreement will supply about 70 percent of ENSTAR customers' needs from 2018-2023. On a firm basis APL-14 will supply about 22 Bcf per year of gas. The optional volumes under this agreement will help ENSTAR to manage its weather-related variability. Customers might consume 29 Bcf in a year or they might consume 35 Bcf. From a planning perspective this is challenging, so this contract will help ENSTAR adjust its takes to ensure it is not over-purchasing or under-purchasing as the circumstances may provide. Another key element of this contract is its reasonable price. In 2013 the State of Alaska entered into a consent decree with Hilcorp which resolved an anti-trust investigation and set price caps for the sale of natural gas to Cook Inlet utilities. The price caps escalate at 4 percent annually. The weighted average annual price for the last years under the APL-12 contract with Hilcorp will be $8.33/Mcf. By contrast, the weighted average annual price for firm deliveries during the first contract year of APL-14 will be $7.56/Mcf, an almost 10 percent decrease.

MS. SMITH noted that perhaps the most important feature of the APL-14 contract is that it doesn't meet all of ENSTAR's gas supply requirements. Until ENSTAR signed its contract with Furie last week, 30 percent of the utility's supply portfolio was available for other producers to fill. As a public utility ENSTAR values safety and reliability above all else. Therefore ENSTAR understands the need to have a diversified supply portfolio. This diversifies supplier risk as well as helps to foster investment in drilling, which is good news for the long-term stability of Cook Inlet supply.

MS. SMITH stated that between APL-14 and the new Furie contract, ENSTAR now has 90 percent of its needs met through 2021. To ensure that the market has a second chance to participate, ENSTAR sent a second RFP to producers on [2/26/16] to try to acquire supply for the remaining 10 percent of ENSTAR's portfolio. The utility believes this contract represents a huge

measure of stability in the Cook Inlet gas market. If approved, it will be the most significant gas contract ENSTAR has had approved in 15 years. Assuming commission approval, ENSTAR will have laid the foundation of its gas supply well into the next decade, which is very good news given where the utility was just three years ago.

1:22:07 PM

MR. GREEN concluded the presentation by stressing that ENSTAR is working with a very delicate market - a small number of buyers and a very small number of producers. Contracts are had that meet most of ENSTAR's needs through 2021-2023, but the utility will need to negotiate extensions on those contracts within a few years. It is very important for all of Southcentral Alaska that there is a capable producer marketplace that will be there to provide the gas molecules and the deliverability that the region needs.

1:22:44 PM

REPRESENTATIVE JOSEPHSON asked about the docket calendaring on the application to the RCA.

MS. SMITH replied that ENSTAR filed the application on [2/29/16] and public comment is due within 30 days.

REPRESENTATIVE JOSEPHSON inquired as to an expected timeline for the ruling.

MS. SMITH responded that the RCA could approve it in 45 days' time if the commission chooses not to suspend it into a docket, which is what ENSTAR has requested. If the RCA feels the need to investigate, the commission can suspend it into a docket and would then have six months after that time to approve or reject the contract.

1:23:35 PM

REPRESENTATIVE OLSON asked whether the 2023 date is a result of the RCA limiting the length of the contracts or is a reluctance on the part of the producers to commit to something in 2023 without knowing what the tax regime will be at that time.

MS. SMITH answered she is not sure anything can be inferred from the timeline in the sense that the producers were very willing to sit down with ENSTAR and have conversations about extended-

term contracts. There is a fair amount of supply uncertainty as to what is going to happen in the mid-2020s. If anything, ENSTAR was the one who said to get a good chunk of time in there. But, who knows what is going to happen in Cook Inlet and who knows about the pipeline from the North Slope?

1:24:35 PM

REPRESENTATIVE SEATON recalled that the legislature's analysts have advised the committee that $5-$7/Mcf is sufficient to produce the most expensive gas in other jurisdictions around the world, such as Egypt and offshore Argentina. He also recalled that under the 2009 consent decree the price is averaging $6 and over and that ENSTAR has negotiated a price of [$7.56] through 2023. He inquired whether ENSTAR agrees that $5-$7/Mcf is sufficient to produce the most expensive gas and that the market is ample for economic development of gas for ENSTAR.

MR. GREEN replied that enalytica put out the cost to develop the most expensive gas available, the drilling and lifting cost. But there is the assumption that a producer is able to produce at full capability of its productions, can crystallize the production coming on, can produce the gas and sell it right away. Directing attention to the graph on slide 3, "Supply and Demand," he pointed out that within the Southcentral Alaska marketplace there is a lot of time, summer months in particular, where the producers have to just sit on the wells and not produce any gas at all. Three or four years ago there was the ConocoPhillips liquefied natural gas (LNG) export facility, and a year ago that facility was exporting gas through the summer months. That created a much better balance for producers being able to produce relatively evenly throughout the year, but that is effectively gone right now. April prices for LNG are currently at about $4.65, not a great market for that facility to be selling off to. Because ENSTAR is the largest buyer in this area, producers are stuck with ENSTAR's buying patterns and this has an impact on the overall price because producers are unable to do as much volume in this tight, illiquid market. A couple decades ago was a world where ENSTAR was noise, which is ideal. A utility wants to be just easy noise because utilities have very challenging demand profiles. When there are big industrial loads a utility is just a blip in the profile and can be easily taken care of, and prices are reflective of that. When a utility with very demanding needs is the main load it creates a very challenging environment to be in. That enhances the need for storage, so the CINGSA storage facility that was put in place in 2012 is an absolute key and integral asset for

the Cook Inlet. The storage facility knocks off about one-third of the deliverability needed by ENSTAR, but ENSTAR still needs a lot more coming from that marketplace. There is a cost that comes with building assets and having them ready to deliver but then not being able to sell.

1:28:26 PM

REPRESENTATIVE SEATON further recalled that enalytica provided the committee with three scenarios. The first scenario was a constrained market where large projects are drilled and then sit idle. No matter the price in this first scenario, putting in massive amounts of credits would be a net loss to the state. The second scenario was export, an unconstrained market if the export facility can make a profit. He opined that he doesn't think the state wants to be subsidizing an export facility just to ensure that the facility is making price. The third scenario was infield drilling, which enalytica found to be economic in all cases. So, he posited, the economics of those balance unless [the legislature] wants to invest $200-$300 million of the people's money every year to sit in the ground and just be available for whenever. Representative Seaton asked whether ENSTAR sees the policy decision being looked at by the legislature as being infield drilling, which is economic, or a producer doing its own massive project if there is unconstrained supply, or a massive project just sitting there waiting for someone to turn on the spigot.

MR. GREEN responded that ENSTAR does need excess redundancy for backup needs and for those cold peak days; there needs to be natural gas available for the basic needs of the Southcentral Alaska population. Under the scenarios that enalytica looked at, whether it is export or a large industrial, being able to average it out reduces the profile and the slopes of ENSTAR's demand needs and makes the need for the excesses smaller. Having other industries is very good for ENSTAR. Having no other demanders of natural gas puts ENSTAR in a position where there will need to be significant excess gas that is available for the climate of Southcentral Alaska.

1:31:13 PM

REPRESENTATIVE TARR understood the current storage capacity of the CINGSA facility is 11 Bcf with a future expansion capability to 17 Bcf. She inquired whether members should be thinking about opportunities for more storage if an anchor tenant, such as an export facility or an Agrium plant, does not come back on

line in addition to ENSTAR, which is a major user given it is a utility. She further asked whether opportunities for more storage would help the profile at all.

MR. GREEN answered yes. If a very, very closed network continues, he said, all options have to be looked at and be available. Storage is a very useful facility, but is not free and comes with a cost. He explained that ENSTAR has about 70 percent of CINGSA committed under its firm contracts and most of the cost of using CINGSA is under a 20-year take-or-pay contract. In warm years when much of that deliverability is not needed ENSTAR still has to use the infrastructure because it is ENSTAR's backup piece. It is incredibly important to have it there in case a cold snap occurs. Looking at an enhancement or expansion of that facility going into the future should be part of what will be needed if ENSTAR is in a place of not seeing the producers being able to come to the table. The contracts, along with CINGSA in its current state, are working for ENSTAR's existing needs.

1:33:06 PM

REPRESENTATIVE TARR understood that four utilities are currently involved in the CINGSA facility. She asked whether there is additional interest from other utilities in the nearby region, such as Seward or Homer.

MR. GREEN replied that Homer is connected into the ENSTAR system and therefore has access to the CINGSA facility. Seward does not currently have natural gas, so a distribution system would have to be installed into Seward. At this time, he continued, there have not been requests for additional use from the CINGSA facility outside of the four utilities that have signed up for the firm service. Of those, Chugach Electric Association, Inc., has a significant amount of it, as does ENSTAR. The facility is a key asset for Homer Electric Association, Inc. (HEA), but HEA is a relatively small subscriber, as is Municipal Light & Power (ML&P) of Anchorage.

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The committee took a brief at-ease.

1:35:49 PM

BRIAN CLEMENZ, Chair, Government Affairs Committee, Board of Directors, Alaska Support Industry Alliance ("Alliance"), noted

he is president-elect of the Alliance. Turning to slide 2, "Today's key messages," he stated that the Alliance is about responsible resource development for the benefit of Alaska and Alaskans. The Alliance is composed of nearly 600 Alaska businesses that provide goods and services to resource developers and that employ over 30,000 Alaskans. Since the Alliance's inception, exploration and producing companies have not been allowed to be members of the organization.

MR. CLEMENZ said that in recent weeks there have been people taking positions and making decisions based on the premise that Alaska is done as an oil and gas economy. But, he countered, great potential still exists in Alaska. None of the other revenue streams being discussed can come close to generating the revenue that resource development does. Instead of putting the last nail in the coffin of the oil and gas industry, the state should be doing its best to incentivize future production. During each of the five previous times that oil taxes have been changed over the last ten years, the message has always been the same - a stable investment climate is needed. The message is still the same as this sixth change is considered. Instead of asking how much more can the state take, legislators should ask themselves what the state's policy is to ensure that a partnership with industry is maintained that benefits Alaskans. Recounting Governor Walker's statement that his administration will continue to work with the legislature to make Alaska attractive to investors, Mr. Clemenz argued that HB 247 does not make Alaska attractive to investors.

MR. CLEMENZ addressed slide 3, "Thoughts on previous testimony," recalling that during testimony questions have been asked about compromise on HB 247. He maintained there is no compromise, the bill is just plain bad policy. There is no compromise, he said, that would not result in significant job losses for Alaskans. Any additional tax on the industry would have serious consequences on the state's economy. Passage of HB 247 would result in continued declining revenues to the state that cannot be replaced. He further said he has repeatedly heard that everybody needs to give. However, he asserted, this industry has been doing the majority of the giving to the general fund for years, not to mention the contributions to the communities and nonprofits throughout the state by the Alliance's Alaskan companies and their employees.

1:40:55 PM

DOUG SMITH, President, CEO, ASRC Construction Holding Company; President, CEO, Little Red Services; Member, Board of Directors, Alaska Support Industry Alliance, brought attention to slide 4, "North Slope." He said he will address where service companies are today by using his company as an example. He stressed that service companies are currently in a state of crisis. He has lived in Alaska through three oil price downturns - the 1980s, 1998 when oil was done to $9 a barrel, and now today's trough. Having gone through those the general public recognizes that things are in crisis mode when housing prices are low or crashed and homes are sitting empty, and when there is an obvious decrease in purchases of goods and services in communities.

MR. SMITH related that what has been learned over the years is not to knee-jerk react to the price of oil in the industry, but that is what has been done over the last 18 months. The first thing industry did was to take it off the top line of its profits. Little Red Services has not had a layoff of any personnel since the peak of the recession in 2009 when his company lost four people. Over the last few years the uptick in prices and activity have benefitted his company and it has built some new units and stimulated the economy by building those in Anchorage. Little Red Services Company made a choice to protect its market share and its jobs. The company's average employee tenure is over six years, which is a very valuable resource. So, his company took significant profit impacts and reduced its rates. The hope was for recovery in price of oil, but since January it has plummeted and now his company is at stage two. Producers are in a bind with negative cash flow. Yesterday his company underwent its first layoffs since 2009 and that is not the end of it, he said. The layoffs are a loss of almost $2 million in payroll to the people the company had to release. This is strictly activity driven, he noted, it is not to regain profitability. This is pod oil units no longer working in the field and transports no longer taking fluid to those units. What does it mean to us as Alaskans? Little Red Services does well intervention work - hot oil jobs on wells, clearing wells of paraffin, and support acid jobs - things that have an immediate potential production increase on wells. This work is one of the last line of things that is trimmed out of a producer's activity in a declining market and this is where things are at now. He informed the committee that the state is closely approaching a 60 percent decrease in rig activity from just one year ago, and Little Red Services supports the rig activity through freeze protection and other activities when the wells come back on line.

MR. SMITH pointed out that right now his business is not about profit but rather about protecting market share and customer relationships. As an Alaskan he understands that this is the same business decision legislators are in - whether to protect Alaska's market share of resource development and protect the future potential revenue of that market share or whether to take from that market now and live with the consequences. He offered his appreciation for having to make this tough decision but cautioned that there are not any more levers to pull in the industry. Industry is now at the crux where any additional cost results in some type of reaction. The only reaction left right now is to decrease activity or to take capital projects off the table. His company will have to make the choices to move forward, but those will not be without consequence if additional tax revenue is pulled from the industry.

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REPRESENTATIVE JOSEPHSON asked whether the 60 percent decrease in rig activity is for Mr. Smith's clients. He posited that it would self-correct - that what could be more than $1 billion in credits would, theoretically, become $400 million in credits.

MR. SMITH replied he cannot speak for oil companies, but he can say that this is a wide range of activity. These vary from coil units doing infield work and side-tracking existing wells. In legacy fields these are rotary rigs and development rigs. It is a wide bandwidth of activity that is being talked about as a slowdown. Not all of that is in the line of credits. So, as far as self-correcting and the potential threat of the credit volume, it is a little bit of apples and oranges.

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REPRESENTATIVE SEATON said HB 247 has two policies. One is taxes, 5 percent instead of 4 percent and whether a company can write off against that floor. The second is credits, which is the main aspect of the bill. He asked whether, when talking about taxes, Mr. Smith was meaning the total of anything that is done or only taxes and not the credits.

MR. SMITH responded it is both for his company. Little Red Services is the sole supplier of this service across the North Slope, he said. He has a unit working for Caelus Energy Alaska ("Caelus") right now that will be coming offline as Caelus wraps up its exploration work. His company works with independents, a group that is dependent [on credits] as new entrants. During

the consideration of Senate Bill 21 [passed in 2013 by the Twenty-Eighth Alaska State Legislature], many legislators were adamant about the importance of these new entrants and he agreed with that. It has been a lot of his company's market opportunity and he thinks it is a lot of Alaska's future. Independents are in a different position than are the state's legacy owners and those credits are very important. Regarding net present value spoken about by Representative Seaton, he noted he has spent millions of dollars purchasing equipment during the last couple of years and that equipment is now idle. His original net present value calculations are no longer valid because [the equipment] has a 10-year-plus lifecycle. In looking at the investment through credits the question is total return. For example, a study of the Alaska Marine Highway demonstrated the value of that system statewide. Everything must be looked at when considering investments - jobs, trickle-down economy, and eventual return. Oil will not be $30 forever, it is going to be better someday, so the longer term versus the nearer term must be looked at for these type investments.

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REPRESENTATIVE SEATON noted the net present value being looked at was a 30-year lifespan of the entire fields.

MR. SMITH answered yes.

REPRESENTATIVE SEATON inquired whether instead of looking at prices of $60-$80 a barrel, that higher prices in the future be looked at and considered a good investment. He further inquired as to the kind of projection looked at by Mr. Smith as far as price per barrel and the activity that the price will generate.

MR. SMITH replied he understands the problem is the inability to forecast prices, and said this extends to himself. Industry and businesses have built a level of activity around a price range of $100, he said. So, everyone is readjusting to survive in a lower price environment. Regarding the future of credits and investment, it is going to be a leaner, lower-cost industry going forward because of this exercise. The recalibration of cost to develop and recalibration of what it is going to cost to operate is still finding its way to the top. Businesses are looking in every corner for efficiency. Any model picked from recent history to forecast what it will cost to produce oil is probably not very sound right now. He said he thinks businesses will be able to demonstrate the ability to be pretty effective

in the $70-$90 range given how much companies have trimmed and will continue to trim.

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REPRESENTATIVE TARR recalled that 15 years ago during the era of the Economic Limit Factor (ELF) there was not much early-stage exploration activity. She asked where Mr. Smith's company fits in that profile and whether his company was active during the time period of ELF. In regard to how Mr. Smith thinks about his investment decisions, she further asked whether the current ability to borrow cheaply would make the purchase of big equipment a desirable activity.

MR. SMITH responded that his company pays as it goes in that it pays cash for its equipment and so does not pay any interest. Regarding his company's longevity, he said Little Red Services has been around since 1983. The company was active through the 2000s doing infield support work, providing freeze protection and production stops, and basically being the fire department. If the Trans-Alaska Pipeline System (TAPS) is shut down, his company goes out and freeze protects 2,000 wells. As new entrants came into the market in Alaska, as ConocoPhillips Alaska, Inc., has gone west, and as Point Thomson was developed, his company has had the opportunity to extend its services into those areas. Leading up to and after Senate Bill 21 there was quite a bit of new spin infield and his company added about 30 employees in that range of time and that is when his company had its last big equipment push. His company was committed to building those in Anchorage and they were built in a small fabrication shop that he went by the day before yesterday. The shop had 60 employees when he built those units, but today it has 7 working on the floor along with 3 staff and the doors are just barely being kept open. This current condition has been felt pretty deeply in the industry at all service levels. He said 2016 is going to demonstrate some very visible things in the way of housing; this industry is in a recession already.

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TOM WALSH, Geophysicist, Managing Partner, Petrotechnical Resources of Alaska (PRA); Board of Directors, Alaska Support Industry Alliance, noted that PRA is an integrated oil and gas consulting firm. Turning to slide 5, "Middle Earth," he said PRA has worked extensively with Doyon, Limited, in the corporation's exploration of the Nenana Basin and Yukon Flats. Currently, PRA is working on Doyon's drilling program that will

commence this summer in Nenana with another well. The policy that generated Senate Bill 21 was very sound and is clearly meeting its objectives, in his view, all over the state of Alaska. There has been a very significant uptick in activity, both exploration and development. Doyon, Ahtna, Incorporated, and NANA Regional Corporation are all in various stages of exploration in Middle Earth. Another exploration well is being drilled this year by Doyon with the support of Middle Earth tax credits and Ahtna is getting ready to drill its first well in the Copper Center. Regarding potential, the Nenana Basin is estimated to contain up to 234 million barrels of oil, as well as 5.6 trillion cubic feet (Tcf) of gas. Although there has been no commercial discovery in Nenana at this point, there is significant potential. A well that finds oil and gas in Nenana Basin would be a huge homerun for Doyon and the State of Alaska in terms of jobs and fuel stability for these rural areas.

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MR. WALSH said that in regard to ongoing projects Doyon is the poster child for successful Middle Earth investment driven by tax credits. Doyon has invested every penny it has received in tax credits in exploration. When Doyon gets the credit money back it reinvests and has now gone through several cycles of exploration in Nenana Basin. Doyon is an ideal case for the function of these tax credits and the tax credits are very critical going forward for Doyon. The proposed sunset of some of the tax credits currently in effect would occur right in the middle of Doyon's drilling season, and has caused great alarm for Doyon's ongoing projects. Ahtna is in a similar situation as Doyon. With its first well planned for this summer Ahtna is at the beginning of its exploration cycle. The discovery of gas or oil in Copper Center would be hugely impacting for Alaskans.

MR. WALSH stressed that the aforementioned projects are huge potential benefit in terms of jobs for Alaskans and local and rural fuel supply. The instability and proposed changes to the tax structure are very damaging to those types of projects. He appealed to the committee to not kill these projects through either intentional or collateral impacts of HB 247. Doyon is very focused on local hire and workforce development. Also, the work of PRA and others would be significantly negatively impacted by the changes that would be imposed by HB 247.

1:59:22 PM

MR. WALSH drew attention to slide 6, "Cook Inlet," and stated that the incentives are working and have successfully brought Southcentral Alaska to a point of stability in energy supply. He said PRA produced a report in 2009 and updated it in 2012 that Cook Inlet Basin was running out of gas and it was thought that LNG would have to be imported. But that is no longer the case, he continued, because of the incentives that have been offered and the activity that has occurred. Oil production has risen form 7.5 million barrels a day in 2009 to almost 18 million barrels a day today. Gas production has stabilized, but there is still a perceived shortage in the market beyond 2023. In regard to the new contract just announced between ENSTAR and Hilcorp, he noted that that gas is still in the ground. Projects need to take place to produce that gas and funding is required to carry out those projects. A change in tax structure, particularly in terms of credits, will impact the development of those gas molecules.

MR. WALSH pointed out that unemployment in Kenai declined from 11 percent to 7 percent over this recent period of activity. The Alliance's membership in the Kenai area has grown from 40 to 102. There is lots of activity and lots of potential: 600 billion barrels of oil potential in Cook Inlet Basin and 1.18 Tcf of gas estimated to yet be developed. The benefit from jobs, energy stability, and royalty is critical to the future of the Middle Earth and Cook Inlet basins.

2:02:28 PM

REPRESENTATIVE TARR inquired about the envisioned infrastructure and delivery system for the Middle Earth area should there be a discovery.

MR. WALSH answered that the plans right now are dependent on whether it is oil or gas that is discovered and how much. The Nenana Basin is very close to TAPS and the idea for oil is to bring it to TAPS. For gas, supply to the local market would be very beneficial, although it would not be a big enough market to make it a tremendous commercial success for Doyon. But tying into export facilities or the grid would be the plan for either a large or small gas find in the Nenana Basin.

2:03:34 PM

MR. CLEMENZ addressed slide 7, "A bit more about jobs," saying that West Virginia has it right in considering a legislative measure that would reduce the state's coal and natural gas tax

rates. The belief is that this measure would create jobs and would put West Virginia at a more competitive advantage. The proposals under HB 247 would do exactly the opposite for the state of Alaska. Jobs are the future, but right now the support industry is hemorrhaging jobs. According to a Department of Labor & Workforce Development study, the industry lost around 1,000 jobs between December 2014 and December 2015. From a survey of its members the Alliance believes the number is much greater than 1,000. The survey also asked about the members' expectations for the future and from the answers the Alliance believes the job loss will significantly exceed 1,000 in 2016.

MR. CLEMENZ drew attention to slide 8, "Rig Personnel," pointing out that it represents only one dimension regarding what is done in the oil and gas industry. He explained that rigs are used primarily for workovers to make existing wells flow better and for explorations. The 44 positions shown on the slide for rig personnel is a conservative number of positions that are required to support a drilling operation for the drilling contractor only. The total economic benefit through that drilling company would be close to $2 million a month. The 44 positions are on the North Slope, but there is rotation so it is 88 jobs. Further, there is the drilling support that goes along with that, such as hot oil, rig up, rig down, fluid and equipment hauling at the well/drill site itself, which almost doubles the number of folks that are impacted. Additionally there is the in-near infrastructure and supporting jobs associated with housing, billeting, feeding, camps, transportation, security, housekeeping, and travel folks, plus the multiplicative effect of all of that.

2:07:10 PM

REPRESENTATIVE SEATON requested Mr. Walsh to explain the $2,000 per month per position.

MR. CLEMENZ replied that that is the cost of labor at the very round billing rate. The specific numbers on slide 8 are either rounded up or down to the nearest $100-$200 for that particular position for one day.

2:07:50 PM

MR. CLEMENZ returned to his presentation, pointing out that the multiplicative effect even goes further. Many local folks are supporting all of that infrastructure, he explained, as well as those people who are deployed on the North Slope. Those folks

in turn are going to restaurants and merchants all the way down to the coffee shop on the corner. Laying down a single rig might reach 1,000 folks pretty quick for just the people who are involved throughout the entire supply chain.

MR. CLEMENZ reported that there has been a 60 percent reduction in rig activity due to low oil prices and a negative cash flow. There seems to be an unsympathetic ear toward the oil companies when they discuss their negative cash flow, he said. However, in this environment of low prices the Alliance's member companies are experiencing the same pressures. Companies have gone through many rounds of looking at and reducing costs, then looking at markups. Many of the Alliance's member companies are already at break-even markups or are experiencing negative cash flows. Companies must then look at wages and many companies have either already reduced wages, are thinking about reducing wages, or will be reducing wages in the near future. After that, jobs are lost. So this is just the tip of the iceberg right now with this low oil price environment and this impacts working Alaskans from every district represented in Juneau.

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MR. CLEMENZ ended his presentation with slide 9, "Conclusions." He said it can be asked whether HB 247 could impact an LNG project. Any LNG project of any size or scope faces challenges, including low commodity prices and lack of capital. However, one factor that legislators can influence as policymakers is a stable tax structure and HB 247 negatively impacts a future LNG project for Alaska. Future oil production is the bridge to any LNG project because the revenue stream generated is needed to develop that pipeline; moving forward that healthy oil production is needed in Alaska. The state and the industry cannot control oil prices, but industry has weathered this storm before and knows how to batten down the hatches until oil prices recover. The state can sink the ship by over-taxing. He urged that a policy not be invoked that further decreases jobs and erodes the needed competencies required to respond when oil prices and investment increase, which they will. Job losses are already being experienced and HB 247 would create a high likelihood that the last of the core competencies needed for responding to future development will suddenly erode and be gone. The question for legislators as policymakers is whether slow progress is wanted or no progress.

2:12:03 PM

REPRESENTATIVE TARR observed from slide 8, "Rig Personnel," that the two company representatives per rig are accounted at $2,000 [per position] per day for 30 days for a total of $60,000 a month. She asked whether each of those representatives makes $720,000 a year.

MR. CLEMENZ responded that the rotation is included in that. This is the total economic benefit coming through the drilling company into the economy. And, yes, higher-end rig personnel do make very good money.

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REPRESENTATIVE SEATON offered his appreciation for the situation the various companies are in and that the state is in. But, he continued, it sounds like the recommendation is that companies are going to cut costs while the state should not, the state should continue to give. Last year the amount of refundable tax credits to the oil industry was $628 million, two-thirds in Cook Inlet and half on the North Slope. That was limited to $500 million. This last year it will be $623 million. Next year when the state is running a $3.8 billion deficit [the recommendation appears to be] that the state should raise other taxes or go to some other source of money while continuing to spend that money in refundable tax credits without any limitations. He remarked that that is not giving the committee much help in making a policy of no change in anything that the state has been doing. He requested the Alliance to come forward with some positive feedback on what kind of changes would be least impactful but that would reduce the state's deficit. The state cannot go forward and go bankrupt by paying out money for something that may or may not be there in the future.

MR. CLEMENZ answered that from the Alliance's position it is all about policy. He said he is not a tax expert either, but when other states are hurting in this regard they are not taking away from the incentives that will ensure that they are in a position in the future to take advantage of future oil and gas production. Instead, other states are either making it stable or trying to create more incentives for the oil and gas industry to stick around and continue their endeavors.

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CO-CHAIR NAGEAK commented that the cost of doing business is much lower in the Lower 48 than in Alaska. The Lower 48 has roads and infrastructure that make it much cheaper to do

business. So, he continued, when "decrying about that stuff ... you're talking about apples and oranges, because it's a whole lot cheaper down there and a whole lot more expensive up here."

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REPRESENTATIVE JOSEPHSON said he hopes the comment about being unsympathetic was not about him, because he could not be more sympathetic. If the Exxon Valdez oil spill on Good Friday of March 1989 is excluded, he continued, it is all roses. He was born in Alaska in 1964 and has seen how the industry has transformed the state for the better and he wants to help. However, since sitting down this afternoon the state has bled $500 million in red ink. Regarding that there is no compromise and following up on what Representative Seaton said, he said there has to be a pathway forward. Fantastic arguments were heard today and yesterday from Furie and Hilcorp and the committee is trying to meld all that and achieve some win-win result. The West Virginia model does not work for him, he added, because that state has devastated its natural environment and that is not somewhere he wants to go.

MR. WALSH recalled Representative Josephson's earlier inquiry about whether this will be somewhat self-correcting. He pointed out that reductions in activity have occurred because of the low oil price and advised that those reductions in activity will be compounded with changes in the tax structure. Projects are ongoing right now that had their economics and commercial analysis done based on the tax structure being stable. When PRA does a commercial analysis or due diligence for someone and projects forward the commercial viability of a project, PRA assumes the tax structure is going to be stable because PRA cannot guess. Also, PRA assumes some type of model for the oil price because it cannot guess at that either. He said he would like to think that PRA could assume that this tax structure is going to be stable. Producers are in the middle of projects that they have funded and sanctioned based on the current tax structure. Changing that structure right now would blow them out of the water and would give the State of Alaska poor credibility. It really is the wrong thing to do as far as policy. He said he thinks there will be self-correction because of that lowering of activity and he expects that the applications for credits will be lower in future years until things turn around.

REPRESENTATIVE JOSEPHSON said the argument about pulling the rug out is an outstanding argument and one he takes very seriously.

Relative to the tax scheme changes, he allowed there have been a lot of changes although he was not a member of the legislature for those. He offered his hope that those changes slow and said he hears Mr. Walsh in that regard.

2:20:04 PM

REPRESENTATIVE SEATON offered his appreciation for those comments. He inquired whether all projects, those that have and those that have not reached final investment decision, should be treated the same. For example, in Cook Inlet it was stated that at some point success is declared and another tact is taken. However, all that is being heard by the committee is to not change anything, the state should stay in the same position and spend itself into bankruptcy if it needs to. He said the committee needs input from industry as to what policy parameters should be put forth to lower the state's expenditure and yet support the [industry] decisions that have been made.

MR. WALSH responded he understands, but explained that PRA works throughout the basins in Alaska and these impacts are affecting companies across the board, including his. The bottom line is that stability creates investment and instability ruins investment. The State of Alaska increases taxes when things are good and the price of oil is high, and now when prices are low and the state and industry are in dire straits the state is trying to increase taxes again or reduce its investment in the industry. The state cannot have it both ways - increase on the high end and increase on the low end. The tax credit system for oil and gas in Alaska is trying to be used as a hedge fund by charging the oil industry more to cover the state's revenue needs. But it is not a hedge fund. A national oil company (NOC) like Saudi Arabia doesn't have anyone to be a scapegoat for paying more taxes. Saudi Arabia owns the industry and is dipping into its savings funds. People who want to believe that Alaska is an owner state and that the state should have a bigger share of the pie ought to look at those NOC's to see what they are doing, and what they are doing is using their rainy day funds. Saudi Arabia needs $85 a barrel to be healthy and it is at $36. In his view, Alaska should be dipping into its savings funds, not charging taxes at a higher rate.

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REPRESENTATIVE TALERICO stated his appreciation for the Alliance coming forward and telling the committee what it thinks. He said it is not his responsibility to tell the Alliance what to

think, rather he is here to listen to what the Alliance has to tell the committee. He said he thinks there will be some type of activity and something will have to be figured out. He offered his understanding that it isn't easy for everyone to come forward and give a point-blank honest evaluation. He requested confirmation that the Alaska Support Industry Alliance represents about 30,000 employees.

MR. CLEMENZ answered yes, nearly 600 companies and more than 30,000 employees.

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The committee took an at-ease from 2:25 p.m. to 2:29 p.m.

2:29:08 PM

PHIL STEYER, Director, Government Relations & Corporate Communications, Chugach Electric Association, Inc., began a PowerPoint presentation, "Chugach Electric Association's use of natural gas for electric generation." He explained that his role today is to provide a perspective on Chugach Electric Association's ("Chugach") historic use of gas out of Cook Inlet, while his colleague, Mark Fouts, will discuss today's use and where the Association is headed in the future. Turning to slide 2, "The Railbelt, electrically," he said six different electric utilities in the Railbelt provide retail service, and each of those owns generation. Natural gas is the primary generation fuel for five of the six utilities. The sixth utility, Golden Valley Electric Association (GVEA), considers natural gas part of its generation portfolio as well because it buys gas-generated power from Southcentral utilities. So, natural gas is vitally important to electric generation in the Railbelt. This has been the case for decades and is foreseen as continuing. All of Chugach Electric Association's gas supply comes out of the Cook Inlet Basin. Mr. Steyer drew attention to the map on slide 3 depicting the individual service territories of the six electric utilities in the Railbelt. He said that while he and Mr. Fouts will be commenting specifically for Chugach Electric Association, by extension there is a great deal of commonality between the five different electric utilities in the Railbelt that use natural gas as their primary generation.

2:31:33 PM

MR. STEYER moved to slide 4, "Chugach's changing gas situation," and said Chugach's gas situation has changed quite a bit over

time. From the 1960s to the 1980s Chugach's contracts were very large volumes, long-term, and with inexpensive gas. Three separate producers were involved and provided full service in that they did everything and were responsible for getting gas to wherever Chugach needed it. The gas that Chugach bought met the needs of multiple utilities because Chugach had long-term contracts where it generated power and sold it to the other utilities. From the 1980s to the 2010s things changed a bit. Chugach was able to secure large volume, long-term contracts at a reasonable price versus inexpensive. Another producer was added, so during this time period Chugach had four producers providing full service and the gas that Chugach purchased continued to meet the needs of multiple utilities. Currently, the 2010s to the 2020s, the contracts are for smaller volumes, of shorter duration, and of limited service. Chugach does much more of what is necessary to ensure it has gas delivered to the point where it is burned. There are still multiple producers and today the gas that Chugach purchases meets the needs of Chugach retail customers as well as the Seward electric system. Addressing Representative Tarr's earlier question about CINGSA, Mr. Steyer explained that CINGSA gains a benefit through Chugach's contractual share of CINGSA. So, the Seward electric system benefits in CINGSA through Chugach's contract since Chugach is Seward's wholesale power provider.

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REPRESENTATIVE JOSEPHSON requested an example of full service versus limited service.

MR. STEYER replied that in the old days Chugach would say the amount of gas that it needed per day and had multiple power plants where it might burn that gas. The producers provided that amount and delivered the gas where Chugach needed it. These days, although perhaps over-simplified, Chugach now says the amount of gas it needs per day and the producers say where they can provide it and if Chugach wants to use it elsewhere it is the utility's responsibility to have a contractual arrangement with somebody who owns a pipeline along the way to where Chugach wants to use the gas. There has been a shift to the utility in better defining its daily requirements, actually hour-by-hour requirements, and in arranging for a transmission path that was formerly provided.

2:35:08 PM

MR. STEYER brought attention to the photographs on slide 5 to point out that Chugach Electric Association is not solely, but is mostly, dependent on natural gas. To some degree, he added, this is true for the other utilities as well. Chugach has a renewable energy portion of its generation portfolio that accounts for 15-20 percent of the utility's generation need in an average year. That is because that is all it is capable of meeting. To some degree, Chugach needs less gas currently than it used to because the utility makes more efficient use of gas. For example, along with ML&P, Chugach built a new power plant that uses only about three-fourths of the amount of gas to make a kilowatt hour as the generation it replaced. In part in recognition of the situation about the Cook Inlet Basin, Chugach has tried to take steps to be as responsible a customer as it can be. That said, natural gas is critically important to electric generation in Southcentral Alaska.

MR. STEYER displayed slide 6, "Natural gas as a generation fuel," stating that natural gas is the generation fuel that provides about 85 percent of the needs of multiple utilities in Southcentral and to some lesser degree in the Interior through purchases of Southcentral generated gas. Uncertainty about the supply or the deliverability of that gas creates concern.

MR. STEYER drew attention to slide 7, "What does [uncertainty] look like?" He related that in 2009, Chugach, other utilities, the Municipality of Anchorage, and the boroughs north and south of Anchorage collaborated in putting together the Energy Watch Program. A poster was put together with a chart [outlining the actions for customers to take] because there was concern about what happens if at any time, but especially during a cold dark night, there is not enough gas deliverability to meet everyone's needs. Preparation was made for an energy emergency, a place that Chugach does not want to go back to.

2:37:52 PM

MARK FOUTS, Director, Corporate Planning & Analysis, Chugach Electric Association, Inc., began his portion of the PowerPoint presentation. He said that when he started with Chugach about 25 years ago, the utility signed a gas contract with a major producer for 250 billion cubic feet (Bcf) to be used when Chugach would like to. After that had been used up 20 years later Chugach asked the producer for more gas and was told about 2 years with an option for 2 more at the producer's option. The producer had found another place in the world to make more money and was done with the gas business in Cook Inlet. Given the

price of oil in 2009 and 2010 that's where that producer went. ConocoPhillips Alaska, Inc., ("ConocoPhillips") was also a major producer at the time and offered Chugach three years but without any swing, just flat gas. There was no storage facility in Cook Inlet at the time that Chugach had to make that decision. Addressing Representative Josephson's question about service, he said Chugach had the full service. The dispatch centers for electric didn't even schedule gas, they just showed up at the power plants whenever Chugach needed it. By the time the major producers had left, Chugach was doing the transport, storage, swing, everything.

MR. FOUTS showed slide 8, "2 key terms," and said that what he wants to share is not so much the story of what it was like in 2009 and 2010 when Chugach was looking for more gas supply for another 20 years, but rather that it comes down to two key terms: volume and deliverability.

MR. FOUTS noted that the chart on slide 9, "Cook Inlet Gas Supply," was put out by the state in 2011 to explain that these four major gas fields in Cook Inlet are declining. The decline curve on the graph goes down to the right. In 2010 and 2011, in recognition that Chevron and Marathon were leaving the Cook Inlet, the state went to Houston [Texas] and looked for another producer. That producer became Hilcorp. Not seen on this chart for the last five years is what Hilcorp did - it stopped the decline. "Five years ago," he said, "we had 1.2 Cs of P2 gas and today we have 1.2 Ts." That was very valuable for Chugach in terms of supply and volume.

2:41:05 PM

MR. FOUTS drew attention to the chart on slide 10, "Chugach Electric's Gas Supply, Gas Supply by Contract and Ownership," to show how much gas Chugach uses and where it gets its gas from. This year, he said, part of Chugach's gas will come from ConocoPhillips, the last year of a six-year contract. For the next seven years Hilcorp will largely provide Chugach's gas supply. Chugach is also part of a 10 percent interest in one of the largest fields in Cook Inlet [Beluga Gas Field] to provide a small portion of its gas supply. Of this 10 percent of the gas being produced in Cook Inlet, Chugach uses that 10 percent. By 2023, that is it, that is seven years of supply. In 2010/2011 Chugach was four to five years away from running out of gas, so to say. Actually, the problem was running out of people willing to invest in Cook Inlet. The state solved that by bringing

Hilcorp to Alaska and Hilcorp made that investment of $200-$300 million every year and things are now where they are today.

MR. FOUTS said his concern from having been at the negotiating table five years ago with Marathon, Chevron, and ConocoPhillips is that when producers get ready to pack their bags and leave for someplace else, the first thing they do is to stop investing. When the well waters up they don't do any more with it, and that is exactly what happened. If in two to three years Hilcorp, Furie, BlueCrest Energy, Inc., AIX Energy Inc., Aurora, Cook Inlet Energy, or NordAq Energy Inc. all decide that there is a better place to invest their money, in two years [Chugach] will be right back where it was in 2010, which is five to six years away from nobody willing to invest in Cook Inlet. Chugach has made a $356 million investment with ML&P on a power plant that is designed to last until 2048, and there is a seven-year supply that is certain. Chugach would really like to have a longer-term lead time than being lead time away to find an alternative supply. In 2010 the electric utilities were meeting weekly to try to figure out where they were going to get gas from. The utilities talked to parties who could build ships and to parties with sources of LNG and compressed natural gas (CNG) from around the world. The story on supply is very important and that story depends on investment.

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MR. FOUTS turned to the chart on slide 11, "Chugach Electric's Gas Supply, Hourly Gas Demand for the Year," and said the other aspect of Chugach's business is deliverability. He noted that ENSTAR has expressed that it has almost all the deliverability it needs. In the electric business, he explained, Chugach has 30 percent extra capacity in its generation so that when a generator trips or equipment fails the utility still has enough electricity to meet the need. Chugach subscribed to enough deliverability from CINGSA to again provide that redundancy. Chugach can meet the instantaneous peak seen on the chart, which is an hourly projection of Chugach's gas needs with the base depicted in blue and the peak in red. What ENSTAR was speaking about was in terms of the daily rate, but on an hourly basis even more swing is required. Chugach has purchased enough deliverability from CINGSA to not only meet the need throughout the winter but even weather and equipment failure when one or two peaking units have to be turned on.

MR. FOUTS showed slide 12, "Gas Storage Meets Peak Gas Demand," to discuss how Chugach looks at each day when using its gas. He

explained that the gas is received on a continuous basis all day long. During evening hours the electric load goes down because the lights are out while people are asleep, but Chugach is still getting that 22 Mcf a day so it is put into storage. When everyone wakes up the load increases, but the supplier does not provide enough gas and so that gas is pulled out of CINGSA. Unlike ENSTAR that mainly uses CINGSA to meet the winter peak, Chugach uses CINGSA every day. The CINGSA facility is critical for meeting Chugach's load and provides the least-cost fuel supply for Chugach because the utility is buying all its gas at flat rates. Chugach has invested in CINGSA with a $100 million commitment for 20 years. It would have been nice to have a 30 or 40 year commitment, but 20 was available.

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MR. FOUTS moved to slide 13, "Conclusion," and said his point is that Chugach Electric Association has its gas needs met in terms of volume for seven years, has its storage facility for another 16 years under contract, and has a generation asset that is good until 2048. If Chugach finds itself in the situation of being five years away from a fuel supply that is uncertain, Chugach will be right back where it was in 2010. When the question is asked about whether there is enough supply and enough deliverability in Cook Inlet, he would say that when there is enough supply to go out 15-20 years the problem is solved. There are agreements to accommodate ENSTAR when it calls him to say it is "10 short" and asks to borrow some of Chugach's gas for the next eight hours. But, he said, his opinion in regard to the state is that ENSTAR should be able to commercially go to the marketplace in Cook Inlet and buy an extra 10 percent of deliverability so that when a compressor goes down on a platform ENSTAR can just call up the other platform owner and ask for an extra 10 million a day. If there were metrics going forward, he advised, there would be two new gas platforms, at least, in Cook Inlet that could do 50 million a day, plus what Hilcorp is doing, plus what CINGSA is doing, and then [the utilities] would be covered.

MR. FOUTS recapped that in 2009-2011 the Department of Natural Resources (DNR) came out with its study of the [Cook Inlet] decline. Hilcorp came in and said it would cover [Chugach's] volume and would almost cover [Chugach's] deliverability. Deliverability is extremely expensive, he said. Spending $100 million and trying to get it back in 10 days on selling gas at $7-$8 doesn't pay for itself. In 2015 the state said there was 1.2 Tcf of proved plus probable (2P) reserves, as was related by

enalytica last week. That is 0.7 Tcf of proven (the infill) and 0.5 of probable (what is hoped is there), a 50 percent probability. So, there is five to ten years of gas that the state believes is had. Hilcorp will do seven years. However, Hilcorp will have to drill over the next five to seven years because it doesn't have all this gas behind the pipe, and will be drilling in the probable areas. As the committee heard from Hilcorp yesterday, $12 million was spent drilling a well that was unsuccessful. Hilcorp will be doing a lot more drilling as these fields decline. There are lots of stories of looking for gas that is being counted on, only to find zero. Security is needed in Chugach's fuel supply and he is looking at the committee as an opportunity to express Chugach Electric Association's perspective that long-term security is needed. Chugach should not have to have the uncertainty of how it is going to meet its electric load.

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REPRESENTATIVE TARR commented that a part of this discussion needs to be the work to integrate the Railbelt utilities. She said she is aware of legislation that would build efficiency into the system. She requested Mr. Fouts to provide an update on the progress in this regard.

MR. FOUTS replied there are multiple efforts to reduce the amount of gas being burned by the electric utilities. The most certain effort is what all the utilities already did - put in brand new, highly efficient generation. Five years ago [the utilities] burned 33 Bcf [a year]. By the start of 2017, [the utilities] will be burning 28 Bcf [a year], cutting off 5 Bcf of gas. The utilities are currently studying the dispatching of all the generation together, which would save another marginal level of gas, not near as significant as the 5 Bcf. The utilities have minimized the gas usage through almost $1 billion in investment in new generation. By economically dispatching together, a marginal amount more will be saved but most of the savings have probably already been accrued.

REPRESENTATIVE TARR inquired about the terms that are used in regard to the aforementioned.

MR. FOUTS responded that there are several terms, but in general there is Independent System Operator (ISO) and Unified System Operator (USO). The idea is that all the utilities dispatch all their generation optimally so no gas or no fuel is wasted. That is the ISO.

REPRESENTATIVE TARR understood that that is the ongoing piece that will only be a marginal reduction.

MR. FOUTS answered that the amount of gas being used for next year when all the new power plants are on should be on the order of 28 Bcf [a year]. If the utilities optimize their dispatch there could be another 0.5 Bcf or 1 Bcf of gas that also could be saved. Saving 0.5 Bcf is $8 million and $8 million for forever is a lot of money.

[HB 247 was held over.]

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ADJOURNMENT

There being no further business before the committee, the House Resources Standing Committee meeting was adjourned at 2:52 p.m.