

HOUSE FINANCE COMMITTEE  
April 4, 2024  
10:09 a.m.

10:09:24 AM

CALL TO ORDER

Co-Chair Foster called the House Finance Committee meeting to order at 10:09 a.m.

MEMBERS PRESENT

Representative Bryce Edgmon, Co-Chair  
Representative Neal Foster, Co-Chair  
Representative Julie Coulombe  
Representative Mike Cronk  
Representative Alyse Galvin  
Representative Andy Josephson  
Representative Dan Ortiz  
Representative Will Stapp  
Representative Frank Tomaszewski

MEMBERS ABSENT

Representative DeLena Johnson, Co-Chair  
Representative Sara Hannan

ALSO PRESENT

John Boyle, Commissioner, Department of Natural Resources;  
John Crowther, Deputy Commissioner, Department of Natural Resources;  
Derek Nottingham, Director, Division of Oil & Gas, Department of Natural Resources;  
Representative Tom McKay, Sponsor; Trevor Jepsen, Staff, Representative Tom McKay.

PRESENT VIA TELECONFERENCE

Melanie Werdon, Director, Division of Geological and Geophysical Surveys, Department of Natural Resources.

SUMMARY

HB 257 COOK INLET SEISMIC DATA

HB 257 was HEARD and HELD in committee for further consideration.

PRESENTATION: COOK INLET OIL AND GAS BY THE DEPARTMENT OF NATURAL RESOURCES

Co-Chair Foster reviewed the meeting agenda. He stated that the committee would focus on energy bills in the coming meetings.

^PRESENTATION: COOK INLET OIL AND GAS BY THE DEPARTMENT OF NATURAL RESOURCES

[10:11:23 AM](#)

Co-Chair Foster reported that there was a future possibility of supply issues in Cook Inlet related to oil and gas and its effect on the grid. He asked the Department of Natural Resources (DNR) commissioner to categorize the three types of energy bills that were introduced.

JOHN BOYLE, COMMISSIONER, DEPARTMENT OF NATURAL RESOURCES, answered that one type of energy legislation pertained to storage capacity for natural gas in Cook Inlet. He elaborated that another was economic incentives, which were a key driver of energy policy. He offered that DNR's projections showed that demand would outstrip supply in the near future in Cook Inlet. There was still very significant natural gas and oil resources in Cook Inlet; it was a very mature basin and had been in operation for close to 60 years. Many of the established fields were experiencing normal decline curves for mature fields. In addition to currently producing fields, there were significant resources still available on state lands and waters and in federal areas of Cook Inlet. He explained that the current issue for oil and gas producers was to be able to consistently and predictably offer firm contracts. The companies currently able to produce "firm" gas had already contracted out for the gas. Other companies that may be sitting on resources were struggling with delivering gas for various reasons like financing.

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Commissioner Boyle continued that DNR had "levers" available to "help improve the economic landscape for development in Cook Inlet. The department believed it was

important to first focus on "getting state resources to market" versus importing natural gas, which was an option being explored by utilities. He remarked that setting up the infrastructure to support the import of liquid natural gas (LNG) would take a significant amount of time. The department believed that getting gas more quickly to market could be helped by making some "tweaks to the financial structure and help incentivize more gas development sooner than other options. He pointed out that the focus was getting sufficient gas to meet short-term supply and demand as well as in the long term. He relayed that the Railbelt experienced a similar Cook Inlet shortage situation roughly 10 or more years prior that created brownout drills in the area. The legislature responded with the Cook Inlet Recovery Act and Hilcorp began producing in the area, which resulted in an ample surplus. The goal was to buy the state enough time to have sufficient production and buy time to bridge between the next things such as hydro, wind, solar, and other methods to provide power to the Railbelt going forward. It was necessary to look at the entire system holistically. He believed that by focusing on economic factors DNR hoped to accomplish more production. He pointed out that oil production in Cook Inlet was also important to the state because it was used locally in refineries to produce fuel for the region's use. The state could not monetize resources that were not developed in Cook Inlet and the state would be leaving value on the table in terms of severance taxes, royalties, etc. His goal was to help find the "right levers to pull" to increase supply and monetize available resources in Cook Inlet while concurrently "putting the pieces of what comes next in solving the state's energy puzzle."

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Co-Chair Edgmon considered the energy picture moving forward and felt that a "portfolio approach" was necessary. He was considering the portfolio of Alaska's energy supply going forward and the levers the legislature had to affect the larger picture. He believed that the approach had to be broken down into several categories: Cook Inlet natural gas, the regulatory aspect, the Carbon Bill, and the issue of renewables - a portfolio approach. He wondered what the governor's approach was. He viewed that an interplay of bills was necessary. He advocated for a green bank bill to pass in the current session. He asked the commissioner for clarity regarding the administration's approach.

Commissioner Boyle agreed that the solution would involve looking at a portfolio of energy options for the state. He acknowledged that there were a lot of bills, including a suite of Cook Inlet bills; some were governor sponsored and others were member sponsored. They all had different approaches in terms of incentives, storage, etc. In addition, he believed that Carbon Capture Utilization And Storage (CCUS) would be involved due to the state's abundance of coal and the feasibility of permitting a coal fired plant and not run afoul of any environmental targets set by the current administration. He was a firm believer that there was a tremendous amount of geothermal resources in Alaska with federal funding available to delineate the state's geothermal resources. He noted that there was a number of bills that dealt with renewable energy and the state's leasing structure, which needed updating and bills related to the transmission line. He thought that all of the bills fit together and addressed different important pieces that needed to come together for a portfolio of options.

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Co-Chair Edgmon thanked Co-Chair Foster for the opportunity to ask about the larger picture regarding the issue.

Co-Chair Foster stated there were about 12 energy bills in committees. He wanted to categorize the bills into their specific "buckets." He summarized that there were bills pertaining to Cook Inlet, transmission, renewables, and storage.

Representative Ortiz referenced the commissioner's statement they were looking at potential tweaks to incentivize increased production in Cook Inlet. He asked what the opportunity cost of the incentives would be.

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Commissioner Boyle responded that it depended on the type of incentive. There were bills that contemplated incentivizing new production. Under that scenario, the state was not giving away anything because the oil was not forecasted to be produced. He deduced that incentives built around new production was not lost revenue or came at a cost to the state and might actually present a revenue option for the state. Conversely, there were bills that

looked to broaden incentives to existing and new production, which would result in tradeoffs and less revenue collected. He felt that the level of confidence that the changes would incentivize companies to increase production should be evaluated in those scenarios and whether it encouraged companies to squeeze more out of existing fields. He asserted that it was a question the department looked forward to examining with the legislature. He posed one question as whether the risk of foregoing revenues worked "to solve the next moves on the energy horizon." He concluded that there were tradeoffs that "warranted robust and wholesome discussion."

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Representative Ortiz asked about a different type of tradeoff. He guessed that there was an advantage to importing natural gas. He asked if the state could be outcompeted by importing gas. He wondered what it was about the market that did not make local natural gas competitive on its own without incentives. Commissioner Boyle responded that the Cook Inlet basin was a challenging area to operate in. The projects were generally smaller in size and if a surplus was produced, sales were constrained by the dynamics of the local market. He indicated that surplus gas was no longer exported to Japan as it had been, and the Agrium facility had closed. The economics of the projects could be more economically challenging. He concluded that different constraints existed in the Cook Inlet market versus choosing to invest in a project in west Texas or another natural gas basin.

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Representative Stapp asked if Commissioner Boyle had read the Cook Inlet Natural Gas Production Study from 2011 ["Cook Inlet Natural Gas Production Cost Study" by Department of Natural Resources, Division of Oil and Gas, June 2011]. Commissioner Boyle had not reviewed it sufficiently to study it. Representative Stapp stated that it had been conducted by the Department of Natural Resources (DNR). He reported that it had two conclusions and read from the study:

Given currently available information (and assumptions made in this study), absent any exploration success the Cook Inlet basin is capable given sufficient

continued investments of supplying the regional natural gas needs until 2018-2020 at a price below that of currently contemplated alternatives (Figure 13). However, failure to make appropriate investments in lockstep with demand requirements will necessitate alternative sources of natural gas to be made available sooner. Therefore, transition to alternative sources of natural gas may begin to occur before the 2018-2020 timeframe as part of a comprehensive supply and risk management plan.

Representative Stapp cited the recommended comprehensive supply and risk management plan and asked if DNR ever developed one. He maintained that the current members of the department were not the first to identify the issue.

JOHN CROWTHER, DEPUTY COMMISSIONER, DEPARTMENT OF NATURAL RESOURCES, answered that he did not know whether the department ever published the plan under the name referenced by study. However, DNR had produced updated studies. He indicated that the studies demonstrated that reserves continued to be produced and consumed, the market continued to mature and there was some level of reserve replacement associated with development progress and limited exploration. He viewed the successive studies as the continued monitoring of the risk. He delineated that the most recent study showed supply limiting in the 2026 to 2028 time frame; the risk predicted in 2011 was here. Therefore, the department was acting by alerting the legislature of the risk via current legislation and the presentation.

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Co-Chair Foster asked the department to begin the presentation.

DEREK NOTTINGHAM, DIRECTOR, DIVISION OF OIL & GAS, DEPARTMENT OF NATURAL RESOURCES, provided a PowerPoint presentation titled "Cook Inlet Oil and Gas," dated April 4, 2024 (copy on file). He began on slide 2 titled "Why is Cook Inlet Gas Important?"

#### Natural Gas Utilities

- Enstar serves over 440,000 people in over 25 communities throughout Southcentral Alaska

- Interior Gas Utility (IGU) serves over 2,400 people

#### Electric Utilities

- Chugach Electric serves over 302,000 people in Anchorage, Whittier, Girdwood, and Fairbanks
- Matanuska Electric (MEA) serves over 180,000 people in the Mat-Su Borough and Chugach and Eagle River
- Homer Electric serves nearly 36,000 people

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Mr. Nottingham turned to slide 3 titled "Cook Inlet Overview:"

Cook Inlet is a large, mature oil and gas basin

- Has produced over 1.4 billion barrels of oil and 12 trillion cubic feet of gas
- 26 producing fields operated by 8 different companies
- There are over 200 oil and gas leases in Cook inlet  
Gas production has been declining since 1990
- Peak gas production in 1990 was over 850,000 thousand cubic feet per day
- Current production is just over 200,000 thousand cubic feet per day  
Cook Inlet gas provides heat and electricity to 70% of Alaskans

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Mr. Nottingham moved to slide 4 titled "Cook Inlet Geology:"

Two Sources of Gas In Cook Inlet Basin

1. Biogenic gas from coals

2. Oil migrated from source rocks, creating associated gas

Mr. Nottingham pointed to the map on the left and explained that it depicted the sedimentation that had been deposited overtime in the basin between the Alaska Range on the west side of the inlet and the Kenai Peninsula and Chugach Mountains to the east. The black outline on the map reflected the Cook Inlet boundary where the state leases were located and with the oil and gas fields demarcated that were developed over time. He highlighted the graphic of the stratigraphic column on the right. He briefly described the formation of gas in Cook Inlet over time.

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Mr. Nottingham advanced to slide 5 titled "Cook Inlet Exploration and Development: Undiscovered Resources:"

- Undiscovered, Technically Recoverable Oil & Gas (U.S. Geological Survey 2011):
  - Mean conventional oil: 599 million barrels of oil
  - Mean conventional gas: 13.7 trillion cubic feet
  - Mean unconventional gas: 5.3 trillion cubic feet
- Undiscovered, Technically Recoverable Gas:
  - 1.2 trillion cubic feet additional mean resource assessed in the federal Southern Cook Inlet Outer Continental Shelf area (Bureau of Ocean Energy Management 2011)
- Technically vs. Commercially Recoverable:
  - Some gas will be too expensive to be produced or will be inaccessible because of surface restrictions

Mr. Nottingham pointed to the map on the left of the slide depicting the area studied and noted that it bordered north of Talkeetna to south of Homer and was significantly larger than the current state Cook Inlet boundary. He underlined that technically recoverable meant that existing means and recovery mechanisms made the resources possible to produce

but it did not necessarily mean they were commercially able to be produced.

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Mr. Nottingham addressed "Cook Inlet Leases" on slide 6:

Cook Inlet Areawide Statistics (State Lands) 3.3 million total acres

- ~0.3 million acres held by production in Units (9%)
- ~0.15 million acres reside in Hilcorp operated Units (4.5%) 3.0 million acres unleased or leased in "primary term"
- ~0.05 million acres are held by Hilcorp in primary term (1.5%)
- ~0.05 million acres are held by other entities in primary term (1.5%)

2.9 million acres remain unleased (88%)

Mr. Nottingham identified the map on the right of the slide that portrayed Cook Inlet state lease ownership shaded in colors. The purple areas were owned by Hilcorp, the tan areas were owned by Furie, with the remaining owned by Amaroq Resources, BlueCrest Energy, and others. He emphasized that there was 2.9 million acres remaining unleased in the area (almost 90 percent).

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Mr. Nottingham advanced to slide 7 and continued to discuss "Cook Inlet Leases."

What is a State of Alaska Oil and Gas Lease?

- A lease is a tract of land designated for oil and gas exploration
- Leases are offered at lease sales or through exploration licenses
- Primary lease terms are between five and ten years

- Commercial production extends the lease beyond the primary term

What is an Oil and Gas Unit?

- Leases are combined to form a unit for the protection of all parties
- Facilitates joint development, conserves natural resources, and avoids waste
- Unit agreement is developed between the lessees and the State
  - Requires the development of a plan of development/exploration (POD/POE) along with other reporting requirements
  - Requires the operator to act as a prudent operator while developing the unit.

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Mr. Nottingham spoke to "Leasing Restrictions" on slide 8:

- Not all land is available for leasing
- Some land may be leased but have restrictions on how the land may be used, such as no surface-entry or surface access only during seasonal windows
- Alaska Mental Health Trust Authority and University of Alaska may lease their land for oil and gas
- Federal lands, such as national parks, forests, or wildlife refuges, are generally unavailable for oil and gas development

Mr. Nottingham cited the map depicted on the right of the slide illustrating prohibited leasing in red, surface restrictions due to seasonal aspects, and limitations on the development of the land for oil and gas purposes in yellow.

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Mr. Nottingham presented the graph reflecting "Cook Inlet Production History" on slide 9. He explained that oil and gas were both in significant decline. Oil production beginning in the late 1950's peaked at over 200 thousand barrels per day (bpd) in 1970. Gas production peaked in 1990 at 850 million cubic feet per day (Mscf/d). He delineated that water was flowing into the wells and breaking through causing oil production to decline. The pressure was depleting in some gas reservoirs as gas was declining. Currently, gas production was 200 (Mscf/d).

Co-Chair Edgmon observed that the slide noted thousand cubic feet per day. Mr. Nottingham apologized and corrected the error.

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Representative Stapp observed a small production spike in gas production in 2012 and 2013. He thought it was likely the result of a state subsidy that was implemented at the time. He asked how much the state spent on incentivizing that amount of oil and how much was it.

Mr. Crowther answered that he did not have the information on hand regarding the credit program and would have to work with the Department of Revenue to provide an answer.

Representative Stapp asked about the production delta represented by the small bump. Mr. Nottingham did not know the specific amount, but he estimated it was 30 million to 50 million cubic feet per day (cfd). He thought that the actual amount would be very significant relative to the current level of production.

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Mr. Nottingham turned to slide 10 showing current "Cook Inlet Production by Field." He elaborated that the chart showed the production by field and operators. He noted that the columns on the right showed the 2023 Gas Production and 2023 Oil Production averaged over the year. Hilcorp was the dominant operator at 90 percent of production and owning roughly 80 percent of the production. In addition, they produced about 7,000 (bpd) of oil out of the overall 9,000 (bpd). He pointed out that all of the production from Cook Inlet came from "unitized lands" representing about 300,000

acres of the 3.3 million acres within the Cook Inlet boundary.

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Mr. Nottingham advanced to slide 11 titled "Gas Storage:"

What is gas storage?

- Gas can be stored by re-injecting it in subsurface reservoirs and re-producing when it is needed, although it comes with costs and operational demands.
- Gas is used within a year to mitigate the fact that demand is much higher in the winter than the summer, but it is best to produce from fields at a relatively steady rate. Production over the summer months can be "saved up" for cold winter days.
- Storage is critical, as peak winter demand already requires more gas than is deliverable from producing reservoirs.
- Gas storage can also be used across multiple years.

Cook Inlet has four active gas storage pools:

- CINGSA - Established in 2011, gas storage capacity 18 bcf, operated by CINGSA (an RCA regulated utility)
- Kenai Gas Pool 6 - Established in 2006, gas storage capacity 50 bcf, operated by Hilcorp
- Pretty Creek - Established in 2005, gas storage capacity 3 bcf, operated by Hilcorp
- Swanson River (Federal) - Established in 2001, gas storage capacity 3.4 bcf, operated by Hilcorp

Mr. Nottingham stressed that gas storage was a buffer to manage peak demand periods.

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Mr. Nottingham moved to slide 12 titled "Cook Inlet Gas Demand:

#### Kenai LNG Plant

- Nikiski liquified natural gas (LNG) facility is operated by Trans-Foreland Pipeline Co. LLC - which is a subsidiary of Marathon Petroleum
- Last exported LNG was 2015
- Department of Energy (DOE) authorization for exporting LNG expired in 2018
- Dec. 2020 Federal Energy Regulatory Commission (FERC) approved LNG imports to this facility at an annual capacity up to 1.8 billion cubic feet (bcf) per year

#### Nutrien Fertilizer Plant

- Second largest ammonia/urea plant in U.S.
- Shut down and mothballed in 2007, however Nutrien maintains permits and remains interested in reopening the plant
- Gas prices relative to Lower 48 makes economics difficult
- Potential source for blue hydrogen/blue ammonia

Mr. Nottingham indicated the demand for Cook Inlet gas was currently left with utility uses and oil and gas field operations such as; injection for enhanced oil recovery and fuel gas uses near the inlet. The current total demand was around 70 bcf per day.

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Mr. Nottingham addressed the graph on slide 13 titled "Forecast Proved Developed & Proved Undeveloped." He delineated that the ability for Cook Inlet operators to deliver contracted gas appeared to be waning notably in the 2027 and 2028 time frame. He added that the blue bars reflected existing proven wells and the orange bars

reflected undeveloped wells. The department projected roughly 15 wells were drilled per day largely by Hilcorp.

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Representative Stapp observed that the blue demand bar on slide 13 was above everything that the state expected to be produced even in the current year. Mr. Nottingham answered that it was close, and utilities would say it was too close for comfort. He added that the ability to make up for a shortfall was limited to one operator: Hilcorp.

Representative Josephson asked what a "not firm contract" was. Mr. Crowther answered that contracts for a supply of gas was focused on the production and delivery of gas to a consumer that was typically a utility. The contract included a variety of terms like price, duration, and volume, etc. One key term was "firmness" that meant utilities preferred contracts where a supplier had to deliver the gas or pay a penalty. For various reasons, producers may desire to offer "non-firm contracts." The producer agreed to deliver a given volume of gas but if it failed to do so there was not a penalty. He summarized that the firmness related to how obligated the producer was to deliver the gas.

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Mr. Nottingham turned to slide 14 titled "2023 Development Well Activity:"

Well Activity (as of end of calendar year 2023):

- 17 gas development wells were drilled and completed during calendar year 2023:
- North Cook Inlet Unit x3
- Lewis River Unit x1
- North Trading Bay Unit x1
- Swanson River Unit x3
- Beluga River Unit x5
- Lewis River Unit x1

- Ninilchik Unit x3
- 1 development well actively being drilled in Kenai Unit
- 1 development well drilling permit was approved for Beluga River Unit

#### Production

Major field contributors to Cook Inlet gas production (through November 2023):

- Ninilchik ~21.8%
- North Cook Inlet ~18.8%
- Beluga River ~18.5%
- All other gas fields represent less than 10% each

The above percentages are based on gas volumes for sale and discount gas produced from storage as well as gas reinjected for enhanced oil recovery (EOR) purposes.

Mr. Nottingham relayed that the main point of the slide was that there was a very active drilling program in Cook Inlet and all the wells were drilled by Hilcorp. He added that all the wells were developed wells that were known and discovered versus exploration wells.

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Mr. Nottingham turned to slide 15 titled "Cook Inlet 2023 Lease Sale Results:"

New, competitive lease terms offered:

- Net profit share as the bid variable
- Fixed per-acre cash bonus
- No royalty—percentage of net profits owed to the State after recovering capital investments and operating costs to bring production online

Six tracts received bids

- Three from Hilcorp Alaska LLC
- Three from Hex LLC

Net profit share rate bids: 5.7% - 11%

Cash bonus revenue: About \$600,000

Acres receiving bids: About 15,000 acres

Mr. Nottingham elaborated that very few exploration wells were being drilled in Cook Inlet. Therefore, DNR offered more competitive lease terms rather than the traditional fixed royalty of 12.5 percent. The state took its share of the profits and not off of the gross revenue like a fixed royalty rate. He indicated that no one from the "outside" was interested in the first round of bids and he characterized the results as "meager." The department was evaluating its options in terms of offering another round of net profits share.

Representative Josephson asked if the Net Profit Share option on slide 15 could be done administratively without requesting royalty relief from the legislature. Mr. Nottingham responded affirmatively and added that DNR had the authority via AS 38.05.180(f).

Mr. Crowther interjected that current statutes allowed the commissioner to designate the royalty and net profit share terms on new leases as they were offered. However, DNR could not modify the existing wholesale royalty structure.

Representative Stapp asked how many operators bid on the net profit share leases. Mr. Nottingham answered that two companies bid: Hilcorp and Hex. Representative Stapp asked how many leases were offered.

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Mr. Nottingham did not know the number off hand. He guessed that there were multiple hundreds of leases. Representative Stapp estimated that 500 leases were available and 6 out of 500 were bid on, totaling approximately one percent. Mr. Crowther answered that there were about 15,000 acres leased and approximately 2.9 million acres unleased in the basin. The basin with the current leases was approximately 300,000 acres. The department received bids on 15,000 acres out of about 3.3 million acres representing a very small percentage of available acres.

[11:06:10 AM](#)

Mr. Nottingham reviewed slide 16 titled "Existing Oil And Gas Royalty Statutes:"

New Leases - No Production

AS38.05.180(f)(3) Prescriptions on commercial terms for DNR's oil and gas leases

Minimum royalty rate at 12.5%  
Options for sliding-scale royalty rates or net profit sharing

AS 38.05.180(f)(4)-(5) Five percent royalty rate on initial production under limited circumstances

180(f)(4) Cook Inlet Discovery Royalty

- 1996 SB 112
- Only used once
- 180(f)(5) New production granted 5% royalty for 10 years
- 1998 HB 380
- Applied to only six known fields at the time of legislation
- Four fields qualified

Existing Leases - Mature Production

AS 38.05.180(f)(6) Reduced royalty rates on oil for some offshore fields under limited conditions

2003 SB 185

- Effective, more successful at prolonging production than predicted
- Only applies to offshore oil fields
- Doesn't apply to all offshore oil fields

AS 38.05.180(j) Royalty modification by DNR Commissioner

- Expanded in 1995 by HB 207

- May modify royalty for unproduced pools (5%), mature pools (3%), or shut-in pools that are uneconomic (3%)
- High bar and lengthy process

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Mr. Nottingham concluded the presentation on slide 17 titled "Action is Needed":

- Alaskans need access to reliable, affordable energy
- Nearly 70% of Alaskans use Cook Inlet natural gas for heating, energy, and electricity generation
- Cook Inlet gas supplies are forecasted to drop below demand in coming years unless new sources are brought online
- There are several significant known natural gas fields in Cook Inlet that are not seeing development under the status quo
- Policies and actions to support future development need to be taken today
- More competitive development terms will increase total recovery and utilization of
- Alaska's natural resources, which otherwise may not be developed or generate revenue for the State
- Alaska should use all the local natural gas resources available as we work on long-term energy solutions for the Railbelt

Co-Chair Foster thanked the department for the presentation.

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Representative Stapp asked about gas storage. He asked if DNR thought there was currently sufficient gas storage in the Cook Inlet. Mr. Nottingham answered that there was currently sufficient storage for what was needed. He thought that the storage facilities that were not currently open to third parties could work out a commercial agreement to allow third party storage.

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AT EASE

[11:18:07 AM](#)

RECONVENED

#hb257

HOUSE BILL NO. 257

"An Act requiring the Department of Natural Resources to make Cook Inlet seismic survey data available to certain persons; and providing for an effective date."

[11:18:56 AM](#)

REPRESENTATIVE TOM MCKAY, SPONSOR, thanked the committee for hearing the bill. He read the sponsor statement (copy on file):

As Alaska State Legislators, we are all committed to unlocking the vast potential of Cook Inlet for gas exploration and drilling. One way we can do this is by attempting to broaden access to state-owned seismic survey data. This legislation aims to enhance data access, allowing a wider range of experts and industry players to explore the geological intricacies of Cook Inlet. By making seismic data more accessible, we hope to stimulate interest and investment from new players in the energy sector. Our goal is to enhance energy security, support economic development, and ensure the sustainable management of Alaska's natural resources. This bill represents a pivotal step toward realizing the untapped potential of Cook Inlet, encouraging innovation, and fostering a competitive energy market.

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Representative McKay relayed that he had been approached by small independent oil and gas operators seeking access to state seismic data in Cook Inlet. The data would be reviewed by seismic consultants and could potentially result in projects in the Cook Inlet. He believed that it was one step the state could take to encourage exploration activity. He asked his staff to provide a PowerPoint presentation.

TREVOR JEPSEN, STAFF, REPRESENTATIVE TOM MCKAY, provided a PowerPoint presentation titled "HB 257 - Cook Inlet Seismic Data Access." He began on slide 2 titled "Seismic Data: Overview:"

Extremely important tool in the oil and gas Industry.

Using sound waves, geological structures can be mapped.

Seismic programs can cost anywhere from a few million to hundreds of millions of dollars; depends on magnitude of the area of inquiry.

Mr. Jepsen read from a prepared statement. He expounded that seismic data was used on both land and sea.

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Mr. Jepsen turned to slide 3 titled "Seismic Data Acquisition:"

- Seismic Surveying: This process involves sending shock waves into the ground, which then bounce back to the surface where they are recorded by sensors known as geophones.
- Data Recording and Analysis: The reflected waves are captured by the geophones and converted into seismic data.

Mr. Jepsen explained that the shock waves were generated by small, controlled explosions.

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Mr. Jepsen discussed slide 4 titled "Seismic Imaging: 2D, 3D, & 4D." He elaborated that the photos on the slide portrayed what the data looked like. He added that 4D [dimensional space] seismic data tracked the change and migration of fluid volumes and reservoirs over time but was used for already producing reservoirs. He noted that 3D provided a better picture but was more expensive than 2D.

[11:24:01 AM](#)

Mr. Jepsen reviewed slide 5 titled "Why HB 257?":

Requires the Department of Natural Resources to distribute state-owned seismic data to "qualified persons" at no charge

Predicted gas shortages in the near-future due to decreased Cook Inlet gas production poses a potential existential threat to South Central

Despite state-owned seismic data being offered at a fraction of cost for acquisition, still serves as a barrier for exploration companies

Mr. Jepsen indicated that the state received very little revenue from selling Cook Inlet seismic data to the industry. He reiterated that the goal of the legislation was to get more industry professionals to view the data to attract more smaller and medium sized operators. The state currently sold the data at a fraction of the cost to produce it. However, he felt that it still served as a barrier to some companies accessing the area. He pointed to the graph on the right side of the chart by the Department of Natural Resources that portrayed the Cook inlet Gas Production Curve. The graph showed a decline in meeting the production goal of 70 (BCF) by 2027. He reported that eventually exporting LNG was likely resulting in higher costs for rate payers.

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Mr. Jepsen turned to slide 6 titled "Seismic Tax Credits:"

- Oil and Gas companies eligible for Geological and Geophysical Exploration tax credits under AS 43.55.023(a)(2)
- Must comply with AS 43.55.025(f)(2)
- Ownership of seismic data is relinquished to state after 10 years following the survey completion date

Mr. Jepsen related that the third bullet point was relevant to HB 257. The bill eliminated the 10 year requirement to qualified persons but not for other data that had not met the 10 year requirement.

[11:27:02 AM](#)

Mr. Jepsen moved to slide 7 titled "How Valuable is the State-Owned Seismic Data?":

- Perceived value of state-owned seismic data varies

- Important distinction: Cook Inlet vs. Alaska North Slope
- Less than 3% of total revenue for state-owned seismic data is brought in from Cook Inlet Seismic Data

Mr. Jepsen pointed to the pie chart and chart on the right side of the slide that showed 94 percent of total seismic data sales was from the North Slope region.

[11:27:48 AM](#)

Mr. Jepsen turned to slide 8 titled "Cook Inlet Seismic Sales Summary:"

- HB 257 brings forward a "value-add" question for the legislature
- HB 257 doesn't pretend to be a silver bullet to spur Cook Inlet interest, but instead is one of many changes we can make to incentivize new activities and investment

Mr. Jepsen pointed to the pie chart and chart on the side and communicated that the academic and government sectors purchased most of the seismic data with industry purchasing roughly \$27 thousand worth of data from 2018 to 2023. He deemed that the legislation presented a trade-off decision for the legislature: The small amount in sales revenue versus potential interest in Cook Inlet. He concluded that the legislation was one piece of a larger plan to incentivize Cook Inlet gas production.

Co-Chair Foster relayed that the fiscal note had estimated the loss of revenue of \$35,000. He wondered how much the cost of producing the data was versus about how much the state received on the dollar to sell it. Mr. Jepsen responded that it was roughly 1 percent of the total cost of producing it. He deferred to DNR for a detailed answer.

[11:30:53 AM](#)

Representative Galvin reported that she did not find any supporting documents from industry in the bill packet. She asked for "examples of who would be supportive" of the

legislation. Mr. Jepsen answered that the sponsor did not have a list or letters from industry. He mentioned that Representative McKay engaged in discussions with industry.

[11:31:47 AM](#)

Representative McKay interjected that he only had anecdotal information from industry people that he interacted with frequently who had recommended the action. He had heard that it could open up some oil and gas industry prospects. He offered to provide some personal testimony if needed. Representative Galvin deduced that the gist of the DNR presentation the committee just received was to get "current" Cook Inlet industry "players" incentivized. She wondered whether the bill would help that "group of folks." Representative McKay believed the bill could help incentivize interest with a bank of data free of charge.

Mr. Jepsen interjected that there was very little interest in Cook Inlet lease sales even with adjusted lease terms. He also hoped to attract newcomers with the data.

[11:34:15 AM](#)

Representative Josephson recalled a meeting with the prior administration and commissioner of DNR regarding an issue over data. He was unable to remember the issue or details. He pondered whether the sponsor should get DNR's opinion. Representative McKay was unable to envision what the topic might have been. Representative Josephson recalled that it was about seismic data.

Mr. Jepsen believed it was most likely the North Slope and would follow up.

Co-Chair Foster welcomed Juneau students to the committee room.

Co-Chair Edgmon thought that seismic data in Cook Inlet was 3-D and not 2-D.

Representative McKay answered that it could be both or either. He added that 3-D data was newer, was currently used more prevalently, and was a substantial improvement in what scientists could evaluate. Co-Chair Edgmon wondered if the seismic data in Arctic National Wildlife Refuge (ANWR) was in 2D. Representative McKay replied in the affirmative.

11:37:55 AM

Co-Chair Edgmon asked how much of the 3.2 million acres in the Cook Inlet boundary was conducive to seismic data gathering. Representative McKay answered that seismic data gathering required a substantial amount of permitting and was highly regulated. He did not know off hand how much land was open for seismic data.

11:39:15 AM

Representative Coulombe asked who qualified persons were and who made the determination. Mr. Jepsen responded that Section 2 of the bill included the definition of qualified person. He read the following:

"qualified person" means an accredited domestic research institution, a person actively exploring for, developing, or producing oil, gas, or minerals in the state, or another person to whom the provision of seismic survey and other geophysical data would serve the best interests of the state as determined by the department.

Representative Cronk thanked the bill sponsor and staff for the bill. He appreciated the idea and believed that if it brought in one more company it was worth it.

Representative McKay relayed that the bill kept with the state's constitutional requirement to responsibly developing its natural resources.

Co-Chair Foster asked the department if it had any comments.

MELANIE WERDON, DIRECTOR, DIVISION OF GEOLOGICAL AND GEOPHYSICAL SURVEYS, DEPARTMENT OF NATURAL RESOURCES (via teleconference), replied that she was available for questions.

Co-Chair Foster thanked the students for joining the committee. He was happy to visit with them after the meeting.

Co-Chair Foster thanked the presenters.

HB 257 was HEARD and HELD in committee for further consideration.

Co-Chair Foster reviewed the schedule for the following meeting.

#  
ADJOURNMENT

[11:43:35 AM](#)

The meeting was adjourned at 11:43 a.m.