



The Honorable Click Bishop, Co-Chair
The Honorable Bert Stedman, Co-Chair
Senate Finance Committee
Alaska State Capitol, Rm 532
Juneau, Alaska 99801

February 17, 2022

Re: SB 62 Gas Leases; Renewable Energy Grant Fund

Thank you for the opportunity to introduce this bill to your committee on February 1, 2022. We appreciate your patience in waiting for this information. In providing testimony, some questions needed follow-up at the request of the committee. Those answers are below.

Revenue estimate

Is there an estimate for revenue the State would receive from this legislation?

No. It is not possible to reasonably estimate what revenue could come from the offshore acreage contemplated in this legislation due to a lack of data. Data would need to be gathered from a test well or other means that reveals information about that acreage, which cannot be legally conducted at present. Further, to provide such an estimate, that data would need to be in the public domain.

Moreover, as this area is not open for leasing the terms and conditions that would guide development have yet to be established. This includes the potential royalty rate, lease rentals, and bonus bids. The Commissioner has the authority to create special lease terms that may differentiate these values from those in our previous Cook Inlet areawide [lease sales](#).

Gas supply

Is there a forecast for when gas supplies in Cook Inlet will run out?

The most recent completed studies on Cook Inlet natural gas was [published in March 2018](#). While there are figures in the study, such as on page 29, that show a projection for when demand may exceed supply, they should be read in the context of the entire study. Other factors considered in the study are new resource developments and the market prices at which they may be discovered and developed.

It is clear, however, that new sources of gas are needed to maintain the supply of electricity and heat the rail belt region relies on, which is more than half the population of the state. Even when considering goals to transition to renewable energy sources for electricity, gas supplies must still be maintained until those energy sources are realized. The development that would be allowed under this bill is certainly necessary in that context.

Studies conducted by the Division of Oil & Gas are [published on our website](#). Our resource evaluation team recently began a fresh look at this issue to update Cook Inlet estimates. These studies take many months to complete.

Mitigation Measures

What mitigation measures for gas leases and activities are in place for Cook Inlet?

Current mitigation measures for Cook Inlet are in Chapter 9 of the [2018 Best Interest Finding](#). Further documentation about lease sale areas, including past and present lease sales with sample copies of leases, are on the [Lease Sale page](#).

Cook Inlet Status Questions

Is there a market to sell this gas into?

The Seaview development pad is connected to the Kenai gas pipeline network. The infrastructure is already in place to sell gas from this area to Enstar or directly to power utilities such as Homer Electric Association. [This 2018 map](#) shows most of the exiting Cook Inlet pipeline infrastructure, though it does not include the short extension to the Seaview pad that connects to the main gas line along that corridor. The pipeline section was completed, and production started in June 2021.

LNG exports

The Cook Inlet LNG exports came from the North Cook Inlet unit, producing from the Tyonek platform beginning in 1969. Over the life of the field, 1.9 trillion cubic feet (TCF) of gas has been produced. Production from the field began to decline sharply in 2006 and ConocoPhillips announced it would cease LNG exports in 2011. It did export a few shipments to Japan in early 2012 due to extreme demand after the Fukushima incident but has not exported since. Hilcorp took over the field as sole owner and operator in late-2016. The field is mature, but continues to produce, with over 7 billion cubic feet (BCF) of gas produced in 2021. This contrasts with a peak of nearly 56 BCF in 1996, and consistent annual production of over 40 BCF between 1970 and 2006.

For any company to consider LNG exports from Cook Inlet in the future, there would need to be a new discovery of sufficient size and quality like the North Cook Inlet unit again, or there would need to be a way to bring known gas from the North Slope. Market factors would also weigh into a decision to export, since local demand already consumes the available produced gas for power generation and heat. For example, if there were sufficient gas to consider export, the Nutrien (formerly Agrium) fertilizer plant in Nikiski, which is adjacent to the LNG export terminal, would be a possible competing customer for long-term supply contracts with an LNG customer.

Depth of wellbores to develop this area

How deep would wells go to develop potential gas resources in this offshore acreage?

The actual depth of wellbores would depend on the geology of the specific target for production. Since no wells have yet penetrated this offshore area, and no public data is available to definitively answer this question, the Alaska Oil & Gas Conservation Commission (AOGCC) has provided a detailed diagram, included here as Attachment 2, showing how a development of offshore resources from an onshore drilling operation looks. This is based on examples of the Cosmopolitan development just a few miles North of the area contemplated for development in this bill. This area was shown on the map in the presentation and is provided again here as Attachment 1 in a larger format. Cosmopolitan has been on steady production since 2016. The diagram includes facts about

how water resources are protected, both in wellbore design and in requirements for sealing layers of rock.

For Kachemak Bay area residents with unique concerns lingering from the George Ferris rig incident, this clearly shows how this bill does not invalidate the spirit of the law they supported passing in the 1970s. As the text of the bill and supporting testimony provided in these hearings have explained, there will be no risk posed to Kachemak Bay. This bill explicitly *does not allow* any activities that could affect Kachemak Bay, such as seismic shooting, pipelines, offshore drilling rigs, production platforms, or anything that might affect Kachemak Bay, which maintains the status quo. The development of the offshore area proposed by this bill would most likely be developed from existing infrastructure that is already producing. The purpose of this bill is to lease rights to develop more gas resources. Permitting for surface activities is a distinct process from issuing gas leases and involves public processes that come after leasing. In no way would those leases permit any offshore surface activity.

AOGCC mechanisms for protecting correlative rights

What are the existing processes available to AOGCC to protect the State's correlative rights?

There are several means available to AOGCC for protecting correlative rights. These include, from most to least common: (1) prohibiting the drilling and completing of gas wells within 1,500 feet (or oil wells within 500 feet) of a property line where ownership changes unless an order is issued to waive this requirement; (2) where there is a correlative rights issue AOGCC can order the establishment of an escrow account to hold revenue until the parties can reach an agreement on allocation of production and revenue; and, (3) AOGCC can compel unitization if the owners cannot come to an agreement on their own. More detail is discussed below.

1. 1,500-foot property line offset requirement:

Wells drilled for gas must be located more than 1,500 feet from a property line where the owner or landowner is different on each side of the line (*See* [20 AAC 25.055\(a\)\(2\)](#)). In this instance *owner* means the entity that owns the lease and *landowner* means the entity that owns the subsurface mineral estate. Since the Kachemak Bay Closure Area is currently unleaseable, the owner cannot be the same on both sides of the boundary of it, so wells must be kept at least 1,500 feet from the Closure Area. If they wanted to drill a well closer than that they could apply to the AOGCC for an order granting a spacing exception. Such applications require public notice and opportunity for a hearing, so DNR would be able to weigh in on their application. If evidence is presented that clearly shows that drainage from the offset acreage will not occur (*e.g.* seismic data shows there is a sealing fault with a thousand feet of throw between the proposed well and the property line) AOGCC could issue an order approving the drilling and completion of the well. If it is unclear whether drainage will not occur, there are a few different paths that can be taken. First, if the operator and DNR can negotiate a pooling agreement (or compensatory royalty agreement, as was done with the West Foreland 1 well), AOGCC can approve the well and order production and revenue be allocated in accordance with the pooling agreement. Second, if the operator and DNR are interested in a pooling agreement but need more time to negotiate or need to collect more data, AOGCC can approve the well and order the revenues be placed in an escrow account until a pooling agreement is reached (I'll go into a little more detail on this in a bit). Third, AOGCC could

deny the application outright and prevent the well from being drilled. Finally, AOGCC could approve the well and compel unitization under certain circumstances (more on this later).

The protection of correlative rights isn't necessarily limited to only wells drilled within 1,500 feet of a property line. If it can be shown that a well further away is draining the offset acreage, AOGCC can still act to protect correlative rights. AOGCC can do this on its own initiative or at the request of an affected party.

2. Escrow accounts:

There have been numerous instances where AOGCC has ordered interest-bearing escrow accounts be established to protect an owner's or landowner's correlative rights. Most recently, this has been done for both the Seaview 8 and Seaview 9 wells, where one-eighth of the revenue attributed to the uncommitted tracts in the unit participating area is deposited in an interest-bearing escrow account each month.

In a hypothetical situation where gas resources under the Closure Area are being *inadvertently* drained, and there would be no damage to production, the production would be shut-in until a technical analysis could determine how much gas was inadvertently drained from the Kachemak Bay resource and a fair allocation would be made to all parties. It would then be decided if the production would continue with the allocated distribution to all parties.

If there would be damage to production, it would be allowed to continue, and all revenue would be placed into an escrow account until the amount drained could be estimated with royalty payment to the State for its share on past and continuing production.

In either case, a revised tract allocation schedule would be developed to include the Closure Area in the existing participating area to determine the amount that should be escrowed. After reaching a pooling agreement, AOGCC would issue another order to close the escrow account and dictate how to disburse the monies in the account and how future production would be allocated.

In the event that *inadvertent* production of gas is discovered from the Closure Area, it will also need to be evaluated whether production could be allowed to continue legally considering [AS 38.05.184\(a\)](#). The language could be interpreted as disallowing any production from that acreage, even without a lease, and despite the fact there would be no threat to Kachemak Bay in that scenario. If the State proceeded to allow production, it could open the door for litigation. Passing this bill would make that situation clearer.

3. Compulsory unitization:

The AOGCC can compel unitization for several reasons. These include to prevent waste, to maximize ultimate recovery, and to protect correlative rights. AOGCC hold a hearing, take testimony, then issue an order compelling unitization specifying how to allocate production and costs to the parties.

If AOGCC compels unitization that includes lands in the Closure Area and said lands are unleased the State of Alaska (DNR) would be entitled to 100% of the revenue from gas attributed to those lands, but the State would also be responsible for covering a portion of the development and operations costs. The Attorney General issued an opinion that basically says AOGCC has no authority to compel unitization involving DNR lands unless DNR and other parties are unable to

reach a voluntary unit agreement on their own, so if compulsory unitization is invoked it must be demonstrated that DNR and the operator made a good-faith effort to establish a voluntary unit but were unable to do so.

The AOGCC has never actually compelled unitization. It was tried with Prudhoe Bay when it was covered by two separate units, but that's what led to the AG decision mentioned above. In that case, it was ultimately joined voluntarily under a single unit agreement in 1977.

A more recent case where these processes were tested was in 2012 with the Kenai Loop field. The operator, Buccaneer, drilled wells on Mental Health Trust (MHT) acreage in 2011 and 2012, but was ordered by AOGCC to seek a unit agreement to account for potential drainage of adjacent acreage leased from DNR and CIRI to continue production. The application to form a unit was submitted in July of 2012 and was ultimately denied in March of 2013 for several reasons, including a lack of a plan to develop the DNR leases (See [the posted decision](#) for details). This led to negotiations for a production sharing agreement, which lasted from April 2013 to December 2014. In the end, the process lasted over two years, which consumed much staff time between AOGCC, DNR, MHT, and CIRI, including lawyers. While the underlying issue with DNR wasn't a lack of authority to lease its resources, the process was still cumbersome, and it serves as example of how the State, developers, and Alaskans are best served when all parties are able to operate from the outset with the usual processes and agreements in place *before* production begins. Being able to lease the lands proposed in this bill serves that purpose.

Adding to these complications, if the Closure Area is knowingly drained it would be considered theft, and the leasing moratorium in AS 38.05.184 could cause any drainage to be considered illegal. If this bill is not passed, and the State granted an application to drill and produce a well that drains the Closure Area using the processes outlined here, then it could be vulnerable to litigation, wasting time, money, and leaving the State's resources undeveloped, to the detriment of Alaskans.

Please let me know if we can be of further help in providing information to the committee.

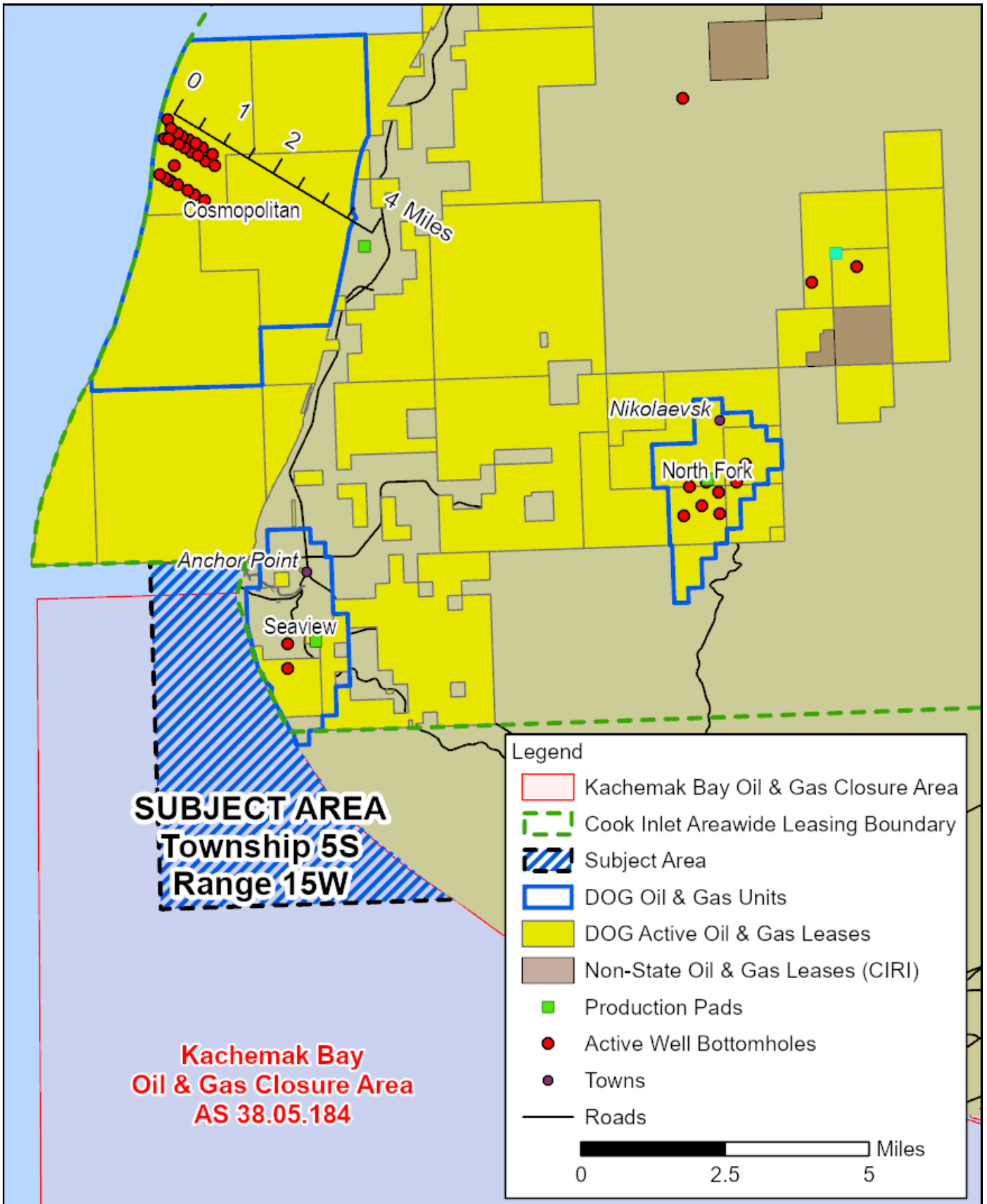
Sincerely,

A handwritten signature in blue ink that reads "Laura Boomershine". The signature is written in a cursive, flowing style.

Laura Boomershine
Legislative Liaison

Cc: Akis Gialopsos, Governor's Legislative Office Director

Attachment 1: Area Map of Subject Area



Cook Inlet

Sea Level

(~60' water depth)

Water well - 100'

Bluff Level
(~145' elevation)

Surface Gravel / Proglacial Delta and Lake Deposits

Sterling Formation

Beluga Formation

Surface Casing:
• Set well below drinking water aquifers
• Cemented to surface

Freshwater Aquifer Protection: 1,200' to more than 3,000' of sealing rock layers

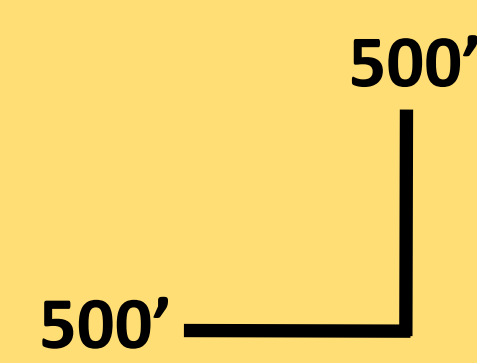
Tyonek Formation

Gas Reservoirs

Casing

Intermediate

Perforated Production Casing or Slotted Liner



Scale
(Vertical Exaggeration = 1:1)

Structure Cross-section
Cook Inlet Deviated Well
Schematic Drawing
AOGCC February 3, 2022

