Preliminary Best Interest Finding and Determination

For the Sale of

Alaska North Slope Royalty Gas

Alaska Department of
NATURAL RESOURCES
DIVISION OF OIL & GAS
550 West 7th Avenue, Suite 800
Anchorage, Alaska 99501-3510

March 29, 2002

I. Introduction

The Commissioner of the Department of Natural Resources, on behalf of the State of Alaska, proposes a multi-year sale of the State's North Slope royalty gas to Anadarko Petroleum (Anadarko), and AEC Marketing Inc. and AEC Oil & Gas Inc (AEC). In accordance with AS 38.05.183, the Commissioner is required to issue a finding that this particular proposed sale is in the State's best interests and provide opportunity for public comment. This preliminary best interest finding discusses the various terms of the negotiated contract along with potential economic, environmental, and social impacts, and the various requirements for a negotiated, non-competitive royalty-in-kind (RIK) sale under AS 38.05.183(a) and (e).

The public is invited to comment on any aspect of the proposed sale. Comments must be received in writing no later than **5:00 p.m**. on **April 29, 2002** at the address below:

Division of Oil and Gas
Attn: Kevin Banks
550 W. 7th Ave, Suite 800
Anchorage, Alaska 99501

Comments may also be faxed to (907) 269-8938 or sent via email to krb@dnr.state.ak.us.

The Alaska Royalty Oil and Gas Development Advisory Board (Royalty Board) will be discussing the proposed sale at a meeting scheduled for **9:00 a.m., April 17, 2002 at 550 W. 7th Ave, room 240, Anchorage, Alaska.** Public comments will be taken.

Comments received from the public and recommendations made by the Royalty Board will be considered in determining whether the proposed contract is in the State's best interests and whether changes are needed in the proposed contract.

II. Background

The State of Alaska owns the oil and gas under state-owned land. It has entered into lease agreements with third parties who explore for, develop, and produce oil and gas from these lands. The State receives a royalty of approximately 12.5 percent of the oil and gas produced from these leased lands, which it may either "in-kind" (RIK) or "in-value" (RIV).[1] When the state takes it's gas as RIV, the lessees who produce the gas market the State's share along with their own share of production. The lessees are

[1] Currently half of the royalty oil production at the Prudhoe Bay Unit (PBU) is being taken as RIK and sold to Williams Alaska Petroleum, Inc. for use in Williams' North Pole refinery. The State has also sold other volumes of oil as RIK to various purchasers in the past.

obligated to pay the State the value of the State's RIV share.[2] When the State takes its royalty share of the gas RIK, it assumes ownership of the gas, and the Commissioner disposes of the gas through sale procedures designated either "competitive" or "non-competitive." The RIK process proposed in this best interest finding is for a negotiated sale pursuant to the "non-competitive" procedures.

A. Why have an RIK gas sale now?

Successful development of the vast ANS natural gas resource has challenged the State and the oil producers since the Prudhoe Bay oil field was first discovered. In the last year and one-half, the major ANS oil and gas producers have renewed attempts to evaluate the challenges of transporting ANS gas to market. Construction of an ANS gas pipeline is by no means certain. However, if a new gas pipeline is built to deliver natural gas from the North Slope to markets in the Lower 48, or elsewhere, the State's royalty share could rise to 500,000 Mcf per day or more by the end of the decade.

There are several important reasons for the State to conduct an immediate ANS RIK gas sale. First, companies are motivated to purchase RIK gas at this time in order to be able to nominate shipping capacity on the gas pipeline during an "open season," which could occur as early as 2002 or 2003. An "open season" is an opportunity during the early stages of a proposed pipeline's design for the potential pipeline owners to invite potential shippers to secure transportation capacity on the future pipeline. An open season nomination is a firm commitment by the shipper to fill the capacity it nominated when the pipeline is operational or to pay demand charges for the unused space. It is an important (and often required) step in the process of applying to the U.S. Federal Energy Regulatory Commission (FERC) and the Canadian National Energy Board (NEB) for the certificate of public convenience and necessity for a pipeline.

In recent months, companies have expressed interest in securing a future supply of gas from the State in order to participate in an "open season" for a future Alaska gas pipeline. Companies have suggested contracts for future RIK gas to market in the Lower 48, for a potential in-state petrochemical plant, for in-state utilities, and as a "back-stop" to gas production for North Slope lease holders. The State also received a proposal in December 2000 to buy gas to fuel a power plant for a large internet data center on the North Slope.[3] With a gas sale contract from the State in hand, these companies could reduce some of the risk involved in committing to pipeline space in the open season.

Second, the sale of future RIK now may contribute to earlier commercialization of ANS gas and the successful completion of a pipeline by bringing additional participants to the open season. Evidence of additional participants interested in purchasing and transporting Royalty Gas on an Alaska gas pipeline could influence the timing and design of the pipeline.

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[2] Current North Slope royalty gas production is less than 4,000 Mcf per day. To date, the State has elected to take its royalty share of gas in-value, which the lessees have sold to ANS utilities and the Trans-Alaska Pipeline System (TAPS) as fuel.

[3] The Alaska Legislature passed a resolution directing the department to consider sale of RIK gas for this purpose. (22nd Legislature; SCS CSHCR 17)

Third, as discussed further in the explanation of Royalty Gas sale contracts, the State would receive more royalty revenues by taking the gas in-kind and disposing of it through an RIK sale than it would receive if the royalty gas were left in-value and marketed for the State by the lessees.

The State cannot guarantee when or if the ANS RIK gas it is proposing to offer for sale now will ever be delivered. However, the prospects for an ANS natural gas pipeline project and an upcoming "open season" for nominating transportation capacity on a future gas pipeline have presented the State with an opportunity now to offer a portion of its future Royalty Gas as RIK for delivery when an Alaska gas pipeline is developed.

B. RIK Public Process

A Preliminary Best Interest Finding and Determination for a Solicitation for Offers to Purchase North Slope Royalty Gas was issued October 29, 2001 followed by a 30-day public comment period. On November 13, 2001, the Royalty Board met and heard public testimony. A Final Best Interest Finding and Determination for a Solicitation for Offers to Purchase North Slope Royalty Gas was released December 26, 2001 along with a "Solicitation for Offers." Potential buyers were given until January 31, 2002 to submit applications for proposals. The applications were opened in public on February 1, 2002. Proposals were submitted by Chevron; Williams; Anadarko together with AEC Marketing Inc. and AEC Oil & Gas Inc.; and Alaska Power and Telephone.

On February 14, 2002, the Department of Natural Resources (DNR) held an open public meeting to evaluate the proposals. Based on the evaluations, together with his own independent review of the proposals, the Commissioner directed the Division of Oil and Gas to engage in negotiations with Anadarko and AEC regarding their proposal. This best interest finding discusses the terms of the contracts negotiated with Anadarko and AEC.

The negotiated RIK gas sale contracts will be submitted to the Royalty Board for its consideration at a public meeting scheduled for **9:00 a.m., April 17, 2002**.

C. Provisions for Review of the Proposed RIK Sale

State regulations direct the Commissioner to establish the terms, conditions, and method of disposition of State royalty gas to be taken in-kind. Before executing a contract for the disposition of royalty gas in-kind, the Commissioner must find that the disposition is in the best interests of the State.

In any disposition of RIK under the "non-competitive" procedures, the Commissioner must conclude that the best interest of the State will be served by a non-competitive sale (AS 38.05.183(a)), and that the non-competitive sale of RIK will be awarded to the prospective buyer whose proposal offers maximum benefits to the citizens of the State (AS 38.05.183(e)). The Commissioner must also consider the criteria listed in AS 38.05.183(e) and AS 38.06.070(a).

The criteria listed in AS 38.05.183(e) are: (1) the cash value offered; (2) the projected effects of the sale, exchange or other disposal on the economy of the State; (3) the projected benefits of refining or processing the oil or gas in the State; (4) the ability of the prospective buyer to provide refined products or by-products for distribution and sale in the State with price or supply benefits to the citizens of the State; and (5) the criteria listed in AS 38.06.070(a). These are the same criteria considered by the Royalty Board in its review of the sale.

The criteria listed in AS 38.06.070(a) are: (1) the revenue needs and fiscal condition of the State; (2) the local and regional requirements for petroleum products; (3) the desirability of localized capital investment, increased payroll, and secondary development effects; (4) the social impacts of the sale; (5) the additional costs to the State and local governments caused by the development related to the transaction; (6) the local and regional labor market; (7) environmental effects; and (8) the impact on existing private commercial enterprises and investment patterns.

This preliminary finding begins by outlining the important terms of the proposed contracts. The discussion of the proposed contract terms is followed by an analysis of the reasonably foreseeable economic, social, and environmental impacts of the sale. The Commissioner then determines preliminarily whether this proposed RIK sale is in the State's best interests.

III. Discussion of Contract Provisions

While two companies submitted a joint proposal to purchase RIK, two separate contracts will be executed, one with AEC and one with Anadarko. Anadarko Petroleum is one of the largest independent oil and gas exploration and production companies in the world. Based in the United States, it is active in 15 other countries.[4] In Alaska, Anadarko holds leases in Cook Inlet, the North Slope, NPRA, and the Foothills areas and it actively explores in the State. It is also responsible for 22 percent of the production from the Alpine oil field.

AEC is Canada's largest natural gas producer and one of North America's largest independent oil and gas producers. As of November 2001, AEC's sales gas production was approximately 1.5 Bcf/d. AEC is strongly established in Western Canada, the U.S. Rockies, and Ecuador. Midstream natural gas storage and pipeline assets comprise approximately 20 percent of AEC's asset base.[5] AEC currently holds oil and gas leases on the North Slope and is the operator of the McCovey exploratory unit.

[4] http://www.anadarko.com/aboutus/aboutus.shtml.
[5] AEC's written testimony before the Alaska Royalty Oil and Gas Development Advisory Board dated November 13, 2001.

The terms and conditions of the two contracts are the same. A copy of the draft contract is attached as an appendix to this preliminary finding. Some of the highlights of the contracts are summarized below.

Articles II and III describe the economic and commercial terms of the agreements.

A. Article II – Special Commitments

Exploration: Anadarko and AEC (buyers) commit to spend $50 million during the six-year period from January 1, 2002 through December 31, 2007 in the Foothills region of the North Slope. [2.1] Among the costs that may comprise the $50 million commitment are expenditures for seismic surveys, roads, drilling pads, exploration wells, and well testing. [2.1]

Training: If the buyers make a commercial discovery in the Foothills, they each propose to spend $12,500 per year for ten years on training for local laborers. [2.5]

In-State Processing and Use: The buyers also commit to a preference for in-state use or processing of the royalty gas they buy from the State and gas they may produce in the Foothills. [2.9]

B. Article III – Sale and Purchase of Gas

Term: The buyers may purchase royalty gas from both the Prudhoe Bay Unit and the Point Thomson Unit if a gas pipeline is built. Each buyer will pay the State $1 million for the option to buy gas over a five-year period beginning when the pipeline starts up. [3.1.7(a)] Each buyer can continue to receive gas for subsequent five-year option periods with the payment of another $1 million. [3.1.7(d)] These option periods can be renewed to match the term of the buyer's firm transportation commitment to ship gas on the pipeline. The buyers may replace the royalty gas sold under this agreement with their own gas production from their leases in the Foothills upon two years advance notice. The timing of replacement need not coincide with the end of an option period. [1.34]

Volume: The maximum volume available to the buyers under the contracts is 70 percent of the State's royalty share of production from the Prudhoe Bay and Pt. Thomson Units. In the event of a 4 bcfd pipeline, the State's royalty share will approximate 500 million cubic feet per day, with up to 70 percent -- or 350 million cubic feet per day--available to the buyers; a minimum of 150 million cubic feet per day would remain available for other purchasers and in-state uses.

The agreements are drafted to supply the buyers with gas volumes approximately equal to the volume that the buyers need to meet their firm transportation commitments on the gas pipeline, subject to the limitation discussed in the preceding paragraph. [3.1.5(a)] An exact match will not be possible because the State must nominate its gas royalty in-kind as a percentage of the State's royalty share of production. As total royalty gas production varies with normal operations in the two Units, the gas supply to the buyers will also vary. The buyers' firm transportation commitment is a fixed volume. To provide the buyers with some flexibility to mitigate the varying royalty gas production against their fixed volume commitment on the pipeline, the agreements allow each buyer to change the percentage of royalty gas supplied from time to time, but never on less than seven months' notice. The rules governing the buyers' nomination are set to minimize wide swings in volumes delivered to the buyer.

At the start of each option period, the buyer notifies the State of its election of a "Maximum Quantity" for the duration of the option period. [3.1.2 and 3.1.4] The Maximum Quantity may only stay at the same level or decrease from one option period to another. [3.1.7(e)] The determination of a Maximum Quantity at the start of each five-year option period will provide the State with information about the availability of its remaining royalty gas should the State want to sell gas to other customers.

Once every calendar year during an option period, the buyer may notify the State of its "Annual Nomination" to refine the volumes delivered under the agreement. [3.1.5(b)] The Annual Nomination may never exceed the Maximum Quantity. [3.1.5(b)(ii)]

If the buyers have production from their leases in the Foothill to fill their firm transportation commitment, they will replace the royalty gas purchased under the agreement with their own gas. At this point the buyers must decrease their nominations for Maximum Quantity and Annual Quantity. [3.1.7(e)] If the supply from the buyers' production is sufficient, the buyers may decrease their Maximum Quantity and Annual Quantity nominations to zero and terminate the agreement. [3.1.5(f)]

Nomination Notices: The agreement requires that the State be notified far in advance of the production month of nominations effective for that month. The first Maximum Quantity nomination is made on the effective date of the contract; each buyer has elected a Maximum Quantity for the first option period equal to 35 percent of the State's royalty share of production from the Prudhoe Bay and Point Thomson Units. [3.1.1] Fourteen months prior to the pipeline's "In-Service Date," the buyers may revise this Maximum Quantity nomination. Subsequent Maximum Quantity nominations prior to each option period require a fourteen-month notice. [3.1.4] Annual Nominations must be made with a seven-month notice prior to the production month the Annual Nomination takes effect. [3.1.5]

When the buyers are ready to begin replacing royalty gas with their own gas production, a two-year notice is required for a change in the Maximum Quantity nomination. [3.1.5(d)] This change need not coincide with the end of an option period.

Price: Although the construction of the gas pipeline may be several years in the future, the commercial terms of the RIK contracts are such that the State will be assured of a price for its royalty in-kind gas that is greater than the value it will receive for royalty in-value. Among these commercial terms are a bonus bid of $350,000 that Anadarko and AEC submitted with their proposal. The buyers have also offered to pay the State $1 million each to exercise every new option period. [3.1.7(a)] The agreement sets out a

Base Price of royalty in-kind calculated as the volume-weighted average of the amount paid to the State by the lessees for royalty in-value. The buyers are also responsible for any conditioning, processing or field costs incurred by the State on the royalty in-kind gas which would not have been incurred if the royalty in-kind had been taken in-value. [3.3.1] In addition to this price, the buyers will pay a price premium of $.02 per MMBtu for the first option period, $.04 per MMBtu for the second option period, $.06 per MMBtu for the third period, and so on until the contract terminates. [3.3.2] The agreement also includes a provision for a reservation fee. [3.4]

C. Additional Articles of Interest

Local Hire: Within the constraints of law, the buyers voluntarily agree to employ Alaska residents and companies to the extent they are available, willing, and qualified to perform work in Alaska. [Art. XXIII]

Security: Seven months before the "Day of First Delivery" the buyers shall deliver to the State an irrevocable stand-by letter of credit. The letter is to be issued for the benefit of the State by a state or national banking institution of the United States that is insured by the Federal Deposit Insurance Corp. and has an aggregate capital and surplus amount of not less than $100,000,000. The principal face amount of the letter is to be an amount reasonably estimated by the Commissioner to be equal to the price of all gas to be delivered by the State to the buyer during the 180 days immediately following the date of first delivery. [Art. VI]

Effective Date: The RIK contracts become effective when signed by the parties and approved by the Alaska Legislature. AS 38.05.055. If the contracts are not approved by May 31, 2003, an Open Season for the Gas Pipeline is not completed by March 31, 2005, or if the buyers have not obtained a Firm Transportation Contract by March 31, 2005, either the buyers or the State may terminate the agreement on 30 days notice. [Art. VIII]

IV. Analysis of State Benefits

Economic Impacts

Economic impacts of the RIK sale include the following:

- This RIK gas sale gives Anadarko and AEC the ability to invest in a major natural gas development project in the Foothills region of the Alaska North Slope (ANS). Without the proposed RIK gas sale to Anadarko and AEC, the resource potential of the Foothills area is likely to remain unexplored and undeveloped for an indefinite period. The nature and magnitude of the economic impacts depends on the outcome of gas exploration and are described in a report prepared by Northern Economics Inc. entitled *Economic Impacts of Anadarko Exploration,* *Development, and Production of Alaska North Slope Foothills Gas Operations,* January 2002 (see Appendix B).

- In the exploration only case, Anadarko and AEC could purchase RIK gas for the duration of a firm transportation commitment. Taking into account cash and options payments, price premiums, and reservation fees, as well as a commitment to spend $50 million on exploration over five years, the state would expect to receive a revenue premium from RIK gas sales over royalty-in-value proceeds of between $133 million for 15 years to $252 million for 25 years.
- Alternatively, under reasonable assumptions about exploration success, Anadarko and ACE may invest up to $2.75 billion in a multi-phase, 30-year gas-development program involving seismic tests, exploration and development drilling, pipeline and facilities construction, and gas production ranging from 350-to-850 million cubic feet per day (mmcfd). Of this total amount, approximately $1.67 billion may be spent within the state. These investments could generate $6.4 billion in the value of goods and services produced in the State's economy, including $2.9 billion in state and local government revenues and the induced effects from household and government spending. On a yearly basis this single project could generate value added of $300 million per year, representing around 3-to-5 percent of yearly gross state product.
- The Northern Economics study indicates that Foothills exploration success stemming from the RIK gas sale could result in approximately $97 million per year in additional state revenues from royalties, severance taxes, property taxes, and state corporate income taxes. A single revenue source of this magnitude would contribute importantly to a reduction in the gap between future unrestricted general fund revenues and general fund expenditures. [6]
- In the event of exploration success, the Northern Economics study suggests, on an average annual basis, direct employment from the Foothills gas project would range from 80 full-time equivalent (FTE) jobs during the exploration phase (2002-2007), to 219 FTE jobs during the development phase (2005-16), to 325 FTE jobs during production (2011-2030). When averaged over the 30-year life of the project, yearly indirect employment from expenditures on business services, equipment and supplies, construction, and transportation during all phases of the project could be 160 additional FTE jobs. Induced employment from household and government expenditures may be increased by 2,000 FTE additional jobs per year. Taken together, the sum of direct, indirect, and induced average-annual employment stemming from Foothills exploration success could approximate 2,500 FTE jobs. [7]

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[6] This finding is based on the assumptions that Foothills gas reserves are discovered beyond those currently counted as proven ANS gas reserves and that a gas pipeline is expanded to accommodate production of these additional reserves at the outset of the project. Thus, *inter-temporal* displacement of existing ANS gas reserves held by the major producers does not result from Foothills gas discoveries.

[7] This finding is based on the assumption that State general fund expenditures would increase in step with additional revenues generated from Foothills exploration and production. A more likely result is that State general fund expenditures will remain fixed and that the new Foothills revenue would displace existing revenue from other existing sources such as state sales and/or personal income taxes and Permanent Fund earnings. In this case, the impact of incremental Foothills revenues would be reduced but not eliminated by higher federal income taxes and/or non-local personal expenditures (see item #7 in part V, Findings and Determination, section B, below).

- Approximately five percent of the value added and employment generated from Foothills exploration success may accrue to the North Slope Borough economy. Additionally, because of the Foothills' proximity to the Interior Region, a potentially significant but unknown portion of employment and value-added effects are likely to accrue in the greater Fairbanks area, as well as in the Southcentral energy belt.
- The Anadarko-AEC RIK gas purchase proposal would reserve a portion of royalty gas for in-state use to encourage and facilitate new in-State gas consuming industries, as well as to help to mitigate high-energy costs in the Interior Region and address a future potential imbalance in gas demand and supply in the Cook Inlet Basin.

Social Impacts

The proposed RIK sale itself may have certain significant and reasonably foreseeable effects on land use, local schools, roads, and other State and local infrastructure. The level of effects is heavily dependent on the success, or lack of success, of AEC and Anadarko in discovering commercial quantities of gas (or oil) in the proposed Foothills exploration. Social impacts that might occur as a result of this RIK gas sale include:

- As part of the contract, AEC and Anadarko have committed to spend approximately $25 million on exploration in the Brooks Range Foothills. This would provide additional short-term employment and training opportunities for local residents.
- In the event of exploration success, there may be additional longer term employment opportunities for local residents while the development and production facilities and pipelines are being built.
- Long-term employment opportunities would exist once the facilities and pipelines are operational.
- An additional tax base is possible for local governments from facilities built in an organized borough or town, such as the North Slope or Fairbanks North Star Boroughs.
- Buyers have committed to an in-state use and processing preference for the royalty gas and any additional gas discovered as a result of exploration in the Foothills, which may result in utility gas or electric supplies to towns and villages in interior Alaska.

Environmental Impacts

The sale of RIK *by itself* will have no adverse environmental impact on the State. During the period when the State takes its royalty in-kind rather than in-value, no additional gas is actually transported and no additional facilities are built over and above those needed for the initial gas sale. The State is, in effect, claiming a portion of the gas already produced and in transportation. Therefore, no projected incremental environmental effects, either positive or negative, are expected as a result of the RIK sale taken in isolation.

However, some environmental impacts could result from the Foothills exploration activities which the buyers have committed to as part of the RIK agreement. Minimal impacts are expected as a result of the exploration program. Geophysical (seismic) activities and exploratory drilling activities are conducted for the most part in the winter months, are quite non-invasive and typically require no permanent facilities. Should commercial quantities of gas (or oil) be discovered and produced, installation of permanent facilities and pipelines would be required. Before a project may commence, permits must be obtained and findings must be made. The permit and findings process imposes conditions on allowable impacts of exploration activities.

Permits: Depending on the projects proposed and the exact locations, a combination of permits could be required prior to certain surface activities.

- DNR, Division of Oil and Gas, considers environmental impacts and may impose appropriate conditions when evaluating applications for lease and unit plans of operations, plans of exploration, and plans of development.

- DNR, Div. of Mining, Land, and Water Land Use Permit – This permit could be required if a proposed facility is located on State land or crosses State land not overlying an oil and gas lease or unit.

- DEC Air Quality Control Permit to Operate – The federal Prevention of Significant Deterioration (PSD) program, which is administered by DEC, establishes threshold amounts for the release of byproducts into the atmosphere. Oil and gas exploration and production operations with emissions below predetermined threshold amounts must still comply with State regulations designed to control emissions at these lower levels (18 AAC 50). Activities that exceed predetermined PSD threshold amounts are subject to a more rigorous application and review process. Such activities include the operation of turbines and gas flares.

- DEC Wastewater Disposal Permit – Domestic gray water must be disposed of properly at the surface and a permit is required under 18 AAC 72.

- DEC Oil Discharge Prevention and Contingency Plan (18AAC 75) - Prevention of pollution discharges and response/contingency planning in the event of a discharge.

- Corps of Engineers Wetlands Permit – If a facility is proposed for location in wetlands a permit will be required from the Corps of Engineers. Before a permit may be issued, the Corps will need to complete an environmental assessment and possibly an environmental impact statement under the National Environmental Policy Act.

- AOGCC Permit to Drill—Adequate well bore design and blow out prevention equipment.

<u>Alaska Coastal Management Program (ACMP)</u>: Alaska has a coastal management program in accordance with the Federal Coastal Zone Management Act of 1972. Alaska's program sets out statewide standards that govern how various uses, activities, resources, and habitats are managed under the ACMP.[8] It applies generally to lands along Alaska's coast and along some rivers. Parts of the North Slope Borough are within the coastal zone, while Fairbanks is not within coastal zone boundaries.

In addition, communities and boroughs may adopt local management plans. The North Slope Borough has adopted a local coastal management plan (NSBCMP) under the ACMP. Any proposed facilities, including pipelines, must be consistent with both the ACMP and the NSBCMP.

<u>Zoning</u>: Both the North Slope Borough and the Fairbanks North Star Borough have developed zoning ordinances.[9] Any industrial development would be subject to local zoning.

<u>Environmental Advantage</u>: To the extent that RIK gas is sold to in-state utilities and users and might displace other fuels such as coal or fuel oil, there may be beneficial impacts on air and other resources.

V. Findings and Determination

A. Competitive Bidding is Waived

As Commissioner of the Department of Natural Resources, I have determined in accordance with AS 38.05.183(a) and 11 AAC 03.030 that the best interests of the State are served by a sale under those procedures labeled as "non-competitive" rather than by a sale under those procedures labeled as "competitive." Using the "competitive" procedures arguably would require that a contract be awarded based on a single criteria—the cash price offered per mmbtu, while the "non-competitive" procedures allow for consideration of many other factors important to the State—such as in-state investments, in-state jobs, competition in gas exploration and production, incremental taxes and royalties, in-state use of gas, in-state processing of gas, and impacts on the environment.

Despite the significance to the State of factors other than the price per mmbtu, it is important that royalty gas be offered in a competitive environment. Consequently, the Department took numerous steps beyond those required by regulation for a "non-competitive" sale to widely advertise the sale and solicit proposals from as many

[8] 6 AAC 80.040 – 150.

[9] The North Slope Borough's zoning ordinances are located under North Slope Borough Ordinances Title 19 and the Fairbanks zoning ordinances are located under Fairbanks Ordinances Title 18.

potentially interested purchasers as feasible. For example, extra findings have been issued, the number of Royalty Board hearings and public comment periods have been doubled, a sample contract was developed and distributed to all interested in making a proposal to purchase royalty gas, and proposals received were both opened and evaluated in public proceedings.

Department efforts to generate a competitive environment proved successful. Proposals to purchase royalty gas were received from a wide variety of national, international, and local companies, including Williams, Chevron, Anadarko, AEC, and Alaska Power and Telephone. As it turned out, the joint proposal made by Anadarko and AEC offered both the highest cash price per mmbtu, as well as the most benefits to the State on factors other than price.

The contract, attached as Appendix A, is the result of negotiations with Anadarko and AEC following a determination that their proposal offered more to the State than proposals tendered by others, and, I believe, offers good economic and social terms for Alaska. The starting point for those contracts was the sample contract developed by the State and distributed to all interested in buying royalty gas.

A copy of this Preliminary Finding and Determination is being delivered to the Alaska Royalty Oil and Gas Development Board as notification under 11 AAC 03.040 that competitive bidding has been waived.

B. The Sale is in the Best Interests of the State.

In accordance with AS 38.05.182 and AS 38.05.183, I find that taking RIK gas and selling by non-competitive bid to Anadarko and AEC is in the best interests of the State. The proposed RIK contract meets the following criteria as set out in AS 38.05.183(e).

> **1. <u>The cash value offered</u>:** The RIK price offered under the proposed contract is based on the royalty value for RIV and will in all cases exceed the royalty value of RIV by at least $0.02/mmbtu. Figuring the total incremental value of cash payments to be received requires making certain assumptions, since the Anadarko and AEC contracts are option contracts. Taking into account the cash and option payments, price premium, and reservation fee contained in the Anadarko-AEC RIK gas purchase proposal, and, assuming Anadarko and AEC purchase 350 million cubic feet/day of RIK gas for a period of five years, then produce and ship their own gas, the present discounted value of the incremental cash payments incident to the RIK sale is between $10 and $15 million (this is exploration success case). This estimate does not include the $50 million work commitment nor does it include any of the attendant direct, indirect, and induced economic effects that may arise from exploration and development. In the less-likely case of no exploration success, where RIK gas purchases of 350 million cubic feet/day continue for more than five years, the revenue premium from RIK sales would rise to $133 million over a 15-years firm transportation commitment, $176 million over 20 years, and $252 million over 25 years (Alan Sharp, AEC presentation on

Royalty In Kind Sale to House special Committee on Oil and Gas, February 21, 2002; *Offer to Purchase ANS Royalty Gas,* Exhibit B, p. 18).

2. The projected effects of the sale, exchange or other disposal on the economy of the State: The sale of RIK gas per se will impact the State treasury, and hence the economy of the State, as discussed in the preceding paragraph. However, a greater impact to the economy of the State may come from the "backstop" effect of the RIK gas sale to Anadarko and AEC, who will undertake significant additional gas exploration and development in the Foothills region of the Brooks Range that would not be likely to occur in the absence of an RIK gas sale. At a minimum, a $50 million exploration work commitment will be carried out during 2002-2007. If, as expected, Foothills gas development does materialize on the order of what is described in the economic impacts study completed by Northern Economics (see Appendix B), and Anadarko and AEC spend $1.67 billion on Foothills gas development and the pipeline is expanded to handle the additional volumes, then it may generate an additional $6.4 billion to the value of goods and services produced in the state economy, including direct, indirect, and induced effects, over a 30-year period. This implies approximately $300 million of *valued added* per year, an addition of 3-to-5 percent to baseline, total gross state product.

3. The projected benefits of refining or processing the oil or gas in the state: Anadarko and AEC will provide a preference for in-state processing of gas. Any in-state processing may result in additional jobs, in-state investments, and taxes. However, these benefits are not guaranteed, since an in-state user would have to offer commercial terms that are at least equivalent to other out-of-State processing alternatives available to Anadarko and AEC.

4. The ability of the prospective buyer to provide refined products for distribution and sale in the state with price or supply benefits to the citizens of the state: As independent oil & gas companies, Anadarko and AEC do not engage in oil or gas refining, marketing, and distribution. However, as indicated in item #3 above, the buyers' proposal commits to a preference to reserve gas for in-State use and is responsive to possible in-State gas sales to parties that may contemplate in-state petrochemical manufacturing or NGL extraction.

5. The criteria listed in AS 38.060.070(a): See discussion below.

The proposed RIK contract also meets the eight criteria set forth in AS 38.06.070(a):

1. The revenue needs and fiscal condition of the State: The State budget gap (the difference between unrestricted general fund revenues and general fund budget expenditures) is expected to rise from $0.86 billion in FY 2002 to $1.45 billion in 2010. Despite fairly level oil production through 2010, the oil and gas sector's contribution to general fund revenue is expected to decline from 82 percent in 2002 to 69 percent in 2010 due to increasing production from new, lower-netback-value fields and a lower effective tax rate under ELF (based on DOR *Revenue Sources*, Fall 2001). In and of itself, cash proceeds from the sale of RIK gas and the premium over RIV will do little to fill this gap. For example, without exploration success, the sale of RIK gas to Anadarko-AEC is expected to generate approximately $8.8 million per year (undiscounted) in collective premiums above RIV value over 20 years ($176.1 million ÷ 20). If Foothills exploration succeeds, gas development above and beyond the existing 35 Tcf of ANS reserves would be expected to generate up to $2.895 billion in additional State revenues from royalties and taxes (severance, corporate income, and property) through 2030 (discounted). This would equal approximately $97 million per year and, as a single project, contribute importantly to reduction of the state's fiscal gap problem.

Additionally, the RIK sale is expected to increase the value of unleased acreage in the Foothills. At such time as that acreage is leased, the State expects to receive higher bonus bids than it would in the absence of the RIK sale.

2. <u>The local and regional requirements for petroleum products:</u> In-state gas usage over the next two decades has the potential to increase by approximately 135 Bcf per year, provided relative energy prices in the future are consistent with levels observed today and the state's regional economy exhibits continued gradual economic expansion at rates comparable with the past five years (about a half percent per year in real dollars). The potential for growth in gas usage in 2020 may arise from several sources, including:

- Baseline economic growth (27 Bcf per year).
- Expanded residential/commercial gas service in Southcentral and Interior (7 Bcf per year).
- Expanded existing industrial usage at the Kenai Ammonia-Urea plant (4 Bcf per year).
- New plant expansion at the Kenai Ammonia-Urea plant (30 Bcf).
- New petrochemical plant (27 Bcf per year).
- Fuel switching for power generation in Interior communities (30 Bcf per year).
- Gas-by-Wire central station power generation near Fairbanks (12 Bcf per year).

Also, evidence regarding the gas demand-supply balance in the Southcentral region suggests that, without access to additional gas reserves, annual gas deliverability in the Cook Inlet Basin may fall short of potential demand (at current, relative energy prices) before 2010. Preliminary findings from DNR's 2002 report, *Alaska Natural Gas In-State Demand Study*, indicate that the levelized cost of a 16-to-20 inch spur pipeline linking Southcentral with the ANS gas pipeline at Fairbanks could be competitive with energy alternatives (such as fuel oil or LNG imports into Cook Inlet) if annual throughput exceeds 30-to-40 Bcf per year. As indicated in item #3 above, the Anadarko-AEC RIK gas sales contract commitments for preferential reservation of a portion of ANS royalty gas for in-state use to encourage and facilitate new and existing in-State gas consuming industries. The State will also reserve 30 percent of the royalty gas for possible other uses in the future. (Part of this 30 percent includes volumes that will be kept in-value as a basis for calculating royalty-in-value.)

3. The desirability of localized capital investment, increased payroll, and secondary development effects: Foothills natural gas exploration success would bring forth a 30-year project involving exploration, development, and production of gas resources on state lands, as well as lands owned by Native corporations and by the federal government. Production start up may begin around 2011 at 350 mmcfd with ramp up to 850 mmcfd in 2016, then gradual decline after 2023. The project could generate 75,000 cumulative jobs over the project life or about 2,500 additional jobs per year, including *direct employment* (jobs and payroll created by the Anadarko and AEC, and by state and local government through revenues generated by the project), *indirect employment* (additional jobs and payroll created when Anadarko and AEC purchase goods and services from oil industry support businesses such as equipment suppliers, oilfield services, construction services and transportation services) and *induced employment* (additional jobs and payroll created throughout the economy when Anadarko and AEC employees, as well as state government employees spend their personal incomes on goods and services, including taxes). About 130 jobs per year, or 5 percent of total direct, indirect, and induced may occur in the North Slope Borough (NSB). Most of these new jobs – about 55,000 or 73 percent – would arise from the spending of government revenues from royalties, severance taxes, income taxes, and property taxes generated by the project. By comparison, the exploration-only scenario might generate a total of 180 direct, indirect, and induced jobs per year during 2001-06. [10]

The project includes a $175 million seismic and drilling exploration program from 2001-06. About three-fourths of exploration spending ($135 million) is spent in-state, primarily on business services ($59 million) and personnel ($42 million). Approximately $5 million may be spent in the (NSB). Average annual direct, indirect, and induced employment during exploration would be approximately 560 full-time jobs per year.

[10] The 55,000 in new jobs from government and induced household spending reported in the Northern Economics study is an upper-bound estimate based on the assumption that all of the incremental State and Local government revenues generated from the discovery and production of Foothills gas (summing to present value of $2.895 billion over the 30-year project life) would be spent. This implies an increment to general fund expenditures of about $97 million per year. A more plausible assumption is that general fund expenditures would remain unchanged in any given year and that incremental State revenue from Foothills gas development would simply displace existing sources of State revenue from personal income taxes, sales taxes and/or Permanent Fund earnings. In this case, the direct, indirect, and induced employment from State revenues would be less than 55,000 cumulative, full-time equivalent jobs (about 1,833 jobs per year). For example, if incremental Foothills revenue of $97 million displaced revenues collected from a state personal income tax on a dollar-per-dollar basis then, after accounting for the larger federal income tax bite, the increase in disposable personal income would be $73 million per year, assuming a marginal federal tax rate of 25 percent. However, less than 100% of this increased disposable personal income would be spent locally in Alaska, which would lower induced effects further.

During the development phase spanning 2005-16, $1.428 billion could be spent on 46 wells (including 4 delineation wells) plus pipeline and facilities investments. Cumulative in-state expenditures could be $660 million (about 46 percent of total) with peak spending of approximately $117 million per year during 2011-12. The categories of development spending with the biggest impact in Alaska are personnel (20 percent of total spent in Alaska) and equipment and supplies (12.6 percent of total spent in Alaska). Average annual direct, indirect, and induced employment during development could be approximately 2,400 full-time jobs per year.

At 76 percent of total cumulative expenditures, in-state expenditures might reach $662 million or about $33 million per year during the 20-year production phase ($24 million per year at 350 Mmcfd and $78 million per year at 850 Mmcfd). Average annual direct, indirect, and induced employment during the production phase could be approximately 3,300 full-time jobs per year.(AS 38.06.070(a)(3))

See Appendix B for further discussion of localized capital investment, increased payroll, and secondary development effects.

4. <u>The social impacts of the sale</u>: This sale may bring additional gas for in-State use and processing. The sale could also bring additional employment and training opportunities for local residents and an additional tax base to local governments from facilities built in an organized borough or town. (AS 38.06.070(a)(4))

5. <u>The additional costs to the State and local governments caused by the development related to the transaction:</u> If Foothills' gas exploration is unsuccessful then the project would generate minimal additional public-sector costs and responsibilities. If Foothills' gas exploration is successful then the project may generate a total of 14,400 direct and indirect full-time-equivalent jobs over the 30-year life of the project or an average of about 500 direct and indirect jobs per year. All else equal, such employment and income-earning opportunities would attract population and result in net in-migration, perhaps by as many as three persons per job. Population expansion would increase public service burden in many areas including, transportation infrastructure, education, health, and social services. Induced population expansion would also dilute the distribution of Permanent Fund earnings. According to a recent Commonwealth North study by the Institute of Social and Economic Research (see http://www.iser.uaa.alaska.edu/Products/2StrategiesforGrowth.ppt) each new basic-sector job creates a $1,100 annual burden on public finances. Thus, the total public-sector burden of an exploration success of the type described in the Anadarko-AEC RIK gas purchase proposal may approximate $550,000 per year. Except perhaps during the early years of the development phase of the project, the potential unrestricted general fund revenues from this transaction--discussed above in the section on "Revenue Needs and Fiscal Conditions of the State"--are likely to greatly exceed the additional, public-sector costs imposed by population expansion and other business development requirements, resulting in a positive "fiscal dividend." According to a recent ISER study, oil and gas development is the only type of resource development in Alaska that generates a positive fiscal dividend.[11] (AS 38.06.070(a)(5))

See Appendix B for further discussion of additional costs to the State and local governments caused by development related to the RIK sale.

6. **The local and regional labor market:** As indicated in the above discussions on the "Desirability of Localized Capital Investment" and the "Additional Costs to the State and Local Governments," exploration success may generate a cumulative total of 75,000 direct, indirect, and induced full-time-equivalent jobs over the project's 30-plus year life. Roughly three-fourths of these jobs (55,000) could arise from the effects of increased government spending due to greater royalty and tax receipts. The remaining one-fourth would to tied more directly to project investment and operating expenditures. Approximately five percent of these new jobs would occur in the North Slope Borough (approximately 130 full-time-equivalent jobs per year). Because of the project's geographic proximity to Interior Region, more than half of the remaining jobs probably would be located in the greater Fairbanks area. (AS 38.06.070(a)(6))

7. **Environmental effects**: The sale by itself will have no incremental effect. During the period the State takes its royalty in-kind rather than in-value, no additional gas is actually transported. Therefore, there are no projected environmental effects either positive or negative from the actual sale of the gas. There will be some impacts from additional exploration activities which are expected to be minor and may be mitigated at the site-specific, project-specific permit phase. Effects from development and production of gas from the Foothills would be more significant. Potential routes to mitigate impacts are discussed in more detail earlier in this document. Additionally, exploration success in the Foothills could lead to the production and sale of clean-burning fuel, which may replace dirtier energy sources. (AS 38.06.070(a)(7)).

8. **Impact on existing private commercial enterprises and investment patterns:** The sale of royalty gas to Anadarko and AEC could impact existing private commercial enterprises and investment patterns in several different fashions. For example, if the sale spurs in-state exploration for and development and production of gas from the Foothills, that gas may be sold to in-state purchasers who would otherwise meet their energy needs with purchases of other fuels—such as coal and heating oil—from existing private commercial enterprises. However, these substitutions are apt to occur with or without a RIK sale should a southern-route natural gas pipeline be built to transport North Slope gas out of state.

[11] Goldsmith, Scott, *Northstar Oil Field: Economic Impact Analysis*, (Anchorage: Institute of Social and Economic Research), February 23, 1998, p.7.

Existing Prudhoe Bay and Point Thomson lessees also may be impacted by a RIK sale, both as lessees and as potential investors in a gas pipeline. Their concerns—addressed in Part D, below—have been considered and will continue to be considered as part of the RIK sale process. (AS 38.06.070(a)(8))

C. Criteria Weights

11 AAC 03.060(b) provides that the Commissioner shall state which of the twelve criteria identified above apply to the proposed disposition, and discuss the weight given to the applicable criteria in determining the maximum benefit to the State.

All twelve criteria discussed above were used to evaluate each of the four proposals to purchase royalty gas. Specific weights were not assigned to the individual criteria. Rather, the Department formed an evaluation committee. The evaluation committee was composed of not only Department employees, but also others from different branches of state service and from the private sector. Each one of the evaluators was asked to rank each proposal on a scale of 1-4 on each of the twelve criteria, and in total. The evaluators then gathered in a public meeting, discussed each one of the criteria and their respective rankings, and modified the rankings in light of those discussions. All evaluators who turned in their rankings gave the proposal submitted by Anadarko and AEC the top ranking. The evaluation committee's recommendation of the Anadarko and AEC proposal, together with the Commissioner's independent review of all four proposals, resulted in the selection of the Anadarko/AEC proposal as the number one proposal in light of all twelve criteria, individually and in total.

While the ranking and selection of the Anadarko/AEC proposal effectively precluded sales to Williams and Chevron because of the volumes involved, small-volume sales to Alaska Power and Telephone remain possible, and, in fact, were recommended by the evaluation committee, which ranked second the proposal made by Alaska Power and Telephone.[12]

D. AGPPT Concerns About An RIK Sale

BP, Exxon, and Phillips, individually and as members of the members of the Alaska Gas Producer's Pipeline Team (AGPPT), have expressed concern about the RIK sale. The AGPPT members would prefer that Anadarko and AEC neither buy royalty gas nor transport that gas in initial pipeline capacity. They state that Anadarko and AEC could explore for gas, and, upon success, request expansion of the gas pipeline to accommodate their discoveries at a later date.

[12] A subsequent decision will address the AP&T proposal. Legislative approval of any contract that may be negotiated with AP&T is not necessary in light of the small volumes sought by AP&T.

The AGPPT members state that the RIK contracts would adversely impact their economics as gas producers (rather than as gas pipeliners; the gas pipeline would remain full and paid for under all scenarios). They explain that if Anadarko and AEC buy State royalty gas for a period of time, carrying that gas in initial pipeline capacity, then produce and ship their own gas in initial pipeline capacity in lieu of royalty gas, the AGPPT members will be forced to carry royalty gas in their initial pipeline capacity, leaving some of their own equity gas in the ground.

The Department has carefully considered the AGPPT concerns, and has structured the RIK contract so as to minimize the possibility of adverse impacts to AGPPT members. By requiring Anadarko and AEC to give a minimum of two years advance notice of their intent to produce and ship Foothills gas, the State provides AGPPT members with time to add compressor stations to the pipeline, and hence increase its capacity, to accommodate the increased gas flow without reducing production from Prudhoe Bay and Pt. Thomson.

The cost of additional compressor stations, together with other costs associated with pipeline expansion, are expected to be equal to or less than the costs of the initial pipeline on a per unit basis. Otherwise stated, the tariff for expansion capacity should be equal to or less than the tariff for original pipeline capacity. Consequently, the AGPPT members will not be "subsidizing" Anadarko and AEC, as they have suggested. Each and every party that subscribes to pipeline capacity will pay through the tariff for the capacity they use, and not for capacity used by others. While the initial financing of the pipeline and any expansions would be paid for by the pipeline company, that is typically the case, and those expenditures, with interest and profit, are returned through the tariff.

Finally, if Anadarko and AEC are unsuccessful in their Foothills exploration efforts, no additional pipeline capacity will be needed, and the AGPPT members would not be impacted by the RIK sale.

The Department has preliminarily concluded that an RIK sale to Anadarko and AEC, on the terms specified in the contracts, strikes an appropriate balance between promoting competition and protecting all market participants.

E. Royalty Bd.

This preliminary finding and determination is being submitted to the Royalty Board in compliance with AS 38.05.183(c), which provides that the Commissioner may not waive competitive bidding of this sale of RIK unless prior written notice is given to the board. Under AS 38.06.070(c) the Royalty Board will make a full report to the legislature on each criterion set out in AS 38.06.070(a) and (b) for any disposition of royalty gas that requires legislative approval. The Royalty Board's report will be submitted for legislative review at the time a bill for legislative approval of this proposed royalty gas contract is introduced in the legislature.

F. Legislative Approval

In the event a final best interest finding is issued in favor of the sale of RIK gas to Anadarko and AEC, the contracts will be submitted to the Legislature for approval.

G. Conclusion

Under the terms of the proposed contracts, the State will receive a fair value for the royalty gas; promote in-State exploration, investments, jobs, and competition; and potentially add to the tax and royalty base, as well as receive attendant benefits. The State will retain enough royalty gas to meet the needs of other RIK purchasers even with the proposed contracts. The price terms are satisfactory, and the sale to Anadarko and AEC offers numerous economic benefits to Alaska citizens.

The foregoing facts and analysis support the finding that this sale is in the best interest of the State and offers maximum benefits to Alaska citizens.

______________________________ ______________________

Pat Pourchot
Commissioner

Date

Appendix A

Agreement for the Sale of Royalty Gas

Appendix B

Economic Impacts of Anadarko Exploration, Development and Production of Alaska North Slope Foothills Gas Operations by Northern Economics

Contact Division of Oil and Gas for a copy of this study.