

ALASKA LEGISLATURE COMMITTEE FILES 2007-2008 SJUD 12542

Energy Project Consultants, LLC

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SUMMARY

Over thirty-five years experience in project management, design and construction of natural gas pipeline, compressor station and gas processing facilities. Extensive and proven managerial experience, with the ability to handle large and diversified engineering programs.

PROFESSIONAL EXPERIENCE

Present ENERGY PROJECT CONSULTANTS, LLC - Colorado Springs, CO

- **PRESIDENT** - An energy project management consulting company, established in May 2001. Specializing in large capital project program management and due diligence and expert witness work for the pipeline industry. Recently worked for Entrega Gas Pipeline Company (a subsidiary of the EnCana Corporation) on a large diameter natural gas pipeline project in western Colorado and southern Wyoming. Advised Entrega on all aspects of project management, engineering and construction and assisted them in managing the project. Also provided project management oversight for a proposed 1300 mile 42" pipeline from the Cheyenne Hub to eastern Ohio. Recently worked with a group of North Dakota producers to develop a new crude oil pipeline from the Williston Basin to Cushing, Oklahoma. Currently working with the state of Alaska as a consultant on the proposed Alaska Gas Pipeline Project.

1992-2001 COLORADO INTERSTATE GAS COMPANY - Colorado Springs, CO

- **VICE PRESIDENT ENGINEERING** - Responsible for the engineering, R/W acquisition,

permitting and construction of all new facilities for the Company's transmission, gathering and processing systems. These facilities included pipeline (transmission and gathering), compressor stations, processing plants and gas storage fields. Supervised an in-house staff of 80 employees, as well as the activities of consultants, engineering firms and contract employees. Capital expenditures associated this effort were in the range of \$100-150,000,000 per year for eight years. The 2001 capital budget was \$400,000,000. Additional responsibilities included pipeline regulatory compliance and environmental compliance.

1982-1992 TRANSCONTINENTAL GAS PIPE LINE CORP. - Houston, TX

- **GENERAL MANAGER DESIGN and DRAFTING** - Responsible for the project management, design and drafting required for the construction of all new facilities on the Company's 11,000 mile natural gas transmission system. These facilities included pipelines (onshore and offshore), compressor stations, gas storage projects, liquid separation plants and all other related facilities. Supervised an in-house staff of sixty employees as well as the activities of consultants, engineering firms and contract employees. Capital expenditures associated with this effort were in the range of \$300,000,000 per year, with a departmental budget of approximately \$18,000,000.

Additional responsibilities included the development of all Company technical standards and specifications, Company representation in various industry organizations e.g. AGA-PRC and SGA, and selection and qualification of major material and equipment suppliers. Directly responsible for the development of Company's program for the procurement of foreign line pipe, including personal inspection of pipe mills in Germany, Italy, France, Japan, Brazil, Canada, Mexico, and Argentina. Resulting purchase and use of foreign line pipe has saved the Company in excess of \$30,000,000.

- **GROUP MANAGER/DESIGN** - Responsible for the design of all new pipeline (onshore and offshore) and compressor station facilities for the company's 11,000 mile natural gas transmission system. Supervised a staff of approximately 40 employees.
- **STAFF ENGINEER** - Reporting directly to the Senior Vice-President of Operations and Engineering, performed various staff functions related to the management of this area of the Company.

1981-1982 KRACKE-GOBER CORP. - Houston, TX

- **MANAGER/DESIGN ENGINEERING** - Responsible for the design of liquid/gas pipelines, compressor/pump stations and other related facilities. Supervised a staff of 15-20 employees.

- **MANAGER/PROJECTS** - Responsible for the project management, design, and drafting efforts for a major client's projects. Include compressor stations, pipelines and a gas storage project.

1967-1981 TRANSCONTINENTAL GAS PIPE LINE CORP. - Houston, TX

- **MANAGER/PLANNING** - Responsible for intermediate range planning for major pipeline projects. Included system analysis, feasibility studies, and economic analysis of viable alternatives.
- Various positions of increasing responsibility in pipeline design, construction supervision and project coordination. Including construction management of a large LNG peak shaving facility in New Jersey

1965-1967 MOUNTAIN STATES TELEPHONE COMPANY - New Mexico

- **OUTSIDE PLANT DESIGN ENGINEER** - Work involved the design, material procurement and construction coordination for pole line, conduit and direct buried cable systems.

EDUCATION & PROFESSIONAL STATUS

B.S. in Civil Engineering - New Mexico State University - 1965

Registered Professional Engineer - Texas and Louisiana

Member of NSPE, TSPE, LSPE and ASCE

Industry activities:

AGA-PRCI Executive Committee-past member

INGAA-Operations, Safety and Environment Committee -
past Chairman

INGAA Foundation

EPRI-Gas/Electric Partnership

SGA-Engineering Management Roundtable – 2001 Chairman

**SUMMARY PROFESSIONAL BIOGRAPHY
W.R. HARPER, JR.**

Energy of Business Consulting Associates

2001 - Present
Principal

Northwest Natural Gas Company

1992 - 2002
Senior Vice President (Marketing, Supply, Transportation, Trading and Storage)
Vice President (Marketing Services)
Vice President (Industrial and District Operations)
General Manager (Industrial and Commercial Business Operations)

Canor Energy Ltd. (Calgary, Alberta)

1994 - 2000
Chief Executive Officer
President and Chief Executive Officer

United Gas Pipeline Company

1992
Assistant to the President

Atlantic Richfield Company

1977 - 1992
President, ARCO Gas
Manager, Strategic Planning and Regulatory Affairs
Manager, Natural Gas (U.S.)
General Manager, B&A Pipeline Company
Supervisor, Gas Contracts
Senior Gas Contract Representative
Regional Gas Coordinator

Texas Eastern Corporation

1975 - 1977 (Texas Eastern and Transwestern Pipelines)
Gas Contract Representative
Gas Contract Administrator

Degolyer and McNaughton

1972 - 1975
Engineering Assistant

Education:

Cum Laude Graduate 1975
Cox School of Business
Finance and Economics
Southern Methodist University

Industry Associations:

Board of Directors
Northwest Gas Association 2000-2002

Advisor
Northwest Power Planning Council 2001-2002

Special Advisor to the Board
TRIMET 1998-2001

Board of Directors
Christie School 1995-2001

President
Natural Gas Society of North Texas 1989

Vice President
Natural Gas Society of North Texas 1985-1989
American Gas Association 1992-2002
Southern Gas Association 1995-1991
Natural Gas Supply Association 1988-1992
Natural Gas Society of Houston 1975-1992
Natural Gas Society of New Orleans 1975-1992
Natural Gas Society of Permian Basin 1997-1992
Natural Gas Society of Rocky Mountains 1985-1992
Natural Gas Society of North Texas 1975-2002

Gas Model (NARG) He also worked with the developers of that model to construct a Crude Oil Pricing Model using the same framework as NARG. Dr. Finizza has considerable experience with Monte Carlo modeling techniques. Dr. Finizza has conducted numerous scenario-planning exercises with senior management responsible for investment decisions. He has developed and managed quality-assurance of a large-scale, complex energy model. Dr. Finizza has consulted with the California Energy Commission, the Hawaii Department of Business and Development and the City of Bethel, Alaska on petroleum-related matters.

Rick Harper: Consultant to the Firm

Mr. Harper is a consultant to the natural gas industry. He has over 30 years experience working for natural gas producers and pipelines. He previously held positions as manager of ARCO's Strategic Planning and Regulatory Affairs Group and President of ARCO Gas. His work with gas pipelines dates back to the mid-1970s. He was Assistant to the President of United Gas Pipeline Company and was Senior Vice President, in charge of marketing, supply, transportation, trading, and storage for Northwest Natural Gas Company. Mr. Harper has extensive practical experience in management and decision-making (including investment analysis) related to natural gas production, processing, marketing, and pipeline operations. Mr. Harper has served as an expert witness on behalf of gas royalty owners in a number of matters. He has testified in federal and state courts. He also has testified on matters related to natural gas markets and pipelines before regulatory commissions in Texas, California and Oregon and before the FERC and the National Energy Board of Canada.

Steven Ostrover: Consultant to the Firm

Mr. Ostrover is an energy and utility economist with over 10 years experience applying economic theory and a wide variety of statistical, financial, and mathematical modeling techniques in the electricity, water and sanitation, natural gas, and telecommunications sectors. Mr. Ostrover is a former Senior Economist with Econ One. Prior to joining Econ One, Mr. Ostrover was an Associate Director with Stone and Webster. Mr. Ostrover has consulted with the World Bank and a number of foreign government agencies regarding regulatory issues in the energy industry. His work has supported all aspects of governmental efforts to reform and regulate energy and utility sectors and to privatize public utilities. His work includes advising on sector restructuring, designing wholesale markets and power exchanges, developing economic and financial models for asset valuation, and establishing pricing methodologies and tariff structures. In addition, he has worked directly for private utilities by providing financial and economic analysis in support of asset purchases and strategic analysis of business opportunities.

How Alaska Addresses Competitive Issues
Raised by a Producer-Owned Pipeline

The Palin-Parnell Administration presents

AGIA

The Alaska Gasline Inducement Act

Presentation to the Alaska Legislature

Senate Judiciary Committee

May 7, 2007

Kenneth M. Minesinger

Greenberg Traurig LLP

- Testimony addresses 3 competitive issues
 - Competitive problems associated with a producer-owned pipeline
 - How AGIA addresses those problems
 - Failure by producers (Exxon, BP, Conoco) to bid in an open season

Competitive Problems Raised by a Producer-Owned Pipeline

AGIA

The Alaska Gasline Inducement Act

- Issue addressed in Dec. 21, 2006 memorandum on LB&A website
- Main competitive issue: **vertical market power**
 - Producer-owned pipeline would have an incentive *not* to ship gas produced by competing producers
- This disincentive could manifest itself as follows:
 - **Expansion:** Refusing to expand to ship competing gas, or delaying expansion
 - **Access/Discrimination:**
 - Raising the tariff rate paid by competing producers
 - Other means of restricting/denying access, including subtle forms of discrimination that are difficult for regulators to detect
 - Producer incentive to **delay** project so as not to undermine other projects (LNG) or other gas sales in the Lower 48
 - Vertical relationship could also facilitate **collusion**

Competitive Problems Raised by a Producer-Owned Pipeline

AGIA

The Alaska Gasline Inducement Act

- **Vertical market power issue:** addressed by U.S. DOJ in 1977
 - **Expansion:** The U.S. Attorney General concluded that “it will be in the interest of producer-owners to resist future expansion and thus discourage future entry into Alaskan gas production” ... because the producers’ market power “could be reduced by discovery and development of new fields by other producers”
 - **Access/Discrimination:** U.S. Attorney General also stated:
 - Producer-owned pipeline “would seek to restrict access and throughput to take monopoly profits.”
- DOJ recommended a complete ban on producer-ownership
- Reagan Administration: conditional waiver
- FERC Chairman in 2005: antitrust issues “are still valid and will be addressed” by FERC in certificate proceeding

Competitive Problems Raised by a Producer-Owned Pipeline

AGIA

The Alaska Gasline Inducement Act

- **FTC, DOJ and FERC precedent confirms that the competitive concerns raised by DOJ in 1977 about a producer-owned pipeline are still valid:**
 - **FTC/DOJ vertical merger cases in energy industry: “raising rivals costs”**
 - **Major FERC orders addressing vertical market power issues over past two decades, including Order Nos. 436, 497, 636, 637, 2000, 2004, 2005**

NEW AGIA ADMINISTRATION Problems Raised by a Producer- Owned Pipeline

AGIA
The Alaska Gasline Inducement Act

- Unlike 1977 DOJ opinion, AGIA does not advocate a ban on producer ownership of the pipeline
- Instead, AGIA:
 - Invites applications by producers and by independent pipelines
 - Attempts to ameliorate or eliminate competitive problems raised by a producer-owned pipeline

AGIA Section 10, 11, 12 Competitive Problems Raised by a Producer-Owned Pipeline

AGIA

The Alaska Gasline Inducement Act

- **Problem: Incentive Not To Expand**
 - AGIA requires expansion on reasonable terms:
 - The applicant must “commit to expand the proposed project in reasonable engineering increments and on commercially reasonable terms that encourage exploration and development of gas resources in this state”

Competitive Problems Raised by a Producer-Owned Pipeline

AGIA

The Alaska Gasline Inducement Act

- **Problem: Incentive Not To Expand**
 - AGIA also addresses producer/expansion issue by requiring pipeline to hold open seasons for expansion capacity every two years:
 - The applicant must “commit that after the first binding open season, the applicant will assess the market demand for additional pipeline capacity at least every two years through public non-binding solicitations or similar means”

AGIA Seeks to Address Competitive Problems Raised by a Producer-Owned Pipeline

AGIA
The Alaska Gasline Inducement Act

- **Problem: Refusal To Expand Except on Terms That Deter Exploration**
 - AGIA requires applicant to propose rolled-in rate treatment of expansion costs, up to a 15 percent increase in existing rates
 - The 15 percent roll-in requirement counteracts a producer-owned pipeline's incentive to discourage expansion by proposing incremental rates
 - Rolled-in rates are consistent with FERC policy (rebuttable presumption of roll-in) and federal law (ANGPA) mandating rate criteria which promote exploration, development and production of Alaska gas

AGIA Seeks to Address Competitive Problems Raised by a Producer-Owned Pipeline

AGIA

The Alaska Gasline Inducement Act

- **Problem: Discrimination/Access**
 - For example, a producer-pipeline is indifferent to high tariff rates, with regard to their own gas, because the money they spend on rates just goes from one pocket to another
 - AGIA requires applicants to commit to low tariff rates, by:
 - committing to a “capital structure for rate-making that consists of no less than 70 percent debt”
 - competing via proposals to manage cost overruns and “provide low transportation rates”
 - These provisions give the State an opportunity to avoid some of the problems experienced with TAPS
 - High tariff rates have reportedly caused some competitors to exit

How AGIA Seeks to Address Competitive Problems Raised by a Producer-Owned Pipeline

AGIA

The Alaska Gasline Inducement Act

- **Problem: Delaying the Project**
 - AGIA requires open season within 36 months, initiation of FERC pre-filing process by a date certain, and filing of certificate application by a date certain
 - Producer-pipeline required to sanction project within one year of FERC certificate because they have the gas supply that would underwrite FT commitments (credit support)
 - AGIA would not permit a producer-owned pipeline to unduly delay project development based, for example, on concerns that:
 - Alaska pipeline could adversely affect producers' investment in worldwide LNG projects
 - Alaska pipeline could adversely affect producers' sales of other gas in Lower 48

AGIA Issues to Address Competitive Problems Raised by a Producer-Owned Pipeline



- **Level playing field:**
 - AGIA establishes competitive process open to all applicants, including producers and independent pipelines
 - Allows producers to compete by proposing additional ways of remedying the vertical market power problem, including proposals to:
 - Divest ownership after construction
 - Hire independent third-party to operate the pipeline
 - Establish market monitor

- **What if the producers fail to bid in an open season?**
 - Premature: need to wait and see whether there is a failure to bid, and the facts associated with that failure
 - State and other interested parties can then determine based on the facts whether any antitrust, FERC or other issues have been raised by a failure to bid or a withholding of gas supplies from the market

Conclusion

AGIA

The Alaska Gasline Inducement Act

- AGIA charts a middle ground between (A) banning producer-ownership of the pipeline and (B) negotiating exclusively with the producers
- Instead of banning producer-ownership, AGIA:
 - Attempts to fix the competitive problems
 - Invites producers to build the pipeline on terms consistent with the State's interest in promoting exploration and development of North Slope gas resources

110 FERC ¶ 61,095
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

18 CFR Part 157

(Docket No. RM05-1-000)

Order No. 2005

Regulations Governing the Conduct of Open Seasons for Alaska Natural Gas
Transportation Projects

(Issued February 9, 2005)

AGENCY: Federal Energy Regulatory Commission.

ACTION: Final Rule.

SUMMARY: The Federal Energy Regulatory Commission is amending its regulations to establish requirements governing the conduct of open seasons for proposals to construct Alaska natural gas transportation projects. This Final Rule fulfills the Commission's responsibilities to issue open season regulations under section 103 of the Alaska Natural Gas Pipeline Act (the Act), enacted on October 13, 2004. Section 103(e)(1) of the Act directs the Commission, within 120 days from enactment of the Act, to promulgate regulations governing the conduct of open seasons for Alaska natural gas transportation projects, including procedures for allocation of capacity. As required by section 103(e)(2) of the Act, these regulations (1) include the criteria for and timing of any open season, (2) promote competition in the exploration, development, and production of Alaska natural gas, and (3) for any open seasons for capacity exceeding the initial capacity, provide for the opportunity for the transportation of natural gas other than from the Prudhoe Bay and Point Thomson units.

EFFECTIVE DATE: The rule will become effective 90 days after publication in the FEDERAL REGISTER.

FOR FURTHER INFORMATION CONTACT:

Whit Holden, Office of the General Counsel, (202) 502-8089, edwin.holden@ferc.gov
Richard Foley, Office of Energy Projects, (202) 502-8955, richard.foley@ferc.gov
Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426

SUPPLEMENTARY INFORMATION:

G. Rate Treatment for Expansions

111. As noted above, one of the issues that received substantial attention in the pre-NOPR comments is whether the Commission should require rolled-in rate treatment for Alaska pipeline expansions. Although the NOPR's proposed regulations are silent on this subject, the NOPR requested comment on whether, in the event the Commission issues regulations with respect to the Commission's authority to require expansion of any Alaska natural gas transportation project, those regulations should address the rate treatment (rolled-in or incremental) of any such expansion.

112. Other than the North Slope Producers and Alliance, there is much support for rolling-in the costs of both voluntary and involuntary expansions, although there is disagreement about when the issue should be resolved. ChevronTexaco states that the subject of appropriate rate treatment for expansions is a subject deserving of substantial, detailed consideration that should be addressed after dealing with the more pressing task of issuing the open season rules. Northwest Industrial Gas Users also believes that the issue can be addressed later. Alaska agrees that expansion pricing is a complex subject that should be examined thoroughly, and asserts that instead of addressing the issue in this rulemaking, the Commission should issue a notice regarding expansion rate treatment for Alaska natural gas transportation projects in early 2005. Alaska observes that the arguments in support of rolled-in pricing are strong, but suggests that rolled-in pricing might not be appropriate in all circumstances. Alliance believes that because the appropriateness of rolled-in or incremental rate treatment for any expansion should be made on a fact-specific basis, and not by rule that predetermines, before the circumstances of a given expansion are even known, how that expansion should be priced.

113. Pacific Star and Alaska Venture Capital state that the Commission should give an early indication that it will support rolled-in rates for expansions of any Alaska natural gas transportation project. Pacific Star states that it agrees with the statement at the technical conference by TransCanada, ANGDA, Anadarko, BLM, and MMS that rate uncertainty will discourage exploration and development and that expansions of the pipeline could present widely varying rate consequences. Pacific Star also states that concerns over existing shippers' subsidizing rolled-in expansions should be weighed against the facts that initial shippers are benefiting from substantial subsidies through the \$18 billion loan guarantee and a 7-year accelerated depreciation. Alaska Venture Capital/Brook Range similarly believes that the Commission should give an early indication that it will support rolled-in pricing under scenarios outside the Commission's existing policy, under which the Commission approves rolled-in rates only where the rolled-in rate is equal to or less than the existing recourse rate. According to Alaska Venture Capital/Brook Range, a policy calling for different rates for similar services

would place explorers and smaller producers at a competitive disadvantage. This would, in turn, discourage exploration and development of Alaska natural gas, contrary to the mandate of the Act.

114. TransCanada, MidAmerican/AGTA, and DOI encourage the Commission to adopt a rebuttable presumption favoring rolled-in rates. TransCanada states that any shippers concerned about the effect of such treatment can seek to avoid it through negotiated rates. MidAmerican/AGTA qualifies its support for this presumption by stating that the presumption should apply only to reasonably-engineered increments of mainline expansions supported by long-term contracts similar to those supporting the initial project. DOI states that rolled-in rate treatment is more equitable to future shippers, and that, because Canada has adopted rolled-in rates for expansions, it would provide rate consistency for the entire system.

115. Alaska Legislators, Anadarko, Shell, Calpine, Arctic Slope, and Doyon all contend that rolled-in pricing should be required for pipeline expansions. Alaska Legislators contend that incremental treatment for expansions would discriminate against expansion shippers who, merely because of the timing of their capacity needs, may pay higher rates than initial shippers. This, according to the Alaska Legislators, ignores the fact that the need for expansion is the consequence of the demands of all shippers. Alaska Legislators state that the Commission must balance the interests of the existing customers against interests of other stakeholders in determining whether or not pre-existing shippers should get the benefit of rate decreases for expansions that lower the average per unit cost of transportation, but face the possibility of rate increases that increase the average per unit cost of transportation. Alaska Legislators also note that the current Commission policy on expansion pricing was developed to address pipeline to pipeline competition, which will not arise in Alaska.

116. In addition to arguing that incremental rates operate to discriminate against expansion shippers, Alaska Legislators argue that the prospect of incremental rates will also act to reduce competition and impede the development of Alaska natural gas. Alaska Legislators state that exploration and development of Alaska reserves requires a long lead-time due to seasonal restrictions and the remoteness of the resource.³⁷ Alaska

³⁷ Alaska Legislators refers to a statement made at the technical conference by Jeff Walker, of DOI's Mineral Management Service that it takes at least nine years for an exploration project to mature into production.

Legislators contend that this long lead time makes it difficult for an explorer to judge when it is feasible to commit to capacity on the pipeline. The result, state Alaska Legislators, is that the explorers and developers may be deterred from investing the large sums required to drill for Alaska natural gas, when they are unsure whether their future capacity needs will be met at a time when inexpensive expansion through increased compression will be available, or whether the expansion they require would involve costly looping. The Alaska Legislators also argue that Canada has a long-standing policy of requiring rolled-in rates for expansions which could make exploration in Canada much more attractive to exploration and production companies.

117. Anadarko, also convinced that expansions under section 103 of the Act must be priced on a rolled-in basis, argues that this is critical to avoid a rate structure or policy that discriminates on the basis of time of entry onto the pipeline. Anadarko maintains that it is important to establish this requirement in the initial open season process in order to inform those prospective shippers that their rates might increase as expansions are rolled-in. Alaska Legislators provide a history of the Commission's expansion rate policy, varying over time in order to address different goals as deemed necessary to address changing market dynamics. In short, Alaska Legislators assert that the current Commission policy favoring incremental expansion rates seeks to address issues of competing pipelines, competitive markets, optimal construction, and protecting captive customers, all valid considerations of the market setting in the lower 48 states, but wholly inapplicable to an Alaska natural gas transportation project or the Alaska market. According to Alaska Legislators, the Act instructs the Commission, through its open season regulations, to focus on reducing barriers, not to competitive markets, but rather, to entry in exploration and development of Alaska natural gas. Alaska Legislators conclude that to achieve this mandated goal, the open season regulations must be revised to include rolled-in pricing as one of the criteria for open seasons for pipeline expansions

118. Shell and Calpine also argue that Commission's 1999 pricing policy for expansions has no application to the circumstances of an Alaska natural gas transportation project where there is no element of pipeline competition or preventing overbuilding. Shell is concerned that companies might not invest hundreds of millions in exploration and development costs if they may have to pay for expansions on an incremental basis, while competitors benefited from earlier, inexpensive expansion. Calpine stresses that since an Alaska natural gas transportation project will be called to transport all Alaska gas, not just gas from Prudhoe Bay and Point Thomson reserves, a larger picture is required in assessing any policy against subsidization. Calpine maintains that an Alaska pipeline should be viewed as a 10 Bcf/d pipeline that will be built, in phases, over time, as opposed to a 4.5 Bcf pipeline that might be expanded from time to time. Under this picture, shippers on the first phase facilities will benefit from lower initial rates due to the Act's loan guarantees, however the Act was not only concerned

with facilitating the development of a project that carries Prudhoe Bay and Point Thomson production to market, but also the development and transportation of Alaska's unproven reserves.

119. Arctic Slope is also concerned that unless rolled-in rates are mandated, there may never be an expansion of the pipeline beyond capacity created through infill compression and added compression horsepower. Arctic Slope estimates that rolled-in rates for expansions would probably be only a little higher than the initial rates since expansion costs would be borne by the entire pipeline throughput. However, the impact of incrementally-priced expansions on the incremental shippers, which would be based entirely on the incremental throughput quantities, would be very severe.

120. Alliance and the North Slope Producers assert that rates for expansion should be determined on a fact-specific, case-by-case basis, not on a pre-determined, rolled-in basis under the open season rules. The North Slope Producers stress that absent information regarding design, timing, and other project attributes, it would be inappropriate either to require or to favor rolled-in rates. In addition, the North Slope Producers point to section 105(b)(1) of the Act wherein, they state, Congress identified either rolled-in or incremental rates as appropriate for mandatory expansions. They add that if rolled-in rates were made applicable to voluntary expansions in the final open season rule, the result would be that such expansions would become involuntary and they would be discouraged.

121. Additionally, the North Slope Producers state that the Commission's existing, fact-specific policy recognizes the risks inherent in major infrastructure projects and seeks to prevent uneconomic pipeline expansions, as well as subsidization by existing customers, and should not be lightly discarded. Responding to the assertion that the NEB requires rolled-in rates for Canadian expansions, the North Slope Producers state that although NEB has adopted rolled-in rates in expansion cases, NEB addresses the issue on a case-by-case basis.

122. Finally, the North Slope Producers claim that explorers do not require absolute rate certainty in order to decide whether to participate in open seasons; an anticipated range that supports future economics is sufficient. On the other hand, the North Slope Producers state that initial shippers who fear that they may be called on to subsidize future shippers may not bid for initial capacity. In this connection, the North Slope

Producers contend that one of the Commission's goals is to protect captive customers from rate increases arising from costs unrelated to their service, resulting in rate uncertainty and increased contractual risk.³⁸

123. In this rule, the Commission does not adopt a firm pricing policy for future expansions of an Alaska natural gas transportation project, but we do take this opportunity to provide guidance on this important issue, as it will assist participants in the initial open season. We conclude that there should be a rebuttable presumption in favor of rolled-in pricing for project expansions. Our existing lower-48 states policy favoring incremental rates for expansions does not apply in the case of an Alaska natural gas transportation project. There is likely to be only one Alaska pipeline, so there will be little or no opportunity for competition between pipelines. Incremental pricing of expansion could put expansion shippers at a significant rate disadvantage compared with initial shippers, and accordingly could discourage exploration, development and production of Alaska natural gas. Having markedly different rates for similar service could be in conflict with one of the chief objectives of the statute, which is to encourage further exploration and development of Alaska natural gas. On the other hand, consistent with the arguments of a number of commenters, a presumption in favor of rolled-in pricing may spur investment in and development of Alaska reserves, and the ultimate delivery of that gas to the lower 48 states.

124. We cannot at this point, without a specific project proposal or the facts surrounding a proposed expansion before us, define exactly what will be required to overcome the presumption. As a general matter, we have historically not favored requiring existing shippers to subsidize the rates of new shippers. We do not intend to discard this principle, but rather to indicate that we will not lightly authorize expansion rates that would have an unduly negative impact on the exploration and development of Alaska reserves. Witnesses at the technical conference acknowledged that defining subsidization is difficult without specific facts to review, and that fact was restated in several of the comments filed. We agree. But a basic observation may be useful here. For example, a rolled-in expansion rate that is less than or equal to the rate paid by the initial shippers would not be considered a subsidy. Whether a rolled-in expansion rate that is higher than original rates is a "subsidy" is a question that necessarily would have to be reviewed in the context of a future NGA section 7 filing. At that time, Pacific

³⁸ See, e.g., *Transcontinental Gas Pipe Line Corp.* 106 FERC ¶ 61,299 (2004).

Star's arguments relating to whether the federal government's loan guarantees and accelerated depreciation amount to a "subsidy" of initial shippers' rates may be raised.

125. In conclusion, to provide guidance to potential shippers in advance of the initial open season that is the subject of this rule, the Commission intends to harmonize both objectives (rate predictability for initial shippers and reduction of barriers to future exploration and production) in designing rates for future expansions of any Alaska natural gas transportation project. It is consistent with our guiding principle that competition favors all of the Commission's customers, as well as with the objectives of the Act, to adopt rolled-in rate treatment up to the point that would cause there to be a subsidy of expansion shippers by initial shippers, if any subsidy were to be found.

126. Anadarko states that the open season regulations must prohibit pipelines from bundling ancillary services with transportation. In particular, Anadarko is concerned that sponsors might include in a tariff and an open season the bundled cost of a gas conditioning plant that would extract CO₂ despite the fact that such extraction would not be required of gas from many new Alaska gas fields which likely will be of pipeline quality. MidAmerican/AGTA and Enbridge agree that the open season process should preclude applicants from tying receipt of capacity to taking ancillary services, such as gas conditioning, treating, or processing. TransCanada simply states that it has no objection to proscription of tying.

127. DOI and MidAmerican/AGTA agree that rates for ancillary services should not be bundled with transportation rates. However, DOI contends that the State of Alaska should address the need for rules concerning non-discriminatory access to gathering and other production-related facilities, whereas MidAmerican/AGTA claims that the Commission should assert jurisdiction over gas treatment plants and require separate open seasons and cost-based tariff structures for gas processing. On the other hand, the North Slope Producers contend issues of tying or bundling of services can be dealt with through established Commission processes and policies at the appropriate time, and need not be addressed in the open season. Alliance views the tying issue in the context of requiring designated downstream capacity, and suggests that as a practical matter, that should not be prohibited.

128. The Commission is stating in the final rule at section 157.34(c)(6) that the open season notice must contain an unbundled transportation rate. Moreover, section 157.34(c)(10) prohibits a prospective applicant from requiring prospective shippers to process or treat their gas at any designated facility. The Commission is satisfied that it can address any other discriminatory conduct in connection with gas quality requirements or other ancillary services through the provisions of section 157.35 in conjunction with existing Commission policies and procedures.

111 FERC ¶ 61,332
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

18 CFR Part 157

(Docket No. RM05-1-001; Order No. 2005-A)

Regulations Governing the Conduct of Open Seasons for Alaska Natural Gas
Transportation Projects

(Issued June 1, 2005)

AGENCY: Federal Energy Regulatory Commission.

ACTION: Final Rule; Order on Rehearing.

SUMMARY: The Federal Energy Regulatory Commission (Commission) generally reaffirms its determinations in Order No. 2005. Order No. 2005 establishes requirements governing the conduct of open seasons for proposals to construct Alaska natural gas transportation projects, including procedures for allocation of capacity. Pursuant to the directive of section 103(e)(2) of the Alaska Natural Gas Pipeline Act, enacted on October 13, 2004, the regulations promulgated in Order No. 2005 (1) include the criteria for and timing of any open season, (2) promote competition in the exploration, development, and production of Alaska natural gas, and (3) for any open seasons for capacity exceeding the initial capacity, provide for the opportunity for the transportation of natural gas other than from the Prudhoe Bay and Point Thomson units.

In this order, the Commission addresses the requests for rehearing and/or clarification of Order No. 2005. Here, we grant rehearing in part, deny rehearing in part, and provide clarification of Order No. 2005. In specific, we: (1) clarify that the

Section 157.36 is intended to provide that the Commission may require design changes necessary to ensure that some portion of a proposed voluntary expansion will be allocated to new shippers or shippers seeking to transport gas from areas other than Prudhoe Bay or Point Thomson, provided such shippers are willing to sign qualifying long-term firm transportation agreements. To ensure clarity, we will revise section 157.36 to read as follows:

“In considering a proposed voluntary expansion of an Alaska natural gas transportation project, the Commission will consider the extent to which the expansion will be utilized by shippers other than those who are the initial shippers on the project and, in order to promote competition and open access to the project, may require design changes to ensure that some portion of the expansion capacity will be allocated to new shippers willing to sign qualifying long-term firm transportation contracts, including shippers seeking to transport natural gas from areas other than Prudhoe Bay or Point Thomson.”

II. Presumption of Rolled-in Rates for Expansions

A. Final Rule - § 157.39

39. Section 157.39 states that “[t]here shall be a rebuttable presumption that rates for any expansion of an Alaska natural gas transportation project shall be determined on a rolled-in basis.” The Commission stated in Order No. 2005 that by providing for this presumption, the Commission is advising potential shippers, in advance of any initial Alaska natural gas transportation project open season, of its intention to harmonize the objective of rate predictability for initial shippers with the objective of reducing barriers to future exploration and production in designing rates for future expansions of any Alaska natural gas transportation project. The Commission concluded in Order No. 2005 that section 157.39 is consistent with “our guiding principle that competition favors all of the Commission’s customers, as well as with the objectives of the Act, to adopt rolled-in rate treatment up to the point that would cause there to be a subsidy of expansion shippers by initial shippers, if any subsidy were to be found.”

B. Rehearing/Clarification Requests

40. The North Slope Producers, Enbridge, and ChevronTexaco assert that the presumption in favor of rolled-in rates for voluntary expansions established in section 157.39 creates uncertainty for shippers and project sponsors, and, therefore, section 157.39 should be eliminated from the regulations or substantially revised. The

North Slope Producers and Enbridge claim that prospective initial shippers, fearing that in the future their rates may be increased to subsidize the cost of expansion facilities, will be less willing to make the long-term commitments necessary to support an Alaska project. This uncertainty, they predict, will discourage rather than advance the development of an Alaska pipeline or any voluntary expansion thereof – a result clearly inconsistent with ANGPA's primary goal. Moreover, the North Slope Producers and Enbridge suggest that mandatory expansions pursuant to ANGPA section 105 will become more attractive than voluntary expansions because of the explicit rate protection for existing shippers in section 105.

41. The North Slope Producers contend that section 157.39 is unjustifiably inconsistent with the Commission's current policy regarding rate treatment of expansions, which is to discourage uneconomic expansions and assure that expansions will not be subsidized by existing shippers. They assert that even if, as claimed by the Commission, only one pipeline will be built in Alaska, that distinction does not justify deviating from the Commission's current policy.

42. The North Slope Producers charge that the Commission acted arbitrarily and capriciously in relying on ANGPA section 103(e) to justify its conclusion to provide for a presumption of rolled-in rates for expansions. Although the North Slope Producers concede that the Commission clearly has the authority under ANGPA and the NGA to approve rates for Alaska natural gas transportation projects, they claim that ANGPA section 103(e) has nothing to do with rate regulation. Furthermore, state the North Slope Producers, even if section 103 could be read to give the Commission authority to include rate regulations in its open season rules, the proper course would be to remove section 157.39 from the open season rules and instead address rate policy issues only after the parties have the opportunity of developing a complete factual record. Failing this, the North Slope Producers state that the Commission should revise section 157.39 to provide that the Commission's current rate policies will apply to Alaska projects.

43. Enbridge also argues that the Commission acted arbitrarily and capriciously by imposing a rebuttable rolled-in presumption, even where rolled-in pricing would increase existing shippers' rates. According to Enbridge, Order No. 2005 identifies two considerations, namely the Commission's disfavor of existing shippers subsidizing the rates of new shippers, and the Commission's reluctance to authorize an expansion rate that would have an unduly negative impact on the exploration and development of Alaska reserves. Enbridge contends that the presumption should be "scaled back" to apply only to cases where expansion rates are no higher than pre-existing rates. Enbridge points to the Commission's acknowledgement in Order No. 2005 that it "cannot at this point, without a specific project proposal or the facts surrounding a proposed expansion before

us, define exactly what will be required to overcome the presumption." Enbridge contends that the Commission's inability to explain how the presumption can be rebutted renders rolled-in pricing mandatory, leaving the question of whether a rolled-in expansion rate that is higher than original rates is a subsidy to be resolved in a future NGA section 7 filing.

44. ChevronTexaco stresses that because the text of Order No. 2005 recognizes that "without a specific project proposal or the facts surrounding a proposed expansion" the Commission cannot determine what is needed to overcome the presumption favoring rolled-in rates, the Commission should defer any determination of rate treatment for expansions until a record can be developed after a specific proposal is made. According to ChevronTexaco, this inability to articulate when the presumption will be applied creates uncertainty that inhibits the development of any Alaska project.

45. ChevronTexaco states that inconsistency between the text of order and the text of the regulations creates further uncertainty. ChevronTexaco states that while the regulations state that the presumption applies to "any expansion," Order No. 2005's text, at paragraphs 124 and 125, suggests that rolled-in rates are appropriate only if there is no increase in rates for existing shippers. ChevronTexaco urges the Commission to clarify section 157.39 to state that no cross-subsidy is intended. Otherwise, the Commission should consider issuing, in lieu of a regulation, a policy statement which outlines the general direction that the Commission intends to take.

46. The Alaska Legislators and Anadarko contend that rolled-in pricing is essential and justified. Anadarko asserts that the Commission clearly has the statutory authority to establish a presumption of rolled-in pricing for future expansions in the open season regulations. Both Anadarko and the Alaska Legislators contend that the significant differences identified in the record between an Alaskan pipeline project and a pipeline in the lower 48 states provide ample justification for departing from the current pricing policy. The Alaska Legislators contend that even if there were some factual reason for applying the current policy, that policy cannot be reconciled with the policy considerations stated in ANGPA. Both Anadarko and the Alaska Legislators state that incremental pricing of expansions cannot be reconciled with ANGPA's goals of promoting competition in the exploration, development, and production of Alaska natural gas, and providing for the transportation of natural gas other than from the Prudhoe Bay and Point Thomson units in any expansions of the Alaska pipeline facilities. The Alaska Legislators estimate that expanding a pipeline, through looping, to a capacity of 7 billion cubic feet (Bcf), would result in an expansion rate 50 percent higher than existing rates if incrementally priced. Anadarko predicts that incremental pricing of expansions of an Alaskan pipeline beyond 6 Bcf would cause the pipeline to be capped at 6 Bcf.

C. Commission Response

47. ANGPA section 103(i) gives the Commission broad authority to establish "such regulations as are necessary" for the conduct of open seasons. In this regard, the Commission believes that it is appropriate to establish rate criteria that will assist potential shippers to make informed open season bids, and will promote competition, as required by ANGPA. As discussed in detail in Order No. 2005, these criteria include projected rates for in-state deliveries of gas, as well as a presumption for rolled-in rate treatment for future pipeline expansions.

48. In adopting the presumption for rolled-in rate treatment, the Commission balanced rate predictability for initial shippers with the objective of reducing barriers to future exploration, development and production of Alaska natural gas. The Commission was concerned that the prospect of high incremental transportation rates might increase risks to Alaskan producers and serve as a disincentive to future exploration and development of potentially valuable natural gas resources. On the other hand, the Commission does not wish to discourage voluntary capacity expansions.

49. The rolled-in rate presumption was not an abandonment of our current policy of not favoring rate subsidization by existing customers of capacity expansions as suggested in the requests for rehearing. The Commission did, however, suggest that because of the likelihood of a single Alaskan pipeline project, it would consider alternatives to our current policy on how to define or quantify subsidization by current customers. Current policy primarily considers whether the expansion project will result in a rate higher than the existing transportation rate for existing customers. An alternative consideration or definition of subsidization could be whether the expansion rate is no higher than the actual initial rate or of an initial rate without built-in subsidies. The Commission believed and continues to believe that the appropriate place to review this issue is in the context of a future NGA section 7 filing. In such a proceeding, if the pipeline owners can show that the initial pipeline was sized appropriately, *i.e.*, it was uneconomic or inefficient to build a larger capacity pipeline, the Commission would consider this in overcoming the rolled-in rate presumption.

50. The text of Order No. 2005 referred to by ChevronTexaco does not simply state that rolled-in rates are appropriate only if there is no increase in rates for existing shippers; it suggests that a rolled-in expansion rate that is higher than the original rate is not necessarily a subsidy. As noted above, we will determine whether a particular rate amounts to a subsidy when the issue is presented to us.

51. Nothing in the requests for rehearing causes us to question our conclusion that a rebuttal presumption of rolled-in treatment for the expansion of an Alaska Project is a reasonable approach to the difficult issues we, and prospective pipeline proponents and shippers, may face on the future. We think that the signal we are sending is a positive one that will help spur natural gas exploration and development in Alaska. At the same time, we have not prejudged how we will resolve future proceedings, and all parties will have the opportunity to convince us of appropriate rate treatment if and when expansion proposals for an Alaska project are developed. We therefore will not change the rule on this matter.

III. Late Bids

A. The Final Rule - § 157.34(d)(2)

52. Order No. 2005 added a new provision in the Final Rule, section 157.34(d)(2), that a project sponsor must consider any bids tendered after the expiration of the open season by qualified bidders, and may reject them only if they cannot be accommodated due to economic, engineering, or operational constraints, in which case the project sponsor must provide a detailed explanation for the rejection. The Commission explained that this requirement is designed to allow reasonable access to those shippers who may not be ready to participate during the established open season period, and at the same time provide the sponsor with flexibility in the timing of its open season.

B. Rehearing/Clarification Requests

53. The North Slope Producers and Enbridge contend that it is important for the timely development of any project that the project sponsors be able to rely on an open season that has a definite term. They state that the open season results are needed to permit the project sponsor to gauge demand and in turn finalize pipeline design. They assert that the late bid provisions of section 157.34(d)(2) will result in unreasonable risks and costs to the project sponsor by creating a never-ending, open-ended open season in which the project sponsor will be required, for each and every late bid received, to divert resources and incur additional costs to evaluate whether bid can be accommodated. In addition, they state that there is tremendous potential for delay at each step of the development of the project, if the project sponsor must stop and make design changes at every stage to accommodate a late bid. Thus, they state, section 157.34(d)(2) would frustrate the Commission's stated goal of adopting open season regulations that ensure sufficient economic certainty to support the construction of a pipeline.

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
Division of Lands

LEASE NO. ADL _____

Competitive Oil and Gas Lease

THIS LEASE is made by and between the State of Alaska, acting by and through the Director of the Division of Lands, Department of Natural Resources or his authorized agent, hereinafter called "Lessor", and

[name of lessee and percentage interest if more than one]

hereinafter called "Lessee", whether one or more.

1. GRANT. For and in consideration of a cash bonus and the first year's rental, the receipt of which is hereby acknowledged, and of the rentals, royalties, covenants, and conditions herein contained on the part of the Lessee to be paid, kept and performed, and subject to the conditions and reservations herein contained, Lessor does hereby grant and lease unto Lessee, exclusively, without warranty, for the sole and only purposes of exploration, development, production, processing and marketing of oil, gas, and associated substance's produced therewith, and of installing pipe lines and structures thereon to find, produce, save, store, treat, process, transport, take care of and market all such substances, and for drilling water wells and taking underground and surface water for use in its operations thereon, and for housing and boarding employees in its operation thereon, the following described tract of land in Alaska:

[Description [i.e. Township, Range, Sections]

containing.....acres, more or less, hereinafter called "said land".

For the purposes of this lease, said land contains the legal subdivisions, as shown on the plat of said land attached hereto, marked Exhibit A and b, this reference made a part of this lease.

If said land is described above by protracted legal subdivision and Lessor hereafter causes said land to be surveyed under the public land rectangular system, the boundaries of said land shall be those established by such survey, when approved, subject, however, to the provisions of the regulations relating to such surveys.

2. "OIL AND GAS". "Oil" means crude petroleum oil and other hydrocarbons regardless of gravity which are produced and saved in liquid form at the well by ordinary production methods. "Gas" means all natural gas and all hydrocarbons produced at the well not defined herein as oil. "Associated substances" mean all substances produced in association with oil or gas and not defined herein as oil or gas.

3. TERM. This lease is issued for an initial primary term of ____ years from date hereof, subject to extension as provided in Paragraph 4 hereof, and shall continue so long thereafter as oil and gas or either or any of them are produced in paying quantities from said land; provided, that this lease may be extended beyond its primary term as provided in Paragraph 5 hereof and shall not expire under the conditions set forth in Paragraphs 6, 7, and 8 hereof.

4. EXTENSION BY SUSPENSION OF OPERATIONS. If, prior to the expiration of the primary term, Lessor, in the interest of conservation, directs or assents to the suspension of all operations and production, if any, hereunder, the primary term will be extended by adding the period of suspension thereto.

5. EXTENSION BY UNIT PRODUCTION. (a) This lease shall without application be extended beyond its primary term if upon or prior to the expiration date of such term the lease is committed to a unit agreement approved or prescribed by Lessor as provided in the regulations, production of oil or gas is had in paying quantities under the agreement, and a portion of such production is allocated to said land under the agreement. In such event this lease shall continue in effect so long as it remains subject to such agreement and actual production under said agreement is allocated to said land; (b) The Commissioner may, in his discretion provide for the extension of the term of this lease, if such lease is on the expiration date thereof included in an approved unit plan or if it is included in a program of secondary recovery operation designed to bring about or restore production, provided, however, that if any lease or portion thereof is eliminated from such unit plan or recovery program, or if such unit plan or recovery program is terminated, then any such lease or portion thereof shall continue in full force and effect for ninety (90) days from the date of such elimination or termination and so long thereafter as drilling or redrilling operations are being conducted thereon and so long thereafter as oil or gas is produced in paying quantities.

6. EXTENSION BY DRILLING. (a) If production shall have been obtained in-paying quantities during the primary term, and if, at the end of the primary term, or at any time prior to the end of the primary term, such production shall have ceased from any cause, or in the event production shall at any time or times after the expiration of the primary term cease from any cause, then this lease shall not terminate if the Lessee commences drilling or reworking operations (either in a well from which such production has ceased or in a new well) within sixty days after the cessation of production, and the lease shall remain in full force and effect 30 long as such operations are prosecuted with reasonable diligence or are suspended under Paragraph 27 hereof; and, if such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect so long as oil or gas is produced therefrom in paying quantities; (b) if actual drilling has commenced on the expiration date of the primary term of the lease and is continued with reasonable diligence, such operations to include re-drilling, sidetracking or other means necessary to reach the originally proposed bottom hole location, the lease shall continue in full force and effect until ninety (90) days after such drilling had ceased and for so long thereafter as oil or gas is produced in paying quantities;

7. EXTENSION BY SHUT-IN PRODUCTION. If, upon the expiration of the primary term or at any time or times thereafter, there is on said land a well capable of producing oil or gas in paying quantities, this lease shall not expire because Lessee fails to produce the same unless Lessor gives notice to Lessee allowing a reasonable time, which shall not be less than sixty days, after such notice to place the well on a producing status, and Lessee fails to do so; provided, that after such status is established such production shall continue on the said land unless and until suspension of production is allowed by Lessor.

8. EXTENSION BY SUSPENSION OF PRODUCTION. This lease shall not expire because of any suspension of operations in or upon or production from said land if such suspension is made under any order or with the consent of Lessor.

9. RENTAL. This lease shall terminate on any anniversary date hereof prior to the completion on said land of a well capable of producing oil or gas in paying quantities, unless on or before said anniversary date Lessee shall pay or tender to Lessor as annual rental a sum equal to \$1.00 per acre, or fraction thereof, then included in this lease, or unless such annual rental has been waived or suspended as provided in Paragraph 13 of this lease. If Lessor's office is not open for business on the anniversary date, the time for payment is extended to include the next day on which said office is open for business.

10. MINIMUM ROYALTY. Commencing with the lease year beginning on or after completion on said land of a well capable of producing oil or gas in paying quantities, Lessee shall pay Lessor, at the expiration of each lease year, in lieu of rental a minimum royalty equal to \$1.00 per acre, or fraction thereof, then included in this lease, or the difference between the actual royalty paid on production during the year if less than \$1.00 per acre and the prescribed minimum royalty.

11. ROYALTY ON PRODUCTION. Except for oil and gas used on said land for development and production or unavoidably lost, Lessee shall pay Lessor as royalty the following:

(a) On oil 12.5 per cent in amount or value of the oil produced and saved and removed or sold from said land.

(b) On gas 12.5 per cent in amount or value of the gas produced and saved and sold or used off said land or used for the extraction of natural gasoline or other products therefrom.

(c) On associated substances 12.5 per cent in amount or value of such substances produced and saved and removed or sold from said lands.

13. REDUCTION OF RENTAL AND ROYALTY. Rental or minimum royalty may be waived, suspended, or reduced, or royalty may be reduced on all of said land or any tract or portion thereof segregated for royalty purposes if Lessor finds that such relief is necessary for the purpose of encouraging the greatest ultimate recovery of oil or gas and is in the interest of conservation of natural resources and either that such relief is necessary in order to promote development or that the lease cannot be successfully operated under the terms provided herein.

14. ROYALTY IN KIND. Whenever, at the option of Lessor, which may be exercised from time to time upon not less than six months notice to Lessee, Lessor elects to take its royalty in kind, Lessee shall deliver free of charge (on said land or at such place as Lessor and Lessee mutually agree upon) to Lessor or to such individual, firm, or corporation as Lessor may designate all royalty oil and/or gas produced and saved from said land. Such oil and/or gas shall be in good and merchantable condition. Lessee shall, if necessary, furnish storage for royalty oil free of charge for thirty days after the end of the calendar month in which the oil is produced from said land; provided, that Lessee shall not be held liable for loss or destruction of royalty oil and/or gas from causes beyond Lessee's reasonable control. Should Lessee dehydrate or

clean the oil or gas produced from said land, Lessee shall be entitled to an allowance of the actual cost of dehydrating or cleaning said royalty oil or gas.

15. **ROYALTY IN VALUE.** At the option of Lessor, which may be exercised from time to time upon not less than six months notice to Lessee, and in lieu of royalty in kind, Lessee shall pay to Lessor the field market price or value at the well of all royalty oil and/or gas. All royalty that may become payable in money to Lessor shall be paid on or before the last day of the calendar month following the month in which the oil or gas is produced. The payments shall be accompanied by copies of run tickets or other satisfactory evidence of sales, shipments, and amounts of gross production.

16. **PRICE.** The field market price or value of royalty oil or gas shall not be less than the highest of: (1) The price actually paid or agreed to be paid to Lessee at the well by the purchaser thereof, if any; or (2) The posted price of Lessee in the field for such oil or gas at the well, if any; or, (3) The prevailing price received by other producers in the field at the well for oil of like grade and gravity or gas of like kind and quality at the time such oil or gas is removed from said land or run into storage, or such gas is delivered to an extraction plant.

17. **PAYMENTS.** All payments to Lessor under this lease shall be made payable to the Department of Revenue of the State of Alaska and shall be tendered to Lessor at the place designated under Paragraph 44 for giving notices to Lessor.

18. **OFFSET WELLS.** Lessee shall drill such wells as a reasonably prudent operator would drill to protect Lessor adequately from loss by reason of drainage resulting from production on other land. Without limiting the generality of the foregoing sentence, if oil or gas should be produced in a well on other land not owned by Lessor or on which Lessor receives a lower rate of royalty than the royalty under this lease, which well is within 500 feet in the case of an oil well or 1,500 feet in the case of a gas well of lands then subject to this lease, and such well shall produce oil or gas in paying quantities for a period of thirty consecutive days, and if, after notice to Lessee and an opportunity to be heard, Lessor finds that production from such well is draining lands then subject to this lease, Lessee shall within 120 days after written demand by Lessor begin in good faith and prosecute diligently drilling operations for an offset well on said land. In lieu of drilling any well required by this paragraph Lessee may with Lessor's consent compensate Lessor in full each month for the estimated loss of royalty through drainage in the amount determined by lessor.

19. **OTHER WELLS.** This lease contemplates the reasonable development of said land for oil and gas as the facts may justify. Upon discovery of oil or gas in paying quantities on said land, Lessee shall drill such wells as a reasonably prudent operator would drill having due regard for the interests of Lessor as well as the interests of Lessee.

20. **DILIGENCE; PREVENTION OF WASTE.** Lessee shall exercise reasonable diligence in drilling, producing, and operating wells on said land unless consent to suspend operations temporarily is granted by Lessor; shall carry on all operations hereunder in a good and workmanlike manner in accordance with approved methods and practices, having due regard for the prevention of waste of oil and gas and the entrance of water to the oil and gas bearing sands or strata to the destruction or injury of such deposits and the preservation and conservation of the property for the future productive operations; shall use reasonable care and all proper safeguards to prevent the pollution of water; shall plug securely in an approved manner any well before abandoning it; shall allow Lessor to inspect all operations at any time; shall carry out at Lessee's expense all reasonable orders and requirements of Lessor relative to the prevention of waste and the preservation of said land, and on failure of Lessee so to do, Lessor shall have the right together with any other recourse available to it to enter on said land to repair damage or prevent waste at Lessee's expense; and shall, abide by and conform to valid applicable rules and regulations of the Alaska Oil and Gas Conservation Commission and the regulations of Lessor relating to the matters covered by this paragraph in effect on the effective date hereof or Hereafter in effect if not inconsistent with any specific provisions of this lease.

21. **WELL LOCATIONS.** Lessee shall within five days after spudding in a well advise Lessor in writing of the location and date of spudding of said well.

22. **APPROVAL OF PLANS.** Lessee shall not place into actual operation any plan or method for the purpose of stimulating or increasing production on said land other than plans and methods in common Use without first having obtained the written approval of Lessor.

23. **LOGS AND RECORDS.** An electric log or radioactive log, if taken, and a descriptive geologic sample log, if taken, and a record of all tests run for each well drilled on said land, together with a plat showing the exact location of each such well, shall be filed with Lessor within thirty (30) days after such well has been completed, suspended, or abandoned. Any and all information filed by Lessee with Lessor in connection with this lease shall be available at all times for the confidential use of Lessor for the Purpose of enforcing compliance with the terms, covenants, and conditions of

this lease and the regulations of the Lessor but shall not be open for inspection by any person other than officers, or employees of Lessor and persons performing any function or work assigned to them by Lessor for a period of twenty-four (24) months after the thirty (30) day filing period, except upon written consent of Lessee. Notwithstanding any other provision hereof, said information may be disclosed to any person where such disclosure is reasonably necessary for the administration of the functions, responsibilities, and duties vested by law in the Commissioner of the Department of Natural Resources or in the Division of Lands or the Director thereof. Including but not limited to functions, responsibilities, and duties arising in connection with any litigation or administrative adjudication relating to this lease or to the rights, duties, and obligations arising hereunder.

24. RECORDS. Lessee shall keep and have in possession books and records showing the production and disposition of all oil and gas produced from said land and shall permit Lessor or its agents at all reasonable hours to examine the same. Such records and reports of production shall be based upon such methods and techniques as shall insure the most accurate figures reasonably available without requiring the Lessee to provide separate tankage for each well.

25. DAMAGES. AS 38.05.130 provides in part that no rights under reservations contained in certain leases or grants of Alaska land shall be exercised by Lessor or its Lessee until provision has been made to pay the owner of the land upon which the reserved rights are sought to be exercised full payment for all damages sustained by said owner by reason of entering on said land; provided, that if said owner for any cause whatever refuses or neglects to settle said damages, Lessor or its Lessee shall have the right to institute such legal proceeding in a court of competent jurisdiction wherein the land is situated as may be necessary to determine the damage which the owner of such land may suffer. Lessee hereby agrees to pay any damage that may become payable under said statutory provisions and to indemnify Lessor and hold it harmless from and against any claims, demands, liabilities, and expenses arising from or in connection with such damage. The furnishing of a bond in compliance with this Lease will be regarded by Lessor as a sufficient provision for the payment of all damage that may become payable under said statutory provisions.

26. BONDS.

(a) If required by Lessor, Lessee shall furnish a bond prior to the issuance of this lease in an amount equal to at least \$2.00 per acre or fraction thereof contained in said land but not less than \$1,000.00 and shall maintain said bond as long as required by Lessor.

(b) Before beginning drilling operations on said land Lessee must have furnished and shall maintain a bond in an amount of at least \$5,000.00.

(c) Lessee may, in lieu of the foregoing, furnish and maintain a statewide bond in the amount of \$100,000.00

(d) Lessor may, after notice to Lessee and an opportunity to be heard, require a bond in a reasonable amount greater than the amount specified above in this paragraph where such greater amount is justified by the nature of the surface and its uses and improvements in the vicinity of said land and the degree of the risks involved in the types of operations being or to be carried out under this lease. A statewide bond will not satisfy any requirement of a bond imposed under this subparagraph but will be considered by Lessor in determining the need for and the amount of any additional bond under this subparagraph.

(e) If said land is committed in whole, or in Part to a cooperative or unit agreement approved or prescribed by Lessor pursuant to law and the regulations and a unit bond is furnished in accordance with the regulations, Lessee need not thereafter maintain any bond with respect to the portion of said land so committed to such agreement.

27. ACTS OF GOD. Should Lessee be prevented from complying with any expressed or implied covenant of this lease, from conducting drilling operations, thereon, or from producing or marketing oil or gas from said land after efforts made in good faith, by reason of war, riots, acts of God, severe weather in the area of said land, acts of governmental authorities, failure or lack of adequate transportation facilities, or any other cause beyond Lessee's reasonable control whether similar to those enumerated or not, then while so prevented and for a reasonable time thereafter within which to resume operations, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply therewith. If drilling or reworking operations are suspended by virtue of this paragraph and the prosecution of such operations would have had the effect of preventing the expiration or termination of this lease, then this lease shall not terminate during the period which the obligation to perform such operations is suspended under this paragraph; provided, however, that nothing in this paragraph shall be construed to suspend the payment of rentals or of minimum royalties.

28. SUSPENSION. Lessor may from time to time direct or assent to the suspension of production or other operations or both under this lease if such action is necessary or justified in the interest of conservation.

29. RESERVATIONS. Lessor reserves the right to dispose of the surface of said land to others subject to this lease, and the right to authorize others by grant, lease, or permit subject to this lease and under such conditions as will prevent unnecessary or unreasonable interference with the rights of Lessee and operations under this lease, to enter upon and use said land:

(a) To explore for oil or gas by geological or geophysical means including the drilling of shallow core holes or stratigraphic tests to a depth of not more than 1,000 feet.

(b) To explore for, develop and remove natural resources other than oil, gas, and associated substances on or from said Land.

(c) For nonexclusive easements and rights of way for any lawful purpose including shafts and tunnels necessary or appropriate for the working of said land or other lands for natural resources other than oil, gas or associated substances.

(d) For well sites and well bores of wells drilled from or through said land to explore for or produce oil, gas, and associated substances in and from other lands.

(e) For any other purpose now or hereafter authorized by law and not inconsistent with the rights of Lessee under this lease.

30. UNDERGROUND STORAGE. This lease does not authorize the subsurface storage of oil or gas except as a necessary incident to recycling pressure maintenance, repressuring, or other similar operation designed to increase the ultimate recovery of oil or gas or prevent the waste of oil or gas produced from said land or from any unit area of which the said land is a part. Lessor reserves the right to authorize the subsurface storage of oil or gas in said land by Lessee or by others in order to avoid waste or to promote conservation of natural resources and upon such conditions as will prevent unnecessary or unreasonable interference with the rights and operations of Lessee under this lease, including conditions prohibiting the storage of oil or gas without the consent of Lessee in any reservoir covered by this lease capable of producing oil or gas in paying quantities.

31. ASSIGNMENTS. This lease or any undivided interest herein may with the approval of Lessor be assigned or subleased as to said land or any one or more legal subdivisions included therein, or any separate and distinct zone or geological horizon underlying said land or such one or more legal subdivisions, to any person or persons qualified to hold a lease. No transfer of any interest in this lease including assignments of working or royalty interests and operating agreements and subleases shall be binding upon Lessor unless approved by Lessor. Lessee shall remain liable for all obligations under this lease accruing prior to the approval of such transfer. Approval of transfer of this lease or an interest therein will not be denied except (1) for failure to comply with the regulations, (2) in the discretion of Lessor, where the transfer covers any distinct zone or geological horizon, or (3) where Lessor determines that the best interests of Lessor justify such action. Applications for approval of a transfer under this paragraph must comply with the regulations and must be filed within ninety days after the date of final execution of the instrument of transfer. Where a transfer is made of all or a part of Lessee's interest in and to a portion of the acreage in said land the assigned acreage shall, at the option of Lessor, or may upon request of the transferee and with the approval of Lessor be segregated into a separate and distinct lease having the same effective date as this lease.

32. UNITIZATION. Whenever determined and certified by Lessor to be necessary or advisable in the public interest for the purpose of properly conserving the natural resources of any oil or gas pool, field or like area or any part thereof, which includes or underlies said land or any part thereof, Lessee may unite with other Lessees of Lessor or with others owning or operating lands not belonging to Lessor including lands belonging to the United States and with others, jointly or separately, in collectively adopting and operating under a cooperative or unit agreement for the development or operation of the pool or field or like area or part thereof. Lessee shall within thirty days after demand by Lessor subscribe to such a cooperative or unit agreement, which agreement shall be reasonable and shall adequately protect all parties in interest including Lessor. Lessor may with the consent of Lessee establish, alter, change, or revoke drilling, producing, rental, minimum royalty, and royalty requirements of this lease if committed to any such cooperative or unit agreement and may make such regulations with reference to this lease with the like consent of Lessee in connection with the institution and operation of any such cooperative or unit agreement as Lessor may determine to be necessary or proper to secure the proper protection of the public interest. If a portion of said land is committed to an approved or prescribed unit

agreement, the committed acreage shall at the option of Lessor and may upon the request of Lessee and with the approval of Lessor be segregated into a separate and distinct lease having the same effective date as this lease.

33. SURRENDER. Lessee may at any time make and file with Lessor a written surrender of all rights under this lease or any portion thereof comprising one or more legal subdivisions or, with the consent of Lessor, of any separate and distinct zone or geological horizon underlying said lands or such one or more legal subdivisions thereof. Such a surrender shall be effective as of the date of filing subject to the continued obligations of Lessee and his surety to make payment of all royalties theretofore accrued and to place all wells on the surrendered land or in the surrendered zones or horizons in condition satisfactory to Lessor for suspension or abandonment; thereupon, Lessee shall be released from all other obligations accrued or to accrue under this lease with respect to the surrendered lands, zones, or horizons.

34. DEFAULT; TERMINATION. Whenever Lessee fails to comply with any of the provisions of this lease other than the payment of rental and Lessee fails within sixty days after written notice of such default to commence to remedy and thereafter prosecute diligently operations to remedy such default, Lessor may cancel this lease if at that time there is no well on said land capable of producing oil or gas in paying quantities. If at such time there is on said land a well capable of producing oil or gas in paying quantities, this lease may be cancelled only by judicial proceedings. In the event of any cancellation under this paragraph, Lessee shall have the right to retain under this lease any and all drilling or producing wells as to which no default exists together with a parcel of land surrounding each such well or wells and such rights of way through said land as may be reasonably necessary to enable Lessee to drill and operate such retained well or wells.

35. EXCESS AREA. If for any reason said land includes more acreage than the maximum permitted under applicable laws and/or regulations, this lease shall not be void but the acreage included in said land shall be reduced to the permitted maximum. Whenever Lessor determines that this lease so exceeds the permitted acreage and notifies Lessee stating the amount of acreage that must be eliminated, Lessee may within sixty days after such notice surrender one or more legal subdivisions included in said lands comprising at least the amount of acreage that must be eliminated. If such a surrender is not filed within such sixty days Lessor may terminate this lease as to the acreage that must be eliminated by mailing notice of such termination to Lessee describing the parcel or parcels eliminated. Such a notice shall have the effect of terminating this lease as to the parcel or parcels described in such notice.

36. RIGHTS ON TERMINATION. Upon the expiration or earlier termination of this lease as to all or any portion of said lands, Lessee shall have the privilege at any time within a period of six months thereafter, or such extension thereof as may be granted Lessor, of removing from said land or portion thereof all machinery, equipment, tools, and materials other than improvements needed for producing wells. Any materials, tools, appliances, machinery, structures, and equipment subject to removal as above provided which are allowed to remain on said land or portion thereof shall become the property of Lessor upon expiration of such period; provided, that Lessee shall remove any and all of such properties when so directed by Lessor. Subject to the foregoing, Lessee shall deliver up said lands or such portion or portions thereof in good order and condition.

37. INTEREST IN LAND. It is the intention of the parties that the rights vested in Lessee by this lease shall constitute an interest in real property in said land.

38. LESSER INTEREST. If Lessor owns a lesser interest in the oil and gas deposits in said land than the entire and undivided fee simple estate, then the royalties and rentals herein provided shall be paid Lessor only in the proportion which its interest bears to the whole and undivided fee.

39. CONDITIONAL LEASE. If all or a part of said land is land that has been selected by the Lessor under laws of the United States granting lands to Lessor, but such land has not been patented to Lessor by the United States, then this lease is a conditional lease as provided by law until such patent becomes effective. If for any reason such a selection is not finally approved or such a patent does not become effective, any rental, royalty or minimum royalty payments made to Lessor under this lease will not be refunded.

40. DRILLING OPERATIONS. As used in this lease "drilling operations" mean any work or actual operations undertaken or commenced in good faith for the purpose of carrying out any of the rights, privileges or duties of Lessee under this lease, followed diligently and in due course by the construction of a road or derrick and/or other necessary structures for the drilling of an oil or gas well, and by the actual operation of drilling in the ground. Any such work or operations preliminary to drilling in the ground may be undertaken either on said land or in the vicinity of said land in any order Lessee shall see fit.

41. ACTUAL DRILLING. As used in this lease, "actual drilling" means any and all operations necessary or convenient to the drilling of a well in the ground after the first drilling or spudding with equipment of sufficient size and capacity to drill to the total depth proposed for the well.

42. RULES AND REGULATIONS. As used in this lease "regulations" mean the applicable and valid oil and gas leasing regulations of the Commissioner of the Department of Natural Resources in effect on the effective date of this lease unless otherwise specified.

43. INTERPRETATION. As used in this lease words which are defined in the regulations have the meaning assigned by such definition except where the context clearly requires a different meaning. The paragraph headings are not a part of this lease and are inserted only for convenience.

44. NOTICES. Any notice required or permitted under this lease &hall be in writing and shall be given by registered or certified mail, return receipt requested, addressed as follows:

To Lessor:

Director, Division of Lands
State of Alaska
344 Sixth Avenue
Anchorage, Alaska 99501

To Lessee:

[Company]
[Address]

Any such notice shall be deemed given when delivered lo, the foregoing address. Either party may change the address to which such notices are to be sent, by a notice given in accordance with this paragraph.

45. HEIRS AND ASSIGNS. Subject to the other provisions of this lease, the covenants, conditions, and agreements contained in this lease shall extend to and be binding upon the heirs, executors, administrators, successors, or assigns of Lessor and Lessee.

46. WILDLIFE STIPULATIONS. This lease is subject to such stipulations as are attached.

IN WITNESS WHEREOF the parties have executed this lease effective as of the.....day of19....

.....
.....
.....
.....
.....
.....
LESSEE

STATE OF ALASKA

By.....

Title.....LESSOR

[CERTIFICATE]

Competitive Oil and Gas Lease

THIS LEASE is made by and between the State of Alaska, acting by and through the Director of the Division of Lands, Department of Natural Resources or his authorized agent, hereinafter called "Lessor", and

[name of lessee and percentage interest if more than one]

hereinafter called "Lessee", whether one or more.

1. GRANT. For and in consideration of a cash bonus and the first year's rental, the receipt of which is hereby acknowledged, and of the rentals, royalties, covenants, and conditions herein contained on the part of the Lessee to be paid, kept and performed, and subject to the conditions and reservations herein contained, Lessor does hereby grant and lease unto Lessee, exclusively, without warranty, for the sole and only purposes of exploration, development, production, processing and marketing of oil, gas, and associated substance's produced therewith, and of installing pipe lines and structures thereon to find, produce, save, store, treat, process, transport, take care of and market all such substances, and for drilling water wells and taking underground and surface water for use in its operations thereon, and for housing and boarding employees in its operation thereon, the following described tract of land in Alaska:

[Description [i.e. Township, Range, Sections]

containing.....acres, more or less, hereinafter called "said land".

For the purposes of this lease, said land contains the legal subdivisions, as shown on the plat of said land attached hereto, marked Exhibit A and b, this reference made a part of this lease.

If said land is described above by protracted legal subdivision and Lessor hereafter causes said land to be surveyed under the public land rectangular system, the boundaries of said land shall be those established by such survey, when approved, subject, however, to the provisions of the regulations relating to such surveys.

2. "OIL AND GAS". "Oil" means crude petroleum oil and other hydrocarbons regardless of gravity which are produced and saved in liquid form at the well by ordinary production methods. "Gas" means all natural gas and all hydrocarbons produced at the well not defined herein as oil. "Associated substances" mean all substances produced in association with oil or gas and not defined herein as oil or gas.

3. TERM. This lease is issued for an initial primary term of ____ years from date hereof, subject to extension as provided in Paragraph 4 hereof, and shall continue so long thereafter as oil and gas or either or any of them are produced in paying quantities from said land; provided, that this lease may be extended beyond its primary term as provided in Paragraph 5 hereof and shall not expire under the conditions set forth in Paragraphs 6, 7, and 8 hereof.

4. EXTENSION BY SUSPENSION OF OPERATIONS. If, prior to the expiration of the primary term, Lessor, in the interest of conservation, directs or assents to the suspension of all operations and production, if any, hereunder, the primary term will be extended by adding the period of suspension thereto.

5. EXTENSION BY UNIT PRODUCTION. (a) This lease shall without application be extended beyond its primary term if upon or prior to the expiration date of such term the lease is committed to a unit agreement approved or prescribed by Lessor as provided in the regulations, production of oil or gas is had in paying quantities under the agreement, and a portion of such production is allocated to said land under the agreement. In such event this lease shall continue in effect so long as it remains subject to such agreement and actual production under said agreement is allocated to said land; (b) The Commissioner may, in his discretion provide for the extension of the term of this lease, if such lease is on the expiration date thereof included in an approved unit plan or if it is included in a program of secondary recovery operation designed to bring about or restore production, provided, however, that if any lease or portion thereof is eliminated from such unit plan or recovery program, or if such unit plan or recovery program is terminated, then any such lease or portion thereof shall continue in full force and effect for ninety (90) days from the date of such elimination or termination and so long thereafter as drilling or re-drilling operations are being conducted thereon and so long thereafter as oil or gas is produced in paying quantities.

6. EXTENSION BY DRILLING. (a) If production shall have been obtained in-paying quantities during the primary term, and if, at the end of the primary term, or at any time prior to the end of the primary term, such production shall have ceased from any cause, or in the event production shall at any time or times after the expiration of the primary term cease from any cause, then this lease shall not terminate if the Lessee commences drilling or reworking operations (either in a well from which such production has ceased or in a new well) within sixty days after the cessation of production, and the lease shall remain in full force and effect 30 long as such operations are prosecuted with reasonable diligence or are suspended under Paragraph 27 hereof; and, if such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect so long as oil or gas is produced therefrom in paying quantities; (b) if actual drilling has commenced on the expiration date of the primary term of the lease and is continued with reasonable diligence, such operations to include re-drilling, sidetracking or other means necessary to reach the originally proposed bottom hole location, the lease shall continue in full force and effect until ninety (90) days after such drilling had ceased and for so long thereafter as oil or gas is produced in paying quantities;

7. EXTENSION BY SHUT-IN PRODUCTION. If, upon the expiration of the primary term or at any time or times thereafter, there is on said land a well capable of producing oil or gas in paying quantities, this lease shall not expire because Lessee fails to produce the same unless Lessor gives notice to Lessee allowing a reasonable time, which shall not be less than sixty days, after such notice to place the well on a producing status, and Lessee fails to do so; provided, that after such status is established such production shall continue on the said land unless and until suspension of production is allowed by Lessor.

8. EXTENSION BY SUSPENSION OF PRODUCTION. This lease shall not expire because of any suspension of operations in or upon or production from said land if such suspension is made under any order or with the consent of Lessor.

9. RENTAL. This lease shall terminate on any anniversary date hereof prior to the completion on said land of a well capable of producing oil or gas in paying quantities, unless on or before said anniversary date Lessee shall pay or tender to Lessor as annual rental a sum equal to \$1.00 per acre, or fraction thereof, then included in this lease, or unless such annual rental has been waived or suspended as provided in Paragraph 13 of this lease. If Lessor's office is not open for business on the anniversary date, the time for payment is extended to include the next day on which said office is open for business.

10. MINIMUM ROYALTY. Commencing with the lease year beginning on or after completion on said land of a well capable of producing oil or gas in paying quantities, Lessee shall pay Lessor, at the expiration of each lease year, in lieu of rental a minimum royalty equal to \$1.00 per acre, or fraction thereof, then included in this lease, or the difference between the actual royalty paid on production during the year if less than \$1.00 per acre and the prescribed minimum royalty.

11. ROYALTY ON PRODUCTION. Except for oil and gas used on said land for development and production or unavoidably lost, Lessee shall pay Lessor as royalty the following:

(a) On oil 12.5 per cent in amount or value of the oil produced and saved and removed or sold from said land.

(b) On gas 12.5 per cent in amount or value of the gas produced and saved and sold or used off said land or used for the extraction of natural gasoline or other products therefrom.

(c) On associated substances 12.5 per cent in amount or value of such substances produced and saved and removed or sold from said lands.

13. REDUCTION OF RENTAL AND ROYALTY. Rental or minimum royalty may be waived, suspended, or reduced, or royalty may be reduced on all of said land or any tract or portion thereof segregated for royalty purposes if Lessor finds that such relief is necessary for the purpose of encouraging the greatest ultimate recovery of oil or gas and is in the interest of conservation of natural resources and either that such relief is necessary in order to promote development or that the lease cannot be successfully operated under the terms provided herein.

14. ROYALTY IN KIND. Whenever, at the option of Lessor, which may be exercised from time to time upon not less than six months notice to Lessee, Lessor elects to take its royalty in kind, Lessee shall deliver free of charge (on said land or at such place as Lessor and Lessee mutually agree upon) to Lessor or to such individual, firm, or corporation as Lessor may designate all royalty oil and/or gas produced and saved from said land. Such oil and/or gas shall be in good and merchantable condition. Lessee shall, if necessary, furnish storage for royalty oil free of charge for thirty days after the end of the calendar month in which the oil is produced from said land; provided, that Lessee shall not be held liable for loss or destruction of royalty oil and/or gas from causes beyond Lessee's reasonable control. Should Lessee dehydrate or

clean the oil or gas produced from said land, Lessee shall be entitled to an allowance of the actual cost of dehydrating or cleaning said royalty oil or gas.

15. **ROYALTY IN VALUE.** At the option of Lessor, which may be exercised from time to time upon not less than six months notice to Lessee, and in lieu of royalty in kind, Lessee shall pay to Lessor the field market price or value at the well of all royalty oil and/or gas. All royalty that may become payable in money to Lessor shall be paid on or before the last day of the calendar month following the month in which the oil or gas is produced. The payments shall be accompanied by copies of run tickets or other satisfactory evidence of sales, shipments, and amounts of gross production.

16. **PRICE.** The field market price or value of royalty oil or gas shall not be less than the highest of: (1) The price actually paid or agreed to be paid to Lessee at the well by the purchaser thereof, if any; or (2) The posted price of Lessee in the field for such oil or gas at the well, if any; or, (3) The prevailing price received by other producers in the field at the well for oil of like grade and gravity or gas of like kind and quality at the time such oil or gas is removed from said land or run into storage, or such gas is delivered to an extraction plant.

17. **PAYMENTS.** All payments to Lessor under this lease shall be made payable to the Department of Revenue of the State of Alaska and shall be tendered to Lessor at the place designated under Paragraph 44 for giving notices to Lessor.

18. **OFFSET WELLS.** Lessee shall drill such wells as a reasonably prudent operator would drill to protect Lessor adequately from loss by reason of drainage resulting from production on other land. Without limiting the generality of the foregoing sentence, if oil or gas should be produced in a well on other land not owned by Lessor or on which Lessor receives a lower rate of royalty than the royalty under this lease, which well is within 500 feet in the case of an oil well or 1,500 feet in the case of a gas well of lands then subject to this lease, and such well shall produce oil or gas in paying quantities for a period of thirty consecutive days, and if, after notice to Lessee and an opportunity to be heard, Lessor finds that production from such well is draining lands then subject to this lease, Lessee shall within 120 days after written demand by Lessor begin in good faith and prosecute diligently drilling operations for an offset well on said land. In lieu of drilling any well required by this paragraph Lessee may with Lessor's consent compensate Lessor in full each month for the estimated loss of royalty through drainage in the amount determined by lessor.

19. **OTHER WELLS.** This lease contemplates the reasonable development of said land for oil and gas as the facts may justify. Upon discovery of oil or gas in paying quantities on said land, Lessee shall drill such wells as a reasonably prudent operator would drill having due regard for the interests of Lessor as well as the interests of Lessee.

20. **DILIGENCE; PREVENTION OF WASTE.** Lessee shall exercise reasonable diligence in drilling, producing, and operating wells on said land unless consent to suspend operations temporarily is granted by Lessor; shall carry on all operations hereunder in a good and workmanlike manner in accordance with approved methods and practices, having due regard for the prevention of waste of oil and gas and the entrance of water to the oil and gas bearing sands or strata to the destruction or injury of such deposits and the preservation and conservation of the property for the future productive operations; shall use reasonable care and all proper safeguards to prevent the pollution of water; shall plug securely in an approved manner any well before abandoning it; shall allow Lessor to inspect all operations at any time; shall carry out at Lessee's expense all reasonable orders and requirements of Lessor relative to the prevention of waste and the preservation of said land, and on failure of Lessee so to do, Lessor shall have the right together with any other recourse available to it to enter on said land to repair damage or prevent waste at Lessee's expense; and shall, abide by and conform to valid applicable rules and regulations of the Alaska Oil and Gas Conservation Commission and the regulations of Lessor relating to the matters covered by this paragraph in effect on the effective date hereof or Hereafter in effect if not inconsistent with any specific provisions of this lease.

21. **WELL LOCATIONS.** Lessee shall within five days after spudding in a well advise Lessor in writing of the location and date of spudding of said well.

22. **APPROVAL OF PLANS.** Lessee shall not place into actual operation any plan or method for the purpose of stimulating or increasing production on said land other than plans and methods in common Use without first having obtained the written approval of Lessor.

23. **LOGS AND RECORDS.** An electric log or radioactive log, if taken, and a descriptive geologic sample log, if taken, and a record of all tests run for each well drilled on said land, together with a plat showing the exact location of each such well, shall be filed with Lessor within thirty (30) days after such well has been completed, suspended, or abandoned. Any and all information filed by Lessee with Lessor in connection with this lease shall be available at all times for the confidential use of Lessor for the Purpose of enforcing compliance with the terms, covenants, and conditions of

this lease and the regulations of the Lessor but shall not be open for inspection by any person other than officers, or employees of Lessor and persons performing any function or work assigned to them by Lessor for a period of twenty-four (24) months after the thirty (30) day filing period, except upon written consent of Lessee. Notwithstanding any other provision hereof, said information may be disclosed to any person where such disclosure is reasonably necessary for the administration of the functions, responsibilities, and duties vested by law in the Commissioner of the Department of Natural Resources or in the Division of Lands or the Director thereof. Including but not limited to functions, responsibilities, and duties arising in connection with any litigation or administrative adjudication relating to this lease or to the rights, duties, and obligations arising hereunder.

24. RECORDS. Lessee shall keep and have in possession books and records showing the production and disposition of all oil and gas produced from said land and shall permit Lessor or its agents at all reasonable hours to examine the same. Such records and reports of production shall be based upon such methods and techniques as shall insure the most accurate figures reasonably available without requiring the Lessee to provide separate tankage for each well.

25. DAMAGES. AS 38.05.130 provides in part that no rights under reservations contained in certain leases or grants of Alaska land shall be exercised by Lessor or its Lessee until provision has been made to pay the owner of the land upon which the reserved rights are sought to be exercised full payment for all damages sustained by said owner by reason of entering on said land; provided, that if said owner for any cause whatever refuses or neglects to settle said damages, Lessor or its Lessee shall have the right to institute such legal proceeding in a court of competent jurisdiction wherein the land is situated as may be necessary to determine the damage which the owner of such land may suffer. Lessee hereby agrees to pay any damage that may become payable under said statutory provisions and to indemnify Lessor and hold it harmless from and against any claims, demands, liabilities, and expenses arising from or in connection with such damage. The furnishing of a bond in compliance with this Lease will be regarded by Lessor as a sufficient provision for the payment of all damage that may become payable under said statutory provisions.

26. BONDS.

(a) If required by Lessor, Lessee shall furnish a bond prior to the issuance of this lease in an amount equal to at least \$2.00 per acre or fraction thereof contained in said land but not less than \$1,000.00 and shall maintain said bond as long as required by Lessor.

(b) Before beginning drilling operations on said land Lessee must have furnished and shall maintain a bond in an amount of at least \$5,000.00.

(c) Lessee may, in lieu of the foregoing, furnish and maintain a statewide bond in the amount of \$100,000.00

(d) Lessor may, after notice to Lessee and an opportunity to be heard, require a bond in a reasonable amount greater than the amount specified above in this paragraph where such greater amount is justified by the nature of the surface and its uses and improvements in the vicinity of said land and the degree of the risks involved in the types of operations being or to be carried out under this lease. A statewide bond will not satisfy any requirement of a bond imposed under this subparagraph but will be considered by Lessor in determining the need for and the amount of any additional bond under this subparagraph.

(e) If said land is committed in whole, or in Part to a cooperative or unit agreement approved or prescribed by Lessor pursuant to law and the regulations and a unit bond is furnished in accordance with the regulations, Lessee need not thereafter maintain any bond with respect to the portion of said land so committed to such agreement.

27. ACTS OF GOD. Should Lessee be prevented from complying with any expressed or implied covenant of this lease, from conducting drilling operations, thereon, or from producing or marketing oil or gas from said land after efforts made in good faith, by reason of war, riots, acts of God, severe weather in the area of said land, acts of governmental authorities, failure or lack of adequate transportation facilities, or any other cause beyond Lessee's reasonable control whether similar to those enumerated or not, then while so prevented and for a reasonable time thereafter within which to resume operations, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply therewith. If drilling or reworking operations are suspended by virtue of this paragraph and the prosecution of such operations would have had the effect of preventing the expiration or termination of this lease, then this lease shall not terminate during the period which the obligation to perform such operations is suspended under this paragraph; provided, however, that nothing in this paragraph shall be construed to suspend the payment of rentals or of minimum royalties.

28. SUSPENSION. Lessor may from time to time direct or assent to the suspension of production or other operations or both under this lease if such action is necessary or justified in the interest of conservation.

29. RESERVATIONS. Lessor reserves the right to dispose of the surface of said land to others subject to this lease, and the right to authorize others by grant, lease, or permit subject to this lease and under such conditions as will prevent unnecessary or unreasonable interference with the rights of Lessee and operations under this lease, to enter upon and use said land:

(a) To explore for oil or gas by geological or geophysical means including the drilling of shallow core holes or stratigraphic tests to a depth of not more than 1,000 feet.

(b) To explore for, develop and remove natural resources other than oil, gas, and associated substances on or from said Land.

(c) For nonexclusive easements and rights of way for any lawful purpose including shafts and tunnels necessary or appropriate for the working of said land or other lands for natural resources other than oil, gas or associated substances.

(d) For well sites and well bores of wells drilled from or through said land to explore for or produce oil, gas, and associated substances in and from other lands.

(e) For any other purpose now or hereafter authorized by law and not inconsistent with the rights of Lessee under this lease.

30. UNDERGROUND STORAGE. This lease does not authorize the subsurface storage of oil or gas except as a necessary incident to recycling pressure maintenance, repressuring, or other similar operation designed to increase the ultimate recovery of oil or gas or prevent the waste of oil or gas produced from said land or from any unit area of which the said land is a part. Lessor reserves the right to authorize the subsurface storage of oil or gas in said land by Lessee or by others in order to avoid waste or to promote conservation of natural resources and upon such conditions as will prevent unnecessary or unreasonable interference with the rights and operations of Lessee under this lease, including conditions prohibiting the storage of oil or gas without the consent of Lessee in any reservoir covered by this lease capable of producing oil or gas in paying quantities.

31. ASSIGNMENTS. This lease or any undivided interest herein may with the approval of Lessor be assigned or subleased as to said land or any one or more legal subdivisions included therein, or any separate and distinct zone or geological horizon underlying said land or such one or more legal subdivisions, to any person or persons qualified to hold a lease. No transfer of any interest in this lease including assignments of working or royalty interests and operating agreements and subleases shall be binding upon Lessor unless approved by Lessor. Lessee shall remain liable for all obligations under this lease accruing prior to the approval of such transfer. Approval of transfer of this lease or an interest therein will not be denied except (1) for failure to comply with the regulations, (2) in the discretion of Lessor, where the transfer covers any distinct zone or geological horizon, or (3) where Lessor determines that the best interests of Lessor justify such action. Applications for approval of a transfer under this paragraph must comply with the regulations and must be filed within ninety days after the date of final execution of the instrument of transfer. Where a transfer is made of all or a part of Lessee's interest in and to a portion of the acreage in said land the assigned acreage shall, at the option of Lessor, or may upon request of the transferee and with the approval of Lessor be segregated into a separate and distinct lease having the same effective date as this lease.

32. UNITIZATION. Whenever determined and certified by Lessor to be necessary or advisable in the public interest for the purpose of properly conserving the natural resources of any oil or gas pool, field or like area or any part thereof, which includes or underlies said land or any part thereof, Lessee may unite with other Lessees of Lessor or with others owning or operating lands not belonging to Lessor including lands belonging to the United States and with others, jointly or separately, in collectively adopting and operating under a cooperative or unit agreement for the development or operation of the pool or field or like area or part thereof. Lessee shall within thirty days after demand by Lessor subscribe to such a cooperative or unit agreement, which agreement shall be reasonable and shall adequately protect all parties in interest including Lessor. Lessor may with the consent of Lessee establish, alter, change, or revoke drilling, producing, rental, minimum royalty, and royalty requirements of this lease if committed to any such cooperative or unit agreement and may make such regulations with reference to this lease with the like consent of Lessee in connection with the institution and operation of any such cooperative or unit agreement as Lessor may determine to be necessary or proper to secure the proper protection of the public interest. If a portion of said land is committed to an approved or prescribed unit

agreement, the committed acreage shall at the option of Lessor and may upon the request of Lessee and with the approval of Lessor be segregated into a separate and distinct lease having the same effective date as this lease.

33. SURRENDER. Lessee may at any time make and file with Lessor a written surrender of all rights under this lease or any portion thereof comprising one or more legal subdivisions or, with the consent of Lessor, of any separate and distinct zone or geological horizon underlying said lands or such one or more legal subdivisions thereof. Such a surrender shall be effective as of the date of filing subject to the continued obligations of Lessee and his surety to make payment of all royalties theretofore accrued and to place all wells on the surrendered land or in the surrendered zones or horizons in condition satisfactory to Lessor for suspension or abandonment; thereupon, Lessee shall be released from all other obligations accrued or to accrue under this lease with respect to the surrendered lands, zones, or horizons.

34. DEFAULT; TERMINATION. Whenever Lessee fails to comply with any of the provisions of this lease other than the payment of rental and Lessee fails within sixty days after written notice of such default to commence to remedy and thereafter prosecute diligently operations to remedy such default, Lessor may cancel this lease if at that time there is no well on said land capable of producing oil or gas in paying quantities. If at such time there is on said land a well capable of producing oil or gas in paying quantities, this lease may be cancelled only by judicial proceedings. In the event of any cancellation under this paragraph, Lessee shall have the right to retain under this lease any and all drilling or producing wells as to which no default exists together with a parcel of land surrounding each such well or wells and such rights of way through said land as may be reasonably necessary to enable Lessee to drill and operate such retained well or wells.

35. EXCESS AREA. If for any reason said land includes more acreage than the maximum permitted under applicable laws and/or regulations this lease shall not be void but the acreage included in said land shall be reduced to the permitted maximum. Whenever Lessor determines that this lease so exceeds the permitted acreage and notifies Lessee stating the amount of acreage that must be eliminated, Lessee may within sixty days after such notice surrender one or more legal subdivisions included in said lands comprising at least the amount of acreage that must be eliminated. If such a surrender is not filed within such sixty days Lessor may terminate this lease as to the acreage that must be eliminated by mailing notice of such termination to Lessee describing the parcel or parcels eliminated. Such a notice shall have the effect of terminating this lease as to the parcel or parcels described in such notice.

36. RIGHTS ON TERMINATION. Upon the expiration or earlier termination of this lease as to all or any portion of said lands, Lessee shall have the privilege at any time within a period of six months thereafter, or such extension thereof as may be granted Lessor, of removing from said land or portion thereof all machinery, equipment, tools, and materials other than improvements needed for producing wells. Any materials, tools, appliances, machinery, structures, and equipment subject to removal as above provided which are allowed to remain on said land or portion thereof shall become the property of Lessor upon expiration of such period; provided, that Lessee shall remove any and all of such properties when so directed by Lessor. Subject to the foregoing, Lessee shall deliver up said lands or such portion or portions thereof in good order and condition.

37. INTEREST IN LAND. It is the intention of the parties that the rights vested in Lessee by this lease shall constitute an interest in real property in said land.

38. LESSER INTEREST. If Lessor owns a lesser interest in the oil and gas deposits in said land than the entire and undivided fee simple estate, then the royalties and rentals herein provided shall be paid Lessor only in the proportion which its interest bears to the whole and undivided fee.

39. CONDITIONAL LEASE. If all or a part of said land is land that has been selected by the Lessor under laws of the United States granting lands to Lessor, but such land has not been patented to Lessor by the United States, then this lease is a conditional lease as provided by law until such patent becomes effective. If for any reason such a selection is not finally approved or such a patent does not become effective, any rental, royalty or minimum royalty payments made to Lessor under this lease will not be refunded.

40. DRILLING OPERATIONS. As used in this lease "drilling operations" mean any work or actual operations undertaken or commenced in good faith for the purpose of carrying out any of the rights, privileges or duties of Lessee under this lease, followed diligently and in due course by the construction of a road or derrick and/or other necessary structures for the drilling of an oil or gas well, and by the actual operation of drilling in the ground. Any such work or operations preliminary to drilling in the ground may be undertaken either on said land or in the vicinity of said land in any order Lessee shall see fit.

41. ACTUAL DRILLING. As used in this lease, "actual drilling" means any and all operations necessary or convenient to the drilling of a well in the ground after the first drilling or spudding with equipment of sufficient size and capacity to drill to the total depth proposed for the well.

42. RULES AND REGULATIONS. As used in this lease "regulations" mean the applicable and valid oil and gas leasing regulations of the Commissioner of the Department of Natural Resources in effect on the effective date of this lease unless otherwise specified.

43. INTERPRETATION. As used in this lease words which are defined in the regulations have the meaning assigned by such definition except where the context clearly requires a different meaning. The paragraph headings are not a part of this lease and are inserted only for convenience.

44. NOTICES. Any notice required or permitted under this lease & shall be in writing and shall be given by registered or certified mail, return receipt requested, addressed as follows:

To Lessor:

Director, Division of Lands
State of Alaska
344 Sixth Avenue
Anchorage, Alaska 99501

To Lessee:

[Company]
[Address]

Any such notice shall be deemed given when delivered to, the foregoing address. Either party may change the address to which such notices are to be sent, by a notice given in accordance with this paragraph.

45. HEIRS AND ASSIGNS. Subject to the other provisions of this lease, the covenants, conditions, and agreements contained in this lease shall extend to and be binding upon the heirs, executors, administrators, successors, or assigns of Lessor and Lessee.

46. WILDLIFE STIPULATIONS. This lease is subject to such stipulations as are attached.

IN WITNESS WHEREOF the parties have executed this lease effective as of the.....day of19....

.....
.....
.....
.....
.....

LESSEE

STATE OF ALASKA

By.....

Title.....LESSOR

[CERTIFICATE]

ALASKA NATURAL GAS PIPELINE PROJECT

**Testimony on AGIA
of W. H. Sparger**

**Senate Judiciary Committee
May 7, 2007**

EPC

Energy Project Consultants, LLC

Introduction

- William H. (Bill) Sparger
- Energy Project Consultants. LLC
- Consultant for Administration AGIA team
- Over 35 years of experience in natural gas pipeline project management, engineering and construction management – onshore, offshore and LNG
- Engineering management positions at two major lower 48 natural gas pipeline companies

Terminology

- “Project” – the natural gas pipeline following the southern Alaska/Canada route
- “Producers” – existing three North Slope oil producers
- “North America” – United States and Canada

Unfounded “Concerns”

- Shippers bear all of the financial risks of project cost overruns
- Producers must have economic certainty
- Producers are the only ones qualified to construct the project
- Schedules with milestone dates drive up the project cost – “firm dates are bad”