

SCOMM

#21:17

Summary of Conversation with Mr
Swanson of Jensen + Associates
of November 30, 1976 - Gregg
was in on the full conversation

~
Wanted to have some questions answered
mostly dealing with provisions in
contract dealing with

- removal of liquids
- pricing schemes
- transportation costs to state
- "cut outs" for State and
Companies as well
- other things, such as
- termination provisions

~
His estimate after discussing some of
these things and getting a better
idea was essentially as follows:

- They will provide us with an
independent / objective analysis, regardless
of "where the chips may fall".

- The portion which will take up most time will be the various pricing provisions
 - it will take time for colleagues, and
 - it will take time for bouncing ideas around

① The analysis will probably take the following amt of time.

Eight days of "senior" time; James Jensen and Swanson at \$640/d + \$520/d (\$650/d for testimony) respectively

\$4,640 ±

Fifteen days of "junior" time / people to do the detailed analysis and some of the pricing schemes (they have one person who is quite good and well versed in this area) at \$300+/d

\$4,500 ±

② Memo (or trip to ARL) after analysis has been completed to confer with us and legislators (committee members). Gregg

suggested that instead of a trip to Alaska, the telephone would probably do almost as well considering the cost. The telephone costs were estimated at

\$ 500.00 ±

③ Two days of testimony by Swanson at \$ 650/d \$ 1,300
Two days travel at 520/d 1,040
Four days expenses at appx. \$ 50.00/d + transportation at \$ 600.00 at appx. \$ 800 ±

\$ ~~11,940~~
12,780
?

* Materials →

Gregg seemed to think that ~~the~~ figures mentioned on the phone ^{Gregg} was reasonable. ~~Gregg~~ mentioned \$ 12,000
\$ 14,000
on the outside.

* They operate ^{charge} on time + materials

12/1/76

8:30

Summary of Zipton Call

Will be available for comment on the contract(s).

Either he or someone else from his org will be available although he prefers to come himself.

would like to be scheduled as late as possible for appearance at hearings to review and "digest" other testimony and presentations. I told him that this would be alright. I further told him, we could keep him posted and informed on these things which we have some control over (such as the submission of consultants' analyses of the contract - he said he appreciated that).

12/2/76

Summary Call With Rush
Moody - 12/2/76 - 11:30

- ① Rush Moody has a trial scheduled for the dates we have tentatively scheduled for the hearings. The judge did not delay the dates. He will be unavailable from Jan 24 through 31. Therefore, he can be here the week of Jan. 17 or after the 31st.

He would also like to ~~visit~~ visit with Sen Rader and other legislators for a couple of days before testifying (similar to Lipton, but for different reasons)

- ② Fee Schedule -
Prefers to work on an hourly basis, but will work on a fixed fee if Sen Rader insists.

Here is his estimate -

Analysis
Prepare Summary

2 days
1

3 - 3 1/2 days

Written Vials to Sen
Rader in Advance of
his arrival

1/2 day

4 ± days

travel (coming up)
"visiting" before testifying
testimony
travel (returning)

1
2
1
1

9 ± days

Plus travel expenses and
per diem while here
(~ \$1,000.00?)

He charges \$100.00/hr;
plus 9 days at \$100.00/hr \$7,200.
plus
travel + per diem \$1,000.

\$10,000 on the outside

\$8,200

③ He asked that we advise
him ASAP of our dec.
so he can start and
schedule the work

12/3/76

Left word with Moody's firm for
Moody to send us a confirming,
brief note on the fee arrange-
ment and the work he will
do for us for our piles.

JENSEN ASSOCIATES, INC.

84 STATE STREET BOSTON, MASSACHUSETTS 02109

TELEPHONE (617) 227-8115
TELEX 94-0057

November 30, 1976

Ms. Elke Kallab
Legislative Affairs Agency
Pouch Y
Juneau, Alaska 99811

Dear Ms. Kallab:

As we discussed over the telephone on Monday, November 29, 1976, Jensen Associates, Inc. is pleased to submit this proposal to the Legislative Affairs Agency to analyze the economics of the recently signed contract by which the State of Alaska has sold its royalty gas to Tenneco, Southern Natural Gas Company and El Paso Natural Gas Company.

OBJECTIVES

The objective of our analysis is to determine if the contract protects the interests of the State of Alaska and provides it with maximum economic values in the sale of its royalty natural gas over the term of the contract. We shall review the entire Contract, but we shall focus upon the pricing provisions and determine if they protect Alaska's interest in light of different future developments in the United States energy picture.

We shall also scrutinize the renegotiation and termination options, to insure that Alaska is protected in the event of major changes in energy policy and markets. We shall recommend changes in the contract where we believe they are appropriate. The weaknesses and strengths in the contract shall be identified.

We shall analyze the contract in light of recent legislative initiatives in natural gas and their economic impact. However, because others are examining the legal aspects of

the contract, we shall not address issues in the sphere of legal counsel or concerning the standing of the contract and its provisions in the eyes of the Federal Power Commission or Legislation.

While we are prepared to perform such analysis, it is our understanding that this task will not involve analysis of the sale of natural gas liquids.

METHOD OF APPROACH

We shall draw upon our knowledge of the United States and world energy markets and future trends for this task. In particular we shall draw upon our extensive work in natural gas markets, pricing, and contracting to analyze this contract.

The output of our analysis shall be one or more memorandums which detail our findings, telephone consultation, and the presentation of our findings to the Alaska Legislature.

Our analysis shall be objective and based upon factual analysis and our independent judgement.

CONFLICT OF INTEREST

We do not believe that there is any conflict of interest in our analyzing this contract for the State of Alaska. As professional business and economic analysts our work is objective. While we do present our findings publicly where appropriate, it is as the results of objective analysis. We do not act as public advocates for clients.

As we discussed in our telephone conversation, I have recently presented expert testimony in FPC curtailment hearings on United Gas Pipe Line Company Docket Nos. RP71-29 and RP 71-120 (Phase II). This testimony was on behalf of

Ms. Elke Kallab

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November 30, 1976

six intervenors: General Motors Corporation, Mississippi River Transmission Corporation, Natural Gas Pipeline Company of America, Southern Natural Gas Company, Texas Eastern Transmission Corporation, and Texas Gas Transmission Corporation. This was rebuttal testimony to United Gas Pipe Line Company witnesses. My testimony argued that the category II industrial customers in the United service area in East Texas, Louisiana, Mississippi, Alabama, and the Panhandle of Florida have no greater difficulty in obtaining alternate fuels when natural gas is curtailed than industrial customers further to the north. This work began in mid July, 1976 and ended after the testimony was presented in mid November, 1976. Our fees to Southern Natural Gas are about one percent of our annual billings.

We are performing no work at this time, or in the recent past, for the other purchasers of the royalty gas or for Exxon, Arco, BP or Sohio.

QUALIFICATIONS

Jensen Associates, Inc. is highly qualified by previous experience to perform this analysis. A statement of our qualifications is attached.

JENSEN ASSOCIATES, INC.

Ms. Elke Kallab

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November 30, 1976

BUSINESS RELATIONSHIP

Jensen Associates, Inc., proposes that this work be performed on a time and expenses basis. Until we receive the contract we are not able to estimate the time required to perform proper analysis of it. After we have had a chance to review the contract we will provide a more detailed estimate of costs. However, for your budgeting purposes we would suggest that you plan for professional service fees of \$10,000 - 15,000 plus expenses not to exceed 15% of professional service fees unless more than one trip to Alaska were to be required.

We will bill the Legislative Affairs Agency monthly, for payment within ten days, for professional services and expenses. Professional services will reflect the time spent on your behalf. Expenses incurred while working in your behalf on this assignment will be billed at their cost to us and will include travel, communications, report production, and other directly related costs.

Professional services will be billed at our customary rates for the individuals involved. For consulting these rates are: Mr. James T. Jensen, \$640 per day; Dr. Carl V. Swanson, \$520 per day; Ms. Nancy Pozar, \$280 per day; Mr. Edwin F. Hardy, \$480 per day; and Mr. John C. Gault, \$360 per day. For the presentation of expert testimony the rates are: Mr. Jensen, \$900 per day; and Dr. Swanson, \$650 per day.

STAFF AND SCHEDULE

Based on present staff schedules I will be in charge of the project here. Mr. James T. Jensen, Mr. Edwin F. Hardy, Mr. John C. Gault, and Ms. Nancy J. Pozar are expected to work with me. When appropriate, other staff members with backgrounds

Ms. Elke Kallab

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November 30, 1976

particularly appropriate to this study may be assigned to the project. Biographies of Mr. Jensen, Mr. Hardy, Mr. Gault, Ms. Pozar, and me are attached. We understand that we should look to you and Mr. Greg Ericson for general direction and policy decisions on behalf of the Legislative Affairs Agency of the State of Alaska.

Based on current commitments, we expect that we will send a memo describing our findings approximately one month after your authorization to proceed with this assignment. I am holding open my schedule for the week of January 24, 1977 for the legislative hearings.

GENERAL PROVISIONS

In the past we have provided analysis and counsel to clients in areas included in this proposal. This experience helps to qualify us to undertake the assignment described above and we expect to continue such work in the future.

To protect your interests we agree that any confidential information we may develop or have furnished to us by you during this assignment will be safeguarded and held in confidence. Furthermore, it is our practice in considering new assignments to decline them whenever it appears to us at all probable that our experience with a past or present client might be used improperly in the new assignment.

ACCEPTANCE

For the purpose of staff scheduling this proposal is made subject to acceptance within 30 days. Should you like more time to consider the proposal or to discuss modifications to it, please let us know.

JENSEN ASSOCIATES, INC.

Ms. Elke Kallab

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November 30, 1976

We look forward to working with you on the analysis of Alaska's royalty gas sales contract, and we will devote our best efforts to accomplishing the objectives described above. If this proposal is acceptable to you, would you please sign and return the enclosed copy as authorization for us to proceed with the work.

Very truly yours,



Carl V. Swanson
Executive Vice President

CVS/jd

Accepted for _____

By _____

Title _____

Date _____

JENSEN ASSOCIATES, INC.

Consultants

in

ENERGY PLANNING, ECONOMICS, AND LOGISTICS

BOSTON

GENEVA

WASHINGTON

CONSULTANTS IN ENERGY

Jensen Associates, Inc. is an independent consulting firm specializing in energy planning, economics and logistics.

We advise businesses, governments and investors worldwide in the interrelated areas of petroleum, natural gas, natural gas liquids, petrochemical feedstocks and electric power. Our focus is upon the business, government policy and economic issues of energy as they are shaped by the interplay of markets, technology, supply, the policies of governments, investments, and the paths of the world's economies.

Jensen Associates, Inc. provides expertise counseling based upon objective, factual analysis and independent judgment. Where appropriate and requested by the client, we will present and defend our findings publicly.

BOSTON

84 State Street
Boston, Massachusetts, U.S.A. 02109
Telephone: (617) 227-8115
Telex: 94-0057/JENSEN INC BSN

GENEVA

14 Chemin Rieu
1208 Geneva, Switzerland
Telephone: 471-8446
Telex: 23358/TRADU CH

WASHINGTON, D.C.

1625 I Street, N.W.
Washington, D.C., U.S.A. 20006
Telephone: (202) 659-4226

SERVICES

Market Analysis

Jensen Associates, Inc. has analyzed the pricing, supply routes, supply quantities, interfuel competition, and fuel buyer's plans and price sensitivity of markets. This analysis has examined markets ranging in size from world markets to areas 100 miles in diameter. We have analyzed markets which have included all buyers of energy to specific buyers of specific fuels.

Planning

We provide planning services to energy companies on business strategy, annual plans, and planning techniques, and to large energy consumers on energy supply and fuel purchasing.

Forecasting

Jensen Associates, Inc. forecasts energy supply, demand, and price for clients and it forecasts the course of development of new energy sources. This has involved forecasts of world energy balances, natural gas supplies for the U.S., world LPG supply and demand, prices for petroleum, natural gas and liquefied petroleum gases, and the technical, financial, market and government policy forces acting upon emerging energy sources.

Investment Feasibility and Valuation

We have analyzed the economic feasibility of supply, logistic, and marketing investments in the energy business and have assisted clients to place a value upon existing energy businesses.

Pricing and Contracting

Jensen Associates, Inc. has helped both private and governmental clients set prices for energy, design price indexation formulas, and evaluate and design the price and terms of purchase and sale and logistical contracts. In addition, we have reviewed pricing and purchasing in governmental review and court proceedings as well as assisted in tax and royalty negotiations between producers and host governments.

Governmental Policy and Regulation

Jensen Associates, Inc. has recommended policies to governments and advised them on developments in energy. We have also presented expert testimony before legislative, regulatory, and judicial bodies concerning petroleum, natural gas, natural gas liquids and electric power issues.

Fuel Supply

We have assisted users of energy in their fuel planning and purchasing by analyzing energy development and its impact upon price and security of supply, evaluating price and supply arrangements, identifying supply sources, recommending logistical paths, and, where appropriate, presenting expert testimony.

CLIENTS

Jensen Associates, Inc. serves clients in North America, the Middle East, Europe, the Far East, and Latin America. Much of our consulting is confidential. Consequently, we do not publicize either our clients or the project work. However, the types of clients we serve include:

- integrated oil companies
- national oil companies
- electric power utilities
- governments
- natural gas and oil pipelines
- independent energy marketers
- gas utilities
- importers
- terminal operators
- international shippers
- oil and gas producers
- industrial consumers of energy
- legislatures
- chemical companies
- banks
- investors
- industry associations

PROJECT EXPERIENCE

The representative projects undertaken by Jensen Associates, Inc. provide a measure of our capabilities and experience.

International

- For a multinational oil company, an historical examination of petroleum movements in the Far East and the relationship of oil flows and tanker rates and product pricing in one country.
- For an OPEC country, development of a long-term international petroleum marketing strategy.
- For large fuel buyers, forecasts of international LPG supply and demand.
- For an OPEC national oil company, an analysis of worldwide energy supply and demand forecasts.
- For a foreign producer of LPG, identification of U.S. markets and customers for its product.
- For a national oil company of an OPEC nation, a survey of the major staff departments--economics and planning, supply and distribution, and tanker--of the major international oil companies with recommendations as to the function, organizational structure, and responsibilities of similar departments to be created within the nation's own national oil company.
- For a group of Middle East investors, analysis of the economic viability of a proposed crude and products transshipment terminal.
- For a client negotiating a contract with an OPEC national oil company, analysis and recommendations for a price index in a long-term contract based upon various prices for heating and fuel oil on the U.S. East Coast and Rotterdam.
- For a U.S. company, assistance in negotiations for the development and production of a newly-discovered oil field in an OPEC nation.
- For an international petroleum product shipper, an analysis of the U.S. LPG markets.
- For a European chemical company, analysis of natural gas feedstock contracts.

The representative North American projects undertaken by Jensen Associates, Inc. are classified below under the headings "Energy Industry" and "Government and Regulatory."

Energy Industry--North America

- For a natural gas pipeline company, an analysis of industrial markets, fuel pricing and interfuel competition.
- For oil and gas producers, analysis of Federal Power Commission and Congressional proposals and decisions upon interstate natural gas prices.
- For a petroleum marketer, fuel oil market analysis for a proposed oil terminal acquisition.
- For a major U.S. industrial manufacturing company, a forecasting of the supply of natural gas within the United States.
- For an oil and gas producer, analysis of provincial and federal policies on natural gas prices and contracts in Canada.
- For a major U.S. chemical company, forecasting the development of coal gasification and liquefaction plants in the U.S. considering technical, financial, regulatory, environmental and political factors.
- For a products transportation company, a market analysis for a proposed LPG import terminal.
- For an electrical power generation utility, forecasting the growth of electricity demand by petrochemical producers.
- For a medium-size oil producer, a forecast of the price of propane for twenty years including U.S. propane economics as well as estimates of worldwide availability.
- For a group of gas distribution companies, an analysis of the impact upon natural gas supply to them if the Federal Power Commission were to assume jurisdiction over wellhead sales of natural gas to intrastate pipelines.

- For an energy importer, an analysis of the risks and potential of alternatives of indexing the price of a product to various published price series within the United States and Europe.
- For a major manufacturing company, assistance in locating, negotiating for, and contracting to purchase supplies of natural gas at the wellhead, and assistance in negotiating for the wildcat drilling for natural gas.
- For an importer, economic and logistical analysis of liquefied natural gas (LNG) projects using a computer simulation model.
- For a major industrial company, assistance in the establishment of an energy forecasting program including evaluation of and recommendations upon the use of energy supply and demand models.

Government and Regulatory--North America

- For the Federal Energy Administration, an evaluation of the natural gas supply and curtailment situation for the heating season November 1975 to March 1976 and recommendations for and evaluation of alternative changes in regulations to bring increased supply to the interstate gas markets.
- For industrial consumers, pipelines and the U.S., extensive, expert testimony on the allocation of natural gas shortages before the Federal Power Commission, state public utility commissions and the U.S. Senate Committees on Commerce and on Interior and Insular Affairs.
- For an industry group of electricity consumers, analysis of the economic impact of changing electric power rate structures and expert testimony before the U.S. House of Representatives' Subcommittee on Energy and Power concerning the marginal cost pricing of electricity.
- For a government agency, an analysis of the impact upon petrochemical development of changes in pricing and regulation of natural gas.

- For the U.S. Congress, an analysis of natural gas shortages and a review of alternative policies.
- For the American Gas Association, expert testimony on natural gas reserves estimates before the U.S. House of Representatives' Subcommittee on Oversight and Investigation.
- For an electric power utility, expert testimony in a court proceeding on the future price of fuel oil.

STAFF

Jensen Associates, Inc. has an experienced and highly qualified staff of consultants with backgrounds in business, economics, engineering and governmental policy analysis. Most of the senior staff have advanced degrees and all have published papers or books, and have been asked to speak before professional groups. Biographies of individual staff members are available.

CARL V. SWANSON

Dr. Swanson is the Executive Vice President of Jensen Associates, Inc., an independent energy consulting firm with offices in Boston, Massachusetts, Washington, D.C., and Geneva, Switzerland. Dr. Swanson has consulted with private and government clients for the past fourteen years. His work addresses economic, and planning issues in petroleum, natural gas, LPG's and electricity rate design. This work has required forecasting supply, demand, and price of various forms of energy; analysis of markets; analysis of and recommendations for governmental action; assistance in pricing; the design of contract terms; examination of logistics; evaluation of supply sources; testimony in regulatory and legislative proceedings; and evaluation and analysis of proposed investments.

Dr. Swanson's recent consulting work includes:

- For producers, transporters, and marketers, several studies on the future supply, demand, pricing and markets for propane and butane.
- Testimony before the U. S. House of Representatives' Subcommittee on Energy and Power on marginal cost pricing of electricity.
- Analysis and policy recommendations to the U. S. government on natural gas supply and curtailment for the 1975-76 winter.
- Several studies on the logistics and economics of liquefied natural gas (LNG) import projects using models representing the shipping, terminalling, storage, and distribution of LNG.
- For a Mid-east client, evaluation of the economic feasibility of a crude and products transshipment terminal.
- Assistance on pricing and contract terms in natural gas, LPG and LNG purchase and sale, and transportation contracts including the development of price index formulas.
- Testimony on alternate fuels before the Federal Power Commission in the United Gas Pipe Line curtailment proceeding.

- Development and implementation for a chemical manufacturing organization of a model-based planning and strategic decision-making process which integrates marketing, production, raw material supply, and finance.
- For a petroleum products marketer, an evaluation of the market opportunities and risks faced by a pipeline terminal being considered for purchase.
- Forecasts of U. S. energy balances and petroleum products demand to 1985.

Prior to the founding of Jensen Associates, Inc., Dr. Swanson headed North Cape Associates which provided energy planning, logistics and economic consulting services. For five years, Dr. Swanson was on the faculty of M.I.T.'s Sloan School of Management where his teaching and research focused upon the practical use of computer information systems and models to improve marketing, production, investment and supply decision-making.

While at the Massachusetts Institute of Technology, Dr. Swanson consulted with private and governmental organizations including: Arthur D. Little, Inc., the RAND Corporation, the MITRE Corporation, the U. S. Army, and the Institute Nationale de la Recherche Agronomique in Paris.

Dr. Swanson has taught at the Graduate School of Business Studies in London; he was a U. S. delegate to the first U. S./U.S.S.R. Management Conference, "Use of Computers for Management in Industry," Torino, Italy, 1970; and he has presented and published papers on information systems, modeling, planning, energy, and management. He received the degrees of Bachelor of Science in Economics and Electrical Engineering from the Massachusetts Institute of Technology, and Doctor of Philosophy in Management, with emphasis upon Economics and Finance, from M.I.T.'s Sloan School of Management.

NANCY J. POZAR

Nancy J. Pozar is a member of Jensen Associates, Inc. research staff and is primarily concerned with analysis of the supply side of energy questions, both in the United States and worldwide.

Ms. Pozar participated in an analysis of the Far East in which the region was examined as a supply/demand situation in and of itself. A net import/export balance for regional crude production and products availability for the Far East as a whole and then for each of six distinct sub-regions was derived. Sub-regional flows of crude and products were then examined and ultimately related to refining economics, tanker rates and then to product pricing in one particular country in the Far East.

On the supply side of U.S. energy problems, Ms. Pozar has examined both natural gas and petroleum availabilities in detail. She assisted in the preparation of legal testimony related to the currently limited domestic supply of natural gas. Final testimony was presented before Federal district court. Ms. Pozar has examined availability assumptions presented in recently published domestic energy analyses (among them the Project Independence Blueprint and the Ford Foundation energy study) looking comparatively at estimates of present reserves of energy resources, forecasts of future reserves additions and alternative resource availability as well as the effects of shifts in sectoral and regional demand on resource supplies.

Ms. Pozar has also been active in analyzing U.S. natural gas markets, regulation and pricing. In a recent major study, she focussed on the effects of gas price on gas supplies in both interstate and intrastate gas markets as well as on the interaction of these two markets. Federal Power Commission regulation was reviewed from the Natural Gas Act through more recent pricing mechanisms (emergency sales, limited-term certificates, optional pricing procedures, the small producer exemption and the uniform national rate). The interstate regulatory actions were then correlated with interstate gas supply and prices. On the intrastate side, major gas consuming and producing states were identified and the nature of the intrastate market in each was analyzed. Intrastate markets in the major gas producing states were then scrutinized as to changes in gas production, intrastate vs. interstate sales and sectoral consumption in the last few years. This analysis was subsequently used in forecasting both intrastate and interstate gas price levels.

Nancy J. Pozar
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Prior to joining Jensen Associates, Inc., Ms. Pozar was employed in the energy section of Arthur D. Little, Inc. She holds a Bachelor of Arts degree from the Department for Near and Middle Eastern Studies of the University of Michigan in Ann Arbor, Michigan.

EDWIN F. HARDY

Mr. Hardy is a Senior Professional and Washington Office Manager of Jensen Associates, Inc. He has managed and performed technical and economic analysis and lent his experience to business investment, supply, and marketing decisions in the energy area. Mr. Hardy has worked extensively in the analysis and forecasting of supplies and reserves of natural gas and the development of sources for synthetic and other supplemental supplies of gas. In addition, he has broad experience in the technology and economics of petroleum refining including market analysis and economics, and refinery technology and economics.

Prior to joining Jensen Associates, Inc., Mr. Hardy was Director of the Planning Division of the American Gas Association, responsible for its planning activities. He held the responsibility for coordinating and publishing the annual reserve estimates of natural gas and natural gas liquids in the United States, initiating and coordinating gas industry efforts to increase supply of natural gas and supplemental gas, developing research programs, and providing information, analysis, and forecasts for the public, the government, and the gas industry. In addition, Mr. Hardy had the responsibility for analysis of gas curtailments, LPG supply and demand, oil supply and oil imports. Mr. Hardy was the American Gas Association staff executive for the Gas Supply Committee and the Committee on Natural Gas Reserves and its observer for the Potential Gas Committee.

Prior to joining the American Gas Association, Mr. Hardy was in line management with the Atlantic Research Corporation for a number of years, becoming a Director and Plant Manager with overall responsibility for business acquisition, planning, budgeting, pricing, production, personnel administration, and all other activities associated with his plant.

Immediately after college, Mr. Hardy worked with the Humble Oil and Refining Company (now Exxon, USA) in Baton Rouge, Louisiana. There Mr. Hardy coordinated engineering and construction during the building of new petroleum refining units. He designed new petroleum products, performed the accompanying market and economic analysis, supervised the start-up of new plants and supported follow-on production operations. His last assignment at Humble was Technical Group Head in charge of mechanical engineering for all petroleum products with responsibility for economic evaluation, environmental impacts, utilization of waste heat, and the design of process units.

Edwin F. Hardy
Page two

Mr. Hardy has a Bachelors Degree in Civil Engineering from the University of Virginia and has completed graduate courses at Louisiana State University in civil engineering, finance and business. Mr. Hardy is a registered professional engineer in the state of Louisiana and is a member of Tau Beta Pi, Phi Eta Sigma, and the Raven Society.

Mr. Hardy has presented a number of papers including "The Emergence of Gas Utilities as a Factor in World Petroleum Economics," "Future Natural Gas Supply Reactions to Higher Prices--Projections of the AGA TERA Model," and "SNG Supply and Demand."

JOHN C. GAULT

Dr. Gault is a member of the Professional Staff of Jensen Associates, Inc., an independent energy consulting firm, with offices in Boston, Massachusetts and Washington, D.C. Dr. Gault has consulted for several years for private and government clients in areas of energy planning and economics.

His fields of particular interest include energy economics, public utility regulation, the study of the effects of taxation upon the use of exhaustible resources, and analysis of legislation, markets, and investment proposals. Dr. Gault has contributed to research reports in the areas of electricity demand forecasting, peak load pricing, electric generation plant siting, and natural gas pricing and curtailment methods.

Other subjects of recent research have included analysis of Canadian petroleum tax policy, forecasting U.S. natural gas prices, forecasting energy demand and supply in the United States and Canada, study of the siting of oil transshipment terminals, and analysis of oil price indexing, alternative electric rate structures, and the effects of horizontal divestiture on the U.S. oil industry.

Dr. Gault also has experience in the negotiation and analysis of petroleum production agreements and collateral investment projects in oil producing countries.

Prior to joining Jensen Associates, Inc., Dr. Gault worked for approximately five years in Jordan, Lebanon, and Saudi Arabia. Assignments included teaching Economics at the American University of Beirut and feasibility analysis of large projects for an international investment bank, headquartered in Beirut. While pursuing his graduate education, Dr. Gault was a Research Associate in a natural gas cost analysis project.

Dr. Gault received a B.A. in Economics from Yale University and a Ph.D. in Economics and Middle Eastern Studies from Harvard University. He is a member of Phi Beta Kappa and received a Harvard Graduate Prize Fellowship. The title of his Ph.D dissertation is "Natural Gas Price Regulation and the Theory of Exhaustible Resources."

JAMES T. JENSEN

Mr. Jensen is President of Jensen Associates, Inc., an independent energy consulting firm located in Boston, Massachusetts. For eighteen years prior to his establishment of Jensen Associates, Inc., Mr. Jensen was a Senior Staff Member of the Energy Group of Arthur D. Little, Inc. Throughout his career, he has concentrated on petroleum, natural gas, and energy economics and their applications to the management of energy-oriented organizations. His major interests have been in the fields of energy planning, economics, and forecasting, and in the judgment of investment and feasibility decisions in the energy industries.

His clients cover a broad international spectrum from government agencies to corporate clients in energy or energy-related businesses. He is a recognized authority on the allocation of U.S. natural gas shortages and has testified extensively before the Federal Power Commission, various state public utility commissions, and U.S. Senate Committees on Interior and Insular Affairs and on Commerce. Trends in energy demand and competition have been a major part of his work. He has been in charge of several long-range research planning reports for the American Gas Association. He was responsible for an analysis and forecast of the United Kingdom energy market to 1990 and the probable impact of North Sea gas discoveries on energy competition and pricing there. For an oil producing government he undertook a study entitled, "The Outlook for the Worldwide Petroleum Industry."

Investment feasibility has been an important part of his assignments. His project feasibility studies have included refineries, transport facilities, petrochemical plants, and liquefied natural gas projects. The studies have involved projects in Europe, South America, North Africa, and the Far East as well as the United States.

Some of his recent publications include: "Prospects for Tanker Shipments of Liquefied Natural Gas into the Continental United States," A.I.M.E., February, 1967; "The Chemical Refinery in Perspective," American Chemical Society, 1970; "Energy Policy Issues for the United States During the Seventies," The National Energy Forum, 1971; "An Economic Rationale for Rationing Gas Supplies in the United States," A.I.M.E., 1973; "International Oil--Shortage, Cartel, or Emerging Resource Monopoly?" Vanderbilt Journal of Transnational Law, 1974.

He has been a visiting faculty member of the Petroleum Economics and Management Seminar conducted by Northwestern University and of both the Financial Analysts Seminar and Life

Officers Investment Seminar under the sponsorship of the University of Chicago Business School. He has also lectured on energy topics for programs at Harvard University and at M.I.T.

Mr. Jensen holds a Bachelor's degree in Chemical Engineering from the Massachusetts Institute of Technology and a Master's degree from the Harvard Graduate School of Business Administration. He is a member of the American Petroleum Institute, the Society of Petroleum Engineers, and the American Chemical Society.

Summary of Conversation with
Rush Moody (from the time
I came in) November 24 or 25?

Is interested! Will get back to
us by Monday, if possible
with a fee arrangement.

Will do legal analysis of the
relative benefits and burdens
of the contracts if they are
approved:

He thought he would need
2 days for analysis
2 days for testimony
2 days for travel

We told Mr Moody —

① That we did not want a long brief
no one will read. Just a good
review and analysis

② We informed him of our concern
about C-o/- I. He agreed to

Count from A
Dymer's Court
But day

resend the list of clients they
have (which he originally sent
to Eric)

③ We told him of the tentative
dates for the hearings - Jan 24-26? -

THE LEGISLATURE

LEGISLATIVE AFFAIRS AGENCY

LEGISLATIVE COUNCIL
JUNEAU, ALASKA 99811
907-465-2600

December 20, 1976

MEMORANDUM

SUBJECT: Obligation of Funds

TO : ~~Murt~~ Charney
Director

FROM : Elke Kallab *ek*
Research Analyst

Please obligate the following amounts from the Joint Gas Pipeline Impact Committee account:

\$19,000 Jensen Associates, Inc.

\$11,000 Rush Moody

Attached are telegrams contracting for the services of the above organization and individual. Formal contracts for both will follow.

In addition, Gregg Erickson received verbal authorization from Senator Rader on December 17, 1976 to obligate the remaining Joint Gas Pipeline Impact Committee Funds to the Legislative Council. A confirming authorizing letter from Senator Rader will follow.

EK:cm

TO: Sen. Jackson Rader
FYI
Elke K.

NIGHT LETTER

12/17/76

Rush Moody
Suite 1120
1701 Pennsylvania Avenue, N.W.
Washington, D.C. 20006

298- 5550

JUST CONTACTED SENATOR JOHN RADER THIS AFTERNOON AND HE HAS CONFIRMED THE ARRANGEMENTS OUTLINED IN YOUR LETTER OF DECEMBER 3. FORMAL CONTRACT FOR YOUR SIGNATURE WILL FOLLOW. DATES OF APPEARANCE WILL BE WORKED OUT AT MUTUAL CONVENIENCE. TOTAL AMOUNT OF CONTRACT INCLUDING TRAVEL AND EXPENSES NOT TO EXCEED \$11,000.

GREGG K. ERICKSON

DIRECTOR OF RESEARCH

ek/mo/cm

NIGHT LETTER

12/17/76

Carl V. Swanson
Jensen Associates, Inc.
84 State Street
Boston, Massachusetts 02109

227-8115

JUST CONTACTED SENATOR RADER THIS AFTERNOON AND HE HAS CONFIRMED THE
ARRANGEMENTS OUTLINED IN YOUR LETTER OF NOVEMBER 30. FORMAL CONTRACT
FOR YOUR SIGNATURE WILL FOLLOW. DATES OF APPEARANCE WILL BE WORKED OUT
AT MUTUAL CONVENIENCE. TOTAL AMOUNT OF CONTRACT INCLUDING TRAVEL AND
EXPENSES NOT TO EXCEED \$19,000.

GREGG K. ERICKSON
DIRECTOR OF RESEARCH
ek/mo/cm

Summary of conversation with
messrs Swanson and Jensen
12/1/76 1:45

- ① They have received the contract & on first examination it appears well drafted.

However, it is their feeling that gas shipments will not begin before 1983-1985.

- They feel that the perceptions on pricing policies will differ quite markedly in the '80s than from today, making their review of the economics of the sale much more subject to judgement & much longer term experience in their field than previously anticipated.
- Furthermore, FPC's most recent ruling, 7-70-A, exempt Alaska specifically. While the FPC has been dealing with developing

nationwide rate-making policy, thus giving some indication what can be expected, the ruling makes it questionable what will happen in Alaska; again as it pertains to pricing. This will make their work more difficult since they cannot rely on lower ~~to~~ pricing developments.

(for budgeting purposes)
Thus they wish to advise that the outside figure of \$15,000 should be considered the more reasonable one with the 15% maximum for expenses. (Thus, we are now talking about ~~\$17,250~~ \$17,250 + travel + per diem, or almost \$19,000.)

- ② Both, Jensen and Swanson felt that it might be necessary to ~~provide~~ provide for two trips to Alaska.

The additional trip - which would take place in early January - would be for the purpose of

discussing issues of concern, which

you may not want "public".
In reply to my question whether meaning this
(Mr. Jensen mentioned something

about a client who he had
considered what he thought was
private; ~~it was~~ it was ^{subsequently} released
and Mr Jensen said he would
have handled it differently had
he known that his remarks
would be made public.)

(again)

I told both that at the moment the
chairman of the Jt GPIC did not
see the legislature ^{as being} in an advisory
position vis-à-vis the administra-
tion as regards the sale

~
They called to let us know how to
"budget" for their services now that
they have seen the contract.

M E M O R A N D U M

SUBJECT: Telephone Conversation with C.V. Swanson of Jenson Associates on November 29, 1976

TO : Gregg K. Erickson
Director of Research

FROM : Elke Kallab *Ek*
Research Analyst

I called Mr. Swanson today ^{11/29/76} to inquire if he (his firm) would be interested and available to do the economic analysis of the royalty gas sales contracts.

The following is a summary of the conversation.

1. Yes, they can review the contract. They are well versed in the sale of natural gas. They are energy consultants, doing work for
 - producers
 - transporters
 - consumers

2. They could meet the tentative hearing date of January 24.

3. Conflict of Interest-

Mr. Swanson said that this must be determined, to a certain degree, by us since we might have our own ideas. He stated that they are an economic analysis firm, and that they perform objective work.

Mr. Swanson mentioned the following examples of conceivable C-of-I.

- a. Jensen Associates represented the following companies in the United Gas Pipeline pro tem proceeding before

the FPC:

General Motors

Texas Eastern Gas Pipeline

Southern Natural

Texas Gas

Mississippi River Transmission

Natural Gas Pipeline of America

If I got the story straight, the issue involved a situation where United Gas Pipeline (are they the same as United Gas Transmission? They were one of the companies which had applied for a share of the royalty gas but "dropped out" since the share was too small. If they are we could have a problem, I suppose. I mentioned United Gas Transmission as a non-purchaser to Mr. Swanson, but did not get a reaction at the time. The similarity in name struck me only now! I will check with the Royalty Board) decided to restrict/curtail its sales of natural gas to certain industrial customers, which UGP claimed would have a difficult time converting to alternate fuels.

The above six companies, were (are) industrial customers of UGP affected negatively by the attempt of UGP to curtail deliveries.

In any event, I have asked that he give us the details in writing.

b. They represent two medium-sized oil companies

-Amerada-Hess

-American Independent Oil Co; as well as

-Signal Oil and Gas

(I guess only A-H could conceivably cause a problem).

c. Jenson Associates have represented major gas pipelines in the past.

Mr. Swanson said he would mail us the following immediately.

- their professional credentials;
- a list of some of their clients (past and present, particularly those which might be relevant to our contracting with them)
- their fee schedule;
- a copy of their standard contract form;
- an elaboration on possible C-of-I clients.

I indicated to Mr. Swanson that we were pressed for time, and that we wanted to finalize a contract as quickly as feasible, but that no decision would be made until all the data was available to submit to you and John, so he could decide.

EK:cm

Contract Between
State of Alaska
LEGISLATIVE AFFAIRS AGENCY
On Behalf Of
The Joint Gas Pipeline Committee
And
JENSEN ASSOCIATES, INC.

The parties to this agreement are the LEGISLATIVE AFFAIRS AGENCY, acting on behalf of the Alaska State Legislature, hereinafter referred to as the "Agency" and JENSEN ASSOCIATES, INC., hereinafter referred to as the "Consultant."

THE PURPOSE OF THIS AGREEMENT is to provide specialized professional economic consulting services to the Alaska State Legislature.

IT IS, THEREFORE, MUTUALLY AGREED THAT:

CLAUSE I - STATEMENT OF WORK

(a) The Consultant shall assume responsibility for the preparation of, and submit to the Agency, a brief written economic analysis of the State of Alaska's Proposed Royalty Gas Sales Agreements. This analysis shall be as described in the Consultant's proposal of November 30, 1976, attached to this contract as Appendix "A" and incorporated herein by this reference as though set out in full.

(b) The Consultant shall be available to appear and present expert witness testimony before committees of the Tenth Alaska State Legislature, First Session, on the subject of the above analysis.

CLAUSE II - PERIOD OF PERFORMANCE

(a) The Consultant shall submit to the Agency a final report containing the completed economic analysis on or before January 20, 1977.

(b) The Consultant shall be available to testify before committees of the Tenth Alaska State Legislature, First Session, at a time mutually agreeable to the Consultant and the Agency.

(c) This agreement may be terminated--

(1) By mutual consent; or

(2) For breach of the agreement or any material part thereof.

(d) This agreement expires June 30, 1977, or with the adjournment of the First Session of the Tenth Alaska State Legislature, or with the completion of the contract as provided in paragraphs (a) and (b) of Clause I.

CLAUSE III - COMPENSATION AND METHOD OF PAYMENT

(a) For the economic analysis of the State of Alaska's Proposed Royalty Gas Sales Agreements and two days of expert witness testimony thereon before legislative committees of the Tenth Alaska State Legislature, First Session, the Consultant shall receive up to \$15,000.00 as follows:

(1) The amount of \$10,000.00 upon completion and submission to the Agency of the economic analysis; and

(2) The amount of \$5,000.00 upon the completion of expert witness testimony to legislative committees.

(b) The Consultant shall be reimbursed for expenses incurred in travel as follows:

(1) The costs of coach class air transportation to and from Alaska for the purpose of testifying before legislative committees; and

(2) The expenses incident to such travel, which shall be reimbursed according to AS 39.20 (currently, this provides reimbursement at a flat per diem rate of \$50.00 per day).

(c) The Consultant shall be reimbursed for actual costs of telephone expenses incurred in the preparation of the economic analysis.

(d) Payments under paragraphs (b) and (c) of Clause III of this contract shall be made by the Agency to the Consultant in response to billings submitted to the Agency on a monthly basis.

(e) Total payments, including travel and expenses, to the Consultant under this contract shall not exceed \$19,000.00, except by written authorization, in advance of the work or the incurring of the expense, by the Agency.

(f) In the event this contract is terminated prior to completion of the work specified in paragraphs (a) and (b) of Clause I, the Consultant's basic charge shall be recomputed on a prorated basis according to the percentage of work satisfactorily completed.

CLAUSE IV - RECORDS, DOCUMENTS, AUDIT

The Consultant shall maintain accurate records, including detailed time records. The records are subject to inspection at all reasonable times. All documents, reports and writings generated as a consequence of work done under this contract shall become the property of the State of Alaska, and on completion of the work or at the termination of this contract shall be delivered to the Agency.

CLAUSE V - RESOURCE AND REFERENCE MATERIAL NEEDED FOR PREPARATION OF THE ANALYSIS

- (a) The Agency will assist the Consultant in obtaining source material as necessary, but final responsibility for these items rests with the Consultant.
- (b) It is not contemplated that any confidential resource or reference material will be required to prepare the analysis.

CLAUSE VI - CONFIDENTIALITY OF COMMUNICATIONS

It is contemplated that all work done under this contract will be made public by the Legislature. However, all communications between the Agency or the Legislature and the Consultant, including the final report, shall be held confidential by the Consultant until released by the Agency, or other Legislative entity to which they were addressed.

CLAUSE VII - PRIOR, CURRENT AND FUTURE REPRESENTATION

- (a) The letter of proposal from the Consultant, dated November 30, 1976 describes the past representation of a client known to have an interest in the disposition of Alaska natural gas. The Agency has determined that this does not constitute a conflict of interest for the purposes of this contract.
- (b) The Consultant shall, during the period of this agreement, notify the Agency of any new clients or change in status of any existing clients which might tend to create a conflict of interest.
- (c) The Consultant agrees that prior to the termination of the contract in accordance with Clause II, he shall not undertake to represent any client--
 - (1) In proceedings on Alaska natural gas transportation issues before the Federal Power Commission or the U.S. Department of the Interior; or
 - (2) In proceedings concerning Alaska natural gas before any agency or instrumentality of the State of Alaska.

CLAUSE VIII - OTHER AGREEMENTS OR UNDERSTANDINGS

This agreement contains all the terms and conditions agreed upon by the parties. No other understandings, oral or otherwise, regarding the subject matter of this agreement shall be deemed to exist or to bind either of the parties to this agreement.

IN WITNESS WHEREOF, the parties have executed this agreement.

JENSEN ASSOCIATES, INC.

Carl V. Swanson

Date

LEGISLATIVE AFFAIRS AGENCY
(By direction of the
Chairman of the
Joint Gas Pipeline Committee)

Gregg K. Erickson

Date

Approved as to Form

Billy J. Benson
Agency Legal Counsel

Date

Dec. 27, 1976

JENSEN ASSOCIATES, INC.

94 STATE STREET BOSTON, MASSACHUSETTS 02109

TELEPHONE (617) 227-8115
TELEX 94-0057

November 30, 1976

Ms. Elke Kallab
Legislative Affairs Agency
Pouch Y
Juneau, Alaska 99811

Dear Ms. Kallab:

As we discussed over the telephone on Monday, November 29, 1976, Jensen Associates, Inc. is pleased to submit this proposal to the Legislative Affairs Agency to analyze the economics of the recently signed contract by which the State of Alaska has sold its royalty gas to Tenneco, Southern Natural Gas Company and El Paso Natural Gas Company.

OBJECTIVES

The objective of our analysis is to determine if the contract protects the interests of the State of Alaska and provides it with maximum economic values in the sale of its royalty natural gas over the term of the contract. We shall review the entire Contract, but we shall focus upon the pricing provisions and determine if they protect Alaska's interest in light of different future developments in the United States energy picture.

We shall also scrutinize the renegotiation and termination options, to insure that Alaska is protected in the event of major changes in energy policy and markets. We shall recommend changes in the contract where we believe they are appropriate. The weaknesses and strengths in the contract shall be identified.

We shall analyze the contract in light of recent legislative initiatives in natural gas and their economic impact. However, because others are examining the legal aspects of

the contract, we shall not address issues in the sphere of legal counsel or concerning the standing of the contract and its provisions in the eyes of the Federal Power Commission or Legislation.

While we are prepared to perform such analysis, it is our understanding that this task will not involve analysis of the sale of natural gas liquids.

METHOD OF APPROACH

We shall draw upon our knowledge of the United States and world energy markets and future trends for this task. In particular we shall draw upon our extensive work in natural gas markets, pricing, and contracting to analyze this contract.

The output of our analysis shall be one or more memorandums which detail our findings, telephone consultation, and the presentation of our findings to the Alaska Legislature.

Our analysis shall be objective and based upon factual analysis and our independent judgement.

CONFLICT OF INTEREST

We do not believe that there is any conflict of interest in our analyzing this contract for the State of Alaska. As professional business and economic analysts our work is objective. While we do present our findings publicly where appropriate, it is as the results of objective analysis. We do not act as public advocates for clients.

As we discussed in our telephone conversation, I have recently presented expert testimony in FPC curtailment hearings on United Gas Pipe Line Company Docket Nos. RP71-29 and RP 71-120 (Phase II). This testimony was on behalf of

JENSEN ASSOCIATES, INC.

Ms. Elke Kallab

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November 30, 1976

six intervenors: General Motors Corporation, Mississippi River Transmission Corporation, Natural Gas Pipeline Company of America, Southern Natural Gas Company, Texas Eastern Transmission Corporation, and Texas Gas Transmission Corporation. This was rebuttal testimony to United Gas Pipe Line Company witnesses. My testimony argued that the category II industrial customers in the United service area in East Texas, Louisiana, Mississippi, Alabama, and the Panhandle of Florida have no greater difficulty in obtaining alternate fuels when natural gas is curtailed than industrial customers further to the north. This work began in mid July, 1976 and ended after the testimony was presented in mid November, 1976. Our fees to Southern Natural Gas are about one percent of our annual billings.

We are performing no work at this time, or in the recent past, for the other purchasers of the royalty gas or for Exxon, Arco, BP or Sohio.

QUALIFICATIONS

Jensen Associates, Inc. is highly qualified by previous experience to perform this analysis. A statement of our qualifications is attached.

JENSEN ASSOCIATES, INC.

Ms. Elke Kallab

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November 30, 1976

BUSINESS RELATIONSHIP

Jensen Associates, Inc., proposes that this work be performed on a time and expenses basis. Until we receive the contract we are not able to estimate the time required to perform proper analysis of it. After we have had a chance to review the contract we will provide a more detailed estimate of costs. However, for your budgeting purposes we would suggest that you plan for professional service fees of \$10,000 - 15,000 plus expenses not to exceed 15% of professional service fees unless more than one trip to Alaska were to be required.

We will bill the Legislative Affairs Agency monthly, for payment within ten days, for professional services and expenses. Professional services will reflect the time spent on your behalf. Expenses incurred while working in your behalf on this assignment will be billed at their cost to us and will include travel, communications, report production, and other directly related costs.

Professional services will be billed at our customary rates for the individuals involved. For consulting these rates are: Mr. James T. Jensen, \$640 per day; Dr. Carl V. Swanson, \$520 per day; Ms. Nancy Pozar, \$280 per day; Mr. Edwin F. Hardy, \$480 per day; and Mr. John C. Gault, \$360 per day. For the presentation of expert testimony the rates are: Mr. Jensen, \$900 per day; and Dr. Swanson, \$650 per day.

STAFF AND SCHEDULE

Based on present staff schedules I will be in charge of the project here. Mr. James T. Jensen, Mr. Edwin F. Hardy, Mr. John C. Gault, and Ms. Nancy J. Pozar are expected to work with me. When appropriate, other staff members with backgrounds

JENSEN ASSOCIATES, INC.

Ms. Elke Kallab

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November 30, 1976

particularly appropriate to this study may be assigned to the project. Biographies of Mr. Jensen, Mr. Hardy, Mr. Gault, Ms. Pozar, and me are attached. We understand that we should look to you and Mr. Greg Ericson for general direction and policy decisions on behalf of the Legislative Affairs Agency of the State of Alaska.

Based on current commitments, we expect that we will send a memo describing our findings approximately one month after your authorization to proceed with this assignment. I am holding open my schedule for the week of January 24, 1977 for the legislative hearings.

GENERAL PROVISIONS

In the past we have provided analysis and counsel to clients in areas included in this proposal. This experience helps to qualify us to undertake the assignment described above and we expect to continue such work in the future.

To protect your interests we agree that any confidential information we may develop or have furnished to us by you during this assignment will be safeguarded and held in confidence. Furthermore, it is our practice in considering new assignments to decline them whenever it appears to us at all probable that our experience with a past or present client might be used improperly in the new assignment.

ACCEPTANCE

For the purpose of staff scheduling this proposal is made subject to acceptance within 30 days. Should you like more time to consider the proposal or to discuss modifications to it, please let us know.

JENSEN ASSOCIATES, INC.

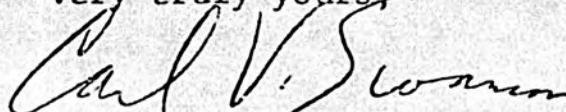
Ms. Elke Kallab

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November 30, 1976

We look forward to working with you on the analysis of Alaska's royalty gas sales contract, and we will devote our best efforts to accomplishing the objectives described above. If this proposal is acceptable to you, would you please sign and return the enclosed copy as authorization for us to proceed with the work.

Very truly yours,



Carl V. Swanson
Executive Vice President

CVS/jd

Accepted for _____

By _____

Title _____

Date _____

Contract Between
State of Alaska
LEGISLATIVE AFFAIRS AGENCY
On Behalf Of
The Joint Gas Pipeline Committee
And
RUSH MOODY, JR., ESQ.
Of
Vinson, Elkins, Searls, Connally & Smith

The parties to this agreement are the LEGISLATIVE AFFAIRS AGENCY, acting on behalf of the Alaska State Legislature, hereinafter referred to as the "Agency," and MR. RUSH MOODY, JR., hereinafter referred to as the "Consultant."

THE PURPOSE OF THIS AGREEMENT is to provide specialized professional legal consulting services to the Alaska State Legislature.

IT IS, THEREFORE, MUTUALLY AGREED THAT:

CLAUSE I - STATEMENT OF WORK

- (a) The Consultant shall assume responsibility for the preparation of, and submit to the Agency a short written legal analysis of "the benefits and burdens" accruing to the State of Alaska's Proposed Royalty Gas Sales Agreements. This analysis shall be as described in the Consultant's letter of December 3, 1976, attached to this contract as Appendix "A" and incorporated herein by this reference as though set out in full.
- (b) The Consultant shall, at a time mutually agreeable to the Consultant and the Agency, appear and present expert witness testimony before committees of the Tenth Alaska State Legislature, First Session, on the subject of the above analysis.

CLAUSE II - PERIOD OF PERFORMANCE

- (a) The Consultant shall submit to the Agency the report containing the legal summary on or before January 20, 1977.
- (b) The Consultant shall be available to testify before committees of the Tenth Alaska State Legislature, First Session, at a time mutually agreeable to the Consultant and the Agency.

(c) This agreement may be terminated--

(1) By mutual consent; or

(2) For breach of the agreement or any material part thereof.

(d) This agreement expires June 30, 1977, or with the adjournment of the First Session of the Tenth Alaska State Legislature, or with the completion of the contract as provided in paragraphs (a) and (b) of Clause I.

CLAUSE III - COMPENSATION AND METHOD OF PAYMENT

(a) For the legal analysis of the State of Alaska's Proposed Royalty Gas Sales Agreements and two days of expert witness testimony thereon before legislative committees of the Tenth Alaska State Legislature, First Session, the Consultant shall receive up to \$9,000.00 as follows:

(1) The amount of \$6,000.00 upon completion and submission to the Agency of the legal analysis; and

(2) The amount of \$3,000.00 upon the completion of expert witness testimony to legislative committees.

(b) The Consultant shall be reimbursed for expenses incurred in travel as follows:

(1) The costs of coach class air transportation to and from Alaska for the purpose of testifying before legislative committees; and

(2) The expenses incident to such travel, which shall be reimbursed according to AS 39.20 (currently, this provides reimbursement at a flat per diem rate of \$50.00 per day).

(c) The Consultant shall be reimbursed for actual costs of telephone expenses incurred in the preparation of the economic analysis.

(d) Payments under paragraphs (b) and (c) of Clause III of this contract shall be made by the Agency to the Consultant in response to billings submitted to the Agency on a monthly basis.

(e) Total payments, including travel and expenses, to the Consultant under this contract shall not exceed \$11,000.00, except by specific written authorization of the excess amount by the Agency.

(f) In the event this contract is terminated prior to completion of the work specified in paragraphs (a) and (b) of Clause I, the Consultant's basic charge shall be recomputed on a prorated basis according to the percentage of work satisfactorily completed.

CLAUSE IV - RECORDS, DOCUMENTS, AUDIT

The Consultant shall maintain accurate records, including detailed time records. The records are subject to inspection at all reasonable times. All documents, reports and writings generated as a consequence of work done under this contract shall become the property of the State of Alaska, and on completion of the work or at the termination of this contract shall be delivered to the Agency.

CLAUSE V - RESOURCE AND REFERENCE MATERIAL NEEDED FOR PREPARATION OF THE ANALYSIS

- (a) Specific requests for information regarding details of negotiations and areas of compromise leading to the finalization of the Proposed Royalty Gas Sales Agreements will be made available to the Consultant by appropriate state agencies.
- (b) The Agency will assist the Consultant in obtaining other source material as necessary, but final responsibility for these items rests with the Consultant.
- (c) It is not contemplated that any confidential resource or reference material will be required to prepare the analysis.

CLAUSE VI - CONFIDENTIALITY OF COMMUNICATIONS

It is contemplated that all work done under this contract will be made public by the Legislature. However, all communications between the Agency or the Legislature and the Consultant, including the final report, shall be held confidential by the Consultant until released by the Agency, or other Legislative entity to which they were addressed.

CLAUSE VII - PRIOR, CURRENT AND FUTURE REPRESENTATION

Except as disclosed in Consultant's letter of December 30, 1974,
(a) The Consultant and his Firm do not represent any client who has, a material interest in the disposition of the Alaska natural gas to be disposed of under this contract, as provided in paragraph (d) of Clause II.

(b) The Consultant shall, during the period of this agreement, notify the Agency of any clients, new clients, or change in status of existing clients which might create a conflict of interest.

(c) The Consultant agrees that prior to the termination of the contract provided in Clause II, ~~whichever comes first~~; he shall not undertake to represent any client--

(1) In proceedings on Alaska natural gas transportation issues before the Federal Power Commission or the U.S. Department of the Interior; or

(2) In proceedings concerning Alaska natural gas before any agency or instrumentality of the State of Alaska.

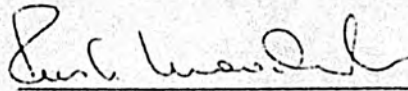
CLAUSE VIII - OTHER AGREEMENTS OR UNDERSTANDINGS

This agreement contains all the terms and conditions agreed upon by the parties. No other understandings, oral or otherwise, regarding the sub-

ject matter of this agreement shall be deemed to exist or to bind either of the parties to this agreement.

IN WITNESS WHEREOF, the parties have executed this agreement.

VINSON, ELKINS, SEARLS, CONNALLY & SMITH


Rush Moody, Jr.

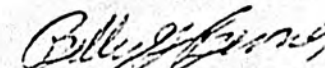
Jan 11, 1977
Date

LEGISLATIVE AFFAIRS AGENCY
(By direction of the
Chairman of the
Joint Gas Pipeline Committee)


Gregg K. Erickson

2/27/76
Date

Approved as to Form


Agency Legal Counsel

Dec 27, 1976
Date

VINSON, ELKINS, SEARLS, CONNALLY & SMITH

ATTORNEYS AT LAW

1701 PENNSYLVANIA AVENUE, N.W.

SUITE 1120

WASHINGTON, D. C. 20006

TEL: AC 202 298-5550 TELEX: 89680

LONDON OFFICE

47 CHARLES STREET, BERKELEY SQUARE

LONDON, W1X 7PB, ENGLAND

TEL: 01 491-7236

TELEX: 24140

HOUSTON OFFICE
FIRST CITY NATIONAL BANK BUILDING
HOUSTON, TEXAS 77002
TEL: AC 713 236-2222
CABLE ADDRESS: VIEWS
TELEX: 762 146

December 3, 1976

Ms. Elke Tallab
Legislative Affairs Agency
State of Alaska
Pouch Y
Juneau, Alaska 99811

Dear Elke:

Advice to the Legislature with respect to the contracts for sale of the State's royalty gas would involve the following:

- (1) Review of contracts.
- (2) Review of Commissioner Martin's negotiation files, or summaries of those files, to understand the areas of compromise.
- (3) Preparation of an analysis of the contracts from the standpoint of the benefits and burdens accruing to the State.
- (4) Conferences in Alaska with appropriate legislative and executive department people.
- (5) Appearance at a hearing for exposition of my opinions.

It is difficult to assess the time necessary for the accomplishment of these tasks since I do not know what volume of material is involved for an intelligent appraisal of the contracts, and, accordingly, it would be difficult for me to establish a fixed fee for the Legislature's consideration. I would prefer, therefore, to consider this representation on the basis of my standard hourly charge of \$100 per hour, plus reimbursement of necessary travel and telephone expense.

On the basis of the best guess that I can make at this time, it seems to me that the total effort should not involve more than 70 to 80 hours. In arriving at this estimate, I am assuming that the Legislature would be interested only in my opinions concerning the contracts as negotiated; if my representation involved re-drafting or renegotiation efforts, in conjunction with a possible Legislative conditional approval of the contracts if they are amended in certain respects, then, of course, the time involved could be substantially greater.

If this work is undertaken, I would expect to begin it immediately upon receipt of the necessary documents and files, and I would anticipate that I would be prepared to come to Alaska anytime after February 1, 1977 for the necessary conferences and hearings. I would expect to regard the representation as completed upon exposition of my views to the appropriate Legislative committee. I understand, of course, that it would be wholly inappropriate for me to accept any other representation with respect to these contractual matters while I am representing the State.

Please let me hear from you at your earliest convenience. I can hold my calendar open to meet the time schedules suggested in this letter for a reasonable period of time, but the necessity for other commitments will arise fairly soon.

If you need anything further from me, please do not hesitate to call.

Best regards,

Very truly yours,

Rush Moody, Jr.

RM:bw

VINSON, ELKINS, SEARLS, CONNALLY & SMITH

ATTORNEYS AT LAW

1701 PENNSYLVANIA AVENUE, N. W.

SUITE 1120

WASHINGTON, D. C. 20006

TEL: AC 202 298-5550 TELEX: 89680

LONDON OFFICE

47 CHARLES STREET, BERKELEY SQUARE

LONDON, W1X 7PB, ENGLAND

TEL: 01 491-7236

TELEX: 24140

HOUSTON OFFICE
FIRST CITY NATIONAL BANK BUILDING
HOUSTON, TEXAS 77002
TEL: AC 713 236-2222
CABLE ADDRESS: VEWS
TELEX: 762 146

December 30, 1976

Mr. Gregg K. Erickson
Director, Research Services
Legislative Affairs Agency
State of Alaska
Pouch Y, State Capitol
Juneau, Alaska 99811

Dear Gregg:

I have received your wires of December 17 and 18, and I will look forward to hearing from you further.

I enclose copies of letters which I wrote on April 16 to Guy Martin, and on May 4 to Eric Eckholm with respect to Vinson, Elkins' general range of client representation. I know of no changes since the letter of May 4, except that my firm has officially withdrawn from representation of Northwest in the FPC transportation case.

If you need anything further from me, please do not hesitate to call.

With best regards,

Very truly yours,

Rush Moody, Jr.

RM:bw
Encl.

May 4, 1976

Mr. Eric Eckholm
Administrative Assistant
Gas Pipeline Impact Committee
Alaska State Legislature
Juneau, Alaska 99811

Dear Eric:

Thank you for your letter of April 28. You will never convince me that sunshine in Juneau is rare, since my personal experience is that the sun shines at least 80 percent of the time.

I understand from your letter that you have a copy of my advice to Guy Martin of various client representation which Vinson, Elkins, is, and has been, involved in. The situation is, simply, that Vinson, Elkins does enjoy a wide representation of a number of clients which are, or might be, affected by the manner and means of Alaska's resource development. The firm represents substantial energy users with plants in many different parts of the country; the firm represents interstate transporters of natural gas such as Texas Eastern Transmission Company, Transwestern Pipeline Company, and Panhandle Eastern Pipeline Company; the firm represents producers such as Shell, Mobil, and Union of California; and the firm represents suppliers of equipment and materials to the producing and transmission sector, such as Rowan Companies, Inc. and Reed Tool company. Obviously I am not trying to be exhaustive in my listing of clients, since it is the nature of the representation, rather than the volume of the representation, which seems to me to be material. Insofar as I can determine, the firm's representation of clients such as those named above has not involved appearance in any proceeding where the State of Alaska is a party, with the exception of the representation, which I mentioned in my letter to Guy Martin, of Northwest Pipeline

Company. For that client, Vinson, Elkins has, for many months, participated in the FPC proceedings relating to transportation of North Slope gas. We are, however, in the process of withdrawing from the Northwest representation, and after this week, we will not be representing Northwest before the FPC in this case. I understand that the firm has also rendered advice to Union of California with respect to some of its Cook Inlet affairs, and advice has been given to Rowan with respect to some North Slope contract matters.

I have not appeared for Northwest in the FPC proceeding, and quite obviously will not do so. This work has been handled by other attorneys in the firm. I have not personally dealt with Union of California or with Rowan on any Alaskan matter.

From newspaper accounts, I understand that one of the companies which have been in negotiation with the State for its royalty gas is United Gas Pipe Line Company, and I know from my earlier work for the Committee that Tennessee Gas Pipeline Company has also been involved. You should be aware that the firm is handling one piece of business (not related to Alaska) for United, and I have undertaken one legal matter (not related to Alaska) for Tennessee Gas Transmission Company.

It was with the realization that the legal representation which I undertake personally is crucial to a decision as to whether I can, or should, represent the State or undertake new work for the Committee, that I undertook to spell out these matters for Guy Martin before I would discuss representation with him; I think it equally important that my firm's representation be made clear because I am a partner in this firm, what the firm does necessarily has a relationship to what I do.

This whole area of possible conflicts is one about which there must be no misunderstanding. I do not feel it appropriate to commit myself to further representation of the Committee, if representation is tendered, without knowing in considerable detail the nature of the work that the Committee would expect of me, for it is only in the light of the specifics that I could judge, and the Committee could judge, whether a conflict exists, or whether one might reasonably be anticipated to arise in the future.

All of this makes for a difficult letter for me to write because I have enjoyed my work for the Committee, I would like to believe that it has been constructive, and I would like to remain involved in trying to assist in the development of rational and responsible State policies with respect to its natural resources. I truly believe that Alaska has a most rare opportunity of planning wisely for its future, and that this is the critical time for the State to exercise initiative.

Eric, I think it would be best if you discussed this letter with Senator Rader, and let him discuss it with the Committee, if he deems this to be an appropriate course of action, and then let me know whether we should talk further about legal representation. I understand the necessity to avoid the appearance of a conflict of interest, irrespective of whether an actual conflict exists, and indeed I feel so strongly about this matter that if anyone has any question whatsoever as to the propriety of my doing any further work for the Committee, I would not want to go further.

My best regards to you, to Senator Rader, and to the members of the Committee, all of whom I have so enjoyed knowing and working with.

Very truly yours,

Rush Moody, Jr.

JRM:bw

April 16, 1976

Commissioner Guy R. Martin
Department of Natural Resources
The State of Alaska
Pouch M
Juneau, Alaska 99811

Dear Guy:

I greatly appreciate your call, but before we discuss my representation of the State of Alaska further, you need to be aware of my firm's existing representation of clients who are or might be involved in Alaska.

Generally, Vinson, Elkins represents a number of clients with oil and gas interests, either as producers, transporters, users, or suppliers of equipment and services. For example, the firm represents Union Oil of California, Rowan Drilling Co., Southern Natural Gas Co., Texas Eastern Pipeline Co., Panhandle Eastern Pipe Line Co., Tennessee Gas Pipeline Co., Northwest Pipeline Co. and United Gas Pipeline Co. in some matters. Virtually all of this representation is in connection with non-Alaskan matters, although counsel has been given to Union with respect to some Cook Inlet problems, and Northwest Pipeline has had Vinson, Elkins representation in connection with its FPC application to transport a portion of the North Slope gas.

You should weigh carefully whether my services to the State would create any possible problems or difficulties, and I must make sure that I am not creating a conflict of interest situation. I will talk with my partners, but you should let me know as

quickly as possible whether or not, under the circumstances, the representation you have in mind is proper and appropriate from the State's point of view.

With best regards,

Rush Moody, Jr.

RM:bw

Contract Between
State of Alaska
LEGISLATIVE AFFAIRS AGENCY
On Behalf Of
The Joint Gas Pipeline Committee
And
RUSH MOODY, JR., ESQ.
Of

Vinson, Elkins, Searls, Connally & Smith

The parties to this agreement are the LEGISLATIVE AFFAIRS AGENCY, acting on behalf of the Alaska State Legislature, hereinafter referred to as the "Agency," and MR. RUSH MOODY, JR., hereinafter referred to as the "Consultant."

THE PURPOSE OF THIS AGREEMENT is to provide specialized professional legal consulting services to the Alaska State Legislature.

IT IS, THEREFORE, MUTUALLY AGREED THAT:

CLAUSE I - STATEMENT OF WORK

(a) The Consultant shall assume responsibility for the preparation of, and submit to the Agency a short written legal analysis of "the benefits and burdens" accruing to the State of Alaska's Proposed Royalty Gas Sales Agreements. This analysis shall be as described in the Consultant's letter of December 3, 1976, attached to this contract as Appendix "A" and incorporated herein by this reference as though set out in full.

(b) The Consultant shall, at a time mutually agreeable to the Consultant and the Agency, appear and present expert witness testimony before committees of the Tenth Alaska State Legislature, First Session, on the subject of the above analysis.

CLAUSE II - PERIOD OF PERFORMANCE

(a) The Consultant shall submit to the Agency the report containing the legal summary on or before January 20, 1977.

(b) The Consultant shall be available to testify before committees of the Tenth Alaska State Legislature, First Session, at a time mutually agreeable to the Consultant and the Agency.

(c) This agreement may be terminated--

(1) By mutual consent; or

(2) For breach of the agreement or any material part thereof.

(d) This agreement expires June 30, 1977, or with the adjournment of the First Session of the Tenth Alaska State Legislature, or with the completion of the contract as provided in paragraphs (a) and (b) of Clause I.

CLAUSE III - COMPENSATION AND METHOD OF PAYMENT

(a) For the legal analysis of the State of Alaska's Proposed Royalty Gas Sales Agreements and two days of expert witness testimony thereon before legislative committees of the Tenth Alaska State Legislature, First Session, the Consultant shall receive up to \$9,000.00 as follows:

(1) The amount of \$6,000.00 upon completion and submission to the Agency of the legal analysis; and

(2) The amount of \$3,000.00 upon the completion of expert witness testimony to legislative committees.

(b) The Consultant shall be reimbursed for expenses incurred in travel as follows:

(1) The costs of coach class air transportation to and from Alaska for the purpose of testifying before legislative committees; and

(2) The expenses incident to such travel, which shall be reimbursed according to AS 39.20 (currently, this provides reimbursement at a flat per diem rate of \$50.00 per day).

(c) The Consultant shall be reimbursed for actual costs of telephone expenses incurred in the preparation of the economic analysis.

(d) Payments under paragraphs (b) and (c) of Clause III of this contract shall be made by the Agency to the Consultant in response to billings submitted to the Agency on a monthly basis.

(e) Total payments, including travel and expenses, to the Consultant under this contract shall not exceed \$11,000.00, except by specific written authorization of the excess amount by the Agency.

(f) In the event this contract is terminated prior to completion of the work specified in paragraphs (a) and (b) of Clause I, the Consultant's basic charge shall be recomputed on a prorated basis according to the percentage of work satisfactorily completed.

CLAUSE IV - RECORDS, DOCUMENTS, AUDIT

The Consultant shall maintain accurate records, including detailed time records. The records are subject to inspection at all reasonable times. All documents, reports and writings generated as a consequence of work done under this contract shall become the property of the State of Alaska, and on completion of the work or at the termination of this contract shall be delivered to the Agency.

CLAUSE V - RESOURCE AND REFERENCE MATERIAL NEEDED FOR PREPARATION OF THE ANALYSIS

- (a) Specific requests for information regarding details of negotiations and areas of compromise leading to the finalization of the Proposed Royalty Gas Sales Agreements will be made available to the Consultant by appropriate state agencies.
- (b) The Agency will assist the Consultant in obtaining other source material as necessary, but final responsibility for these items rests with the Consultant.
- (c) It is not contemplated that any confidential resource or reference material will be required to prepare the analysis.

CLAUSE VI - CONFIDENTIALITY OF COMMUNICATIONS

It is contemplated that all work done under this contract will be made public by the Legislature. However, all communications between the Agency or the Legislature and the Consultant, including the final report, shall be held confidential by the Consultant until released by the Agency, or other Legislative entity to which they were addressed.

CLAUSE VII - PRIOR, CURRENT AND FUTURE REPRESENTATION

- (a) The Consultant and his Firm do not represent any client who has, a material interest in the disposition of the Alaska natural gas to be disposed of under this contract, as provided in paragraph (d) of Clause II.
- (b) The Consultant shall, during the period of this agreement, notify the Agency of any clients, new clients, or change in status of existing clients which might create a conflict of interest.
- (c) The Consultant agrees that prior to the termination of the contract provided in Clause II, whichever comes first, he shall not undertake to represent any client--
 - (1) In proceedings on Alaska natural gas transportation issues before the Federal Power Commission or the U.S. Department of the Interior; or
 - (2) In proceedings concerning Alaska natural gas before any agency or instrumentality of the State of Alaska.

CLAUSE VIII - OTHER AGREEMENTS OR UNDERSTANDINGS

This agreement contains all the terms and conditions agreed upon by the parties. No other understandings, oral or otherwise, regarding the sub-

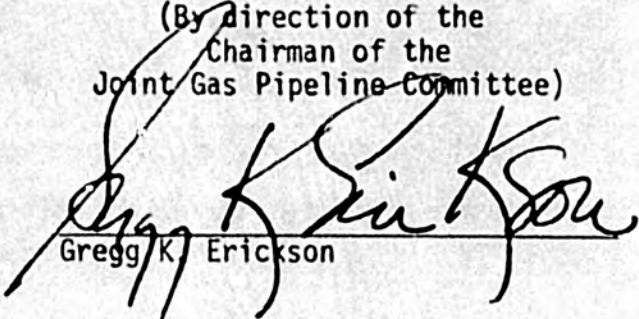
ject matter of this agreement shall be deemed to exist or to bind either of the parties to this agreement.

IN WITNESS WHEREOF, the parties have executed this agreement.

VINSON, ELKINS, SEARLS, CONNALLY & SMITH

LEGISLATIVE AFFAIRS AGENCY
(By direction of the
Chairman of the
Joint Gas Pipeline Committee)

Rush Moody, Jr.



Gregg K. Erickson

Date

12/27/76

Date

Approved as to Form



Agency Legal Counsel

Dec 27, 1976

Date

Appendix "A"

VINSON, ELKINS, SEARLS, CONNALLY & SMITH

ATTORNEYS AT LAW

1701 PENNSYLVANIA AVENUE, N.W.

SUITE 1120

WASHINGTON, D. C. 20006

TEL: AC 202 298-5550 TELEX: 89680

HOUSTON OFFICE
FIRST CITY NATIONAL BANK BUILDING
HOUSTON, TEXAS 77002
TEL: AC 713 236-2222
CABLE ADDRESS: VWS
TELEX: 762 146

LONDON OFFICE
47 CHARLES STREET, BERKELEY SQUARE
LONDON, W1X 7PB, ENGLAND
TEL: 01 491-7236
TELEX: 24140

December 3, 1976

Ms. Elke Tallab
Legislative Affairs Agency
State of Alaska
Pouch Y
Juneau, Alaska 99811

Dear Elke:

Advice to the Legislature with respect to the contracts for sale of the State's royalty gas would involve the following:

- (1) Review of contracts.
- (2) Review of Commissioner Martin's negotiation files, or summaries of those files, to understand the areas of compromise.
- (3) Preparation of an analysis of the contracts from the standpoint of the benefits and burdens accruing to the State.
- (4) Conferences in Alaska with appropriate legislative and executive department people.
- (5) Appearance at a hearing for exposition of my opinions.

It is difficult to assess the time necessary for the accomplishment of these tasks since I do not know what volume of material is involved for an intelligent appraisal of the contracts, and, accordingly, it would be difficult for me to establish a fixed fee for the Legislature's consideration. I would prefer, therefore, to consider this representation on the basis of my standard hourly charge of \$100 per hour, plus reimbursement of necessary travel and telephone expense.

On the basis of the best guess that I can make at this time, it seems to me that the total effort should not involve more than 70 to 80 hours. In arriving at this estimate, I am assuming that the Legislature would be interested only in my opinions concerning the contracts as negotiated; if my representation involved re-drafting or renegotiation efforts, in conjunction with a possible Legislative conditional approval of the contracts if they are amended in certain respects, then, of course, the time involved could be substantially greater.

If this work is undertaken, I would expect to begin it immediately upon receipt of the necessary documents and files, and I would anticipate that I would be prepared to come to Alaska anytime after February 1, 1977 for the necessary conferences and hearings. I would expect to regard the representation as completed upon exposition of my views to the appropriate Legislative committee. I understand, of course, that it would be wholly inappropriate for me to accept any other representation with respect to these contractual matters while I am representing the State.

Please let me hear from you at your earliest convenience. I can hold my calendar open to meet the time schedules suggested in this letter for a reasonable period of time, but the necessity for other commitments will arise fairly soon.

If you need anything further from me, please do not hesitate to call.

Best regards,

Very truly yours,



Rush Moody, Jr.

RM:bw

JENSEN ASSOCIATES, INC.

Consultants

in

ENERGY PLANNING, ECONOMICS, AND LOGISTICS

BOSTON

GENEVA

WASHINGTON

CONSULTANTS IN ENERGY

Jensen Associates, Inc. is an independent consulting firm specializing in energy planning, economics and logistics.

We advise businesses, governments and investors worldwide in the interrelated areas of petroleum, natural gas, natural gas liquids, petrochemical feedstocks and electric power. Our focus is upon the business, government policy and economic issues of energy as they are shaped by the interplay of markets, technology, supply, the policies of governments, investments, and the paths of the world's economies.

Jensen Associates, Inc. provides expertise counseling based upon objective, factual analysis and independent judgment. Where appropriate and requested by the client, we will present and defend our findings publicly.

BOSTON

84 State Street
Boston, Massachusetts, U.S.A. 02109

Telephone: (617) 227-8115
Telex: 94-0057/JENSEN INC BSN

GENEVA

14 Chemin Rieu
1208 Geneva, Switzerland

Telephone: 471-8446
Telex: 23358/TRADU CH

WASHINGTON, D.C.

1625 I Street, N.W.
Washington, D.C., U.S.A. 20006

Telephone: (202) 659-4226

SERVICES

Market Analysis

Jensen Associates, Inc. has analyzed the pricing, supply routes, supply quantities, interfuel competition, and fuel buyer's plans and price sensitivity of markets. This analysis has examined markets ranging in size from world markets to areas 100 miles in diameter. We have analyzed markets which have included all buyers of energy to specific buyers of specific fuels.

Planning

We provide planning services to energy companies on business strategy, annual plans, and planning techniques, and to large energy consumers on energy supply and fuel purchasing.

Forecasting

Jensen Associates, Inc. forecasts energy supply, demand, and price for clients and it forecasts the course of development of new energy sources. This has involved forecasts of world energy balances, natural gas supplies for the U.S., world LPG supply and demand, prices for petroleum, natural gas and liquefied petroleum gases, and the technical, financial, market and government policy forces acting upon emerging energy sources.

Investment Feasibility and Valuation

We have analyzed the economic feasibility of supply, logistic, and marketing investments in the energy business and have assisted clients to place a value upon existing energy businesses.

Pricing and Contracting

Jensen Associates, Inc. has helped both private and governmental clients set prices for energy, design price indexation formulas, and evaluate and design the price and terms of purchase and sale and logistical contracts. In addition, we have reviewed pricing and purchasing in governmental review and court proceedings as well as assisted in tax and royalty negotiations between producers and host governments.

Governmental Policy and Regulation

Jensen Associates, Inc. has recommended policies to governments and advised them on developments in energy. We have also presented expert testimony before legislative, regulatory, and judicial bodies concerning petroleum, natural gas, natural gas liquids and electric power issues.

Fuel Supply

We have assisted users of energy in their fuel planning and purchasing by analyzing energy development and its impact upon price and security of supply, evaluating price and supply arrangements, identifying supply sources, recommending logistical paths, and, where appropriate, presenting expert testimony.

CLIENTS

Jensen Associates, Inc. serves clients in North America, the Middle East, Europe, the Far East, and Latin America. Much of our consulting is confidential. Consequently, we do not publicize either our clients or the project work. However, the types of clients we serve include:

- integrated oil companies
- national oil companies
- electric power utilities
- governments
- natural gas and oil pipelines
- independent energy marketers
- gas utilities
- importers
- terminal operators
- international shippers
- oil and gas producers
- industrial consumers of energy
- legislatures
- chemical companies
- banks
- investors
- industry associations

PROJECT EXPERIENCE

The representative projects undertaken by Jensen Associates, Inc. provide a measure of our capabilities and experience.

International

- For a multinational oil company, an historical examination of petroleum movements in the Far East and the relationship of oil flows and tanker rates and product pricing in one country.
- For an OPEC country, development of a long-term international petroleum marketing strategy.
- For large fuel buyers, forecasts of international LPG supply and demand.
- For an OPEC national oil company, an analysis of worldwide energy supply and demand forecasts.
- For a foreign producer of LPG, identification of U.S. markets and customers for its product.
- For a national oil company of an OPEC nation, a survey of the major staff departments--economics and planning, supply and distribution, and tanker--of the major international oil companies with recommendations as to the function, organizational structure, and responsibilities of similar departments to be created within the nation's own national oil company.
- For a group of Middle East investors, analysis of the economic viability of a proposed crude and products transshipment terminal.
- For a client negotiating a contract with an OPEC national oil company, analysis and recommendations for a price index in a long-term contract based upon various prices for heating and fuel oil on the U.S. East Coast and Rotterdam.
- For a U.S. company, assistance in negotiations for the development and production of a newly-discovered oil field in an OPEC nation.
- For an international petroleum product shipper, an analysis of the U.S. LPG markets.
- For a European chemical company, analysis of natural gas feedstock contracts.

The representative North American projects undertaken by Jensen Associates, Inc. are classified below under the headings "Energy Industry" and "Government and Regulatory."

Energy Industry--North America

- For a natural gas pipeline company, an analysis of industrial markets, fuel pricing and interfuel competition.
- For oil and gas producers, analysis of Federal Power Commission and Congressional proposals and decisions upon interstate natural gas prices.
- For a petroleum marketer, fuel oil market analysis for a proposed oil terminal acquisition.
- For a major U.S. industrial manufacturing company, a forecasting of the supply of natural gas within the United States.
- For an oil and gas producer, analysis of provincial and federal policies on natural gas prices and contracts in Canada.
- For a major U.S. chemical company, forecasting the development of coal gasification and liquefaction plants in the U.S. considering technical, financial, regulatory, environmental and political factors.
- For a products transportation company, a market analysis for a proposed LPG import terminal.
- For an electrical power generation utility, forecasting the growth of electricity demand by petrochemical producers.
- For a medium-size oil producer, a forecast of the price of propane for twenty years including U.S. propane economics as well as estimates of worldwide availability.
- For a group of gas distribution companies, an analysis of the impact upon natural gas supply to them if the Federal Power Commission were to assume jurisdiction over wellhead sales of natural gas to intrastate pipelines.

- For an energy importer, an analysis of the risks and potential of alternatives of indexing the price of a product to various published price series within the United States and Europe.
- For a major manufacturing company, assistance in locating, negotiating for, and contracting to purchase supplies of natural gas at the wellhead, and assistance in negotiating for the wildcat drilling for natural gas.
- For an importer, economic and logistical analysis of liquefied natural gas (LNG) projects using a computer simulation model.
- For a major industrial company, assistance in the establishment of an energy forecasting program including evaluation of and recommendations upon the use of energy supply and demand models.

Government and Regulatory--North America

- For the Federal Energy Administration, an evaluation of the natural gas supply and curtailment situation for the heating season November 1975 to March 1976 and recommendations for and evaluation of alternative changes in regulations to bring increased supply to the interstate gas markets.
- For industrial consumers, pipelines and the U.S., extensive, expert testimony on the allocation of natural gas shortages before the Federal Power Commission, state public utility commissions and the U.S. Senate Committees on Commerce and on Interior and Insular Affairs.
- For an industry group of electricity consumers, analysis of the economic impact of changing electric power rate structures and expert testimony before the U.S. House of Representatives' Subcommittee on Energy and Power concerning the marginal cost pricing of electricity.
- For a government agency, an analysis of the impact upon petrochemical development of changes in pricing and regulation of natural gas.

- For the U.S. Congress, an analysis of natural gas shortages and a review of alternative policies.
- For the American Gas Association, expert testimony on natural gas reserves estimates before the U.S. House of Representatives' Subcommittee on Oversight and Investigation.
- For an electric power utility, expert testimony in a court proceeding on the future price of fuel oil.

STAFF

Jensen Associates, Inc. has an experienced and highly qualified staff of consultants with backgrounds in business, economics, engineering and governmental policy analysis. Most of the senior staff have advanced degrees and all have published papers or books, and have been asked to speak before professional groups. Biographies of individual staff members are available.

JAMES T. JENSEN

Mr. Jensen is President of Jensen Associates, Inc., an independent energy consulting firm located in Boston, Massachusetts. For eighteen years prior to his establishment of Jensen Associates, Inc., Mr. Jensen was a Senior Staff Member of the Energy Group of Arthur D. Little, Inc. Throughout his career, he has concentrated on petroleum, natural gas, and energy economics and their applications to the management of energy-oriented organizations. His major interests have been in the fields of energy planning, economics, and forecasting, and in the judgment of investment and feasibility decisions in the energy industries.

His clients cover a broad international spectrum from government agencies to corporate clients in energy or energy-related businesses. He is a recognized authority on the allocation of U.S. natural gas shortages and has testified extensively before the Federal Power Commission, various state public utility commissions, and U.S. Senate Committees on Interior and Insular Affairs and on Commerce. Trends in energy demand and competition have been a major part of his work. He has been in charge of several long-range research planning reports for the American Gas Association. He was responsible for an analysis and forecast of the United Kingdom energy market to 1990 and the probable impact of North Sea gas discoveries on energy competition and pricing there. For an oil producing government he undertook a study entitled, "The Outlook for the Worldwide Petroleum Industry."

Investment feasibility has been an important part of his assignments. His project feasibility studies have included refineries, transport facilities, petrochemical plants, and liquefied natural gas projects. The studies have involved projects in Europe, South America, North Africa, and the Far East as well as the United States.

Some of his recent publications include: "Prospects for Tanker Shipments of Liquefied Natural Gas into the Continental United States," A.I.M.E., February, 1967; "The Chemical Refinery in Perspective," American Chemical Society, 1970; "Energy Policy Issues for the United States During the Seventies," The National Energy Forum, 1971; "An Economic Rationale for Rationing Gas Supplies in the United States," A.I.M.E., 1973; "International Oil--Shortage, Cartel, or Emerging Resource Monopoly?" Vanderbilt Journal of Transnational Law, 1974.

He has been a visiting faculty member of the Petroleum Economics and Management Seminar conducted by Northwestern University and of both the Financial Analysts Seminar and Life

Officers Investment Seminar under the sponsorship of the University of Chicago Business School. He has also lectured on energy topics for programs at Harvard University and at M.I.T.

Mr. Jensen holds a Bachelor's degree in Chemical Engineering from the Massachusetts Institute of Technology and a Master's degree from the Harvard Graduate School of Business Administration. He is a member of the American Petroleum Institute, the Society of Petroleum Engineers, and the American Chemical Society.

JOHN C. GAULT

Dr. Gault is a member of the Professional Staff of Jensen Associates, Inc., an independent energy consulting firm, with offices in Boston, Massachusetts and Washington, D.C. Dr. Gault has consulted for several years for private and government clients in areas of energy planning and economics.

His fields of particular interest include energy economics, public utility regulation, the study of the effects of taxation upon the use of exhaustible resources, and analysis of legislation, markets, and investment proposals. Dr. Gault has contributed to research reports in the areas of electricity demand forecasting, peak load pricing, electric generation plant siting, and natural gas pricing and curtailment methods.

Other subjects of recent research have included analysis of Canadian petroleum tax policy, forecasting U.S. natural gas prices, forecasting energy demand and supply in the United States and Canada, study of the siting of oil transshipment terminals, and analysis of oil price indexing, alternative electric rate structures, and the effects of horizontal divestiture on the U.S. oil industry.

Dr. Gault also has experience in the negotiation and analysis of petroleum production agreements and collateral investment projects in oil producing countries.

Prior to joining Jensen Associates, Inc., Dr. Gault worked for approximately five years in Jordan, Lebanon, and Saudi Arabia. Assignments included teaching Economics at the American University of Beirut and feasibility analysis of large projects for an international investment bank, headquartered in Beirut. While pursuing his graduate education, Dr. Gault was a Research Associate in a natural gas cost analysis project.

Dr. Gault received a B.A. in Economics from Yale University and a Ph.D. in Economics and Middle Eastern Studies from Harvard University. He is a member of Phi Beta Kappa and received a Harvard Graduate Prize Fellowship. The title of his Ph.D. dissertation is "Natural Gas Price Regulation and the Theory of Exhaustible Resources."

EDWIN F. HARDY

Mr. Hardy is a Senior Professional and Washington Office Manager of Jensen Associates, Inc. He has managed and performed technical and economic analysis and lent his experience to business investment, supply, and marketing decisions in the energy area. Mr. Hardy has worked extensively in the analysis and forecasting of supplies and reserves of natural gas and the development of sources for synthetic and other supplemental supplies of gas. In addition, he has broad experience in the technology and economics of petroleum refining including market analysis and economics, and refinery technology and economics.

Prior to joining Jensen Associates, Inc., Mr. Hardy was Director of the Planning Division of the American Gas Association, responsible for its planning activities. He held the responsibility for coordinating and publishing the annual reserve estimates of natural gas and natural gas liquids in the United States, initiating and coordinating gas industry efforts to increase supply of natural gas and supplemental gas, developing research programs, and providing information, analysis, and forecasts for the public, the government, and the gas industry. In addition, Mr. Hardy had the responsibility for analysis of gas curtailments, LPG supply and demand, oil supply and oil imports. Mr. Hardy was the American Gas Association staff executive for the Gas Supply Committee and the Committee on Natural Gas Reserves and its observer for the Potential Gas Committee.

Prior to joining the American Gas Association, Mr. Hardy was in line management with the Atlantic Research Corporation for a number of years, becoming a Director and Plant Manager with overall responsibility for business acquisition, planning, budgeting, pricing, production, personnel administration, and all other activities associated with his plant.

Immediately after college, Mr. Hardy worked with the Humble Oil and Refining Company (now Exxon, USA) in Baton Rouge, Louisiana. There Mr. Hardy coordinated engineering and construction during the building of new petroleum refining units. He designed new petroleum products, performed the accompanying market and economic analysis, supervised the start-up of new plants and supported follow-on production operations. His last assignment at Humble was Technical Group Head in charge of mechanical engineering for all petroleum products with responsibility for economic evaluation, environmental impacts, utilization of waste heat, and the design of process units.

Edwin F. Hardy
Page two

Mr. Hardy has a Bachelors Degree in Civil Engineering from the University of Virginia and has completed graduate courses at Louisiana State University in civil engineering, finance and business. Mr. Hardy is a registered professional engineer in the state of Louisiana and is a member of Tau Beta Pi, Phi Eta Sigma, and the Raven Society.

Mr. Hardy has presented a number of papers including "The Emergence of Gas Utilities as a Factor in World Petroleum Economics," "Future Natural Gas Supply Reactions to Higher Prices--Projections of the AGA TERA Model," and "SNG Supply and Demand."

NANCY J. POZAR

Nancy J. Pozar is a member of Jensen Associates, Inc. research staff and is primarily concerned with analysis of the supply side of energy questions, both in the United States and worldwide.

Ms. Pozar participated in an analysis of the Far East in which the region was examined as a supply/demand situation in and of itself. A net import/export balance for regional crude production and products availability for the Far East as a whole and then for each of six distinct sub-regions was derived. Sub-regional flows of crude and products were then examined and ultimately related to refining economics, tanker rates and then to product pricing in one particular country in the Far East.

On the supply side of U.S. energy problems, Ms. Pozar has examined both natural gas and petroleum availabilities in detail. She assisted in the preparation of legal testimony related to the currently limited domestic supply of natural gas. Final testimony was presented before Federal district court. Ms. Pozar has examined availability assumptions presented in recently published domestic energy analyses (among them the Project Independence Blueprint and the Ford Foundation energy study) looking comparatively at estimates of present reserves of energy resources, forecasts of future reserves additions and alternative resource availability as well as the effects of shifts in sectoral and regional demand on resource supplies.

Ms. Pozar has also been active in analyzing U.S. natural gas markets, regulation and pricing. In a recent major study, she focussed on the effects of gas price on gas supplies in both interstate and intrastate gas markets as well as on the interaction of these two markets. Federal Power Commission regulation was reviewed from the Natural Gas Act through more recent pricing mechanisms (emergency sales, limited-term certificates, optional pricing procedures, the small producer exemption and the uniform national rate). The interstate regulatory actions were then correlated with interstate gas supply and prices. On the intrastate side, major gas consuming and producing states were identified and the nature of the intrastate market in each was analyzed. Intrastate markets in the major gas producing states were then scrutinized as to changes in gas production, intrastate vs. interstate sales and sectoral consumption in the last few years. This analysis was subsequently used in forecasting both intrastate and interstate gas price levels.

Nancy J. Pozar
Page two

Prior to joining Jensen Associates, Inc., Ms. Pozar was employed in the energy section of Arthur D. Little, Inc. She holds a Bachelor of Arts degree from the Department for Near and Middle Eastern Studies of the University of Michigan in Ann Arbor, Michigan.

CARL V. SWANSON

Dr. Swanson is the Executive Vice President of Jensen Associates, Inc., an independent energy consulting firm with offices in Boston, Massachusetts, Washington, D.C., and Geneva, Switzerland. Dr. Swanson has consulted with private and government clients for the past fourteen years. His work addresses economic, and planning issues in petroleum, natural gas, LPG's and electricity rate design. This work has required forecasting supply, demand, and price of various forms of energy; analysis of markets; analysis of and recommendations for governmental action; assistance in pricing; the design of contract terms; examination of logistics; evaluation of supply sources; testimony in regulatory and legislative proceedings; and evaluation and analysis of proposed investments.

Dr. Swanson's recent consulting work includes:

- For producers, transporters, and marketers, several studies on the future supply, demand, pricing and markets for propane and butane.
- Testimony before the U. S. House of Representatives' Subcommittee on Energy and Power on marginal cost pricing of electricity.
- Analysis and policy recommendations to the U. S. government on natural gas supply and curtailment for the 1975-76 winter.
- Several studies on the logistics and economics of liquefied natural gas (LNG) import projects using models representing the shipping, terminalling, storage, and distribution of LNG.
- For a Mid-east client, evaluation of the economic feasibility of a crude and products transshipment terminal.
- Assistance on pricing and contract terms in natural gas, LPG and LNG purchase and sale, and transportation contracts including the development of price index formulas.
- Testimony on alternate fuels before the Federal Power Commission in the United Gas Pipe Line curtailment proceeding.

- Development and implementation for a chemical manufacturing organization of a model-based planning and strategic decision-making process which integrates marketing, production, raw material supply, and finance.
- For a petroleum products marketer, an evaluation of the market opportunities and risks faced by a pipeline terminal being considered for purchase.
- Forecasts of U. S. energy balances and petroleum products demand to 1985.

Prior to the founding of Jensen Associates, Inc., Dr. Swanson headed North Cape Associates which provided energy planning, logistics and economic consulting services. For five years, Dr. Swanson was on the faculty of M.I.T.'s Sloan School of Management where his teaching and research focused upon the practical use of computer information systems and models to improve marketing, production, investment and supply decision-making.

While at the Massachusetts Institute of Technology, Dr. Swanson consulted with private and governmental organizations including: Arthur D. Little, Inc., the RAND Corporation, the MITRE Corporation, the U. S. Army, and the Institute Nationale de la Recherche Agronomique in Paris.

Dr. Swanson has taught at the Graduate School of Business Studies in London; he was a U. S. delegate to the first U. S./U.S.S.R. Management Conference, "Use of Computers for Management in Industry," Torino, Italy, 1970; and he has presented and published papers on information systems, modeling, planning, energy, and management. He received the degrees of Bachelor of Science in Economics and Electrical Engineering from the Massachusetts Institute of Technology, and Doctor of Philosophy in Management, with emphasis upon Economics and Finance, from M.I.T.'s Sloan School of Management.

Contract Between
State of Alaska
LEGISLATIVE AFFAIRS AGENCY
On Behalf Of
The Joint Gas Pipeline Committee
And
JENSEN ASSOCIATES, INC.

The parties to this agreement are the LEGISLATIVE AFFAIRS AGENCY, acting on behalf of the Alaska State Legislature, hereinafter referred to as the "Agency" and JENSEN ASSOCIATES, INC., hereinafter referred to as the "Consultant."

THE PURPOSE OF THIS AGREEMENT is to provide specialized professional economic consulting services to the Alaska State Legislature.

IT IS, THEREFORE, MUTUALLY AGREED THAT:

CLAUSE I - STATEMENT OF WORK

- (a) The Consultant shall assume responsibility for the preparation of, and submit to the Agency, a brief written economic analysis of the State of Alaska's Proposed Royalty Gas Sales Agreements. This analysis shall be as described in the Consultant's proposal of November 30, 1976, attached to this contract as Appendix "A" and incorporated herein by this reference as though set out in full.
- (b) The Consultant shall be available to appear and present expert witness testimony before committees of the Tenth Alaska State Legislature, First Session, on the subject of the above analysis.

CLAUSE II - PERIOD OF PERFORMANCE

- (a) The Consultant shall submit to the Agency a final report, containing the completed economic analysis on or before January 20, 1977. 
- (b) The Consultant shall be available to testify before committees of the Tenth Alaska State Legislature, First Session, at a time mutually agreeable to the Consultant and the Agency.
- (c) This agreement may be terminated--
 - (1) By mutual consent; or
 - (2) For breach of the agreement or any material part thereof.

(d) This agreement expires June 30, 1977, or with the adjournment of the First Session of the Tenth Alaska State Legislature, or with the completion of the contract as provided in paragraphs (a) and (b) of Clause I.

CLAUSE III - COMPENSATION AND METHOD OF PAYMENT

(a) For the economic analysis of the State of Alaska's Proposed Royalty Gas Sales Agreements and two days of expert witness testimony thereon before legislative committees of the Tenth Alaska State Legislature, First Session, the Consultant shall receive up to \$15,000.00 as follows:

(1) The amount of \$10,000.00 upon completion and submission to the Agency of the economic analysis; and

(2) The amount of \$5,000.00 upon the completion of expert witness testimony to legislative committees.

(b) The Consultant shall be reimbursed for expenses incurred in travel as follows:

(1) The costs of coach class air transportation to and from Alaska for the purpose of testifying before legislative committees; and

(2) The expenses incident to such travel, which shall be reimbursed according to AS 39.20 (currently, this provides reimbursement at a flat per diem rate of \$50.00 per day).

(c) The Consultant shall be reimbursed for actual costs of telephone expenses incurred in the preparation of the economic analysis.

(d) Payments under paragraphs (b) and (c) of Clause III of this contract shall be made by the Agency to the Consultant in response to billings submitted to the Agency on a monthly basis.

(e) Total payments, including travel and expenses, to the Consultant under this contract shall not exceed \$19,000.00, except by written authorization, in advance of the work or the incurring of the expense, by the Agency.

(f) In the event this contract is terminated prior to completion of the work specified in paragraphs (a) and (b) of Clause I, the Consultant's basic charge shall be recomputed on a prorated basis according to the percentage of work satisfactorily completed.

CLAUSE IV - RECORDS, DOCUMENTS, AUDIT

The Consultant shall maintain accurate records, including detailed time records. The records are subject to inspection at all reasonable times. All documents, reports and writings generated as a consequence of work done under this contract shall become the property of the State of Alaska, and on completion of the work or at the termination of this contract shall be delivered to the Agency.

CLAUSE V - RESOURCE AND REFERENCE MATERIAL NEEDED FOR PREPARATION OF THE ANALYSIS

- (a) The Agency will assist the Consultant in obtaining source material as necessary, but final responsibility for these items rests with the Consultant.
- (b) It is not contemplated that any confidential resource or reference material will be required to prepare the analysis.

CLAUSE VI - CONFIDENTIALITY OF COMMUNICATIONS

It is contemplated that all work done under this contract will be made public by the Legislature. However, all communications between the Agency or the Legislature and the Consultant, including the final report, shall be held confidential by the Consultant until released by the Agency, or other Legislative entity to which they were addressed.

CLAUSE VII - PRIOR, CURRENT AND FUTURE REPRESENTATION

- (a) The letter of proposal from the Consultant, dated November 30, 1976 describes the past representation of a client known to have an interest in the disposition of Alaska natural gas. The Agency has determined that this does not constitute a conflict of interest for the purposes of this contract.
- (b) The Consultant shall, during the period of this agreement, notify the Agency of any new clients or change in status of any existing clients which might tend to create a conflict of interest.
- (c) The Consultant agrees that prior to the termination of the contract in accordance with Clause II, he shall not undertake to represent any client--
 - (1) In proceedings on Alaska natural gas transportation issues before the Federal Power Commission or the U.S. Department of the Interior; or
 - (2) In proceedings concerning Alaska natural gas before any agency or instrumentality of the State of Alaska.

CLAUSE VIII - OTHER AGREEMENTS OR UNDERSTANDINGS

This agreement contains all the terms and conditions agreed upon by the parties. No other understandings, oral or otherwise, regarding the subject matter of this agreement shall be deemed to exist or to bind either of the parties to this agreement.

IN WITNESS WHEREOF, the parties have executed this agreement.

JENSEN ASSOCIATES, INC.

Carl V. Swanson
Carl V. Swanson

4 January 77
Date

LEGISLATIVE AFFAIRS AGENCY
(By direction of the
Chairman of the
Joint Gas Pipeline Committee)

Gregg K. Erickson
Gregg K. Erickson

12/21/76
Date

Approved as to Form

Billy F. Leeson
Agency Legal Counsel

Dec. 27, 1976
Date

JENSEN ASSOCIATES, INC.

84 STATE STREET BOSTON, MASSACHUSETTS 02109

TELEPHONE (617) 227-8115
TELEX 94-0057

November 30, 1976

Ms. Elke Kallab
Legislative Affairs Agency
Pouch Y
Juneau, Alaska 99811

Dear Ms. Kallab:

As we discussed over the telephone on Monday, November 29, 1976, Jensen Associates, Inc. is pleased to submit this proposal to the Legislative Affairs Agency to analyze the economics of the recently signed contract by which the State of Alaska has sold its royalty gas to Tenneco, Southern Natural Gas Company and El Paso Natural Gas Company.

OBJECTIVES

The objective of our analysis is to determine if the contract protects the interests of the State of Alaska and provides it with maximum economic values in the sale of its royalty natural gas over the term of the contract. We shall review the entire Contract, but we shall focus upon the pricing provisions and determine if they protect Alaska's interest in light of different future developments in the United States energy picture.

We shall also scrutinize the renegotiation and termination options, to insure that Alaska is protected in the event of major changes in energy policy and markets. We shall recommend changes in the contract where we believe they are appropriate. The weaknesses and strengths in the contract shall be identified.

We shall analyze the contract in light of recent legislative initiatives in natural gas and their economic impact. However, because others are examining the legal aspects of

the contract, we shall not address issues in the sphere of legal counsel or concerning the standing of the contract and its provisions in the eyes of the Federal Power Commission or Legislation.

While we are prepared to perform such analysis, it is our understanding that this task will not involve analysis of the sale of natural gas liquids.

METHOD OF APPROACH

We shall draw upon our knowledge of the United States and world energy markets and future trends for this task. In particular we shall draw upon our extensive work in natural gas markets, pricing, and contracting to analyze this contract.

The output of our analysis shall be one or more memorandums which detail our findings, telephone consultation, and the presentation of our findings to the Alaska Legislature.

Our analysis shall be objective and based upon factual analysis and our independent judgement.

CONFLICT OF INTEREST

We do not believe that there is any conflict of interest in our analyzing this contract for the State of Alaska. As professional business and economic analysts our work is objective. While we do present our findings publicly where appropriate, it is as the results of objective analysis. We do not act as public advocates for clients.

As we discussed in our telephone conversation, I have recently presented expert testimony in FPC curtailment hearings on United Gas Pipe Line Company Docket Nos. RP71-29 and RP 71-120 (Phase II). This testimony was on behalf of

JENSEN ASSOCIATES, INC.

Ms. Elke Kallab

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November 30, 1976

six intervenors: General Motors Corporation, Mississippi River Transmission Corporation, Natural Gas Pipeline Company of America, Southern Natural Gas Company, Texas Eastern Transmission Corporation, and Texas Gas Transmission Corporation. This was rebuttal testimony to United Gas Pipe Line Company witnesses. My testimony argued that the category II industrial customers in the United service area in East Texas, Louisiana, Mississippi, Alabama, and the Panhandle of Florida have no greater difficulty in obtaining alternate fuels when natural gas is curtailed than industrial customers further to the north. This work began in mid July, 1976 and ended after the testimony was presented in mid November, 1976. Our fees to Southern Natural Gas are about one percent of our annual billings.

We are performing no work at this time, or in the recent past, for the other purchasers of the royalty gas or for Exxon, Arco, BP or Sohio.

QUALIFICATIONS

Jensen Associates, Inc. is highly qualified by previous experience to perform this analysis. A statement of our qualifications is attached.

BUSINESS RELATIONSHIP

Jensen Associates, Inc., proposes that this work be performed on a time and expenses basis. Until we receive the contract we are not able to estimate the time required to perform proper analysis of it. After we have had a chance to review the contract we will provide a more detailed estimate of costs. However, for your budgeting purposes we would suggest that you plan for professional service fees of \$10,000 - 15,000 plus expenses not to exceed 15% of professional service fees unless more than one trip to Alaska were to be required.

We will bill the Legislative Affairs Agency monthly, for payment within ten days, for professional services and expenses. Professional services will reflect the time spent on your behalf. Expenses incurred while working in your behalf on this assignment will be billed at their cost to us and will include travel, communications, report production, and other directly related costs.

Professional services will be billed at our customary rates for the individuals involved. For consulting these rates are: Mr. James T. Jensen, \$640 per day; Dr. Carl V. Swanson, \$520 per day; Ms. Nancy Pozar, \$280 per day; Mr. Edwin F. Hardy, \$480 per day; and (Mr) John C. Gault, \$360 per day. For the presentation of expert testimony the rates are: Mr. Jensen, \$900 per day; and Dr. Swanson, \$650 per day.

STAFF AND SCHEDULE

Based on present staff schedules I will be in charge of the project here. Mr. James T. Jensen, Mr. Edwin F. Hardy, Mr. John C. Gault, and Ms. Nancy J. Pozar are expected to work with me. When appropriate, other staff members with backgrounds

JENSEN ASSOCIATES, INC.

Ms. Elke Kallab 5 November 30, 1976
particularly appropriate to this study may be assigned to the
project. Biographies of Mr. Jensen, Mr. Hardy, Mr. Gault,
Ms. Pozar, and me are attached. We understand that we should
look to you and Mr. Greg Ericson for general direction and
policy decisions on behalf of the Legislative Affairs Agency
of the State of Alaska.

Based on current commitments, we expect that we will send a memo describing our findings approximately one month after your authorization to proceed with this assignment. I am holding open my schedule for the week of January 24, 1977 for the legislative hearings.

GENERAL PROVISIONS

In the past we have provided analysis and counsel to clients in areas included in this proposal. This experience helps to qualify us to undertake the assignment described above and we expect to continue such work in the future.

To protect your interests we agree that any confidential information we may develop or have furnished to us by you during this assignment will be safeguarded and held in confidence. Furthermore, it is our practice in considering new assignments to decline them whenever it appears to us at all probable that our experience with a past or present client might be used improperly in the new assignment.

ACCEPTANCE

For the purpose of staff scheduling this proposal is made subject to acceptance within 30 days. Should you like more time to consider the proposal or to discuss modifications to it, please let us know.

JENSEN ASSOCIATES, INC.

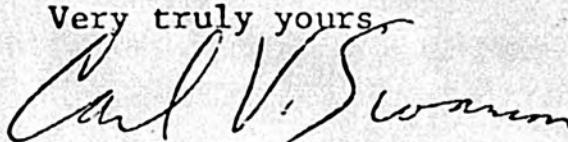
Ms. Elke Kallab

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November 30, 1976

We look forward to working with you on the analysis of Alaska's royalty gas sales contract, and we will devote our best efforts to accomplishing the objectives described above. If this proposal is acceptable to you, would you please sign and return the enclosed copy as authorization for us to proceed with the work.

Very truly yours,



Carl V. Swanson
Executive Vice President

CVS/jd

Accepted for _____

By _____

Title _____

Date _____

energy price increases would fuel inflation and partly because of lingering suspicion that the industry is withholding gas supplies to force deregulation. "The oil and gas companies have no interest in dealing with the current emergency," James F. Flug, director of the Energy Action Committee, told a House subcommittee last week. "The more people who are cold and out of work and out of school, the easier it is to stampee the nation into a deregulation frenzy."

A SECRET SUPPLY?

Most energy experts reject the notion that the industry is deliberately withholding supplies of natural gas—though it is true that some gas is too costly to pump at today's prices. The FPC recently heard charges that Shell Oil Co. had shut in 2 trillion cubic feet of gas. Shell admitted that it had such reserves, but it explained that production of 31 per cent

pipe that made long-distance pipelines possible, natural gas became a valuable commodity.

From the very beginning, the FPC regulated the prices that pipelines could charge utilities and industry. But the all-important wellhead price that the producers charged the pipelines was free of control. Then, in the early 1950s, the Phillips Petroleum Co. jacked up wellhead prices and the state of Wisconsin and other states promptly sued the firm. In a landmark case in 1954, the Supreme Court ordered a reluctant FPC to set rates for gas sold to the interstate pipelines. Two years later, the industry got Congress to pass a deregulation bill—only to have it vetoed by President Eisenhower when it turned out that industry lobbyists had allegedly tried to bribe Sen. Francis Case of South Dakota. The industry has never been able to get another deregulation bill out of Congress.

With gas prices artificially held down,

not. It takes up to three years to bring new onshore gas fields into production, up to seven years offshore. But eventually, experts say, deregulation would ease the crunch somewhat. According to the Federal Energy Administration, production will fall from more than 19 trillion cubic feet in 1976 to 16 trillion cubic feet by 1985 if prices are not deregulated. If they are, domestic production would increase, but only to 21 trillion cubic feet—the level of 1974.

NO BONANZA IN SIGHT

Gas from the North Slope of Alaska could add 1.2 trillion cubic feet annually, but there is as yet no pipeline to carry it south. Imports of liquefied natural gas might account for an additional 1.1 trillion cubic feet a year. But experts expect virtually no help before 1990, if then, from the much-discussed schemes to produce gas from coal. Nor do they think there are many large gas fields just wait-



Pennsylvania's Governor Shapp, (left) and New Jersey's Byrne (right) at Washington gas hearing: Begging for more from less

of them was awaiting the proper equipment, that 25 per cent couldn't be produced until nearby fields were worked, that 25 per cent more was awaiting the construction of pipelines, and 19 per cent wasn't entirely proved out. "I keep hearing about gas that's being squirreled away," says President Carter's energy coordinator James Schlesinger, "but whenever we get close to it, it becomes evanescent."

The great irony is that natural gas was once nothing more than an annoying byproduct of oil, and drillers burned it off at the wellhead. Wayne Gibbens, now president of the Mid-Continent Oil & Gas Association, recalls watching the blazing spectacle from his Texas home in the 1940s: "For 50 or 100 miles on the horizon, so much gas was being flared it was like daylight at midnight." But after the development of a strong, seamless

users quickly switched from coal and oil to gas. Demand soared, and by 1967 it began to outstrip the industry's ability to find new supplies. Reserves available to interstate pipelines dropped from 198 trillion cubic feet in 1967 to 107 trillion cubic feet in 1975. "The interstate system has eaten away at existing reserves for eight consecutive years," says former FPC commissioner Rush Moody Jr. Finally, last summer, the FPC nearly tripled the price of newly discovered gas—to \$1.42—in an effort to spur exploration, but consumer groups have since blocked the move in court. President Carter pledged during his campaign to deregulate new gas on an experimental basis, but the issue is now so controversial that Congress may not go along despite the emergency.

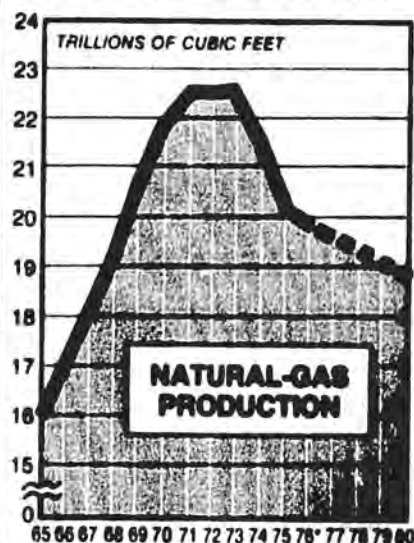
Would deregulation reduce the chronic shortage? In the short run, probably

ing to be discovered. "There's still gas to find," says John McDonnell, a vice president for marketing at Gulf Oil. "But we can't expect any of the bonanzas of the past."

In the end, it's clear that the nation will just have to make do with less gas—which may mean allocating the available fuel to users that have no suitable alternative and switching everyone else to coal or electricity or solar power. More immediately, the Carter Administration is stressing conservation of all energy. And once the emergency allocation legislation clears Congress, it is likely the President will push for at least partial deregulation of gas prices. But unless the nation learns more from the current gas crisis than it did from the oil crunch of 1973-74, the outlook is not very hopeful.

—DAVID PAULY with JAMES BISHOP Jr. in Washington and bureau reports

ON THE DOWNSIDE



thermostats are kept no higher than 65 degrees. The White House may have an ally; electrical companies in some hard-hit areas have hinted that they might stop residential service for short periods—this might immobilize thermostats and reduce heat. Schlesinger and his aides are also urgently searching for other remedies. Their problem is that the Federal government doesn't have the emergency authority over gas allocation that it does over oil, and any new legislation would be politically controversial. The President could request power to control the disposition of intrastate gas supplies, or he might seek "end-use" authority, by which businesses and homeowners may be forced to convert to fuels other than gas. "We are looking for rifle-shot actions," a Schlesinger aide said. "And if the legislation doesn't work, we will have to get more authority. We are ... jawboning everybody we can find."

Beyond anything that may be done in the next few months, the U.S. will still need to find a more lasting solution to its crisis. The problem, quite simply, is that the country's natural-gas reserves are perilously meager. The majority of producers have refused to commit the vast sums necessary to locate and extract new supplies as long as their earnings are restricted by Federal price controls on interstate sales. One possible result of this winter's shortage is that the Administration and Congress may move toward deregulation in order to stave off a recurrent crisis.

A NEW ATTITUDE

That alone will not guarantee a future free of energy crises, for the U.S. is a notorious waster of resources. Schlesinger's energy advisers believe that the country squanders fully 50 per cent of all the energy it uses. By better insulation of homes, for example, a year's worth of fuel consumption could be saved. The Carter Administration is virtually certain to try to encourage such steps, primarily through a combination of deregulated—and therefore higher—prices and mandatory actions. The President is expected to urge higher utility rate prices in peak hours, stricter mandatory standards for the insulation of new buildings and more efficient automobiles.

Carter will put his proposals into an over-all energy program for Congress this spring. But no new laws are likely to solve the problem—somehow the country must take a new attitude toward using energy. There has always been more than a touch of the preacher in Carter's personality, and his leadership in this crisis will likely be the greatest test of his powers of moral suasion. "There isn't any quick fix," said one of his men last week. "We are facing real trouble unless people share and cut back. We are heading into a real test of democracy in an era of resource constraints."

—RICHARD STEELE with JAMES BISHOP Jr. and TOM JOYCE in Washington, CHRIS J. HARPER in Chicago, JON LOWELL in Detroit, VERN E. SMITH in Atlanta and bureau reports



Checking the gas flow at Cincinnati power plant: From nuisance to U.S. necessity

Why the Big Shortage?

Why has America run out of gas? If it is any consolation, energy experts could at least say that they gave fair warning. Since the 1960s, they've been pointing out that the nation was depleting its natural-gas supply—and after three years of abnormally mild winters, this season's brutal cold snap turned a nagging shortage into a full-scale crisis. The critics were quick to blame a greedy industry for not developing new sources much sooner, and the industry was just as quick to fault Washington for foolhardy regulation. The immediate problem was to rush what little gas was still available to the worst-hit areas. But over the longer term, the natural-gas industry seems headed for major change.

In some respects, natural gas is America's most important fuel. It accounts for fully 30 per cent of U.S. energy consumption. It heats half the homes in America and furnishes 50 per cent of industry's energy. The only clean-burning fossil fuel, natural gas is virtually pollution-free, and it is a vital raw material in the manufacture of fertilizer, glass and numerous chemicals.

The gas is drawn mainly from deep wells in Texas, Louisiana, Oklahoma and other states and from offshore rigs in the Gulf of Mexico. Since gas is generally found with oil, the chief producers are the major oil companies—Exxon, Mobil, Gulf and Shell. They, in turn, sell the gas to more than 100 pipeline companies (Panhandle Eastern, Columbia Gas and Texas Eastern, for example) which own and operate more than 200,000 miles of interstate pipeline that distribute gas to local utilities and industry.

Everything went smoothly enough until the late 1960s. But then, soaring demand began to exceed new supply, Federal Power Commission chairman John

Nassikas warned in 1969 that "natural-gas supplies are diminishing to critical levels." Domestic production began falling in 1974 (chart, page 20) and the industry accelerated the depletion of its proven reserves. Even though the last three winters were mild, the pipeline companies were forced to curtail deliveries to industry customers with firm contracts—in some cases cutting them off completely. "The trend is decreasing supplies, dwindling reserves and declining exploration," says David Foster, executive vice president of the Natural Gas Supply Committee, a Washington lobbying group.

CHRONIC CRISIS

But though the basic facts are clear, there is still considerable disagreement over the causes of the natural-gas shortage and what should be done. As gas-industry men see it, Federal regulation has caused a chronic shortage that turns into crisis during a prolonged cold wave. Because prices are kept below market levels, they say, supply can't possibly keep up with demand. Cheap gas is snapped up by consumers, while producers have little incentive to look for new gas. At the same time they claim that regulation by the Federal government has distorted distribution. The FPC has kept the price of gas sold interstate to as low as 52 cents per 1,000 cubic feet—enough to heat an average home for a little more than three days—while unregulated intrastate prices have risen as high as \$2.25. "The gas goes where the money is—to the intrastate system—and we can't buy it," complains spokesman Howard Sorenson of Northern Natural Gas Co., an Omaha-based pipeline company.

Congress, however, has been reluctant to decontrol gas prices, partly because