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May 31, 2008

Ms. Karlene Fine  
North Dakota Industrial Commission  
600 E. Boulevard Avenue  
Bismarck, ND 58505

Subject: Grant Application for the Study of the Contribution of the Petroleum Industry to the North Dakota Economy

Dear Ms. Fine:

Enclosed is a grant application requesting the North Dakota Industrial Commission to approve funding from the Oil and Gas Research Council to participate in an economic impact study of the contribution of the petroleum industry to the North Dakota economy. A \$100 check is enclosed to cover the application fee.

In 2005, the first ever economic impact study of the petroleum industry was conducted, the results of the study have been widely distributed and continue to be referenced in news stories, used by policy makers, implemented in outreach efforts across the state, and have proven beneficial for political and regulatory discussion. However, data gets old and updating the data for current policy-makers and the public to understand the economic impacts of the petroleum industry in North Dakota important. The baseline data was established using 2005 data, the update using 2007 data will allow the researchers to evaluate and compare the change over the two-year period. Support and participation from the Oil and Gas Research Council in the study is important as it shows that it's not just a document produced and supported by industry. The North Dakota Petroleum Council is committed to providing matching funds to complete the study and to be the distribution center for dissemination of the data.

Please contact me if you have any questions or need additional information for the enclosed grant application.

Sincerely,

Ron Ness

*Enclosures*



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Applicant: North Dakota Petroleum Council  
Principal Investigator: Ron Ness, President  
Date of Application: May 31, 2008

## **Contribution of the Petroleum Industry to the North Dakota Economy**

Grant Requested from the  
North Dakota Oil and Gas Research Council

Submitted by

North Dakota Petroleum Council

Project Expenses: \$26,000  
Amount Requested: \$13,000  
Grant Deadline: June 1, 2008

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## **1.0 Abstract**

For more than 50 years, the petroleum industry has been one of the pillars of the North Dakota economy. However, because the industry's major activity is concentrated in areas remote from the state's major population centers, policy makers and citizens may not fully appreciate the magnitude of the oil and gas industry's economic contribution. Like the lignite energy industry, the petroleum sector is characterized by extremely capital-intensive production and processing activities, so the number of persons directly employed by oil and gas firms is not a good indicator of the industry's importance to the state economy.

The objective of this project is to estimate the contribution of the petroleum industry to the North Dakota economy, measured by indicators such as employment, income, additional gross receipts in various sectors of the state economy, and revenues from selected state taxes. Having the Oil and Gas Research Council participate with industry to conduct the study is important because it adds credibility to the study as the state is participating in the funding. In addition, the data collection and analysis is done by NDSU, a leader in economic research. The Petroleum Council believes this partnership is extremely important and will add value to the study.

The duration of the project is nine months with a total project cost of \$26,000. The participants are the North Dakota Petroleum Council, Ron Ness, President, and the North Dakota State University Department of Agribusiness & Applied Economics, F. Larry Leistritz, Professor and Dean Bangsund, Researcher.

This study will essentially update the previous economic study using 2007 data, the previous study will soon be outdated since 2005 economic data was used to complete the study. In order to make the data a useful tool for policy makers, the study needs to be updated at least every two years. As a reference, the lignite industry updates their economic study each year.

The 2005 study was the first-ever, comprehensive assessment of the economic contribution of the North Dakota petroleum industry in North Dakota. The study results that were publically released in the fall of 2007, received considerable statewide media attention and is still referred to regularly in news stories across the state. The data provided a critical piece of missing information regarding specific aspects, such as royalty and lease payments paid to North Dakota residents, and has been a valuable tool in educating the public about the statewide impacts of the surge of oil activity in North Dakota.

An additional value of updating the study information is the use of the data for the Empower North Dakota Commission. Empower is drafting a state energy policy for legislative consideration and acknowledging the impacts of each energy industry segment. Aggregating the impacts of the entire North Dakota energy industry is a goal of Empower. In fact, the Empower policy statements encourage each industry to identify their economic impacts. This information should be particularly useful as state policy makers deal with issues affecting the industry's future such as; the state budget, tax policy, access to public lands, regulatory issues, economic development, pipeline infrastructure, workforce training, and education funding. The study can also provide data indicating the significant impact on the state's economy and the growth of employment in North Dakota.

Clearly, there has been an increase in the economic activity and employment in the petroleum industry. By updating the study we can determine how significant the economic contribution to the state has been. Having current information from a highly respected research institution quantifying this economic contribution of the industry is necessary; referring to dated materials is not helpful. The communication plan is also critical as packaging the data in a useful and understandable format and getting the data to the public is important. The data is of little value if not communicated to the public and policy leaders. Having a communications plan in

place prior to receiving the data was instrumental to the 2005 study; a similar communication plan will be used for the 2007 study.

## **2.0 Project Description**

The objective of this project is to estimate the contribution of the petroleum industry to the North Dakota economy. A survey of oil industry firms will be conducted to determine the industry's direct employment and expenditures to in-state entities. The North Dakota Input-Output Model will then be used to estimate the secondary and total economic contribution of the petroleum industry to the North Dakota economy. The industry's contribution to the state economy will be summarized using indicators such as employment, income, and additional gross receipts in various sectors of the state economy, and revenues from selected state taxes (property, sales and use, corporate and personal income taxes, as well as sector-specific extraction and production taxes). The assessment will include both the economic contribution of petroleum exploration and extraction and the economic contribution of petroleum refining, gas plants, and pipelines.

The project will be completed within one year of initiation at a cost not to exceed \$26,000. That includes \$17,500 for the study and \$8,500 for the communications plan. The effective assimilation of the data into a useable format for the public and distribution of the study results across the state is a critical element of the process. The Petroleum Council will develop a communications plan over the next few months to determine the best use and distribution of the results to a targeted audience of North Dakota policy makers and/or the general public. The plan is likely to include a news release and news conference, numerous publications revealing the study results. In addition, printed brochures, a section on the Petroleum Council's web page devoted to the petroleum industry's economic impacts, and educational materials for the Energy Career Awareness Partnership and the Teacher Education Seminar. In addition, the Petroleum

Council will add select data to its annual *Facts and Figures* publication and use the data in outreach activities across the state.

*Specific study objectives will include:*

- Estimate the economic contribution of the petroleum exploration and extraction sector.
- Estimate the economic contribution of the petroleum-refining, gas plants, and pipeline sectors.
- Provide measures of the relative importance of the petroleum industry and of the energy industry (i.e., petroleum plus lignite extraction and conversion) to the North Dakota economy.

## **2.1 Approach/Methods:**

Economic effects associated with a project, program, policy, or activity can be categorized into direct and secondary impacts. Direct impacts are those changes in output, employment, or income that represent the initial or first-round effects of the project, program, policy, or activity. Secondary impacts (sometimes further categorized into indirect and induced effects) result from subsequent rounds of spending and re-spending within the economy.

Estimating the direct economic contribution of the North Dakota petroleum industry will require obtaining current estimates of the production, revenues, employment, and expenditures by oil and gas industry firms to in-state entities. The data will be collected from a sample of oil and gas industry firms and used as input to the North Dakota Input/Output Model, to estimate the secondary and total economic contribution resulting from the industry's operations in the state.

Input-output (I-O) analysis is a mathematical tool that traces linkages among sectors of an economy and calculates the total business activity resulting from a direct impact in a basic sector. The North Dakota I-O Model has 17 economic sectors, is closed with respect to households (i.e., personal income is included in the model), and was developed from primary

(survey) data from firms and households in North Dakota. Contributions to state economic activity will be summarized using key economic indicators such as personal income, tax revenue, gross business volume (gross receipts), and secondary employment.

## **2.2 Anticipated Results:**

The project will result in a current, well-documented summary of the economic contribution of petroleum exploration, extraction, and refining activities to the North Dakota economy. This information should be useful to policy makers dealing with various issues affecting the industry.

## **2.3 Communications Plan:**

The goals of this task are to provide outreach and education mechanisms that raise the public awareness of the economic impacts of the oil and gas industry to the state and to provide outreach to policy makers and the public about the existing economic trends and future impacts of our industry and state.

In order to meet these goals, the communications plan will be designed to develop and distribute a comprehensive set of outreach materials for the general public, develop and distribute a set of outreach materials that will be useful for our industry partners, and develop a long-range outreach plan that will support economic impact outreach for the oil and gas industry in the future. Some specific features include:

### Web site

Update the Petroleum Council's Web site to include data relevant developments in the oil and gas industry, as well as links to the full study results and a results summary.

### Outreach Power Point

A Power Point presentation will be developed that provides information on the economic impacts of the oil and gas industry for use at conferences and trade shows by



industry partners. This Power Point will also be made available on the Petroleum Council website.

#### Fact Sheet

A one-page fact sheet will be developed that provides general background information on the economic impacts of the oil and gas industry. This fact sheet can be used as a handout at presentations and for other outreach efforts.

### **3.0 Standards of Success**

The following criteria will be used to evaluate success:

- The completion of a statistically representative survey of oil industry firms to determine the industry's direct employment and expenditures to in-state entities.
- Successfully complete the data collection and use the North Dakota Input/Output Model, to estimate and compile the secondary and total economic contribution resulting from the industry's operations in the state.
- Development of a communications plan that will effectively communicate study results to targeted audiences of North Dakota Policy Makers and to the general public
- Project completed according to established time-line.
- The project will be successful if the data is used by Empower, state policy makers, or the legislature in their deliberation on state policy.
- Results are referenced by news media to provide accurate, up-to-date economic data to the public in future news coverage of North Dakota's oil and gas industry.

### **4.0 Background/Qualifications**

The North Dakota Petroleum Council is a nonprofit trade association that has represented the industry in North Dakota since 1952. The Petroleum Council represents more than 160 companies involved in all aspects of the oil and gas industry including oil and gas production,

refining, pipeline, mineral leasing, consulting, legal work, and oil field service activities in North Dakota, South Dakota, and the Rocky Mountain Region. Petroleum Council members produced 75% of the 45 million barrels of oil produced in North Dakota in 2007.

The Petroleum Council has been working to educate the public about the oil and gas industry for decades and has initiated many programs and publications such as Facts & Figures dating back to the 1950's to provide data about the oil and gas activity and economic impacts in North Dakota. Prior to the 2005 Petroleum Industry Economic Impact Study there was never any data collected directly from industry, the only data used was public data which certainly limited the scope of information.

## **5.0 Management**

The Petroleum Council Board of Directors will establish the guidelines for the program, budget, and communications plan. Ron Ness, President of the Petroleum Council, will manage and oversee the project for the association.

North Dakota State University researchers, who will gather the data and complete the study, have been addressing economic aspects of the state's energy sectors for many years. This research has included estimating the economic contribution of the lignite energy industry annually since 1985. Much of this research has utilized the North Dakota Input-Output Model and its supporting databases. Similar methods have been used in assessing the economic contribution of other industries, such as the sugar-beet industry of the Upper Midwest and the North Dakota wheat industry.

The project will be conducted using the facilities of the North Dakota Petroleum Council and the North Dakota State University (NDSU) Department of Agribusiness & Applied Economics. These two organizations are uniquely qualified to undertake this effort. The Petroleum Council has extensive contacts with the industry, which should facilitate data

collection. The NDSU Department of Agribusiness & Applied Economics has the computer resources, models, and supporting databases necessary to perform the economic impact analysis.

*References:*

Coon, Randal C., and F. Larry Leistritz. 2008. *North Dakota Lignite Energy Industry's Contribution to the State Economy For 2007 and Projected for 2008 AAE Staff Paper 08001* North Dakota Input-Output Model Data Base. Fargo: NDSU, Dept. of Agribusiness & Applied Economics.

Bangsund, Dean A., and F. Larry Leistritz. 2005. *Economic Contribution of the Wheat Industry to North Dakota*. Agribusiness and Applied Economics Report No.554. Fargo: NDSU, Dept. of Agribusiness & Applied Economics.

Bangsund, Dean A., and F. Larry Leistritz. 2004. *Economic Contribution of the Sugarbeet Industry in Minnesota, North Dakota, and Eastern Montana*. Agr. & Applied Econ. Rpt. No.532. Fargo: NDSU, Dept. of Agr. & Applied Economics.

Coon, Randal C., and F. Larry Leistritz. 2005. *North Dakota Lignite Energy Industry's Contribution to the State Economy for 2004 and Projected for 2005*. AAE 05002. Fargo: NDSU, Dept. of Agr. & Applied Economics.

Coon, Randal C., F. Larry Leistritz, Thor A. Hertsgaard, and Arlen G. Leholm. 1985. *The North Dakota Input-Output Model: A Tool for Analyzing Economic Linkages*. Agricultural Economics Report No. 187, North Dakota Agricultural Experiment Station.

## **6.0 Timetable**

NDSU will gather the data collection from North Dakota oil and gas operators, gas plants, refiners, and pipeline companies will take place from April through August. Once sufficient data for a valid survey is available, the researchers will analyze and compile the results with a final draft due by December 1, 2008. The communications plan will be implemented once the results are finalized. The study results will be transferred into a number of publications and other outreach materials for distribution to the public, legislatures, and policy-makers across the state throughout December. The project should be completed by December 31, 2008.

## 7.0 Project Budget

The proposed direct cost for completing this analysis is \$26,000. A Cost Basis Summary is shown below:

<u>Item</u>	<u>Expense</u>	
Salaries and Wages:		
Research scientist(s) (3.5 months)	\$ 13,000	
Research scientist overload pay (6 mo. @ 17.27%)	<u>\$ 3,500</u>	
Salaries and wages Subtotal		\$16,500
Researcher Expenses		
Travel, in-state	\$ 600	
Printing and office supplies	<u>\$ 400</u>	
Research Expenses Subtotal		<u>\$ 1,000</u>
Total NDSU Data Collection/Analysis/Report Preparation		<u>\$17,500</u>
Communications Plan		
Design/Consulting	\$ 1,500	
Brochures	\$ 1,500	
Web Site Design	\$ 300	
Printing	\$ 1,200	
Distribution	\$ 1,500	
Paid Advertising (Radio/Print)	<u>\$ 2,500</u>	
Total Communications Plan		<u>\$ 8,500</u>
Total Expenses		<u>\$26,000</u>

## 8.0 Tax Liability

I, Craig Smith, certify that the North Dakota Petroleum Council does not have any outstanding tax liability owed to the State of North Dakota or any of its political subdivisions.

\_\_\_\_\_  
Craig Smith  
Treasurer, Petroleum Council

\_\_\_\_\_  
Date

## 9.0 Confidential Information

The Petroleum Council does not request that any of the information related to this application be confidential.

## **10.0 Patents Rights to Technical Data**

The Petroleum Council does not request to reserve any patent rights to technical data.

## **11.0 Appendices**

2005 Economic Contribution of the Petroleum Industry to the North Dakota Economy -

<http://www.ndoil.org/content/view/84/2/>

Oil & Gas Tidbits – 2005 Economic Impacts of the Oil & Gas Industry -

<http://www.ndoil.org/content/view/83/2/>

2008 North Dakota Petroleum Council Facts & Figures -

<http://www.ndoil.org/images/stories/PDFs/factsfigures08.pdf>