



Arrowhead Center to Promote Prosperity and Public Welfare in New Mexico

Background

Domestic production of fossil fuels is becoming increasingly important as worldwide demand for energy rises. The natural abundance of fossil fuel resources in New Mexico and the lack of dense population in the areas where these resources occur provide significant potential for economic development in the state while supplying energy markets with vital supplies. Significant hurdles to the effective use of New Mexico's fossil fuels include limited water for agriculture, industry, and municipal uses and low levels of economic development. A full analysis of the barriers to increased development and delivery of New Mexico's fossil fuels is lacking and is a priority of the project.

Project Description

The Arrowhead Center to Promote Prosperity and Public Welfare (PROSPER) of the New Mexico State University (NMSU) is conducting research analyzing the relationships between the fossil fuel energy sector and economic development issues in New Mexico. The project is a research and policy initiative to enhance fossil fuel energy production and use in New Mexico in an environmentally progressive manner that contributes to the economic development of the state and creates

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PROJECT DURATION

Start Date

10/01/2008

End Date

09/30/2011

COST

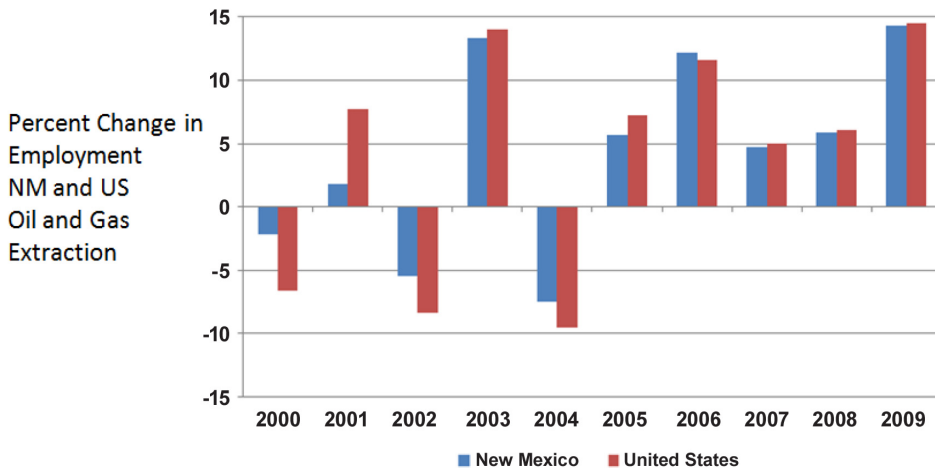
Total Project Value

\$1,181,175

DOE/Non-DOE Share

\$944,940 / \$236,235

Employment in Oil and Gas Extraction (NAICS 211)



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U.S. DEPARTMENT OF **ENERGY**

a strong, vibrant economy that better serves the citizens of New Mexico. The project is engaging stakeholders in the research process and assessing (1) the impact of the fossil fuel industry on water resources in New Mexico, and (2) how the increasing worldwide demand for fossil fuels impacts energy production in New Mexico.

PROSPER is performing a full analysis of the barriers to increased development and delivery of New Mexico's fossil fuels over a three-year period utilizing faculty, staff, and graduate students in research, analysis, and outreach tasks. The project is being executed in phases, with the first year being devoted to stakeholder consultation on critical issues, identifying and prioritizing needs, and performing a comprehensive analysis of the fossil fuel energy sector. Research on critical issues identified during year one activities will be performed in years two and three. The PROSPER project provides analysis capabilities on economic issues related to fossil fuels and the project outcome is (1) policy briefs, (2) research articles, and (3) outreach and dissemination of results to stakeholders via website, print, and electronic media.

Goals/Objectives

The primary project goal is to enhance fossil fuel energy production and use in New Mexico in an environmentally responsible manner that contributes to the economic development of the state. PROSPER is assessing:

- The impact of the fossil fuel industry on water resources in New Mexico.
- The effects of changes in the fossil fuel industry on the New Mexico economy, with a special emphasis on the number and types of jobs created and the tax revenue generated by the fossil fuel industry.
- How increasing worldwide demand for fossil fuels impacts energy production in New Mexico.
- How to use New Mexico's fossil fuel resources to foster long term prosperity in New Mexico and the Southwest.

Accomplishments

A comprehensive and widely used dynamic simulation model for regional economies, developed by Regional Economic Models, Inc. (REMI), was acquired by NMSU and is now installed and fully operational. This version, customized for New Mexico, contains 169 sectors linked to the national model and is being used to simulate and forecast various energy price, production, and policy scenarios and their potential effects on the New Mexico economy, and to examine the implications of the peak oil hypothesis on the New Mexico economy and analysis of the effects of energy market volatility. These studies have been presented at professional conferences.

"The Fossil Fuel Industry in New Mexico: A Comprehensive Impact Analysis" was developed by the project team. The report details the comprehensive economic impacts of fossil fuel energy on a state economy. This report includes analysis results from previous reports on oil and gas extraction and coal mining in New Mexico and added fossil fuel related sectors: (1) petroleum refineries, (2) gasoline retailers, (3) electricity generation from fossil fuels, (4) natural gas pipeline transportation, and (5) natural gas distribution.

The PROSPER project has sponsored two conferences. In March 2009, the project sponsored a conference on "Energy and Economic Development in New Mexico". A "Re-Energize America Conference" was sponsored by New Mexico State University in 2010. Details of the conference are available at <http://energize.nmsu.edu/>. The conference attendance was over 500 and allowed new contacts of energy stakeholders for the PROSPER project.

A project website, <http://arrowhead.nmsu.edu/arrowheadcenter/prosper/presentations.html>, is operational.

A technical report titled "Oil and Gas Production and Economic Growth in New Mexico" has been completed. A revised version of the report will be published in the Journal of Economic Issues in the near future.

A report entitled "The Economic Impact of the Coal Industry in New Mexico: An Update" has been developed. The analysis was conducted using a major update to the economic modeling software (IMPLAN Pro Version 3.0). The direct, indirect, and induced impacts of coal mining in New Mexico are presented in terms of output, value added, employment, and labor income for calendar year 2008. Tax, rental, and royalty income to the state are also presented. Historical coal production, reserves, and price data are also discussed. The economic impact analysis presented in this report suggests that coal mining is an important sector of the New Mexico economy.

Benefits

The PROSPER project seeks to find ways to improve the utilization of fossil fuel resources in New Mexico to create a strong, vibrant economy for the state. This project provides timely, in-depth, cutting-edge economic analysis of the issues that are identified as most critical to the development and utilization of New Mexico's fossil fuels and aid New Mexico in producing and delivering the energy the nation needs. The outreach activities provide public sector and industry policy-makers with the information and analysis needed to enhance New Mexico's energy economy.

