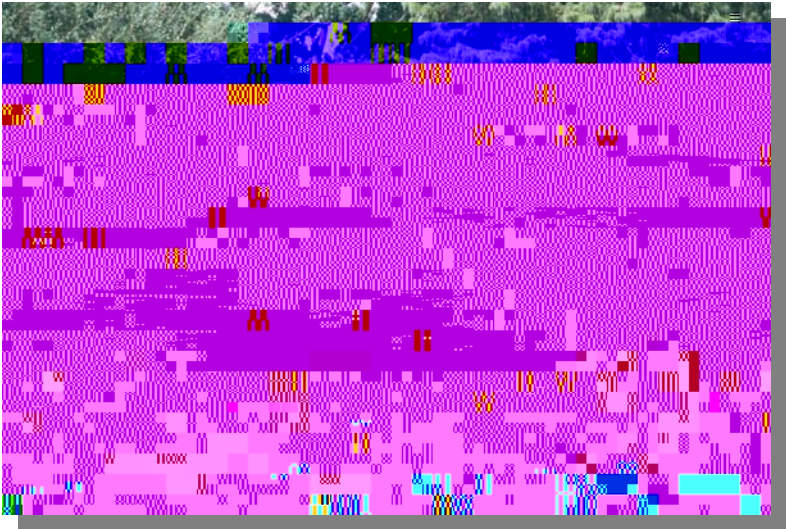


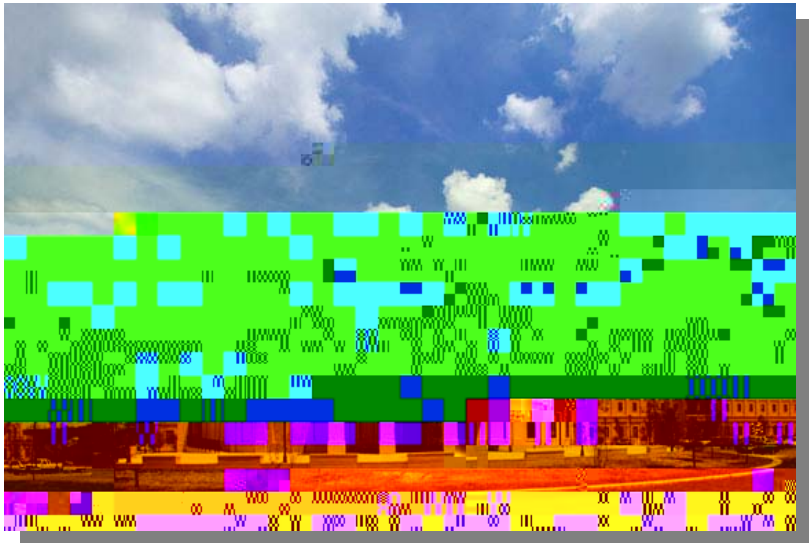


**Center for Energy
Studies**
Louisiana State University

CES Locations



East Fraternity Circle, 1982-2002



Energy, Coast, & Environment Building, 2003-present

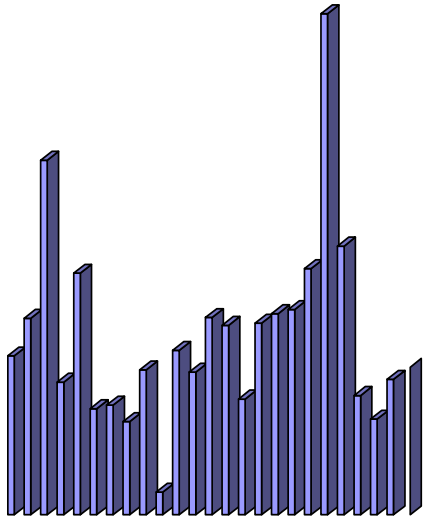
decline in the dollar relative to other currencies lowers further today's price relative to its historic high.

- In contrast, natural gas prices measured in today's dollars have been higher than their 1982 peak for some time. They peaked at a little below \$5 per thousand cubic feet (mcf) in 1982 but then fell to below \$3 per mcf until 2000. Measured on a quarterly basis, they exceeded 1982 levels in 2001 and stayed above that throughout 2003 and 2004.
- In 2004 existing unused, short-run, oil supply capacity appears to be only slightly greater than the expected annual growth in world oil demand. In 1980 available unused capacity in Saudi Arabia alone was equal to two or more decades of projected global demand growth.
- The longer-term perspective is cloudy. Remarkable improvements in technologies for finding and producing hydrocarbons have been developed but decline curves for many new discoveries seem to have steepened.
- Furthermore, along with the Persian Gulf, West Africa, Indonesia, Russia, and Venezuela are expected to be the important sources of new oil supply over the near and intermediate term, but today all of them are experiencing fundamental political uncertainty and instability.
- Although the U.S. began to import liquefied natural gas (LNG) in the early 1980s, falling domestic natural gas prices froze the U.S. LNG market at minimal levels throughout the later 1980s and 1990s. In the last three years, domestic natural gas prices have increased sufficiently to make importing LNG again an economically attractive business opportunity. Imported LNG will account for 30 percent of U.S. gas

consumption if planned projects reach completion.

- For the first time since the 1980s, imports of refined petroleum products such as gasoline are expected to increase. The federal Energy Information Administration predicts the proportion of refined products that is imported will increase from the 15 percent level it has maintained for the past 20 years to about 35 percent by the year 2025. The Marathon Refinery built in Garyville, Louisiana, opened for business in 1974. It was the last totally integrated refinery built in the United States. At least in Louisiana, space for major expansions is available and community acceptance of new refining capacity may be more realistic than in other regions. The conventional wisdom in the industry, however, is that increasing imports is a more commercially prudent strategy than investment in new domestic capacity.
- Nuclear power was regarded as an economic loser in 1982, but since that time nuclear operators have learned how the last t(th)4(e 10.

Markets have a remarkable capacity for adapting and adjusting to new realities. Decentralized economic decisions based on adequate information and responding to



Research and Development Division

- Managing Upstream Oil & Gas Producing Assets: September 2003, Baton Rouge.

(1) Basin Analysis and Petroleum System Characterization and Modeling, Interior Salt Basins, Central and Eastern Gulf of Mexico.

Donald Goddard and Ron Zimmerman in conjunction with Ernest A. Mancini and the University of Alabama.

Funding agency: U.S. Department of Energy. \$1,359,053 (Five years).

Work on the project began in June 2003.

The first year of the project (tasks #1, #2, & 3#) completed in June 2004.

Description: Employing state-of-the-art



Projects

The Oil and Gas Industry

(1) A Collaborative Investigation of Baseline and Scenario Information for Environmental Impact Statements.

David Dismukes and Kristi Darby
Funding Agency: U.S. Department of the Interior, Minerals Management Service
\$300,000 (Second year of a three-year project).

Description: The purpose of this research project is to provide Minerals Management Service (MMS) with primary and secondary source information about current industry activities and future trends that can be used for baseline and scenario analyses for the agency's Environmental Impact Study (EIS) investigations. The methods that will be employed for securing this information will be through an *Offshore Researchers Collaborative Process* (or Collaborative). This Collaborative will team industry, government, and academic researchers, and analysts. Separate groups will be designated by major offshore activity category with data collection, analysis, and commentary being directed by the project principal investigators. Information secured during this process will be provided to MMS for use in its ongoing EIS analyses.



implications that the wide-scale development of LNG will have on the Gulf coast. The topics that will be examined in the Gulf of Mexico (GOM)-specific analysis include: How do changes in natural gas markets impact the business case for developing LNG facilities? How do changes in natural gas markets impact the business case for continued development of resources in the GOM (shelf and deepwater)? Are there any interactions between the supplies associated with LNG and traditional GOM exploration and production (E&P)? How does LNG impact the existing oil and gas industry infrastructure within the GOM? and What impacts the business case for developing LNG facilities either offshore or onshore? Several variations of LNG facilities have been proposed in the Gulf. This research will examine the benefits and costs of this development.

(3)

(2) An Examination of Liquefied Natural Gas Facilities in the Gulf of Mexico.

David Dismukes and Kristi Darby.
Funding Agency: U.S. Department of the Interior, Minerals Management Service. \$52,273.

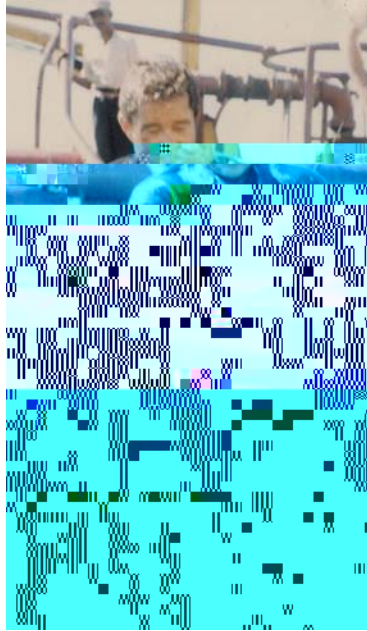
Description: This research will survey all the main issues associated with LNG development with a particular focus on the

(6) History of the Offshore Oil and Gas Industry in Louisiana.

Allan Pulsipher, Ric Pincomb, Don Davis, (Diane Austin, Bob Carriker, Robert Gramling, Tom McGuire, Joseph Pratt and Tyler Priest)

Funding agency: Minerals Management Service. Four years at approximately \$900,000.

Description: The Center is currently coordinating a multi-year project intended to provide the Minerals Management Service with an objective and comprehensive



these relationships and to provide empirical measures of the economic effects of changes in crude oil and natural gas prices on petroleum industry activities in offshore state waters.

(5) Accounting for Economic Change in the Gulf of Mexico: Developing a Comparative Context for Cumulative Socioeconomic Effects on Coastal Communities.

Allan Pulsipher, Wumi Iledare and David Dismukes.

Funding agency: Minerals Management Service. \$139,560.

Description: Similar movements in per person personal income may be caused not only by different trends but also by factors that would be considered either signs of economic health or signs of economic illness. Consider an increase in per person personal income caused largely by a massive out-migration of poorer residents in search of employment elsewhere and an increase in per person personal income resulting from an influx of high paying jobs in “high tech” industries. Statistically, both can cause the same increase in per person personal income, but the implications about relative economic performance are very different. In this project factors such as changes in industry mix, real wages, participation in the labor force, growth or decline of the labor force, transfer payments and other governmental spending, and other income such as interest, profits and rent, are compared for the coastal and non-coastal parishes of Louisiana for each of the business cycles occurring during 1960 to 2000. This was the period when offshore oil and gas development became a major force in the State’s economy. Patterns of change and the factors responsible for them are compared for the two groups of parishes in an effort to understand the cumulative effects of offshore development on coastal communities.

Electricity

(1) The Economic Opportunities for a Limited Industrial Retail Choice Plan.

David Dismukes.

Funding Agency: Private Industry.

Description: This project estimated the potential savings and economic impacts associated with allowing large industrial customers with loads greater than 5 MW to choose their own providers of natural gas. The study examined the importance of electricity prices for Louisiana industry and surveyed recent experiences and trends in industrial electricity prices for the region and the state. A model was developed to estimate the potential savings from allowing these customers to choose their own providers under a number of different scenarios. The annual savings estimates ranged from \$211 million to \$69 million. The Louisiana Public Service Commission has formally requested comments from the State’s utilities and other interested parties on this study.

(2) The Power of Generation: Continued Economic Benefits from Independent Power Generation in Louisiana.

David Dismukes.

Funding: Internal.

Description: This project estimated the economic impacts associated with the development of independent power generation in Louisiana. The study examined the potential savings and economic impacts associated with allowing large industrial customers with loads greater than 5 MW to choose their own providers of natural gas. The study examined the importance of electricity prices for Louisiana industry and surveyed recent experiences and trends in industrial electricity prices for the region and the state. A model was developed to estimate the potential savings from allowing these customers to choose their own providers under a number of different scenarios. The annual savings estimates ranged from \$211 million to \$69 million. The Louisiana Public Service Commission has formally requested comments from the State’s utilities and other interested parties on this study.

found more than \$800 million in efficiency savings opportunities for the region. The study was recognized by the Federal Energy

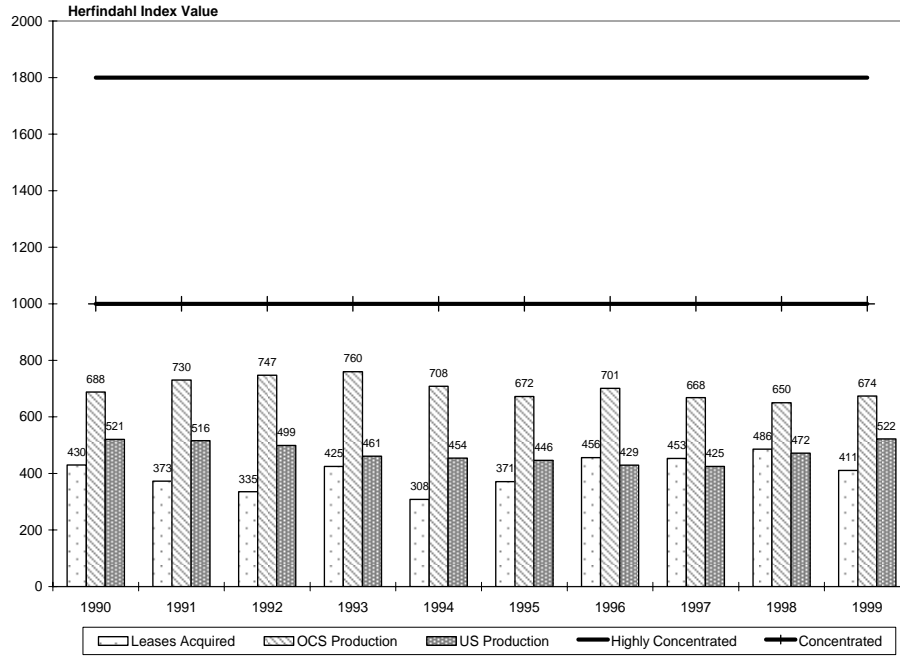
Energy Assistance and Conservation Programs



Photo courtesy of Moye Boudreaux.

Publications 2002-2004

Figure ES1 Herfindahl Indices of Industry Competitiveness



Pulsipher, A. G., O. O. Iledare, and D. V. Mesyanzhinov. *Changing patterns of ownership and control in the petroleum industry: implications for the market for oil and gas leases in the Gulf of Mexico OCS region, 1983-1999*. Prepared for the U.S. Department of the Interior, Minerals Management Service by Louisiana State University, Center for Energy Studies, October, 2003. MMS 2003-041, 86pp.

“Neither aggregate measures used to analyze concentrated market and industry structures, nor patterns of joint bidding among firms active in the offshore Gulf of Mexico suggest a decrease or a deficiency in the competitiveness of the lease sales held by the U.S. Minerals Management Service (MMS). Whether leases acquired at the sales, or production by firms bidding for leases, are used as the base of the concentration measures, they indicate a competitive industry bidding for leases in a competitive market. (Changing patterns of ownership and control in the petroleum industry: implications for the market for oil and gas leases in the Gulf of Mexico OCS region,” 1983-1999. page 14.)

Pulsipher, A. G. (with D. Austin, B. Carriker, T. McGuire, J. Pratt, and T. Priest). 2004. *History of the offshore oil and gas industry in southern Louisiana: Interim report; Volume I: Papers on the evolving offshore industry*. Prepared for the U.S. Department of the Interior, Minerals Management Service by Louisiana State University, Center for Energy Studies, October, 2004. MMS 2004-041, 100pp.

Energy and the Economy

Baumann, R. H., D. E. Dismukes, D. V. Mesyanzhinov, and A. G. Pulsipher. *Analysis of the economic impact associated with oil and gas activities on state leases*. Prepared for the Office of Mineral Resources, a division of the Louisiana Department of Natural Resources by Louisiana State University, Center for Energy Studies, March 2002.

Dismukes, D. E. and D. V. Mesyanzhinov (with E. A. Downer). *Economic opportunities for LNG development in Louisiana*. Prepared for the Louisiana Department of Economic Development and Greater New Orleans, Inc. by Louisiana State University, Center for Energy Studies, April 2004.

movement in petroleum prices can have a long-lasting impact on Louisiana economy, in the

withstand pressures created by growing budget deficits. The ultimate question may be: are the current lower returns to Southern and Western states still significant enough to persuade them that raising the interstate equity issue is a risk not worth taking?" (LIHEAP reauthorization: is the time right for a formula fight?)

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