

CENTER FOR ENERGY STUDIES LOUISIANA STATE UNIVERSITY

NEWSLETTER

July 1997

FIRE!

The Energy Center's building suffered minor damage from a fire on June 5. Apparently the unintended consequence of putting a new roof on the building, the fire smoldered undetected until about 9:00 P.M. when a 'glow' was spotted by individuals leaving an Alcoholics Anonymous meeting across the street. Quick notification and effective response by Baton Rouge's Fire Department limited the fire damage but smoke permeated the structure. The building retains a 'barbequesque' odor, which some claim is an improvement over its original frat house aroma. We are now true believers in the efficacy of the 12-step program.

REORGANIZATION!

Reorganizations are harder to explain than fires. Their objectives often are murky even to those directly involved. However, the latest reorganization affecting the Center is different.

Starting July 1, the Center will report to the University's Provost and Executive Vice Chancellor. This is a post created by LSU's new Chancellor Bill Jenkins. It is intended to function much like a 'Chief Operating Officer' for the academic and research aspects of the University. A national search to fill the position is now underway.

Perhaps as important, at least for the Center, is that we will report through Bob Baumann who was the

Executive Director of the Center from 1988 until November of 1995. Then he became a Special Assistant to the Provost, and also the Managing Director of the Central Gulf Region Petroleum Technology Transfer Council. The Louisiana Geological Survey, Basin Research Institute (BRI), Mining and Mineral Institute, and Information Services Division also will report to Bob.

The bottom line is that the new organization underlines CES's focus on the energy industries *per se*, and enhances the visibility of energy issues and policies to both the State and the University.

Allan Pulsipher, who was acting Executive Director of the Center, was made permanent Executive Director as a part of the reorganization.

BP AMERICA AND CONOCO CONTINUE STRONG SUPPORT

The Center recently received substantial donations from two longtime participants in its Industry Associates Advisory Council--BP America and Conoco. Keith Owen, Director of State Government Affairs for BP America, presented a \$25,000 check to LSU's Chancellor Bill Jenkins, and said some kind-but accurate--words about the quality and credibility of the Center's work. BP's donation will support work on electricity competition--reported in more detail below.

Sam Poole, a ten-year veteran of the Center's Advisory Board, facilitated a contribution to the

Center as a part of Conoco's annual donation to the University, as he has for the past several years. But this time Conoco increased its contribution to the Center by 50 percent. Conoco supports many LSU programs, but this year none received more than the Center.

Private contributions such as these are invaluable because they provide flexibility and stability--unfortunately, rare attributes in today's research university.

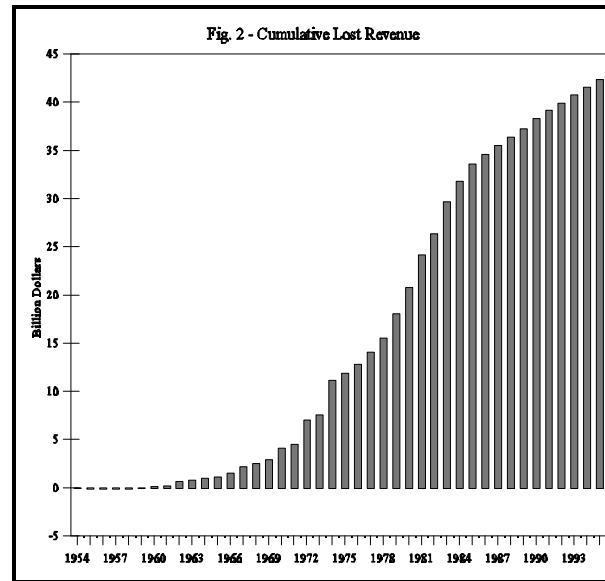
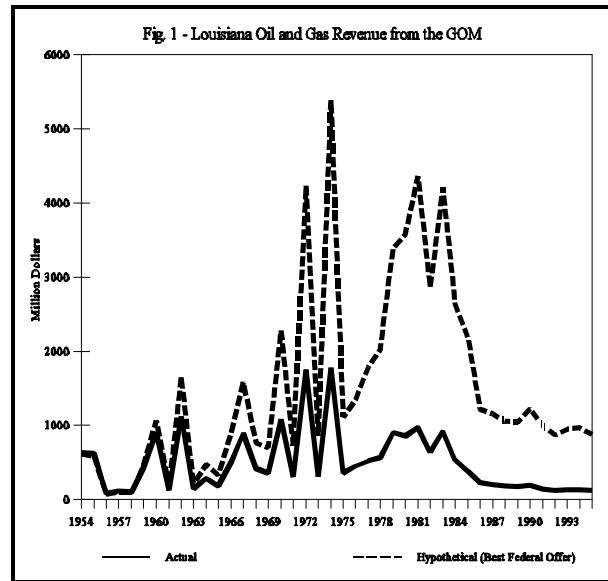
WHAT MIGHT HAVE BEEN!

After the prospects for finding significant oil and gas reserves in the waters of the Gulf of Mexico began to be recognized in the 1940s, a prolonged legal/political argument ensued between coastal states like Louisiana and the federal government. At issue was who owned the reserves and was entitled to the royalties and other revenues from their development. Several proposals were put on the table, and bargaining between state and federal officials lasted several years.

Figure One, below, compares actual revenues collected by the state and the revenues that would

have been collected if those bargaining for the state had accepted what, in retrospect, we can see was the federal government's 'best offer.' Figure Two shows the cumulative difference between the two; thus, the revenues hypothetically 'lost' to Louisiana over the period.

As any coach or investor knows, hindsight is always better than foresight, and from 1954 until 1958, Louisiana's 'lost revenues' were negative. In the 20 years since, however, picking the 'wrong' offer has cost the state almost \$43 billion (in today's dollars). Of course, at the time, those who were doing the picking didn't have a Center for Energy Studies to turn to for analysis. These figures come from a paper by Center Research Associate Dmitry Mesyazhinov and Danny Schaffer of the University of Tennessee, based in part on earlier studies by the Center.



BRIEFING FOR MMS' OPERATIONS AND SAFETY DIVISION

Wumi Iledare and Allan Pulsipher traveled to Herndon, Virginia, recently to discuss policy implications of their research on measuring and comparing the environmental and safety records of firms operating on the OCS. The Operations and Safety Division of the Minerals Management Service, which regulates oil and gas development on the federal OCS, requested the briefing.

The research they were invited to discuss attempted to measure and compare the safety and environmental records of firms operating platforms on the OCS. Contrary to the conventional wisdom, the majors' records (as a group) were closely comparable with the independents' records, with independents having a slight, but statistically significant edge.

The available data do not enable one to compare OCS worker safety and environmental records with other industries, nor to determine if either the independents or the majors had better, or worse, records than one should expect. There has been a remarkable decline in accidents and spills in the Gulf over the past decade, but the decline is attributable in part to changes in reporting requirements as well as better performance.

Hank Bartholomew, the Division's director, said the Center's research challenged the conventional wisdom within MMS and would be helpful to the division in designing inspection and regulatory strategies.

ELECTRICITY RESTRUCTURING

The Center's effort to understand the implications of electricity restructuring for Louisiana's industries and citizens continues. Several projects are underway.

Stranded Cogenerators? David Dismukes of the Center and Andy Kleit of the LSU Economics Department have completed a paper on how electricity restructuring will affect large industrial facilities in Louisiana that generate electricity. Industries do this usually as a byproduct of producing processing heat. Of the 260 major industrial firms in Louisiana, 28 firms generate power for their own use and another 10 sell some of the power they generate to utilities.

Their findings indicate that, like many electric utilities, these firms may have stranded investments. Several firms produce electricity at a cost that is less than the price they would have to pay to buy electricity (from the utility serving them), but above the price that may prevail if prices were set competitively rather than by regulation.

Thus, these firms may find themselves with generation facilities that are uneconomic to operate in a competitive electricity market, whose value may have to be written off or reduced on the firm's balance sheet.

The authors' analysis of factors associated with an industrial firm's decision to generate electricity suggested that protection against high or uncertain electric utility rates, rather than potential revenues from selling electricity commercially, is by far the more important factor in explaining the firms' decisions to cogenerate or buy electricity commercially.

The study will be presented at the Annual Meeting

of the Western Economic Association in July. Draft copies are available from the Center.

Modeling Louisiana's Competitive Future--As a part of his dissertation research in LSU's Department of Information Systems and Decision Sciences, Bobby Cope is working with David Dismukes to develop a linear programming model which will simulate potential outcomes under competitive electricity markets in Louisiana. This model takes into account existing Louisiana generation resources (utility, municipal, coop, and non-utility), and the state's transmission capabilities. When complete it will show how transmission or location limitations could affect electric power markets and regions under competition. Bobby worked as an electrical engineer with Houston Light & Power before entering graduate school.

The Role of Information--This summer Fred Denny, a professor in the Department of Electrical Engineering, will be working with the Center to analyze the role of information in electric restructuring.

Public Education--Because of his restructuring expertise, David Dismukes is becoming a regular on the 'chicken and peas' circuit, giving 16 presentations to business and civic groups on restructuring during the past year.

The Rest of the Story--As many of our readers are aware, proposals to speed-up or to slow-down more competition and consumer choice in the State's electricity market have reached the TV advertising-during-news-hour-level of intensity in some parts of Louisiana. Those wanting more facts and information than these 15 or 30 second commercials provide, can get the full statements filed by all sides with the Louisiana Public Service Commission as well as other data on the State's utilities from the Center for Energy Studies' web site--

www.enrg.lsu.edu.

PTTC 'S PC-BASED WELL FINDER

The Central Gulf Coast Region Petroleum Technology Transfer Council (PTTC) crowd is at it again, making life easier and more profitable for Louisiana's oil and gas operators. The ***Louisiana Desktop Well Reference (LDWR)*** uses geographic information system (GIS) software to enable an operator with access to a high-end, garden variety PC to easily assemble information on individual wells that includes location, location maps, characteristics, and production history. The program was developed by Keith Long and Mike Surman (CES), Brian Harder and Reed Bourgeois (BRI), and Mike Killeen and David Elfret (Louisiana Department of Natural Resources, Office of Conservation). The system will also facilitate computation of well and field decline curves to make project evaluation easier. ***LDWR*** is in final testing and will be available in CD-ROM format from the CGR PTTC, soon. Development of this product is a response to suggestions made at problem identification workshops held by the CGR PTTC staff last year.

UNDERWATER OBSTRUCTIONS

Coastal erosion and subsidence, oil and gas facilities abandoned before today's site clearance regulations, hurricanes, shipwrecks, and dumping have created millions of underwater obstructions in Louisiana's coastal waters and the Gulf of Mexico. These obstructions hinder commercial fishermen and create serious risks for boats and ships of all kinds.

The Center was asked to prepare an issue paper characterizing the 'obstructions problem' and outlining approaches to deal with it. The request came from a coalition of public and private organizations that began meeting to follow up the discussions started at the MMS 'Abandonment

Workshop' that was conducted by the Center in New Orleans in 1996. A draft copy of the paper is now being reviewed by the coalition and will be available for distribution soon.

Jeff Rester and Allan Pulsipher were the coauthors of the draft report. Their principal conclusions were that: (1) the problem is getting worse (because of coastal subsidence and the 'redistribution' or 'migration' of existing obstructions and debris due to trawling and hurricanes), (2) making progress will require a change in incentives facing those responsible for, and affected by, obstructions, and (3) there is a good opportunity to develop technology that would both increase the probability of avoiding obstructions and make it easier to establish who has the legal responsibility for them.

ECONOMICS OF ARTIFICIAL REEFS

In a related project the Center has agreed to help Louisiana's Department of Wildlife and Fisheries to evaluate the data and criteria used to decide whether offshore platforms should be accepted into the State's artificial reef program.

STAFF CHANGES

Jeff Rester has joined the Center's Staff as a Research Associate. Jeff received his Master's degree from LSU in Marine Science this past spring and has been working on the Underwater Obstructions Project.

Alan Dupont, who received his Ph.D. degree in economics from LSU, has joined the staff for the summer to work on forecasting the number of offshore platforms that will be installed and removed on the OCS during the next 20 years. Alan is the W. O. Duvall Professor of Business at Young Harris College in Georgia and will return there in the Fall to teach economics.

Scott Guillory of LSU's Economics Department joined the Center as a graduate research assistant.

PRESENTATIONS AND PUBLICATIONS

David Dismukes, Dmitry Mesyazhinov, and Allan Pulsipher all gave papers recently at the National Policy History Conference at Bowling Green State University. David's paper was entitled: *The Unintended Policy Consequences of the Public Utilities Regulatory Policies Act of 1978*. Dmitry's paper, *Politics, the Federal Government and the Gulf of Mexico: the Case of Louisiana's 'Lost' Revenue*, was coauthored with Danny Schaffer of the University of Tennessee. Pulsipher called his paper *Unintended Consequences of a Good Idea in U.S. Nuclear Waste Policy: The Case of the Integral MRS*.

David Dismukes and Andy Kleit (Department of Economics) will be presenting a paper next month entitled *Cogeneration and Electric Power Industry Restructuring* before the Western Economic Association in Seattle, Washington.

Wumi Iledare presented a paper at the 1997 Society of Petroleum Engineers Hydrocarbon Economics and Evaluation Symposium titled: *The Competing Influences of Technology, Depletion, and Economics on Petroleum Drilling Activity* (SPE Paper # 37940). The paper is published in the conference proceedings. A related paper has been accepted for presentation at the Association of Energy Economists meeting this September in San Francisco. Wumi also published a paper entitled, *Modeling Petroleum Exploration and Extraction Process for Policy Analysis in Pacific & Asian Journal of Energy* (June 1997). Allan Pulsipher was a coauthor.

Allan Pulsipher wrote the introduction and edited Proceedings: An International Workshop on Lease Abandonment and Platform Disposal: Technology,

Regulation and Environmental Effects, Center for Energy Studies, Louisiana State University, MMS Contract 14-35-0001-30794, 312 pp, which is available from the Center. He was a discussant of the draft of a section of a book, financed by the Sloan Foundation, on productivity changes in

natural resource industries. The section he discussed was entitled *Changing Productivity of Petroleum Exploration and Development in the U.S.* and was written by Douglas R. Bohi. The workshop was organized by Resources for the Future in Washington, D.C. He also reviewed The New Geopolitics of Energy, by John V. Mitchell with Peter Beck and Michael Grubb in the most recent issue of Environment.

**Center for Energy Studies
Louisiana State University
1 East Fraternity Circle
Baton Rouge, LA 70803-0301**