



# CES Newsletter

Summer 2008



## Center for Energy Studies

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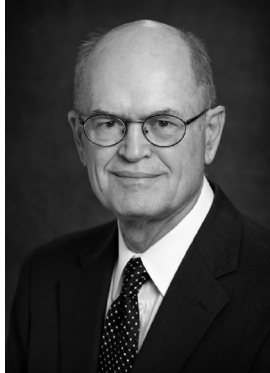
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## Pulsipher Named to National Petroleum Council



Allan G. Pulsipher

Allan G. Pulsipher, CES executive director and Marathon Oil Company Professor, has accepted an invitation to membership on the National Petroleum Council (NPC). The NPC is an advisory committee to the Secretary of Energy. It has existed since World War II and responds to requests from the Secretary of Energy for advice and analysis on energy matters involving oil and gas. Lee Raymond, the retired chairman of Exxon Mobil, is the NPC chair, and Claiborne P. Deming, president of Murphy Oil, is the vice chair. NPC members largely come from the oil and gas industry. Pulsipher will be one of a small number of NPC members from academia. NPC studies are objective, policy neutral, and widely regarded as timely and authoritative. NPC's most recent study and report, *Facing Hard Truths about Energy: A Comprehensive View to 2030 of Global Oil and Natural Gas*, completed in July 2007 and featured in the Center's Fall 2007 energy conference, is a good guide, according to Pulsipher, to the complexities of the current energy situation.

## Center Reports on GOM Liquefied Natural Gas Development

In June, David Dismukes completed a report for the U.S. Department of the Interior, Minerals Management Service, titled "Examination of the Development of Liquefied Natural Gas on the Gulf of Mexico." The study examines the role, importance, and development of liquefied natural gas (LNG) regasification facilities along the Gulf of Mexico (GOM). The research shows that the GOM is perhaps the best location for the development of LNG regasification facilities given the region's proximity to a wide range of energy infrastructure assets that can help support, and serve as a market to, current LNG investments.

The research provides historic context on LNG development in the U.S. and the factors making the current spate of LNG development different than that of the late 1970s and early 1980s. The study examines changes in natural gas markets and the effects of new environmental pressures on natural gas-fired power generation and industrial applications. The LNG "value chain" is examined at length, as well as the respective costs, and estimated break-even prices needed to import natural gas into the U.S.

The interaction of these new LNG facilities with existing GOM energy infrastructure is examined in considerable depth. The research notes that GOM pipeline and storage infrastructure in the region is perhaps one of the most important sets of energy assets that will help facilitate the movement of imported gas across the region and into other regions of the U.S. Gas processing and other supporting gas infrastructure is also examined.

Perhaps the biggest area of concern for many policy makers along the GOM is the ability of imported natural gas to help dampen both the increases and volatility of natural gas prices to all end users in the region, particularly those end users in the petrochemical sector. The research examines the effects that high natural gas prices are having on these large energy using sectors and the regional job losses that have occurred in the aftermath of the large natural gas price run up of 2000-2001.

The research concludes that the development of LNG regasification facilities along the GOM will be supplemental, and even complementary, to the existing set of energy infrastructure in the region. These facilities will provide new sources of revenue for pipelines, storage, and gas processing facilities, which in turn, can be used to service existing and ongoing domestic natural gas production. As a result, currently anticipated expansions of existing infrastructure (i.e., storage, pipelines, processing) in certain areas are anticipated to be more complementary, as opposed to competitive, with existing domestic natural gas production.

The full report is available online at [www.enrg.lsu.edu/publications/online/2008-017.pdf](http://www.enrg.lsu.edu/publications/online/2008-017.pdf)

## Alternative Energy 2008 Addresses Challenges to Development

The Center hosted approximately 90 representatives from industry, government, and academia for its annual Alternative Energy Conference, held April 23. This year's program addressed the challenges inhibiting the development of noncarbon-producing energy solutions.



Myron Ebell, director of energy and global warming at the Competitive Enterprise Institute, began the day's sessions with a discussion of the government's role in the development of alternative energy solutions. Ebell said that government mandates and subsidies for certain alternative energy sources, like ethanol, have unintended but predictable consequences, such as an increase in food prices and the creation of "corporate welfare dependency." F. Jeffrey Martin, senior advisor, international and nuclear systems engineering at Los Alamos National Laboratory, presented a concept for producing sulfur-free, carbon-neutral synthetic fuels and chemicals from air and water. Martin said the "Green Freedom" method can replace dependence on fossil fuel, has zero or fewer carbon emissions, and relies on abundant, free, and non-hazardous feed material. Cecilia Aguillon, director of business development and government relations for Kyocera Solar, Inc., identified opportunities for distributed solar energy in Louisiana, stating that photovoltaic energy has the potential to thrive without the benefit of long-term subsidies, eventually becoming a self-sustaining industry. Concluding the morning sessions was Christopher Williams, chief technology officer for Free Flow Power, who shared his company's plan for river-based hydrokinetics, which include placing 150 two-meter-diameter turbine generators in the Mississippi River, transmitting the hydropower through an onshore converter, and selling the power to customers, such as large industrial users.

The topic of the first afternoon presentation was demand response and energy efficiency as a renewable. Chelle Izzi, Consumer Powerline's vice president of national accounts and vertical markets, explained that having large consumers of energy—such as industrial plants and owners of large buildings—cut back on their power during high-energy demand times is itself a renewable. Companies like Consumer Powerline make money from a share of the value created by shopping reduced energy demand to the power grid. Consumer perceptions on green energy was the topic of Dana Lee Cogar's presentation. Cogar, research director for EcoAlign, a marketing agency for utilities, explained that there is a "green gap" that exists between the stated intentions of consumers and their purchasing behavior. She encouraged marketers of green industry to keep in mind that consumers will purchase green products under three conditions: if they think their lives will not be inconvenienced, that it will save them money, and that it will be good for the environment. In the first of the late afternoon sessions, Chris Reeder, a partner with Brown, McCarroll, LLP, discussed issues affecting wind transmission development. Leading the nation in wind generation development are California and Texas, where the electric grid relies on wind power at peak demand times. Challenges to Louisiana's wind generation development include lack of wind-intensive areas onshore and the expense of connectivity to offshore wind facilities. In the final presentation, Charles Reith, director of carbon and energy management at Pace, a global energy consulting firm, gave an overview of the environmental markets and renewable energy certificates, stressing the need for carbon-driven energy planning, as the number of mandates for reductions in greenhouse gases increases.

The Center received very positive responses to Alternative Energy 2008. We thank our sponsors for making the conference possible: Platinum sponsors were ConocoPhillips, Chevron, and the Louisiana Department of Natural Resources. Gold sponsors were Kean, Miller, Hawthorne, D'Armond, McCowan & Jarman, LLP, American Electric Power, Louisiana Economic Development, and Southern Strategy Group.

Presentations are available online at [www.enrg.lsu.edu/conferences/altenergy2008/](http://www.enrg.lsu.edu/conferences/altenergy2008/)

## Energy Summit 2008

Energy Independence: Myth or Reality?

October 22

8 a.m.-6 p.m.

Energy, Coast & Environment Building @ LSU

This year's conference will examine our nation's energy independence, focusing on trends, predictions, misconceptions, and new technologies for traditional fuel resources.

Visit [www.enrg.lsu.edu/conferences/energysummit2008](http://www.enrg.lsu.edu/conferences/energysummit2008) for more information.

## USAAE/IAEE to Host North American Conference in New Orleans

The U.S. Association for Energy Economics (USAAE) and the International Association for Energy Economics (IAEE) will host their 28th North American Conference in New Orleans, December 3-5, 2008. Wumi Iledare, president of the USAAE, is serving as general conference chair. David Dismukes and Minerals Management Service economist Kristen Strellec are program co-chairs.

The conference is designed to create a forum for the exchange of ideas on energy frontiers. "The goal is to provide understanding and insights that help lift the veil of uncertainty on important and timely economic and environmental issues related to various aspects of energy technologies," said Iledare. "In addition, the conference will facilitate the understanding of global concerns of deleterious effects of the use of carbon-based fuels on the environment."

Conference themes include offshore oil and gas development and the environment; alternative energy development; royalty regimes, leasing, and incentives; energy security and environmental integrity; and legal, regulatory, and policy issues.

Visit [www.usaee.org/usaee2008/index.html](http://www.usaee.org/usaee2008/index.html) for registration and hotel information.

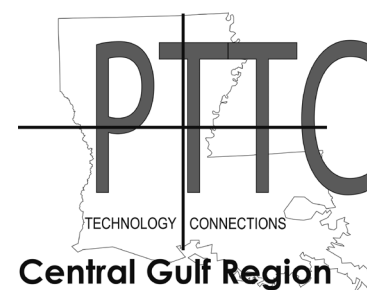
## Goddard Speaks at U.S. Oil & Gas Technology Summit

Don Goddard, director of the Central Gulf Region Petroleum Technology Transfer Council, was a guest speaker at the U.S. Oil & Gas Technology Summit Conference and Prospect Exposition, held April 6-8 in Natchez. Goddard discussed "Integrated Reservoir Studies in Mature Oil & Gas Fields in Louisiana." The Summit, designed for upstream oil and gas industry representatives, offers educational and technical sessions by researchers and other industry professionals.

## PTTC Update

The Gulf Coast Region of the Petroleum Technology Transfer Council (PTTC), under the direction of CES Professor Don Goddard and Professor Ernest A. Mancini of the University of Alabama, sponsored eleven workshops during the 2007-2008 fiscal year. Summer 2008 workshops included "Enhanced Oil Recovery and CO2 EOR" held June 4 in Shreveport; "Microbial Reservoir Play," which provided results of, and reviewed the methodologies used in, a recently completed NETL/DOE-funded project on the assessment of microbial reservoirs with oil and gas potential in the central and eastern Gulf Coastal Plain, held July 23, also in Shreveport; and "Sequence Stratigraphy and Its Application to Petroleum Exploration in Onshore Mesozoic Salt Basins, Gulf Coastal Plain," hosted by the Gulf Coast Region PTTC and New Orleans Geological Society, held in New Orleans, August 12.

The next PTTC workshop will cover the hot topic of the Haynesville Shale. "Haynesville-Bossier Shale, North Louisiana Salt Basin: Geological and Geochemical Characterization," will be held in Shreveport in September. Visit the Center for Energy Studies home page, [www.enrg.lsu.edu](http://www.enrg.lsu.edu), for the workshop agenda and registration information.



*The goal of the  
Petroleum Technology Transfer Council  
(PTTC) is to connect independent  
oil and natural gas producers with  
technological solutions in exploration,  
drilling and completion,  
operations and production,  
reservoir and development, and  
environmental issues—  
when they need it.*

## Center Represented at Clean Cities Coalition Conference

David Dismukes and Mike McDaniel represented the Center at the 2008 Statewide Clean Cities Coalition Conference, "Making \$ense of Alternative Fuels and Advanced Technology," hosted by the Louisiana Department of Natural Resources in March. Dismukes presented "Market and Regulatory Issues in Alternative Energy and Louisiana Initiatives" as part of a panel discussion on the renewables outlook for Louisiana, and McDaniel presented "Clean Air, Energy Security, and Climate Change: Drivers for Alternate Fuels," in a session on climate change. Both presentations are available on the Center's Web site.

## Dismukes Testifies before Alabama Legislature, Louisiana Tax Commission

In March, David Dismukes was invited by the Alabama legislature to provide testimony and advice on recent severance tax proposals in the state. In the past legislative session, Alabama considered a controversial proposal by the governor to switch natural gas severance taxes from a value-based approach to one based upon a moving index. Dismukes discussed the pros and cons of the severance tax proposal and highlighted that in addition to changing the overall tax regime, the governor's proposal would increase Alabama's effective severance tax rate to the highest in the country. The bill ultimately died in committee during the legislative session.

Dismukes also provided testimony to the Louisiana Tax Commission (LTC) in August in its annual rulemaking proceeding. He provided the results of an updated study examining changing production trends and changing decline rates in the state. Dismukes noted that empirical trends over the past several years could be supportive of a shortening of the overall lives for certain oil and gas property. This is the second year Dismukes has provided the LTC with input for its rulemaking process. In 2007, he testified on data issues associated with measuring the cost of drilling oil and gas wells.

## Oil & Gas Journal Publishes Hurricane Loss Article

A study by Mark Kaiser, David Dismukes, and research associate Yunke Yu titled "Modeling Gulf of Mexico Lost Production" was recently published by the *Oil & Gas Journal*. The three-part study evaluates the value of lost production from the 2004 and 2005 hurricane seasons in the GOM. The first part of the study provides an assessment of field redevelopment economics and storm impact. The second part provides a model framework for aiding decision-making regarding redevelopment of infrastructure. The third determines the value of production losses tallied for both storm seasons.

The study appears in volume 106, numbers 25-27 of the *OGJ*.

## McDaniel Presents Outlook for Ethanol at API Conference

Mike McDaniel presented on overview of "The Future of Ethanol" to participants at the American Petroleum Institute's (API's) Southern Region/State Working Groups spring conference in Charleston, South Carolina, May 20. McDaniel gave a brief history of ethanol as a fuel and described its current status, including challenges facing the ethanol industry as well as regulations driving its development. Conference attendees included representatives from major energy companies, Petroleum Council members from states within API's Southern Region, and regional directors from other API regions.

Download the presentation at [www.enrg.lsu.edu/presentations](http://www.enrg.lsu.edu/presentations)

## CO2 Enhanced Recovery Subject of Denbury VP Talk, Field Trip

On Friday, June 20, Charles E. Gibson, vice president for reservoir engineering at Denbury Resources, Inc., visited with CES staff and invited guests. During a morning session, Gibson presented information on Denbury Resource's CO2-enhanced oil recovery activities, focusing on their Louisiana work and future plans. Following lunch, Gibson and other Denbury personnel hosted a field trip to their Lockhart Crossing operation near Denham Springs, where CES staff and invited guests were treated to a tour of their CO2 injection and oil recovery operation.



*The Mars tension-leg platform after Hurricane Katrina.*

Source: Shell.com

The information gained from the presentation, tour, and discussions was very timely and helpful as recent research has pointed to substantial quantities of stranded oil amenable to CO2-enhanced recovery in Louisiana. CES is researching the potential for combined CO2 sequestration (as a mitigating measure for global warming) and CO2-enhanced oil recovery in the state of Louisiana.

## **CES, MMS Tour Gulf Coast Energy Infrastructure**

In June, David Dismukes and CES research associate Jordon Gilmore accompanied MMS staffers on on-site visits and educational tours of energy infrastructure facilities near the eastern Gulf of Mexico. The two-day tour was restricted to the Mobile Bay area and included site visits to the Port of Mobile, Aker Solutions' umbilical manufacturing and assembly facility, and the ExxonMobil production and gas processing facilities. Special thanks to Judith Adams at the Port of Mobile, James Altieri with Aker Solutions, and Paul Dieffenthaler with ExxonMobil for facilitating the visits and taking considerable time out of their busy work schedules to educate CES and MMS about the nature of their operations.

## **Vanderleeuw Named ExxonMobil Manufacturing Director**

On August 1, ExxonMobil Baton Rouge refinery manager Stan Vanderleeuw became manufacturing director of ExxonMobil Petroleum and Chemical for the Europe/Middle East/Africa operation. Stan arrived in Baton Rouge in 2004 to serve as ExxonMobil's chemical plant manager. He became refinery manager in February 2006. Steve Blume, the company's Singapore refinery manager for Asia Pacific, will fill the local position.

The Center thanks Stan for his support of, and participation in, our programs during his tenure at the Baton Rouge location. We wish him all the best in his new position.

## **Center Launches Energy Leadership Speaker Series**

In an effort to inform students about the energy business and encourage interest in the field, the Center has introduced an Energy Leadership Speaker Series. The events introduce students, as well as government and industry stakeholders, to current and former senior executives from various fields within the energy business.

Chris John, president and chief executive officer of the Louisiana Mid-Continent Oil and Gas Association, will speak at the next installment of the series, Wednesday, September 10, at 3 p.m. in the rotunda of the Energy, Coast & Environment Building. John will discuss U.S. dependence on foreign sources of oil and how alternative energy sources can be integrated into the energy security equation.

The series kick-off was held February 20, when Barry E. Davis, president and chief executive officer of Crosstex Energy, described the midstream natural gas company headquartered in Dallas. Crosstex operates more 5,000 miles of pipeline, 13 processing plants, four fractionators, and approximately 200 natural gas amine-treating plants and dew-point control plants.

The speaker series, which will be held quarterly while LSU is in session, is open to the public, but RSVP is requested.

## **Barnett Departs CES**

In the spring, CES research associate Michelle Barnett accepted a position as a statistician with the Louisiana Healthcare Review. She will analyze Louisiana's, Mississippi's, and Illinois's Medicare and Medicaid health care systems from both claims and utilization perspectives. In May of this year, Ms. Barnett received her master's degree in applied statistics and was awarded the Gamma Sigma Delta 2007-2008 Outstanding M.S. Student Award.



*Chris John, president and CEO of LMOGA, will speak September 10 as part of the Center's Energy Leadership Speaker Series.*

## CES Welcomes New Staff

With the increased demand for energy industry analysis has come the need for an expansion of the Center's research staff. We recently welcomed the following new staff members. For complete biographies, visit [www.enrg.lsu.edu/staff](http://www.enrg.lsu.edu/staff).

**Elizabeth Dieterich**, research associate. Ms. Dieterich's responsibilities include managing and processing large sets of data and performing research related to energy issues. Her current project is a government related study researching insurance sector conditions and diversification of energy industry risk in the Gulf of Mexico.

**Jordan Gilmore**, research associate. Mr. Gilmore's current projects deal with the development of a statewide alternative energy resource inventory, and a preliminary concept proposal on greenhouse gas regulation. He also works with grant-funded and internally funded projects, which include literature reviews, development of policy analysis, and quantitative analysis. He also assists in the Center's communications, external affairs, and outreach to legislative bodies and trade associations.

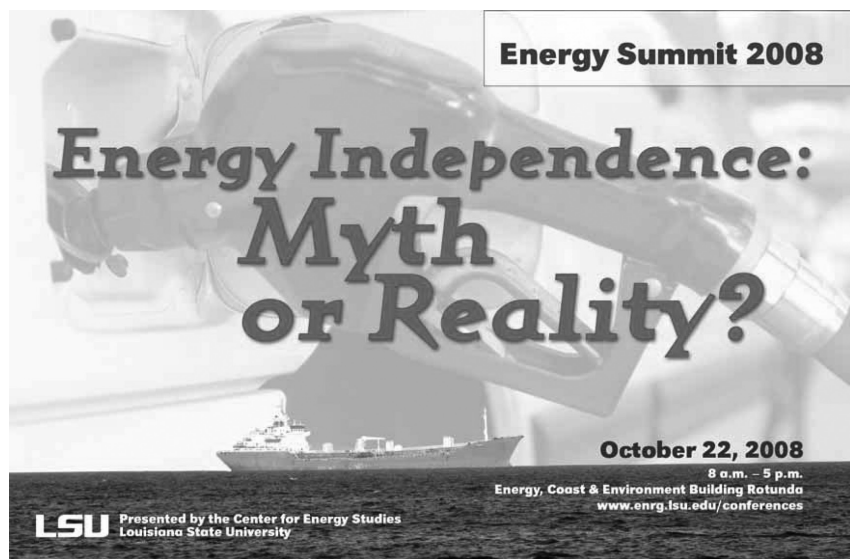
**Siddhartha Narra**, research associate. His responsibilities include managing, processing and analyzing energy-related data of the Gulf of Mexico oil and gas activity using geographical information systems and quantitative modeling techniques. Dr. Narra's current projects deal with the development of methodologies for forecasting service vessel and helicopter activity related to outer Continental Shelf development, reviewing oil and gas activity and production, studying pipeline infrastructure, and modeling the socioeconomic impact of offshore oil and gas activities.

**Kathryn Perry**, research associate. Her responsibilities include research related to energy issues, database management, and empirical data analysis. Her current projects include a survey of service vessel and helicopter trips to oil and gas infrastructures in the Gulf of Mexico, a labor and port infrastructure needs study, and research on the fiscal impacts of offshore activities.

**Brian Snyder**, research associate. Mr. Snyder is currently studying the costs, benefits, and regulatory structure of the potential development of an offshore wind power industry in the U.S. His research interests include climate change policy, carbon neutral and carbon negative energy, the ecological impacts of energy production, and ecological economics.

**Lauren Stuart**, research associate. Ms. Stuart works with the emerging climate change and renewable fuels initiatives, as well as the on-going collaborative effort to bring air quality in the East Baton Rouge area to national attainment levels.

*Mark your  
calendar*



## Energy, Coast & Environment Building Exhibits “Radiance”

In early spring, internationally acclaimed artist James Sanborn installed his sculpture *Radiance* on the terrace of the LSU Energy, Coast and Environment Building’s rotunda. The artwork was commissioned by a committee of building representatives, LSU community members, state planning and facilities representatives, and the architectural firms Post Architecture and Coleman and Associates. Post Architecture was responsible for the design work on the ECE Building, while Coleman and Associates supervised the building construction.

*Radiance* reflects the missions of the departments housed within the ECE Building. Bronze circular elements reaching eight feet in height and finished with an aged patina have been placed near the four entry ways. Water-jet cut passages of text in many languages perforate the pieces, referencing exploration, the environment, earth science, plate tectonics, oil and early inhabitants. The perforated text images are lit from an internal lighting source and project onto the façade of the ECE Building and walkways at night.

Sanborn is noted for his work with American stone and related materials. He has been commissioned to do artwork for sites at MIT, the CIA and the National Oceanic and Atmospheric Administration. He is best known for the “Kryptos” sculpture installed at the CIA headquarters, which displays encrypted messages that continue to stump code-breakers.

*Radiance* was acquired through the state public art bill specifying that one percent of a new state building’s construction budget can be designated for public art. The ECE Building, completed in 2003, was the first new building to fall under this public art bill.



Artist James Sanborn assembles artwork that now appears on the terrace of the Energy, Coast & Environment Building.




*Radiance* by James Sanborn.

*The Center for Energy Studies conducts, encourages, and facilitates research and analysis to address energy-related problems or issues affecting Louisiana's economy, environment, and citizenry. Whether conducted by its staff or by others it supports, the Center's goal is to provide a balanced, objective, and timely treatment of issues with potentially important consequences for Louisiana.*

*Visit [www.enrg.lsu.edu](http://www.enrg.lsu.edu) to read about the latest news and events at the CES.*

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