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## Upton White Paper Asks, "What If the Crude Oil Export Ban Were Lifted?"

Gregory Upton, assistant professor, LSU Center for Energy Studies, has released a report that analyzes the potential economic implications of the removal of the export ban on crude oil. The ban has been in place since the adoption of the 1975 Energy Policy and Conservation Act (EPCA). The study, titled "Crude Oil Exports and the Louisiana Economy: A discussion of U.S. policy of restricting crude oil exports and its implications for Louisiana," takes into account implications of the ban in light of the recent shale boom, which has created historic increases in oil and gas production and has prompted Congress to consider whether the export ban is still in the best interest of the nation.

Upton's analysis considers the claims made by prior studies that, should the ban be repealed, there would be significant economic benefits primarily due to increases in domestic oil production and that the lifting of the ban would not lead to increases in gasoline prices for consumers but could possibly result in a drop in gasoline prices.

In addition to determining the plausibility of the claims made by previous studies, Upton considers how the lifting of the export ban might impact Louisiana's economy by focusing on the likely effects of the ban on Gulf Coast oil producers (upstream) and refineries and petrochemical plants (downstream). His results suggest that large economic benefits associated with the removal of the export ban are implausible.

"Most of the price differential between domestic and foreign crude prices is likely associated with shipping costs and constraints within the U.S., not the export ban," Upton said. "And while refineries in general benefit from the export ban at the expense of producers, these transfers are transitory and are likely not large in magnitude."

Upton's analysis does corroborate other studies that have determined that the lifting of the ban would not likely impact gasoline prices.

"The purpose of the study is not to make a specific recommendation on whether the ban should be lifted," he said. "Nor does it quantify a net cost/benefit to Louisiana's economy, but it does identify specific tradeoffs that can be considered by policymakers when deciding whether the ban is in Louisiana's or the United States' interest."

The report states that the export ban is effectively a protectionist policy for the refining and petrochemical industries and that, if U.S. crude production continues to rise and reaches a point for which current refining capacity is insufficient to process the domestic crude, an export ban effectively guarantees that the investment in new refining capacity will be here in the U.S.

To view or download a copy of the report, visit <http://www.enrg.lsu.edu/pubs/bib/2015>.

### Upton's Research in the News

Greg Upton's white paper on the potential economic impacts of the lifting of the crude oil export ban has received media attention, including articles in *The Advocate*, *Nola.com*, and *The Daily Comet*, as well as an op-ed featured in *Lafayette's The Advertiser*.

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**Energy Summit™ 2015**

On October 21, CES hosted Energy Summit™ 2015, titled "Disruptive and Game-Changing Energy Trends: Implications for Louisiana." A diverse group of attendees numbering more than 100 participated. Highlights included CES Assistant Professor Greg Upton's presentation, "Unconventional Oil and Gas Activity and Crude Export Restrictions: A Discussion of U.S. Policy of Restricting Crude Oil Exports," a discussion of small modular nuclear reactors by Mike McGough, chief commercial officer for NuScale Power, and the development of battery systems capable of storing megawatts of power by Stefanie Goldman, research and development manager for battery maker Eos Energy Storage.

CES Executive Director David Dismukes welcomes participants to the 2015 Energy Summit™



Jennifer Vosburg, senior vice president, NRG Energy and president, Louisiana Generating, explains how microgrids can be used when the main power grid is disabled, during, for example, natural and manmade disasters.



Frank Macchiarola, executive vice president for government affairs, America's Natural Gas Alliance, emphasizes the need for new infrastructure to meet new power demands, particularly in the northeast U.S.



Stefanie Goldman, R&D Manager for EOS Energy Storage, discusses advances in battery technology for energy storage.



NuScale Power CFO Mike McGough describes NuScale's Power Module™, a self-contained, small modular nuclear reactor.



Energy Summit™ 2015 Q&A sessions allow participants to ask specific energy questions and offer feedback.

(l-r) David Dismukes, Mike McGough, and CES Advisory Council member Emile Cordaro, manager of state governmental affairs for AEP-SWEPCO, enjoy the Energy Summit™ reception.



CES Assistant Professor Greg Upton shares the findings of his economic analysis on the potential lifting of the crude oil export ban.



All photos by Brian Baigamonte

View or download Energy Summit™ presentations at [www.enrg.lsu.edu/conferences/energysummit2015/presentations.html](http://www.enrg.lsu.edu/conferences/energysummit2015/presentations.html)

### CES Hosts MISO Special Briefing

On August 18, the Center for Energy Studies and the Gulf Coast Power Association co-hosted a one-day workshop titled “Gulf Coast Disaster Readiness: A Past, Present and Future Look at Power and Industry Readiness in MISO South.” More than 100 attendees gathered for the MISO Special Briefing to learn how power and industry experts manage Gulf Coast disaster readiness in the MISO South.

Sessions focused on operations and financial lessons learned from Hurricane Katrina and other disasters; challenges to infrastructure and planning reliability; how large industries and utilities coordinate and operate during weather events and how their natural gas suppliers operate; and which technologies or practices are being developed to improve grid resilience and restoration.

The event was the GCPA’s third special briefing in Louisiana.



*Dennis Dawsey, vice president, Louisiana Customer Service, Entergy, was a keynote speaker at the Aug. 18 GCPA Special Briefing.*



*LSU President and Chancellor F. King Alexander introduces Sen. Bill Cassidy at the GCPA Special Briefing.*

### Speakers Circuit

Throughout the year and across the region, CES faculty are invited by government agencies, professional organizations, and academic departments to present their research materials. Most CES presentations are available to view or download at [www.enrg.lsu.edu/presentations](http://www.enrg.lsu.edu/presentations). Below are examples of a few recent speaking engagements and topics.

#### Dismukes Keynote at “Industry on the Move”

CES Executive Director David Dismukes gave the keynote address at the “Industry on the Move: What’s Next?” event presented by Regions Bank and *10/12 Industry Report* at the Renaissance Hotel in Baton Rouge on May 5. He told those in attendance that the overall outlook for the Louisiana market remained positive, in spite of the summertime rapid decline in oil prices, which slowed the momentum of some large-scale industrial projects planned in the state. He said that many opportunities for growth still existed, due to low commodity prices, low interest rates, and abundant and affordable energy.

#### Upton’s Crude Oil Export Ban Research in Demand

Assistant Professor Greg Upton has shared his research on the potential lifting of the crude oil export ban (see p. 1) at several speaking engagements, including at a World Trade Center New Orleans Energy Committee Meeting, an American Institute of Chemical Engineers (AIChE) monthly meeting, a Tulane University engineering forum, and Energy Summit™ 2015, here at CES.

#### Vachon Presents Bakken Research

Mallory Vachon, CES’s newest assistant professor, recently presented “The Impact of Local Labor Market Conditions on Migration: Evidence from the Bakken Oil Boom,” at the Federal Reserve Bank of Dallas on Dec. 1, and “Oil Production and the Elasticity of the State Tax Base: Evidence from North Dakota” at the Southern Economic Association meeting, held in New Orleans November 20-22.

### Louisiana Geological Survey Update



*Surface geology and geographic regions of the Louisiana coastal plain. Adapted from Snead and McCulloh (1984) and Spearing (1995).*

#### Water Institute of the Gulf, CPRA Commission 3-D GIS Dataset for La. Coastal Plain

The Louisiana Geological Survey was contracted by The Water Institute of the Gulf on behalf of the Coastal Protection and Restoration Authority of Louisiana to investigate, assess, and develop a three-dimensional GIS dataset of the buried Holocene-Pleistocene surface, a regional unconformity sometimes known as the “base of the Holocene,” for coastal Louisiana. Until now, no single, comprehensive map delineating the Holocene-Pleistocene surface that covers the entire Louisiana coastal plain and coastal waters had been created. Instead, the available data consisted of maps created by various authors at different times in different study areas and using different criteria. As a result, many gaps exist in the coverage of these maps as well as conflicts in their interpretation.

The technical work conducted for this project consisted of: (1) a search and investigation of 15,863 existing published and unpublished boring locations; (2) an assessment of the effectiveness of the source data; (3) data development and compilation of 3,012 useful H-P data points; (4) the development of a GIS dataset of the Holocene- Pleistocene surface; and (5) the preparation of deliverable GIS datasets, digital maps, and a final report with an interpretation of the data.

The Holocene-Pleistocene surface model of the entire Louisiana coastal plain will offer improvement in understanding geologic variables in engineering design for coastal restoration projects, reduce uncertainties in accessing future geoenvironmental conditions, support decision-making on coastal issues, and help improve data and assumptions used in predictive subsidence modeling.

#### LGS Preparing New Geologic Map of Louisiana

LGS is preparing a new state geologic map to take advantage of new technologies and new interpretations. The map will be designed for a scale of 1:380,160, the same scale as the popular Official Map of Louisiana, the Louisiana Coastal Zone map, and the Louisiana Shoreline Change 1937-2000 map. The new Geologic Map of Louisiana will be made available both as a traditional published lithograph, a GIS dataset, and a digital PDF map useful on computers and digital devices. The project is anticipated to take two years to complete.

### Projects Provides Clarity for Preservation Potential, Implications for Offshore Sand Resources

To interpret better internal stratigraphy, structure, and relative age of individual paleovalleys, the Geologic Mapping and Mineral Resources Section has developed a geographic information system (GIS) compilation of the southwestern Louisiana continental shelf from industry hazards survey maps. Titled “Late Quaternary Stratigraphic Evolution of the Southwestern Louisiana Inner Continental Shelf: Paleo-Landscape Preservation Potential and Implications for Offshore Sand Resources,” the compilation provides an understanding of how exposed coastal plain shelves respond to sea-level rise, which serves to determine paleo-landscape and associated intact prehistoric cultural resource preservation potential within the modern shelf.



Visit  
[www.enrg.lsu.edu/presentations](http://www.enrg.lsu.edu/presentations)  
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## Of Note

### Stickle Retires

CES Librarian Versa Stickle retired in June after 22 years of service to the Center. She was honored June 9 with a party attended by current and former CES faculty and staff and her family.

Stickle joined the center's staff as head librarian under Director Bob Bradley for the Louisiana Energy and Environment Resource and Information Center, or LEERIC, program, which served K-12 educators state-wide. While with LEERIC, Versa gave presentations to college classes, performed public outreach, and developed lesson plans to accompany science films, among several other duties.

When the LEERIC program relocated to the Louisiana Resource Center for Educators, Versa remained with the Center to manage the CES library, providing faculty, staff and the public access to energy research publications. She skillfully managed the library's reference services, specialized book collection, and supporting documents for the Center's statistical databases.

The Center's faculty and staff extend their gratitude and well wishes to Versa and know that she is already enjoying the next steps in her journey.



Assistant Professor Mallory C. Vachon joined the CES faculty in August.

### CES Welcomes Mallory Vachon

In August, CES welcomed its newest assistant professor, Mallory C. Vachon. Vachon earned her Ph.D., M.A., and B.A. in economics from Syracuse University. Her research interests lie at the intersection of energy, labor, and public economics, with a focus on the local economic impacts of natural resource extraction.

She is a member of the American Economic Association, the International Association for Energy Economics, the Southern Economic Association, and the Society of Labor Economists.



Health Physics Society Fellow Wei-Hsung Wang serves as vice chair of the American Board of Health Physics Part II Panel of Examiners and is a member of the society's Academic Education Committee.

### Wang Named Health Physics Society Fellow

Wei-Hsung Wang, professor at the Center for Energy Studies and director of the LSU Radiation Safety Office, has been elected as a fellow of the Health Physics Society, an honor limited to less than one-half of one percent of the society's members. The Fellow Awards are designed to honor senior members of the society who have made significant administrative, educational, and/or scientific contributions to the profession of health physics. The selection was made by the society's awards committee, which is composed of the president and four most recent past presidents of the society.

Wang, along with nine other members from Cleveland Clinic, Columbia University, Florida Department of Health, King & Spalding, LLP, Los Alamos National Laboratory, Mayo Clinic, MJW Corporation, University of California Davis, and University of Michigan, were recognized for their accomplishments at the 60th Health Physics Society Annual Meeting awards banquet in Indianapolis on July 14.



CES held a retirement celebration June 9, 2015, for Versa Stickle, here with CES Professor Mark Kaiser, LSU Radiation Safety Director Wei-Hsung Wang, and Louisiana Geological Survey Director Chacko John.



David Dismukes presents Versa Stickle with the traditional CES Retirement Umbrella Gift.

### Snyder New SC&E Assistant Professor

In January 2016, Brian Snyder will transition from CES research associate to School of the Coast & Environment assistant professor in the Department of Environmental Sciences. Snyder, who joined the CES staff in May 2008, will teach introduction to environmental science, while continuing his work in energy research with a focus on bioenergy and energy policy.

During his tenure at CES, Snyder authored or coauthored nearly 40 publications, including two books. The Center for Energy Studies faculty and staff congratulate Brian on his new position and look forward to continued successful collaboration in the future.

### Yu Accepts Texas Treasury Position

CES bids farewell to CES Research Associate Yunke Yu at the end of December, when he leaves for a data analyst position with the Texas Treasury Safekeeping Trust Company in Austin.

Yu, who joined CES June 4, 2007, was instrumental in the research efforts of Professor Mark Kaiser, including the modeling of oil and gas production losses after the hurricanes of 2005 and as a result of early decommissioning, ascertaining economic limits for Gulf Coast oil fields, and evaluating well performance and development potential of the Haynesville shale play. He coauthored more than 30 publications while at CES.

Yu earned a bachelor of engineering degree (Oil & Gas Transportation and Storage) from China University of Petroleum (Beijing) and a master of finance degree from Tulane University. He obtained the Chartered Financial Analyst (CFA) designation in 2011.

Yu's professionalism, diligence, boundless curiosity and wonderful sense of humor will be missed by all at the Center. Good luck, thank you and Geaux, Yunke!

### Johnston Elected Chair of La. Board of Professional Geoscientists

John E. Johnston III, retired assistant director of the Louisiana Geological Survey, was elected chairman of the board of the Louisiana Board of Professional Geoscientists for 2015-2016. The LBOPG oversees the licensing and professional practice of geologists, geophysicists, and geochemists. John was appointed to the board by Governor Jindal in 2012. He is a Certified Professional Geologist and the recipient of a Louisiana Governor's Award for outstanding public service.

## Scholarships

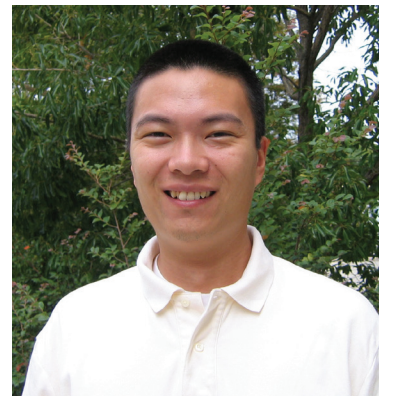
### Hood, GCPA Scholarships Awarded

This fall, the Center awarded two scholarships. The F. Malcolm Hood Memorial Scholarship was awarded to environmental sciences senior Jennifer Kenyon of Marrero. Kenyon developed an interest in energy, specifically energy conservation, after conducting biogeochemistry research last summer at the Smithsonian Institution. The research project focused on the remediation of excess chemicals due to acid mine drainage as the result of abandoned mines. This fall, Kenyon participated in the SEA Semester at Woods Hole Oceanographic Institution, where she pursued oceanographic and environmental research, with an emphasis on public policy.

The David Olver Memorial Scholarship, provided by the Gulf Coast Power Association emPOWERing Foundation, was awarded to senior electrical engineering major Sung Jung of Kenner. Jung's career goals include answering the demand for reliable energy. He interned for two years at Oncor Electric Delivery in Dallas, where he worked in transmission operations and transmission planning. He plans to pursue a master's degree in electrical engineering and to qualify as a PE.



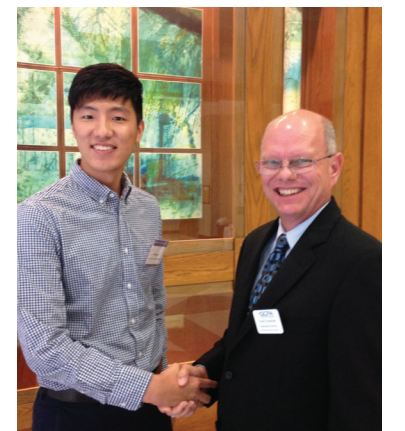
Beginning in January, Brian Snyder will be the SC&E's newest faculty member. Congrats, Brian!



Don't mess with Yunke: Yu mooving to Austin.

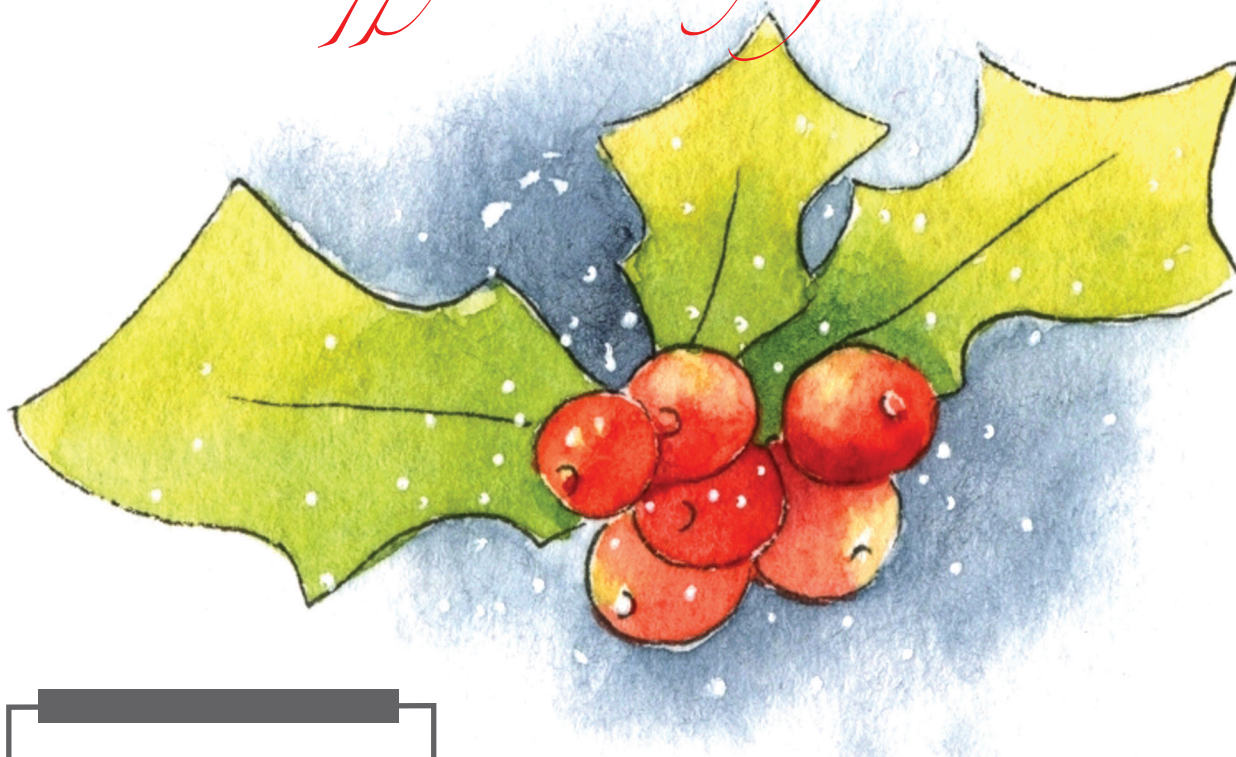


F. Malcolm Hood Memorial Scholarship winner Jennifer Kenyon met Hood's daughter, Celeste Cheramie, at the fall CES Industry Associates meeting.



GCPA Executive Director Tom Foreman introduced David Olver Memorial Scholarship recipient Sung Jung to attendees at the Special Briefing held at CES on August 18.

*Happy Holidays from CES!*



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

*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.*

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