

Energy Frontier center arrives at LSU

By [JORDAN BLUM](#)

Advocate Capitol News Bureau

Published: May 8, 2009 - Page: 5B

LSU officials are hoping \$12.5 million in new federal funding will result in cleaner ways to convert energy and fuels for the world.

LSU is one of 46 universities and laboratories that last week became home to Energy Frontier Research Centers, or EFRCs, being established by the U.S. Department of Energy.

The LSU team is focusing on “computational catalysis” and reactions to study the conversion of fossil fuels to usable energy on the molecular and atomic scales, said team leader Jerry Spivey, LSU chemical engineering professor.

Spivey said he believes the energy processes can be made cleaner and more environmentally friendly by studying them more closely through computer modeling and real-time reactions at LSU’s Center for Advanced Microstructures and Devices.

“We want to make our resources go further and impact the environment less,” Spivey said. “People’s ways of life are tied into energy from ways we never think.”

That ranges from obvious things such as lights and air conditioning to the truck transportation that delivers clothes and food to stores near us, he said.

LSU’s new federal funding will be paid out over five years and the Louisiana Board of Regents is chipping in another \$940,000.

If the research proves useful, Spivey said the project can be renewed for a second five years.

U.S. Secretary of Energy Steven Chu announced last week that the EFRC’s are critical to reducing the nation’s dependence on fossil fuels and imported oils that add to greenhouse gas emissions.

The LSU team also includes Kerry Dooley, John Flake and Gregory Griffin, all chemical engineering professors; Challa Kumar, CAMD director of nanofabrication and nanomaterials; Richard Kurtz, physics professor; Phillip Sprunger, physics professor; and physicist Ward Plummer.

The team also includes researchers from Clemson University, Texas A&M University, University of Florida, Louisiana Tech University, Tulane University, Georgia Tech and Utrecht University in the Netherlands.

Spivey said his primary concern though is pending state budget cuts to higher education that could decimate CAMD.

The facility has one of just eight synchrotrons in the nation and the only one funded by state support.

The synchrotron works by generating electrons that giant magnets swing in a circle at the speed of light to create light beams such as X-rays. Those are used in everything from nanofabrication of targeted drug delivery for cancer to the creation of powerful computer chips.

LSU has proposed offsetting some of the up to \$35 million in cuts by cutting off much of its funding to facilities like CAMD, LSU's Center for Computation and Technology, LSU Press, Southern Review literary journal, LSU Museum of Art, Rural Life Museum and Hilltop Arboretum.

LSU's EFRC is officially titled "Computational Catalysis and Atomic-Level Synthesis of Materials: Building Effective Catalysts from First Principles." It will be housed in LSU's chemical engineering department and not require any new construction.