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African energy sector to be focus of April 8 Baker Institute lecture

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Despite ample natural resources in some sections of Africa, many parts of the continent lack access to electricity. The Energy Forum at the James A. Baker III Institute for Public Policy will host an April 8 lecture, "Energy for Sustainable Development in Africa," that will explore new technologies that could help address that shortcoming.

Bryan Willson, professor of mechanical engineering at Colorado State University, will deliver the lecture at 6 p.m. Willson is also director of the Clean Energy Supercluster, a universitywide, multidisciplinary alliance of researchers, social scientists and business experts working on innovative research and discovery.

The event will be held in M.D. Anderson Biological Laboratories, Room 131.

As few as 2 percent of some sub-Saharan African populations have access to electricity because of the expense and unreliable supply. Wood fuels burned in open fires and primitive cookstoves provide more than two-thirds of the total energy and more than 85 percent of the nonindustrial energy. Indoor air pollution from these primitive cookstoves is a leading cause of death, particularly for women and children.



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Africa's energy sector is characterized by insufficient investment, distorted markets and ineffective governance. More conventional approaches such as "appropriate technology" and "second generation biofuels," such as jatropha plants and palm, have had little impact. Willson's talk will present an overview of the energy sector in Africa and examine technologies that have had commercial impact, with a focus on tools that hold particular promise for widespread dissemination. The technologies include improved biomass cookstoves, distributed electricity generation and microgrid technology, and biofuels from algae -- a "third-generation biofuel." He will also discuss successful approaches that have been applied in other regions of the developing world.

Willson serves as consultant or adviser to numerous U.S. government agencies, international development and environmental agencies, industrial organizations and private industries. In recent years, he has traveled for professional activities in India, China, Korea, Nepal, Benin, Peru, Honduras, China, the Philippines, Thailand, Hong Kong, Japan, Australia, France, the United Kingdom, the Netherlands, Denmark, Sweden, Austria, Switzerland and Germany.

This event is co-hosted by the Baker Institute's Energy Forum and the Shell Center for Sustainability at Rice University. The event is open to the public.

Rice faculty, staff and students who want to attend must RSVP by e-mail (bipprsvp@rice.edu) or by fax (713-348-5993).