

# Alternative Energy in the Houston Region

**Houston, the energy capital of the world, is diversifying its energy base into new and alternative energy technologies.**

## Solar

- Rice University has been selected by the U.S. Department of Energy to design, build and operate a fully solar-powered home. The project is part of the fourth Solar Decathlon to be held in Washington, D.C., in fall 2009. Rice, one of 20 university teams to compete, will receive \$100,000 from the DOE for the project.
- In the Upper Kirby area of Houston, construction is underway on what may be the city's only completely self-sustainable house. Houston Public Radio reports the house will generate all power and water through solar energy and rain. If all goes according to plan, the home could receive a Platinum rating by LEED standards, the nation's highest green rating.
- Houston-based Global Warming Solutions Inc., a developer of technologies aimed at mitigating the effects of global warming, has signed a collaboration agreement with Solar Wind Ltd., a Russian-based supplier of double-sided silicon solar cells.
- In 2008, Houston was recognized by the U.S. Department of Energy (DOE) as a Solar America City for its commitment and comprehensive approach to the deployment of solar technologies. The DOE awarded \$200,000 in funds to the City of Houston to develop a strategy and plan for solar infrastructure in the region. BP Solar will provide an additional \$200,000 in solar panels to the City of Houston as part of the matching requirement for the grant.

## Hybrid Technology

- Mayor Bill White announced in April 2005 plans to convert a substantial portion of the City's fleet of cars, pickup trucks and sport utility vehicles to hybrids. As of July 2008, the City now has 500 hybrid vehicles with hopes to expand the fleet of hybrid vehicles to 1,500 by the year 2010. The City fleet comprises more than 11,000 vehicles of which 3,554 are the civilian, light-duty, "non-specialty" fleet.

## Ethanol

- Houston's first ethanol (E85) fuel dispensing facility opened in October 2004 at NASA's Johnson Space Center. JSC is now the fifth NASA center to add ethanol fueling capability. JSC employees are now mandated to use E85 in the 25 Flexible Fuel Vehicles in the GSA fleet assigned for employee use, if their official business takes them within a 50-mile radius of JSC.

## Hydrogen Fuel Cells

- The Woodlands-based Center for Fuel Cell Research and Applications is a multi-sponsor research consortium working to advance hydrogen and fuel cell technologies from lab to market. The Center offers two programs - one providing surveillance of early-stage technologies and the other providing operational verification of products emerging from late-stage developers and manufacturers.