NEWS ANNOUNCEMENT

AUGUST 5, 2004

Dr. Darlene Slattery of Florida Solar Energy Center Attends National Science Foundation Budget Workshop

Dr. Darlene Slattery, Senior Research Chemist at the Florida Solar Energy Center, attended the National Science Foundation-sponsored workshop on "Future Directions in Hydrogen Energy Research & Education" in Washington, DC, in July. The stated goal of this invitation-only workshop was "to identify and articulate the basic scientific and engineering questions evolving from both U.S. and international interests in an expanding role for hydrogen, particularly in the transportation sector." Additionally, the group was asked to identify the hydrogen research needs that should be included in the President's 2005 budget requests for National Science Foundation (NSF) funding.

Keynote speaker on the first day was Dr. Mildred Dresselhaus of Massachusetts Institute of Technology. She discussed the early research in the 1970s aimed at the hydrogen economy. Her talk was followed by a panel discussion giving an overview of the strengths and weaknesses of the currently available technologies in preparation for the breakout sessions.

Luncheon speaker, Peter Teagan of TIAX spoke on "The State of Hydrogen." He reviewed the energy efficiency of transportation fueling options and the R&D implications of those options.

The Solid-state Hydrogen Storage breakout session was chaired by Dr. George Thomas. Dr. Carole Read gave an overview of storage from DOE's perspective and outlined the projects that were selected under the Grand Challenge. Dr. Maciej Gutowski of Pacific Northwest National Laboratory then gave an overview of planned activities of the Virtual Center for Chemical Hydrides.

Dr. Harriet Kung from DOE's office of Basic Energy Sciences also discussed the current RFP and stated that they hope to see more projects of a fundamental nature. George Thomas followed up with an overview of new developments in storage, with an emphasis on $NaAlH_4$. George also presented an outline of potential additional research, including new materials development, mechanistic studies, materials for containment of the storage media, and system modeling. At the end of the session, the group agreed that the single most important issue is the identification of new hydrogen storage materials.

Recommended research was outlined and presented by the group to NSF as follows:

- Innovative materials and mechanistic understanding
- New materials by design
- System engineering and modeling

- Structural materials
- Characterization tools
- Cross-cutting issues

The speaker at the dinner hosted by Toyota was Jon Bjorn Skulason from Icelandic New Energy. Skulason gave a fascinating overview of actions Iceland has taken toward developing their hydrogen economy.

The following day, Dr. Slattery and others in the group developed a document outlining NSF budget recommendations for the President. An official report will be forthcoming soon.

The Florida Solar Energy Center is the largest and most active state-supported renewable energy and energy efficiency research and development organization in the United States and functions as the State's energy research and training center. For more information about FSEC's hydrogen research programs, visit http://www.hydrogenresearch.org or call FSEC Public Information Office at (321) 638-1015 or go to http://www.fsec.ucf.edu/hydrogen.

###