

## **X Education**

### **X.1 Education Sub-Program Overview**

#### **Introduction**

Achieving the vision of a hydrogen economy requires a sustained education effort that begins in the near-term in order to ensure the success of initial hydrogen demonstration projects. Safety and code officials must be familiar with hydrogen technologies to facilitate permitting processes, and emergency responders must be trained to handle potential incidents. State and local government officials must understand near-term realities of hydrogen technology to make sound decisions about current opportunities and lay the foundation for long-term change. Citizens in communities where demonstration and validation projects are located will embrace them if they are familiar with the concept of a hydrogen economy and understand the facts about hydrogen safety. Educated students with a technical background and interest in hydrogen technologies are needed to support continued research efforts in government, industry, and academia – and today's younger students comprise the first generation of hydrogen fuel cell technology users.

The Hydrogen Education Sub-Program develops and implements activities to meet the needs of these key target audiences. It also considers a balanced message to help target audiences understand the benefits of a hydrogen economy, recognize the near-term realities and opportunities of hydrogen and fuel cell technologies, develop an accurate understanding of hydrogen safety issues, and understand their part in facilitating the transition to a hydrogen economy.

#### **Goal**

Educate key audiences about the concept of a hydrogen economy and hydrogen fuel cell technologies to facilitate near-term demonstration and long-term commercialization and market acceptance.

#### **Objectives**

##### By 2010:

- Achieve specific increases in knowledge and understanding of hydrogen technologies among key target populations\*
- Launch a comprehensive and coordinated public education campaign about the hydrogen economy and fuel cell technology

\*according to a 2004 baseline

#### **FY 2005 Status**

The Hydrogen Education Sub-Program received a zero appropriation in FY 2005; activities initiated in prior years were deferred to FY 2006, subject to Congressional appropriation.

#### **FY 2005 Accomplishments**

- Baseline knowledge assessment report completed and distributed for peer review, May 2005.
- Completed Hydrogen Learning Workshop Series for state and local government officials with final event in Orlando, Florida, December 2004.
- In partnership with the National Hydrogen Association, provided technical assistance to support the second annual hydrogen design contest for university students, April 2005.

## Budget

The Education Sub-Program received a zero-budget appropriation in FY 2005. The FY 2006 budget request is shown in the adjacent figure.

## 2006 Plans

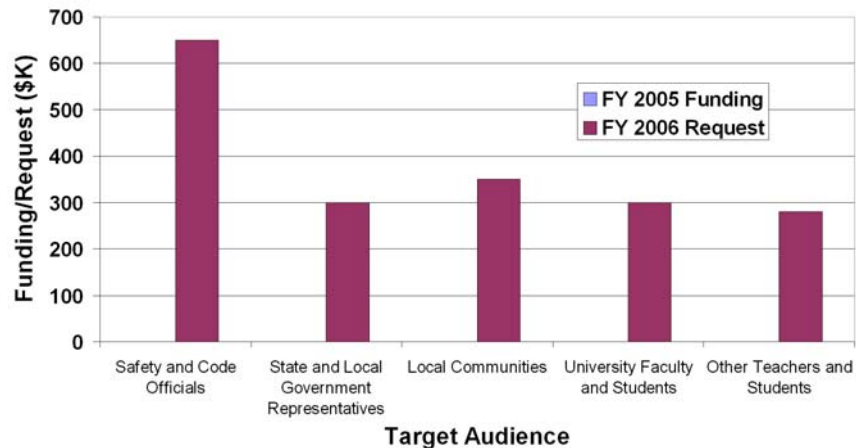
Pending Congressional appropriation, FY 2006 Hydrogen Education priorities will emphasize safety and code official training, as well as

continued support for deferred projects initiated in FY 2004. In addition to safety and code officials, hydrogen education activities seek to reach the target populations of state and local government officials, citizens in local communities where demonstration projects will be implemented, and faculty and students of all levels.

Among the top priorities is the development of multi-level training for emergency responders, fire marshals, and code officials that will include train-the-trainer courses as well as web-based distance learning (this activity will be conducted in close coordination with the Safety, Codes and Standards key activity). Also in development are resources for state and local government officials, including a second round of one-day Hydrogen 101 seminars, a more intensive “Hydrogen Energy Institute” training course, and an expanded hydrogen state initiatives database.

To educate the public in local communities where demonstration projects will be implemented, targeted outreach efforts will be developed and implemented in conjunction with Hydrogen Learning Demonstration projects. This activity, which will include public information spots and community seminars, will introduce the public to the vision of a hydrogen economy and hydrogen technologies, with a particular emphasis on the facts about hydrogen safety.

Activities targeting university students and faculty include continued support for the Hydrogen Technology Learning Centers awarded through the State Technologies Advancement Collaborative solicitation in FY 2004. Each center is building and expanding hydrogen technology courses for undergraduate and graduate students, as well as short courses and educational programs for local businesses and the community. Plans also include technical assistance and support for the 2006 H2U design competition for university students in cooperation with the National Hydrogen Association. Pending available funds, support will continue for projects awarded in FY 2004 to facilitate the introduction of hydrogen fuel cell technologies to middle and high school students. Deliverables include pilot-tested classroom materials and the middle and high school teacher training and professional development.



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