SUB-PROGRAM COMMENTS PROVIDED BY REVIEWERS

Education Sub-program Comments

1. Was the sub-program area adequately covered? Were important issues and challenges identified? Was progress clearly presented in comparison to the previous year? (include information presented in the Plenary presentation of the sub-program if appropriate)

- Yes.

- The presentation provided the right level of detail for the sub-program. The education based challenges were clearly outlined. Progress was clearly outlined. The number of trained people was identified by category.

- The sub-program was covered well. The presentation did not always clearly indicate the progress from previous year since the totals were cumulative.

- Challenges and opportunities were clearly presented; as was the progress made over the last year (progress was clearly outlined by activity).

- I believe the sub-program was adequately covered. In terms of progress in comparison to the previous year, I believe this could have been better presented and discussed.

- The sub-program was covered adequately, and important issues were identified.

- Yes.

- DOE's presentation showed that the Education program is covering several important areas from government to students to end users and even the general public. It's good to see such diversity. The challenges were clearly laid out and I appreciated the clarification that people who are negative towards hydrogen and fuel cells are usually negative because they don't have adequate information. Most people that interact with the technology have a positive outlook.

- An improvement could be to show how perceptions are being changed due to the various programs - data, quotes etc. that show that perceptions and acceptance of the technology is high after personal interactions with an education program.

- The sub-program was well covered in a congenial manner with good direction to the reviewers giving excellent background information on this important topic.

2. Are plans identified for addressing issues and challenges? Are there gaps in the project portfolio?

- Yes - no gaps were apparent.

- Educating safety officials and codes and standards officials is a priority area. Efforts to develop meaningful, relevant, and innovative curricula for middle school and high school were clearly explained. State and local government outreach is an excellent area to be developing.

- There are no gaps in the project portfolio. It is hard to judge if anyone has been overlooked as classic categories for public education are being used.

- The challenges are being addressed via the training curriculum.

- There don't appear to be gaps in the portfolio, at least in relation to the available funding. More details on the future plans to address issues and challenges would be appreciated (presentation had a lot of detail on past accomplishments, but less detail on future plans).

- Now that commercial deployments are growing in a few early markets, I believe there is an opportunity for a targeted public information and outreach effort to enhance the progress being made in these early markets. The data collected and reported as part of the Recovery Act projects and the Market Transformation projects should contribute greatly to a body of information that could boost near-term sales. Examples would include validating the business case for fuel cell powering for MHE (material handling equipment), primary power for grocery stores, and backup power.

- Funding issues will continue to hamper the effectiveness of planned efforts.

- Yes.

- The current programs seem to be addressing the challenges, so to that extent, yes, it looks like the program is addressing them. But what would the sub-program like to do more of? It would be good to hear what new things the Education sub-program wants to do. Does it include greater volume of the same projects? New projects? The sub-program is budget restrained, so it is difficult do new things.

- The biggest challenge that this area faces is lack of budget. Finding funding for this important sub-program must be difficult, given the fact that there is no funding request for education efforts. Some education is paid for out of Codes & Standards funding, but the need is greater

than that, and taking funds from the allied sub-program does neither sub-program justice.

3. Does the sub-program area appear to be focused, well-managed, and effective in addressing the DOE Hydrogen Program R&D needs?

- This appears to be a well-managed and focused sub-program meeting its goals and objectives.

- The sub-program appears to be focused, well-managed, and effective. The various audiences defined cover most everyone who has a need to know. It is difficult to know if the sub-program is well managed from this presentation. The sub-program is well organized.

- Yes. There are a multitude of on-going efforts that appear to be focused on the challenges and address them.

- The educational efforts do appear to be effective in addressing the Program's needs for outreach and education: they have reached a significant and wide audience with hydrogen information. I don't see any management issues at this point.

- Yes, I believe the sub-program is well positioned to support the needs of the DOE Hydrogen Program.

- Low or no funding makes it difficult or impossible to address DOE needs.

- Yes.

- The sub-program is addressing R&D needs. The DOE TDM is new and has hit the ground running, but I don't have enough history to determine how well-managed the sub-program is. So far, so good!

- The sub-program is done in a first-class manner.

4. Other Comments:

- We were not asked if we had any questions.

- Develop a method to understand if the overall perception of H_2 is changing as a result of these and industry efforts. Is H_2 becoming more acceptable in the minds of the public?

- Budget levels could impact the overall success of the program.

- I think the Education sub-program and maybe Vehicles and even EERE could be doing more outreach. Hydrogen is losing ground to other alternatives and it would be good to see hydrogen better included in the outreach of companion technologies like battery vehicles and other advanced technologies as part of a broad portfolio—much like the automakers are doing. These technologies are more complementary than competitive.

If the outreach from DOE was more visible and showed a portfolio approach, maybe it would dispel the issue in public opinion that the Administration believes more in battery vehicles than hydrogen vehicles. If they really are both a part of the important electric vehicle portfolio, maybe outreach projects could convey that. Education about these technologies and the way they support each other is key to consumer acceptance and also key to undoing the divide that's been created by the perception that one technology has been chosen over another. That perception needs to be fixed because it is slowing progress in both technology areas and that means it's slowing the progress that DOE could be making. I'd think that some cross-cutting programs like that would not only aid education, but help to increase the effectiveness of projects in several different DOE programs.

In addition, all education projects should be asked to present data on how their target audiences have been affected by the educational material presented to them (students, staffers, etc.). If some standard questions could be asked through different projects (like "What was your perception of hydrogen and fuel cells a year ago/before the project? What's your perception now?), it would provide great data on how the education program is effecting change.

- The lack of a funding request for this important sub-program is disappointing and a little depressing. I am reminded of the daughter who, when advised by her father to become a doctor, responds "But dad, without teachers, there would be no doctors."