APPENDIX B: HYDROGEN PROGRAM FY 2004 MERIT REVIEW AND PEER REVIEWER AND PARTICIPANT FEEDBACK

These notes summarize the comments received at the various reviewer feedback sessions, as well as those provided on questionnaire forms filled out by many participants. The comments received were generally focused on the basic meeting process; however, where relevant, notes specific to a particular session will be designated and called out.

Overall

- Kickoff talks for the various technology areas could be used to provide more extensive details to reviewers and attendees.
- The quality of the papers has improved significantly, but they are technically less interesting. The inclusion of obligatory slides may be the cause.
- With regard to the PIs having to submit their presentations one month in advance, a PI mentioned that it helped to improve his communication of the key points, as opposed to focusing on experiments right up to the presentation time.
- Some of the projects had just started, and the new presentations seemed forced. They did not have enough material to talk about. Presenters seemed to be trying to fill in time. Problems with the projects were unknown, and technical accomplishments were absent.
- Reconsider having (not having) projects that have just started going through the review process. It is not appropriate to rate these projects on accomplishments and progress when they have started only weeks ago. These projects could either be presented as info only or as posters.
- Standardize the name of this meeting -- it was sometimes called "Program Review" or "Annual Merit Review" or "Peer Review." Pick one and stick with it.

Presentation Content

- Each presentation should present the concept for the work early in the presentation.
- Presenters should provide a brief background and perspective to put their program within the larger framework of the overall DOE program.
- On a percentage basis, the content was not all that great. It would have been helpful if "future plans" were discussed early in the presentation.
- In the future, would suggest having each PI not only present targets and objectives, but also their specific performance to those targets and interim goals. Unfortunately in almost every presentation targets and goals were only mentioned at the beginning and then no discussion on how the research was making progress on achieving them. Each PI should be able to self-evaluate their projects towards targets and be willing to share the evaluation.
- Some presenters did not explain what has been and what will be carried out -- what was being done and why was not clear. Details about the data point was not provided. For example, if a data point was 500 hrs…and 400 hrs was achieved why was the test stopped…. explain the reasons for that.
- PI's seem to focus on the things they have done and not the accomplishments. With the short time allotted presentations need to be better focused.

- Presentations need to tie accomplishments to funding. It is difficult to assess a project and its accomplishments when there is nothing to indicate at what point in the year funding may have been received. It is very important to include the phases of the projects and the time-phased availability of funding.
- Large variation in the quality of presentations. Some were excellent presenters, others were not. Is it possible for TDMs to choose who will present?

Obligatory Slides

- Hard structure/format on required slides was a good addition this year. One reviewer recommended that the hard structure be dedicated to one or two slides. Assuming that one required slide is used to present the information that slide could be divided in 3 and use 1/3 for budget, 1/3 for Safety, and 1/3 for other content.
- There was general consensus that the number of obligatory slides be reduced so that the PIs can focus on more important details.
- "Collaboration" could be more consistent - some just make a list - need to show benefit/goal of collaboration presented.
- People seem to waste time reading all info on budget straight from the slides. Provide slide for info but they should only address the slide to add info. We know how to read.
- There was a lot of overhead, non-technical information in the slides and it was distractive. The reviewers would have preferred technical data rather than so much boiler plate information. Boiler plate information (e.g. safety) took a big chunk of time from the technical information in the presentation.
- One solution to it might be to include this information in the last few slides in the oral presentation (or as back-up slides) or just in the hard copies of the presentation.
- The reviewers took too much time discussing the required safety slide.
- Safety slides were not that useful - there should be another way to address this important topic.
- Safety pages ended up being "pro forma" not really value added or differentiating. Perhaps it would be better for DOE program managers to make this part of their site visits/progress reviews and capture/share safety management best practices. Could "score" research teams on safety and have them report that score at annual review to keep as a clear priority!
- It was pointed out that the benefit of their inclusion, which spanned the spectrum of safety concerns, but also that some of the PIs glossed over the material
- Concern about safety incidents, among the DOE funded projects is a serious matter for the Safety TDM and Safety Panel. Presentation content in the area of safety should not be eliminated.

Oral Presentations

- Readability:
  - A lot of information was compressed in the presentation slides. It was difficult to read even from the front.

  - Suggest a PI "format" guidance instruction such as: "Be able to be read by audience" (font size), no busy diagrams (these can be seen in report).
  - Provide guidelines to presenters regarding font size. Too many slides were too small to read from the middle of the room. Enforce the font size requirement.
- It would be better if each speaker had a clip-on mic. That way the speaker is not restricted to a specific location. With the podium mics, as speakers looked toward the screen, their voice would fade.

Poster Presentations

- Poster session was much better in terms of space compared to last year's poster session.
- Poster sessions allowed for in-depth discussion/dialogue, very valuable.
- The posters were effective in providing access to some of the work and were located very effectively for people to see them, especially during breaks.
- Having the poster presentations at separate, scheduled sessions, rather than all available simultaneously, was good.
- Provide chairs for the poster session presenters - 3.5 hours is a long time to stand!
- The information in the posters were cramped -- too much information on the posters.
- Don't like posters and talks at same time. Poster schedule as presented was confusing.

Timing

- Need to consider if it is preferable to leave early if the session ended early, or to stay on schedule by making each presentation start at the designated time.
- Some of the speakers were not sticking to their allotted times and this was an issue for the reviewers. It was difficult to attend more than one session. By the time they go to the other session from one session, they either would have to wait for the next presentation to begin or come in somewhere in the middle of the presentation.
- The time allocated for each presentation should be based on the project funding level.
- Presentations were a bit frustrating because presenters didn't have time to go into important details. However, there really isn't time to be able to be able to go into greater depth for either the reviewers or the presenters.
- Do not allow a 30-page presentation for a 20 minute time slot. It is very ineffective to flash a slide of data for 30 seconds and talk so fast that the audience had no time to absorb information.
- Allocate twenty minutes for presentation and 5-10 minutes questions.
- The timing clock worked well.
- Just like last year (Berkeley meeting), the timer machine should have audible, beeping mechanisms to get the speaker's attention.

Logistics

- With regards to meeting logistics, with the number of reviewers using laptops to conduct reviews in real time there is a need for access to electricity supply, powerstrips, etc.

Ultimately this is a hotel selection issue as not all hotels are sufficiently equipped to provide such services. The Philadelphia Marriott did not.
- There is strong consensus that a hotel that offers amenities like a Kinkos and a Starbucks Coffee is a significant plus for the meeting.
- It is preferable to have the meals in the hotel because that would ensure that everyone goes out to lunch and gets back in time. This also allows people to sit down and talk to each other.
- In the hard copy, there should be two slides in one page rather than four in one page.
- Classroom style seating arrangement is preferred for the presentation area.
- It would be nice to get the receipts when you check in. It was emailed to the people who had registered, but a hard copy of the receipt is sometimes preferred.
- It was difficult to understand the program (agenda in packet). The copies supplied were practically unreadable - too tiny a font. Please make bigger! It was very hard to read!!

Peer Review Process

- Need better coordination of review assignments and earlier publication of review assignments. Additional papers were assigned without warning.
- Also would have been nice to know that reviewers would be required to purchase a hard copy of the presentations if they didn't want a bunch of loose papers.
- It was pointed out that there is insufficient time to really evaluate the projects. Reviewers stated that they need more one-on-one opportunity to meet with the presenters. The Tech Teams review projects over a much longer period of time and one of the Tech Team members questioned whether more time is needed to allow for one-on-one time, or if more people should be invited to the Tech Team reviews.
- Many reviewers liked the fact that the presentations were posted to the SENTECH website during the week before the review. Preference would be to have them posted a week before if possible. Consider providing more information for reviewers on websites. One person reported problems downloading from the site.
- Require a 2-4 page project abstract and make that available before the meeting for the reviewers.
- Reviewing posters during the oral sessions presented a serious problem for the reviewers and more than a few reviewers missed some of those assignments. Future review meetings should not have concurrent poster and oral review sessions.
- Reviewers need one-on-one time with presenters – logistics for this could be a problem, however, a session for just reviewers and presenters should be considered.
- The opportunity for more reviewer interactions with poster presenters was positive.
- In the past, the reviewers sat in front and asked questions. This time, in some sessions, the reviewers were dispersed throughout the audience and did not ask questions. This was very informal and more like a symposium than a Program Review. The formality of a Review should be retained. The reviewers should be more pro-active. The question period was not used by the reviewers to gather information. In some sessions, virtually no questions were asked and no sense of a formal review was given. More active question time, prompted by the session chairs if necessary, would be useful.
- Reviewers preferred that presentations be available to them in advance.

Next Year Recommendations

- How will the new "Centers" be incorporated into the review process next year? Will Center directors will present an overview, and the projects will be presented in poster format?
- On the issue of improvements for next year, there was a suggestion that separate gatherings be organized for the different topical areas, i.e. storage reviewers and PIs gather separately for reception or posters to provide an opportunity for one-on-one conversations.
- It was suggested that the next meeting should be kept just as this one. It has worked well until now. It would be better if the fossil and nuclear programs were not mixed with the current session. They should be run in parallel sessions and attendees might have to forego one presentation for another.
- Consider splitting into smaller sub-groups for review. This may lead to more discussion of the goals of the projects. Conversely it is good to get a big picture.

Storage

- Presentations should include a mass breakdown of storage system components – it was felt that this might be premature for some projects – but might be appropriate for other projects.

Technology Validation

- It would be helpful to have technology assessment reports as projects near completion (a lessons learned-type document).
- One project doesn't really fit with the rest of the Tech Val projects, and it is difficult to evaluate with the current review sheets.
- It is difficult for people who are involved in Tech Val projects to identify all the issues and give a really good review.
- Projects that were specifically designed for an application seemed to be more valuable than projects that simply focused on the technology.
- Projects that collected data and information and considered its applicability to future work, in addition to validating technology, were very valuable. These points are important to articulate - PIs should remember to consider the objectives of the HFCIT MYRD&D Plan.

What was the most useful part of the meeting?

- Seeing portfolio of programs in one place, meeting face to face with program managers.
- Getting an overview of the "bandwidth" of activities.
- Exposure to projects - both complementary plus competitive projects. At the same time the allocated time for presentations is not sufficient! A good start to the review process in a systems integrated program.
- Seeing the whole program.

- Progress to date.
- The ability to see all projects grouped by theme is good for better understanding of where the focus of the research community is. Networking with others in the hydrogen & fuel cell community.
- This was my first time and as such - it was enlightening. Now I understand what happens and can manage my way around better.
- Opportunity to get updated information from competition, competitive landscape and potential partners.
- The PI's presentation guidance (document/format/scope) plus peer review plan.
- Gaining fact-based knowledge of technical progress across all areas of PEM fuel cells.
- Presentations included all of the necessary elements for review - budget, goal, approach, collaborations, accomplishments, plus future directions.
- Obtaining an overview of the individual projects and the timelines for each.
- Review of the entire program in one place at one time.
- To get a complete overview of activities in this area.

Miscellaneous comments and suggestions:

- A general comment was made that the DOE team should be very proud of the program and its activities and accomplishments.
- With the multi-year program plan (even though a draft), Peer Review Plan, and direction/guidance for the PIs has resulted in a very well managed program. "We all can read from the same page." Vast improvement over the reviews of years ago. My hat is off to the DOE Hydrogen Team!
- I had low expectations for the event and am leaving with much value - It was a worthwhile expense of time and money. The networking is the most valuable aspect. I actually enjoyed the poster sessions [from a poster session presenter].
- This is a great overview of the program!! It is very challenging as a project review.
- My purpose for being here -- interested in alternative energy and its status. DOE - you are doing an excellent job in managing the effort - very well structured and thought-out. Your effort will no doubt move us to an alternate energy source - stick with it! And let all know about what you are doing - continue to promote public interest. DOE, thank you!
- Provides a good cross section of projects and interest. This is a good group of highly motivated and talented researchers. Kudos also to the DOE team.
- The whole event was well coordinated and professionally conducted - provided an excellent forum for technical interactions with PIs and discussions with DOE staff.