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TECHNICAL GROUP

Discussion Paper on the Survey Results from the Overcoming Barriers to CCS Deployment Workshop

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Background

The Project Interaction and Review Team (PIRT) instructed the CSLF Secretariat to develop and conduct a survey of participants in the Overcoming Barriers to CCS Deployment Workshop held on March 27, 2007 in Paris, France. A questionnaire was developed by the CSLF Secretariat, reviewed by the PIRT, and posted on the CSLF Web site. Workshop attendees were sent e-mails asking for their participation in the survey and directing them to the online survey. This survey was conducted from June 8, 2007 to June 30, 2007. The summary findings of this survey along with the actual questions and results are contained in this document.

Action Requested

The Technical Group is requested to review and consider the Discussion Paper presented by the CSLF Secretariat.

Conclusions

The Technical Group is invited to note in the Minutes of its next meeting that:

“The Technical Group reviewed and considered the Discussion Paper presented by the CSLF Secretariat.”



Discussion Paper on the Survey Results from the Overcoming Obstacles to CCS Deployment Workshop

Introduction

The Project Interaction and Review Team (PIRT) instructed the CSLF Secretariat to develop and conduct a survey of participants in the Overcoming Obstacles to CCS Deployment Workshop held on March 27, 2007 in Paris, France. The purpose was to gather feedback on the workshop's strengths and weaknesses and learn what attendees would like to see in future workshops. A questionnaire was developed by the CSLF Secretariat and reviewed by the PIRT.

Attendees were asked about their perceptions on:

- Level of success in identifying opportunities and obstacles to carbon capture and storage (CCS) deployment;
- Appropriateness of workshop content;
- Value of the poster session;
- Overall success of the workshop in meeting expectations;
- Interests of workshop attendees;
- Amount of presentations and panel discussions;
- Ideas for future workshops; and
- Overall impressions.

Survey Details

This survey was posted on the CSLF Web site (www.cslforum.org). Workshop attendees were sent e-mails explaining the purpose of the survey and asking for their participation. The e-mails directed attendees to the location of the online survey. In addition, a notice was posted in the What's New section on the home page of the CSLF Web site. Participation in the survey was voluntary and the identity of those participating in the survey was not recorded. The responses to the open-ended questions are anonymous. This survey was conducted from June 8, 2007 to June 30, 2007.

For all but the open-ended questions, attendees were asked to rate each item on a scale of 5, with 5 being the highest and 1 being the lowest. For purposes of analysis and ease of understanding, this numeric rating scale was replaced with word scales, such as "very successful" to "very unsuccessful", "much better" to "much worse", "a great help" to "not at all helpful", or "very appropriate" to "very inappropriate", depending on the question.

Key Findings

The majority of respondents thought the workshop was worthwhile. It was seen as a good idea to hold the workshop in the middle of a CSLF meeting as a way to ensure the best possible attendance. Many held the view that the workshop would have been improved if it had had a less full agenda. This would have allowed for more time for

audience interaction and panel discussion. Attendees were unanimous in wanting to have seen more time for panel discussions. People would have preferred fewer presentations and posters. Most of the audience was interested in technical as well as policy aspects.

More than half of the respondents thought the workshop successfully identified possibilities for deployment of large-scale CCS technologies (85 percent neutral or better). One half of the respondents thought the workshop was better than expected (three-quarters thought the workshop was as good as expected, or better). Nearly seven out of eight, or 85 percent, reported that the program topics presented in the workshop were appropriate giving this question a high rating.

Only 15 percent of respondents were attending a CSLF event for the first time. More widespread involvement from stakeholders, other interested parties, and the general public in the activities of the CSLF has been cited in numerous CSLF documents as desirable and beneficial to advancing the objectives of the CSLF. All parties would like to see attendance continue to grow and for the CSLF to expand its reach to new and wider audiences.

Individual Results

Attendees were asked if they thought the workshop was successful in identifying the possibilities for deploying CCS technologies at a large scale. The majority of respondents found the workshop either very successful (15 percent) or somewhat successful (39 percent). About one-third (31 percent) thought the workshop was neither successful nor unsuccessful, and 15 percent thought the workshop was somewhat unsuccessful.

One question dealt with whether the workshop was successful in identifying ways of removing obstacles to deployment of CCS. The most frequently elected response was “somewhat successful” (46 percent), followed by “neither somewhat successful nor somewhat unsuccessful” (31 percent). Almost one-quarter (23 percent) thought the workshop was “somewhat unsuccessful” in identifying ways of removing obstacles to deployment of CCS. No one thought the workshop was “very successful” or “very unsuccessful” in identifying ways of removing obstacles to deployment of CCS.

More than half (54 percent) replied that the workshop was successful in identifying where actions and initiatives/projects are required to address some of the critical issues and gaps. Of the positive responses, slightly less than half of respondents (46 percent) found it “somewhat successful.” Quite a few of the respondents were undecided on the question (39 percent). A small percentage (8 percent) thought the workshop was “somewhat unsuccessful” in identifying where actions and initiatives/projects are required to address some of the critical issues and gaps.

Support for the poster session tended to be weak. A large percentage of respondents remarked that they found that the poster session to be either “not very helpful” (31 percent) or “neither helpful nor not very helpful” (31 percent). About one-quarter (23 percent) saw the poster session as helpful. The same percentage of respondents had

either strong positive views on the value of the poster session or strong negative views (8 percent each).

Close to half of respondents found the workshop to somewhat exceed expectations (46 percent). Slightly less than one-third (31 percent) felt the workshop met their expectations while nearly one-quarter (23 percent) thought the workshop didn't meet expectations.

Respondents were asked for their opinions on the appropriateness of the seven topics covered in the workshop. The answers clearly demonstrated that the workshop organizers did an excellent job in selecting the program topics. Better than 84 percent thought the topic of *stakeholder input to policy development* was either "very appropriate" (31 percent) or "somewhat appropriate" (54 percent). Only a small percentage (15 percent) were neutral, and no one thought the topic was inappropriate.

A majority (54 percent) found the topic of *Ongoing work to remove obstacles for large-scale industrial initiatives* to be either "very appropriate" (15 percent) or "somewhat appropriate" (46 percent). More than one-third (39 percent) replied that the topic was "neither appropriate nor inappropriate". No one thought the topic was inappropriate. Nearly two-thirds (63 percent) found the topic of *Industrial initiatives: what is needed to make them happen* to be "very appropriate" (15 percent) or "somewhat appropriate" (54 percent). One respondent in seven thought the topic was neither "somewhat appropriate nor somewhat inappropriate" (15 percent) or "somewhat inappropriate" (15 percent).

Respondents were mostly neutral on the topic of *What's next? Technology* (39 percent), followed by "somewhat appropriate" (31 percent), "very appropriate" (23 percent), and "somewhat inappropriate" (8 percent). Nearly 70 percent of respondents thought the topic of *What's next? Communication and Public Acceptance* was suitable for the workshop (31 percent thought "very appropriate" and 38 percent replied "somewhat appropriate"). The percent of those respondents who thought the topic was "neither somewhat appropriate nor somewhat inappropriate" was 31 percent. No one thought the topic was inappropriate.

Respondents were clear in their approval of *What's next? Legislation and Regulation* as a program topic. Nearly seven in ten thought the topic was either "very appropriate" (15 percent) or "somewhat appropriate" (54 percent). Around three in ten (31 percent) were neutral on the topic while no one saw the topic as inappropriate. The topic of *What's next? Putting a value on CO2* was seen by the majority as either "very appropriate" (15 percent) or "somewhat appropriate" (54 percent). Some 15 percent were either neutral or saw the topic as "somewhat inappropriate" (15 percent).

Respondents were interested in both technical and policy aspects of the workshop. Better than three-quarters replied both aspects were of interest. Approximately 8 percent were only interested in policy aspects and 15 percent replied they were only interested in technical aspects.

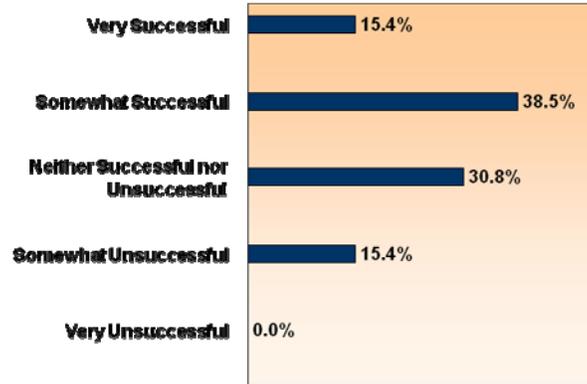
Respondents wanted to see fewer presentations in the workshop than more by a 54 percent to 46 percent margin. Every respondent (100 percent) would have liked to see more time set aside for panel discussions. Nearly every respondent (85 percent) have participated in previous CSLF activities, be that a full CSLF meeting, a Technical Group meeting, or a workshop. The small percentage (15 percent) of first timers could indicate the CSLF is missing the opportunity to broad its reach to wider audiences. However, this can not be stated with certainty given the low response rate.

The survey closed with two open-ended questions. The first asked respondents for ideas for future events. Attendees were very forthcoming with ideas. Respondents would have liked to have seen some of the topics covered in greater detail, more concrete data in the presentations, and a better sharing of what has and has not worked.

The final question dealt with overall impressions of the workshop. The responses were varied. A common theme was a desire for more time for panel discussion and audience interaction and fewer presentations. Some felt that a looser or less ambitious agenda would have allowed for more time for interaction. The value of holding the workshop in the middle of the meeting to retain people was noted as was a desire to see the meeting venue and workshop venue be the same. One respondent voiced the concern with the limited involvement of the stakeholders in the policy area, while another made the case for trying to attract more of the general public to future workshops.

Appendix Survey Results

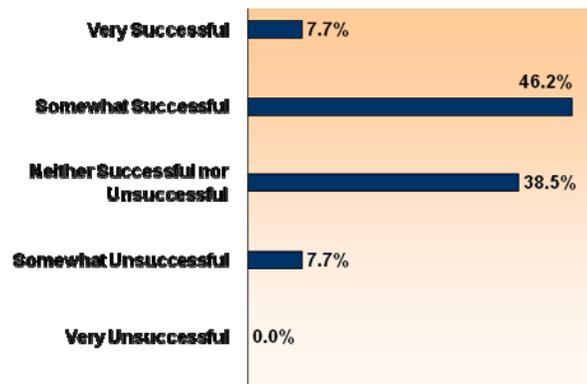
1. Was the workshop successful in identifying the possibilities for deploying CCS technologies at a large scale?



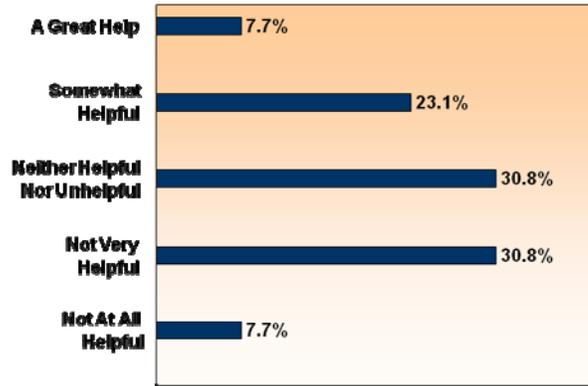
2. Was the workshop successful in identifying ways of removing obstacles to deployment of CCS?



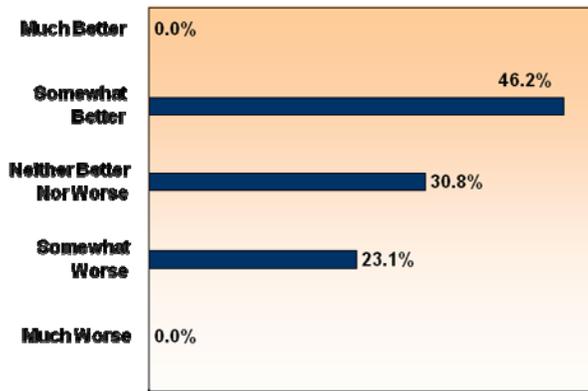
3. Was the workshop successful in identifying where actions and initiatives/projects are required to address some of the critical issues and gaps?



4. Did the poster event add to the success of the workshop?

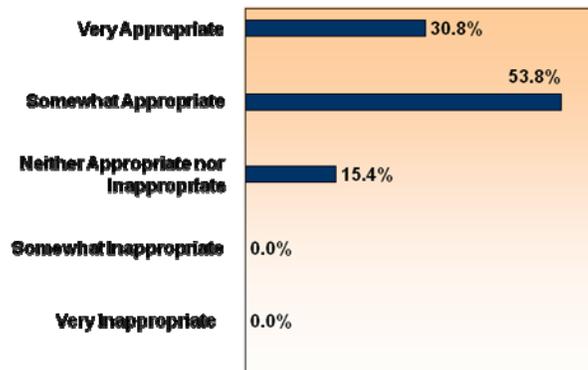


5. Did the workshop succeed in meeting your expectations?

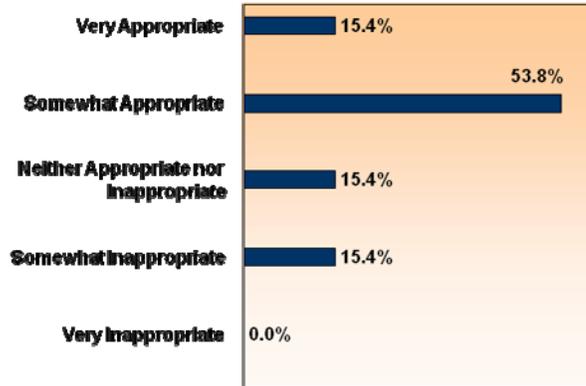


6. Were the program topics appropriate for the workshop?

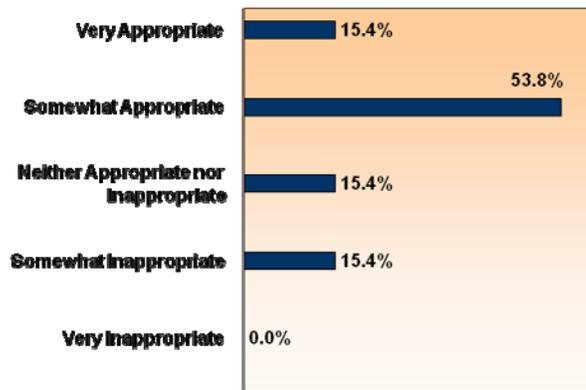
a. Stakeholder input to policy development



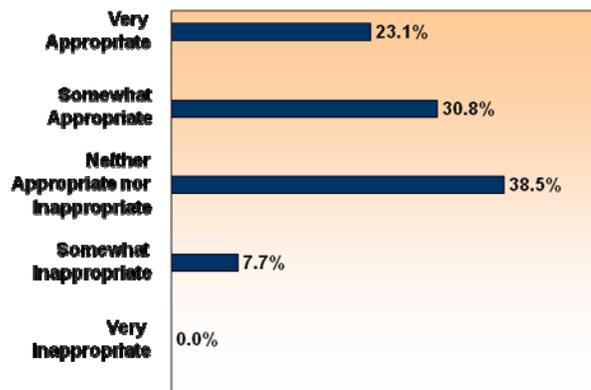
6. Were the program topics appropriate for the workshop?
 b. Ongoing work to remove obstacles for large-scale industrial initiatives



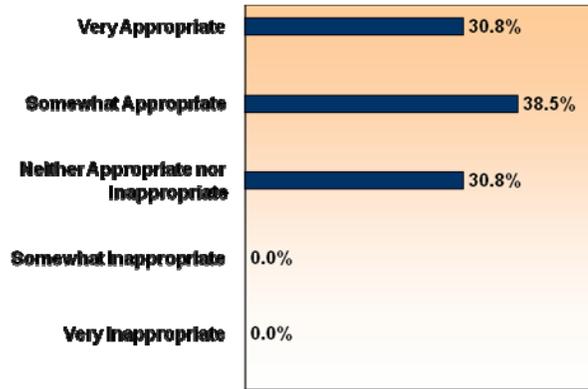
6. Were the program topics appropriate for the workshop?
 c. Industrial initiatives: *What is needed to make them happen?*



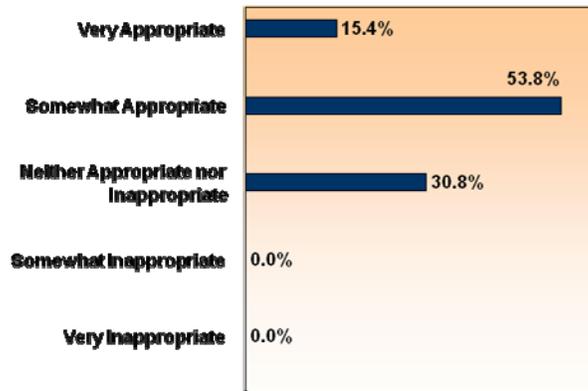
6. Were the program topics appropriate for the workshop?
 d. What's next? *Technology*



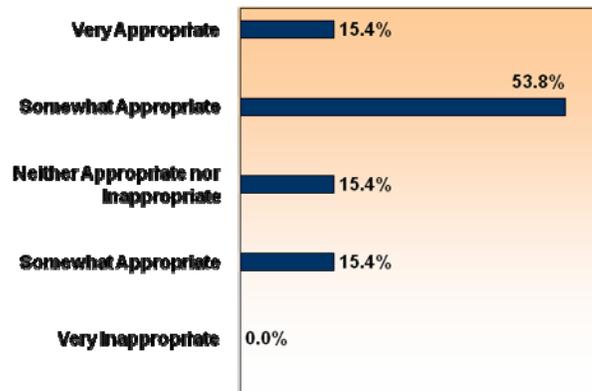
6. Were the program topics appropriate for the workshop?
 e. What's next? *Communication and Public Acceptance*



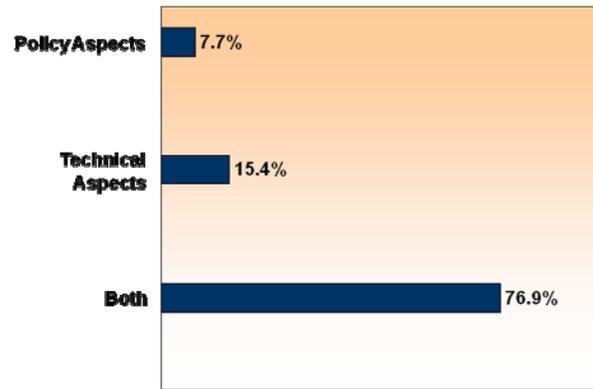
6. Were the program topics appropriate for the workshop?
 f. What's next? *Legislation and Regulation*



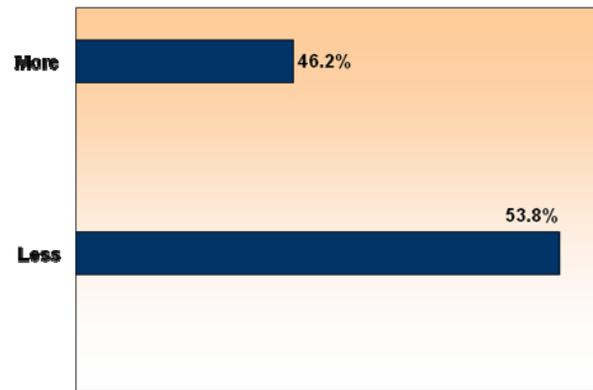
6. Were the program topics appropriate for the workshop?
 g. What's next? *Putting a value on CO₂*



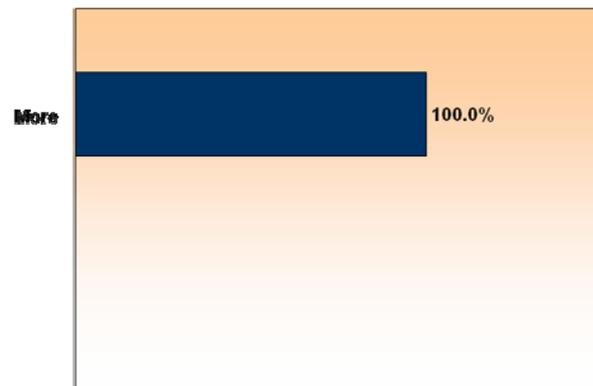
7. What are your main interests in the CSLF workshops?



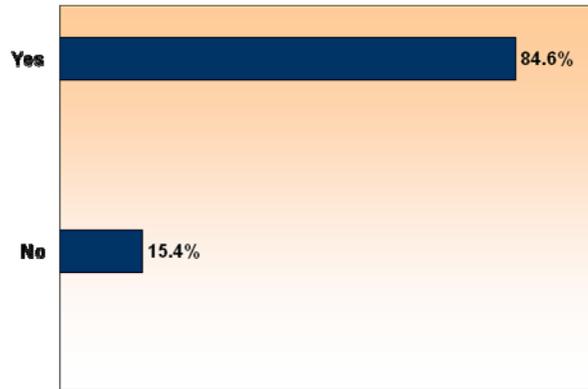
8. Do you want to see more or less presentations at the next workshop?



9. Should future workshops provide more or less time for panel discussions?



10. Have you previously attended a CSLF workshop or event?



11. What would you like to see in future CSLF workshops and events? (List of Complete Responses)

Going deep in these topics.

Better engagement with stakeholders.

More focused outcomes for policy – i.e., better sharing of what worked or didn't work.

Financing CCS Capture from Industrial Sources (non-power).

More discussions on HOW to progress technically and politically.

No time for discussion.

I would like to see some scientific results on host and cap-rock layers behaviour after injection in some existant project like Weyburn, Frio, In Salah, Sleipner, ... CSLF has to put some concrete results on its presentations and conclusions and not only words. It could be results of experiments and simulations on concrete captation, transport and storage in CO2 injection place (as notified before). Thank you for your convit and for the good presentations given in Paris.

More discussions (panel, organized, informal), less posters

12. What was your overall impression of the workshop?

Good.

The CSLF meeting in Paris failed to formally involve stakeholders in the policy arena. This is a great mistake. The CSLF has no regulatory mandate and therefore might as well not exist except for the involvement of stakeholders. If it were not for this workshop the whole event would have been thoroughly discredited.

Disappointing, panel did not get to say much, as presentations took up much of time, little time for audience interaction. Conceptually it is a good idea, perhaps the agenda was overly ambitious.

The workshop was well organized. It would have been best to have a single venue. Proximity to a CCS project (Weyburn ...) would have been ideal.

Very good.

Boring except for a couple of sessions.

Good debates were opened by a mixture of researchers, politics and a few students on technical political aspects but among all the subjects, on public acceptance and communication needs on CCS technology. CSLF events seem to be more and more opened to an international public which is the key of CCS success and acceptance like a Green House gas reduction technology.

A lot of great information but the schedule was too packed. Overall a very successful event.

Very good, particularly having it between the sessions, such that participants didn't leave to get home.