



CO₂ Capture Project

NGO Focus Group Meeting

Wednesday September 25th 2002

Washington Terrace, 1515 Rhode Island Ave NW, Washington DC, USA

Participants

David Hawkins	Natural Resources Defence Council (NRDC)
Antonia Herzog	“ “ “ “ “
Jason Anderson	Climate Action Network Europe (CAN)
Melissa Carey	Environmental Defense
Sarah Wade	Keystone Center
Neil Strachan	Pew Center
Emily Mathews	World Resources Institute
Monica DeClercq	World Wildlife Fund
Prof. Rob Socolow	Princeton University
David Beecy	US Department of Energy
Dr. Sally Benson	E. O. Lawrence Berkeley National Laboratory
Dr. Helen Kerr	CO ₂ Capture Project
Giuseppe Iorio	CO ₂ Capture Project
Charles Christopher	CO ₂ Capture Project
Gardiner Hill	CO ₂ Capture Project
Iain Wright	CO ₂ Capture Project

Meeting Objectives

Communicate the objectives and progress of the CO₂ Capture Project.

Gain feedback and comments of key NGOs on progress to date.

Provide opportunities for ongoing engagement and participation of key stakeholders to help shape and steer the program to its conclusion at the end of 2003.



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Agenda

8.00am	Light Breakfast available in the Meeting Room	Lisse Montanez
8.15am	Welcome, Safety Moment, Introductions, Agenda	Iain Wright
8.45am	CO₂ Capture Project (CCP): Context & Overview	Gardiner Hill
9.00am	CO₂ Capture & Storage: NGO Perspectives <ul style="list-style-type: none"> • Each NGO in turn: expectations for meeting 	NGOs
10.00am	CO₂ Capture and Transport: <ul style="list-style-type: none"> • The US Government View • The Long-term View 	Dave Beecy Prof. Rob Socolow
10.30am	CO₂ Capture and Transport: <ul style="list-style-type: none"> • What are the Key Questions/Issues ? • Review of Capture Technologies • CCP Achievements to Date • CCP Plan to End 2003 - Discussion: Gap Analysis - What's Missing ? 	Iain Wright Dr. Helen Kerr Dr. Helen Kerr Dr. Helen Kerr All
11.30am	Summarize Feedback, Actions & Learnings	Iain Wright
12.00pm	Lunch	Lisse Montanez
12.45pm	CO₂ Geologic Storage: <ul style="list-style-type: none"> • The US Government View • The Long-term View 	Dave Beecy Prof. Rob Socolow
1.15pm	CO₂ Geologic Storage: <ul style="list-style-type: none"> • HSE Risks and Lessons Learned - Discussion & Gap Analysis 	Dr. Sally Benson All
2.15pm	CO₂ Geologic Storage: <ul style="list-style-type: none"> • CCP Storage R&D Program: Progress to Date - Discussion 	Charles Christopher All
3.00pm	CO₂ Geologic Storage: <ul style="list-style-type: none"> • Review of Pilot CO₂ Storage Projects - Discussion 	Benson/Christopher All
3.45pm	CO₂ Geologic Storage: <ul style="list-style-type: none"> • CCP Plan to End 2003 - Discussion: What's Missing ? 	Charles Christopher All
4.30pm	Summarize Feedback, Actions & Way Forward	Iain Wright
5.30pm	Adjourn	



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NGO Feedback Summary

Capture & Storage: Policies

1. CO₂ C&S should not distract resources from renewables and energy efficiency
2. Some EU NGOs oppose the long-term fossil fuels in general
3. Looking for complete transparency in public and industry funding
4. Pre-combustion capture could only be a bridge to hydrogen, because the ultimate solution will be renewables
5. Should not shift public money from renewables & EE to CO₂ C&S (make the pie bigger)
6. Developing world is a source of CO₂ emissions: technology transfer from the developed to the developing world (partnering)
7. Need to take near-term action to reduce GHG emissions
8. Questions on how real and verifiable are the GHG reductions
9. Need to consider all options for GHG reductions
10. Policies: incentives are required to make industry achieve GHG reductions – influence of subsidies (ie coal)
11. No silver bullet for GHG reduction: C&S could be part of a portfolio.
12. Need to develop regulatory and permitting regime – don't want to repeat the nuclear experience
13. Costs & benefits of implementing CO₂ C&S at various scales & locations (marginal cost curve)
14. Needs new policies & incentives: costs are for industry, benefits are for the planet – how can that happen ?
15. All the technology in the world won't make this happen – policies are required
16. Could compare CO₂ C&S with renewables & EE etc (apples to apples). IEA will provide facility to benchmark.
17. US & Kyoto: Industry needs to help NGOs lobby for US participation (coal & green lobby)
18. CCP industry participants need to get involved in policy issues supporting CO₂ C&S

Capture and Storage: Technology Development

1. Demo projects should not bring an end to technology development
2. Demo projects: how to expand and scale-up in different locations
3. Don't demonstrate technologies that you don't intend to use
4. First demo project needs to be a good one
5. What scale of deployment may be available ? Coal & developing countries ?
6. Synergies with other industries and applications ?
7. Technology transfer ? Will there be license fees ?
8. Economics peer review: how will you communicate the results of the economics ?
9. CCP has a very short time-frame – also need longer time-frame tech. development projects
10. Cost estimates – should be easy to benchmark
11. Economics: capex vs opex, construction time and life-cycle economics (need to include coal subsidies)



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Capture (and Transport)

1. New technologies: supply & demand – competitive advantages ?
2. Oxyfuel technology: describe technology development taking place outside of CCP and how CCP fits within the overall picture
3. Are you including options for waste heat recovery ?

Geologic Storage

1. EU NGOS are now united in condemnation of ocean storage
2. Concern about the CDM rules for bio-sequestration
3. Need to see honesty & openness regarding potential for storage leakage
4. Need good communications on HSE risks (bad example is GM foods). ie risk vs perception of risk (cars vs aircraft).
5. Could evaluate costs/benefits of injecting other emissions (NO_x, SO_x, H₂S etc)
6. Need an assessment of what is an acceptable leakage rate
7. Where does CCP fit into the big GHG picture (wrt leakage rates and stabilization)
8. Need to be able to monitor and manage long-term leakage
9. Peer Review for final CCP report before issue