



Carbon Sequestration Leadership Forum Plenary Meeting

Report by the CSLF Secretariat

Paris, France

26 March 2007



Overview of Secretariat Activities

- Strategic Plan Implementation Report (SPIR)
- CSLF Web Site
- CSLF Public Meeting Place (PuMP)
- London Meeting
- Stakeholder Registry
- CSLF Members and Projects
- Project Selection Criteria
- CSLF Action Plan



Strategic Plan Implementation Report

- SPIR is a means of reporting progress between meetings.
- Initiated by CSLF Executive Committee in 2006.
- 1st SPIR December 2006.
- February 2007 SPIR contains:
 - Letter from Policy Group Chair
 - Legal Issues Task Force Report
 - Letter from Capacity Building Task Force Chair
 - Letter from Financial Issues Task Force Chair
 - Report from Projects Interaction and Review Team (PIRT)
 - Storage Capacity Estimation Task Force Report
 - Report from Secretariat
 - Report from Stakeholders



CSLF Website

- Upgrades to the site to make it more user friendly.
 - Created new “Documents” section for:
 - Finalized minutes from previous CSLF meetings
 - Background documents
 - Task force final reports
 - Previous SPIR reports.
 - New “Workshops” section for proceedings and presentations from CSLF workshops.
 - Increased the visibility of the link to the “Meeting Information” section.
 - Added the CSLF Public Meeting Place (PuMP).



CSLF Website

- Presentations and materials from these meetings and workshops:
 - Technical Group Meeting, London, November 2006
 - Policy and Technical Group Meetings, Paris, April 2007
 - IEA-CSLF Workshop on Near-term Opportunities for Carbon Capture and Storage, San Francisco, August 2006
 - IEA-CSLF Workshop on Legal Aspects of Storing CO₂, Paris, October 2006
- Added more relevant materials.
 - Added more than 90 links to sequestration-related Websites. Now have more than 125 annotated links.
- Committed to continuously improving the site.



CSLF Public Meeting Place (PuMP)

- Policy Group directed Secretariat at Delhi meeting to create online CSLF Discussion Forum.
- Purpose to foster greater communication among stakeholders and between stakeholders and CSLF.
- Forum came online November 2006. www.cslforum.org/forum
- Initiated on six-month trial basis; Secretariat seeking six-month extension for word to spread and Blog to build activity.
- Forum allows users to start discussion topics, post and read messages, and reply to the comments of others.
- Comments posted real time.



CSLF Public Meeting Place (PuMP)

- Allows for special purpose meetings.
- Opportunity for task force or ad hoc meetings.
 - Could improve the ability of task force members to discuss issues more frequently and openly among themselves, given the difficulties in communicating across different time zones and adjusting for the work and travel schedules of task force members.



London Meeting

- CSLF Technical Groups (14-15 November 2006, London, United Kingdom)
 - DTI's planning and organization laid groundwork for successful meeting.
 - Minutes from the meeting have been posted.
 - All Secretariat action items related to the meeting are complete.

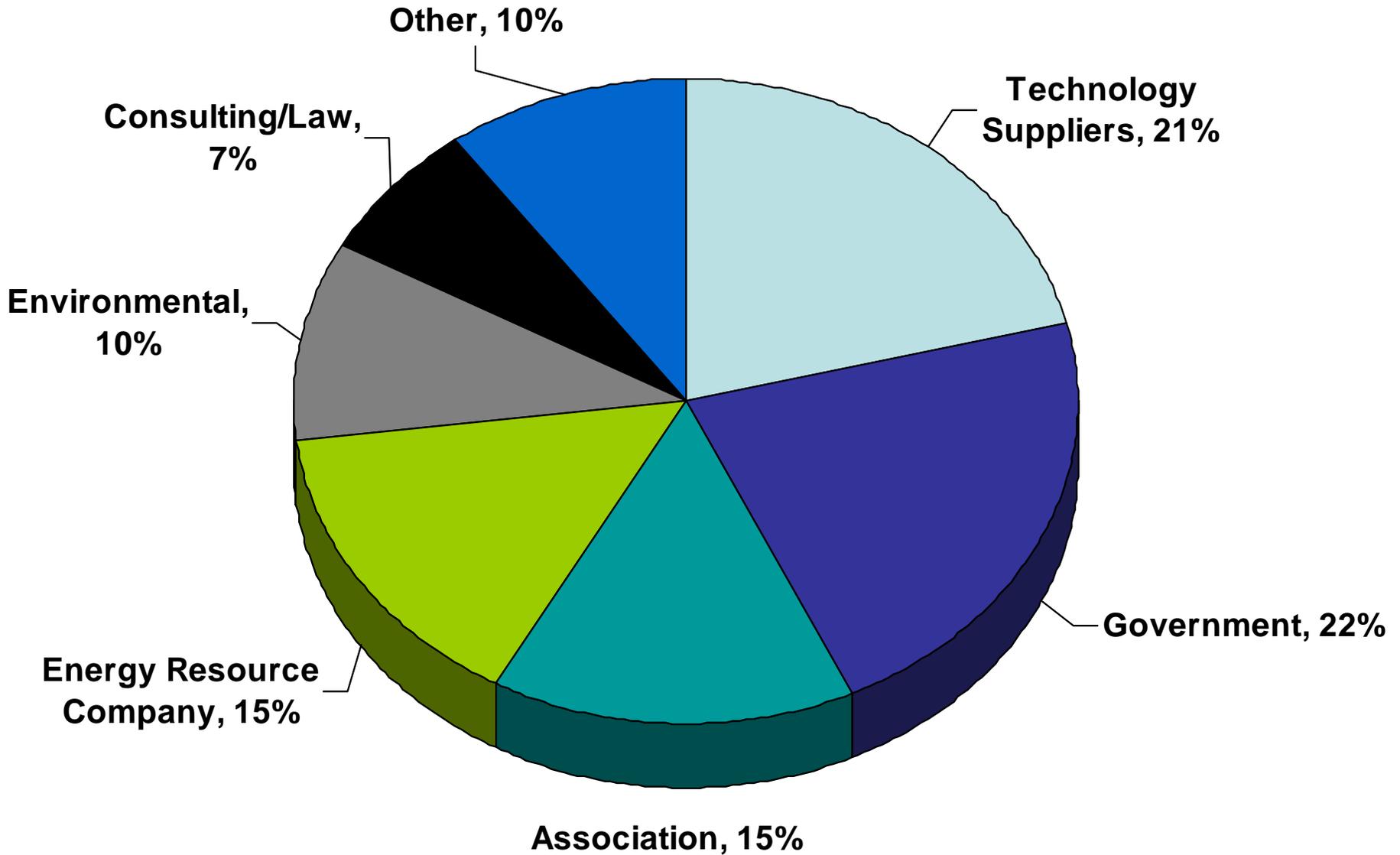


Stakeholder Registry

- 69 stakeholders have registered since the April CSLF meeting.
- 85 registered stakeholders, as of March 13, 2007 (includes four stakeholders which have requested not to be shown in the CSLF Website listing.)

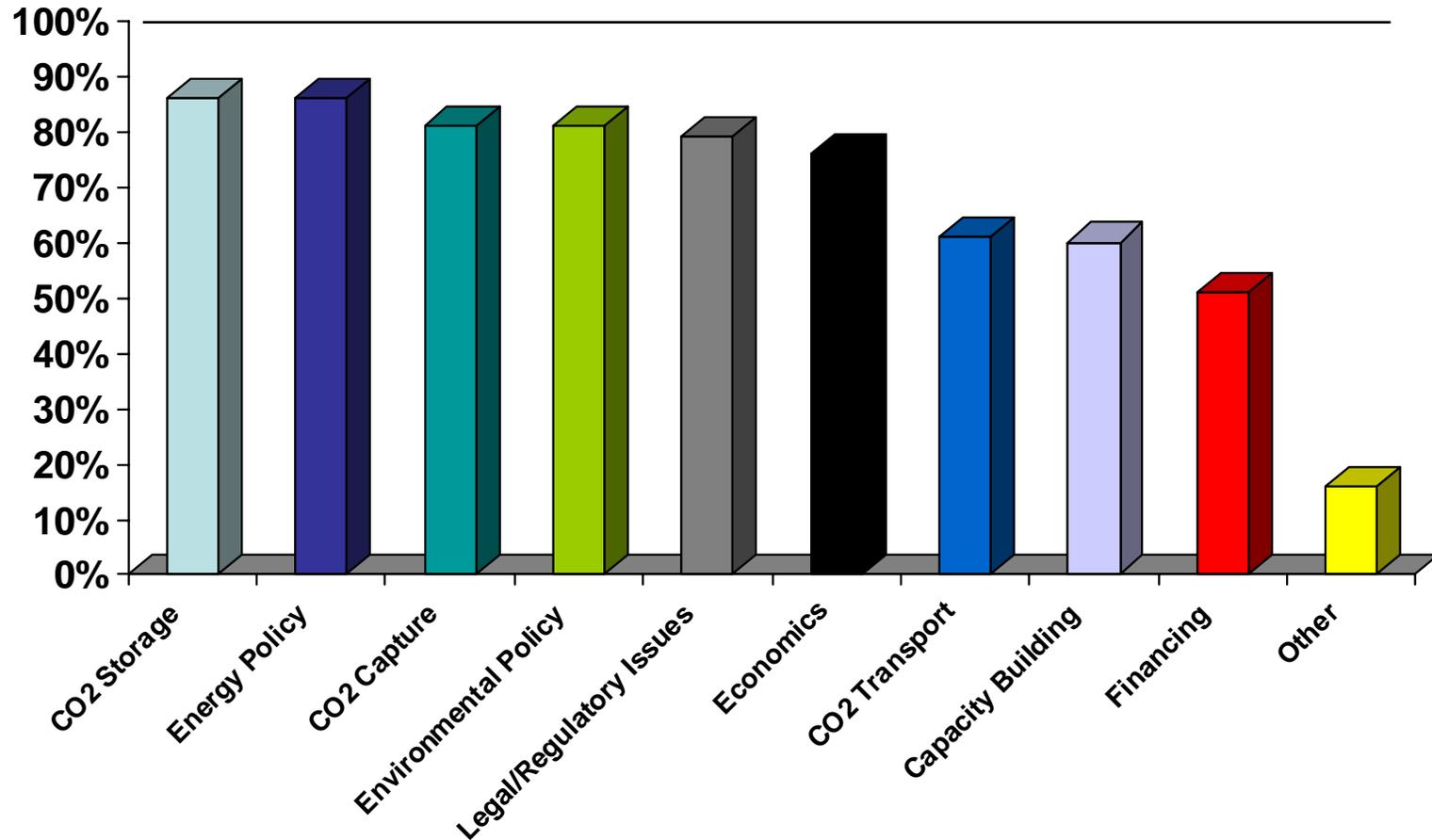


Stakeholders by Industry





Stakeholders by Areas of Interest



CSLF Members and Projects



Project	Location
ARC Enhanced CBM Recovery	Alberta, Canada
CANMET R&D Oxyfuel Combustion for CO ₂ Capture	Ottawa, Canada
CASTOR	Various locations in Europe
China's CBM Technology/CO ₂ Sequestration Project	China
CO ₂ Capture Project (CCP) – Phase 2	Various locations in Europe and North America
CO ₂ GeoNet	Various locations in Europe
CO ₂ Separation from Pressurized Gas Stream	Pittsburgh, United States
CO ₂ Sequestration in Basalt Formations of India	India
CO ₂ SINK	Berlin, Germany
CO2STORE	Denmark, Germany, Norway, and United Kingdom
ENCAP	Various locations in Europe
Frio Project	Houston, United States
Geologic CO ₂ Storage, In Salah, Algeria	In Salah, Algeria
ITC CO ₂ Capture with Chemical Solvents	Regina, Canada
Regional Carbon Sequestration Partnerships	United States
Regional Opportunities for CO ₂ Capture and Storage in China	China
Weyburn II CO ₂ Storage Project	Southern Saskatchewan, Canada





Project Selection Criteria

- PIRT recommended a review of project criteria and metrics for assessing proposals at 2006 Delhi meeting.
- Secretariat developed Project Submission Form based on guidance from PIRT. New criteria approved by Technical Group in November London meeting.
- Emphasis on the project sponsors to provide adequate documentation and by linking project recognition to CSLF gaps analysis.
- Project Submission Form was approved by Technical Group at 2006 London meeting.



CSLF Project Submission Form

- Emphasizes adequate documentation and links project recognition to CSLF gaps analysis.
- Available information on CSLF projects includes:
 - CSLF Project Title
 - Project Location
 - CSLF Project Type
 - Project Technologies
 - Project Goal
 - Project Objectives
 - Team Members
 - Timeline
 - Key Contacts
 - Project Description
 - Project Background and Technical Description
 - Dissimilarity to Other CSLF Projects*
 - Relevance to CSLF Gaps Analysis*
 - * Criteria added since Delhi meeting.



Action Plan

Policy Group

- Policy and Legal Framework
- Capacity Building
- Public Awareness & Acceptability
- Involve Stakeholders
- Collaboration with Other International Organisations

- *Action Plan to be presented in greater detail in Wednesday's Policy Group Business Meeting.*

Technical Group

- CCS Technology Development and Deployment
 - Research and development
 - Collaborative projects
 - Technical support for policy development



Paris Meeting Presentations

All presentations from this meeting
will be available at the CSLF
website

www.cslforum.org



➤ Back-up Slides



Policy Group Key Outputs

Policy and Legal Framework

- Support the development of frameworks and identify intellectual property issues for CCS.

Capacity Building

- Development of knowledge, skills and institutions to help developing countries understand and implement CCS

Public Awareness and Acceptability

- Develop and disseminate educational material and utilize outreach experts.

Stakeholder Involvement

- Stakeholders attend relevant meetings and provide input to development of work programs

Collaboration with Other International Organizations

- Partner with compatible organizations to help achieve the CSLF goal.



Policy Group Key Outputs

Policy and Legal Framework

1. Recommendations for strategies and instruments to address identified research needs
2. Support the development of relevant legal and policy frameworks.
3. Identify potential issues relating to the treatment of intellectual property issues for CCS.
 - consideration of IEA CCS intellectual property outcomes
4. Exchange information and where appropriate provide support in the discussions on the potential role of CCS as a technology under the Clean Development Mechanism



Policy Group Key Outputs

Capacity Building

1. Involvement of developing countries in CSLF projects
2. A set of information, training and educational resources that all members can utilize
3. Experience from CSLF projects and CCS-related institution building identified and shared with developing countries
 - Developing countries included in full scale or lighthouse projects
4. Contribute to the development of knowledge, skills, expertise and institutions that developing countries need to understand and implement CCS



Policy Group Key Outputs

Public Awareness and Acceptability

1. Member countries develop educational material, establish baseline information, use outreach briefings and workshops and form multi-stakeholder groups
2. Develop and promote the CSLF website
3. Public outreach experts identified to develop CSLF approach.
4. Collaboration with all sectors of the international research community, including industry, academia, government and non-government organizations and stakeholders for input to Policy and Technical groups.
 - Develop and monitor global compendium of CCS projects and activities



Policy Group Key Outputs

Stakeholder Involvement

1. Consideration of stakeholder engagement strategy and processes by the Policy Group on the basis of proposals by stakeholders.
2. Stakeholders attend relevant meetings and provide input to development of the resulting work programs



Policy Group Key Outputs

Collaboration with Other International Organizations

1. Co-operation to help achieve the CSLF goal, e.g. with the United Nations Framework Convention on Climate Change (UNFCCC), the International Energy Agency (IEA), the Asia-Pacific Partnership on Clean Development and Climate, the World Bank, World Energy Council (WEC), World Coal Institute (WCI) and the International Petroleum Institute amongst others.
2. Partnerships with compatible organisations, e.g. IEA, APEC, UN bodies, research organisations



Technical Group Key Outputs

Research and Development

- Technology roadmap for each area and identification of key obstacles.

Collaborative Projects

- Reflect Members' priorities, provide opportunities for collaboration, and sharing of results.

Technical Support for Policy Development

- Recommendations for standard methodologies and MMV system guidelines. Develop capacity estimation methodologies.



Technical Group Key Outputs

Research and Development

- Key definitions for CCS identified and disseminated.
- Technology roadmap for each area, include links with Member roadmaps.
- Identification of key obstacles to achieve improved technological capability.



Key Outputs

Collaborative Projects

- Collaborative RD&D projects that reflect Members' priorities (2006 and continuing).
- Guidelines for collaborations and reporting of results (2006).
- Collaborative RD&D projects reviewed annually (2006 and continuing).
- Members provide short-term opportunities for international collaboration (e.g. EOR) (2006–07).
- Members provide information on full-scale demonstration project opportunities for international collaboration.
- Recommendations for risk assessment standards and procedures.



Technical Group Key Outputs

Technical Support for Policy Development

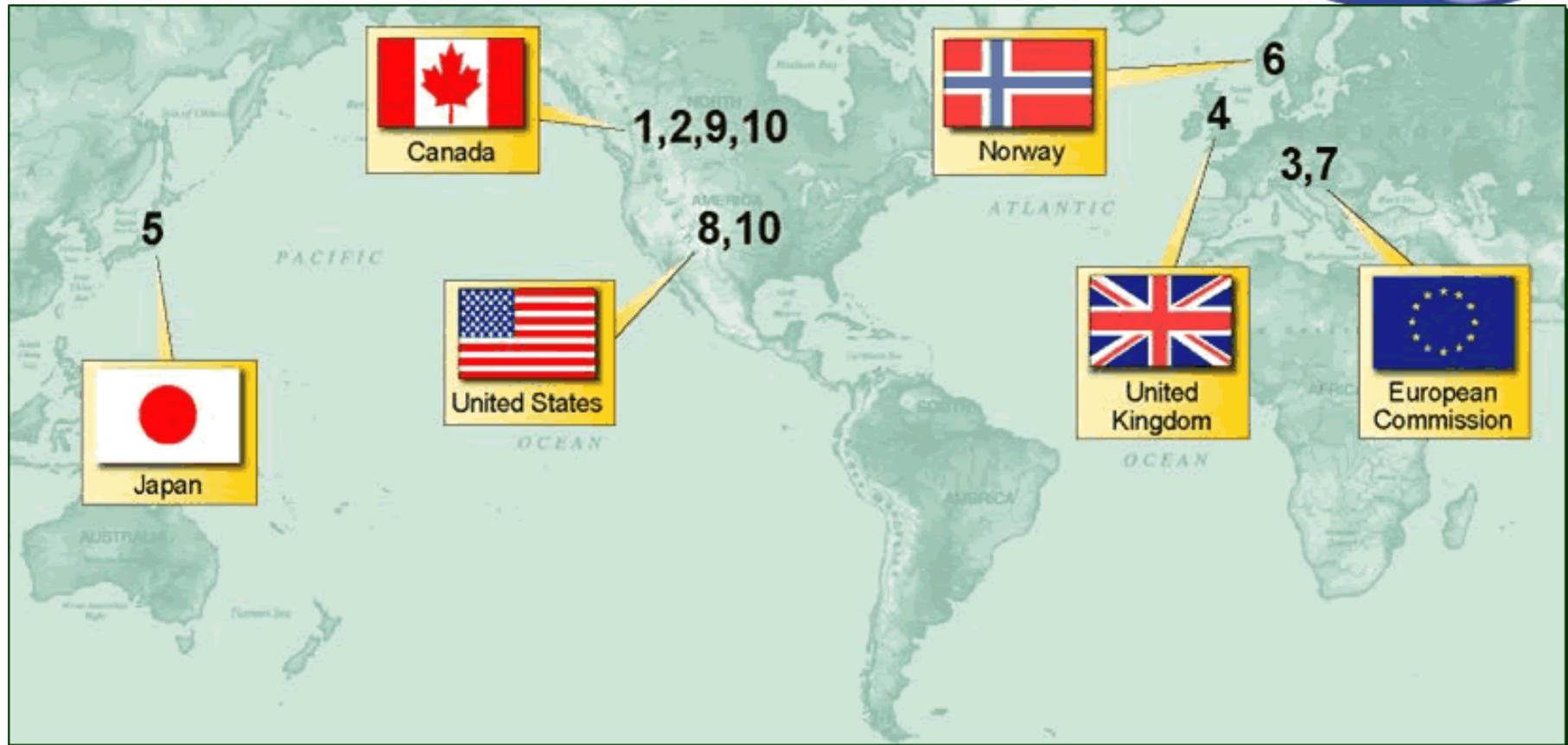
- Key definitions for CCS identified and disseminated
- Recommendations for standard methodologies to establish baselines to assess CCS projects
- Recommendations for MMV system guidelines to consider international work.
- Capacity estimation methodologies developed.



Action Plan

Strategy	Responsibility
1. CCS Technology Development and Deployment Research and development Collaborative projects Technical support for policy development	Technical Group
2. Policy and Legal Framework	Policy Group
3. Capacity Building	Policy Group
4. Public Awareness & Acceptability	Policy Group
5. Involve Stakeholders	Policy Group
6. Collaboration with Other International Organisations	Policy Group

Lead Members for Nominated Projects



- 1 – ARC Enhanced Coal-Bed Methane Recovery Project (Canada)
- 2 – CANMET Energy Technology Centre (CETC) R&D Oxyfuel Combustion for CO₂ Capture (Canada)
- 3 – CASTOR (European Commission)
- 4 – CO₂ Capture Project (CCP) – Phase 2 (United Kingdom)

- 5 – CO₂ Separation from Pressurized Gas Stream (Japan)
- 6 – CO2STORE (Norway)
- 7 – CO₂SINK (European Commission)
- 8 – FRIO Project (United States)
- 9 – ITC CO₂ Capture with Chemical Solvents (Canada)
- 10 – Weyburn II CO₂ Storage Project (United States & Canada)



CSLF Projects Background

- Six project templates have been received:
 - Alberta Enhanced Coal-Bed Methane Recovery Project
 - China Coalbed Methane Technology/CO₂ Sequestration Project
 - CO₂ Separation from Pressurized Gas Stream
 - Demonstration of Capture, Injection, and Geologic Sequestration of CO₂ in Basalt Formations in India
 - ITC CO₂ Capture with Chemical Solvents
 - Weyburn-Midale CO₂ Monitoring and Storage Project



CSLF Projects Background

- 11 project templates are still pending:
 - CETC R&D Oxyfuel Combustion Project
 - CASTOR
 - CO₂ Capture Project
 - CO₂ GeoNet Project
 - CO₂SINK Project
 - CO₂STORE
 - ENCAP
 - Frio
 - Geologic Storage Assurance at In Salah Project
 - Regional Carbon Sequestration Partnerships CSLF Project
 - Regional Opportunities for CO₂ Capture and Storage in China Project



CSLF Project Submission Form

- Secretariat has received project templates from some projects.
- Information from others are still pending.
- CSLF project selection criteria reviewed by PIRT. New criteria approved by Technical Group in November London meeting.
- Emphasis on the project sponsors to provide adequate documentation and by linking project recognition to CSLF gaps analysis.



Upcoming Events

- CSLF Task Force on Capacity Building in Emerging Economies Workshop in conjunction with the Sixth Annual Conference on Carbon Capture and Sequestration, Pittsburgh, USA, May 7-10, 2007.
- 2nd International Symposium on Capture and Geologic Storage of CO₂, Paris, France, October 4-5, 2007.
 - Sponsored by the French Petroleum Institute (IFP), France's Environment and Energy Management Agency (ADEME), and France's Bureau of Geological and Mining Research (BRGM).



Stakeholder Registry

- 69 stakeholders have registered since the April CSLF meeting.
- 85 registered stakeholders, as of March 13, 2007 (includes four stakeholders which have requested not to be shown in the CSLF Website listing.)
- Stakeholders by Industry:
 - Technology suppliers – 21%
 - Government – 22%
 - Association – 15%
 - Energy resource company – 15%
 - Environmental – 10%
 - Consulting/law – 7%
 - Other – 10%
- Stakeholders by Areas of Interest:
 - CO₂ capture – 81%
 - CO₂ transport – 61%
 - CO₂ storage – 86%
 - Environmental policy – 81%
 - Energy policy – 86%
 - Economics – 76%
 - Legal/regulatory issues – 79%
 - Capacity building – 60%
 - Financing – 51%
 - Other – 16%



**The Secretariat wishes to
acknowledge the hard work done
by all CSLF Task Forces.**