



# **Carbon Sequestration Leadership Forum**

*Trude Sundset,*  
**Chair of Technical Group CSLF**

**Innovation, deployment, diffusion and transfer of CCS  
technologies**

**UNFCCC SBSTA workshop 20 May 2006**



## The CSLF: An international climate change initiative

- **Focus: Development of carbon capture and storage technologies**
- **Goal: Long-term stabilization of atmospheric greenhouse gases.**
- **Method: Coordinated research and development with international partners and private industry.**
- **Charter: Signed June 24, 2003, Washington DC by 13 countries and the European Commission. (Today, 22 countries have signed the Charter)**



## Some of the CSLF Members



Australia



Brazil



Canada



China



Colombia



European Commission



Germany



India



Italy



Japan



Mexico



Norway



Russian Federation



South Africa



United Kingdom

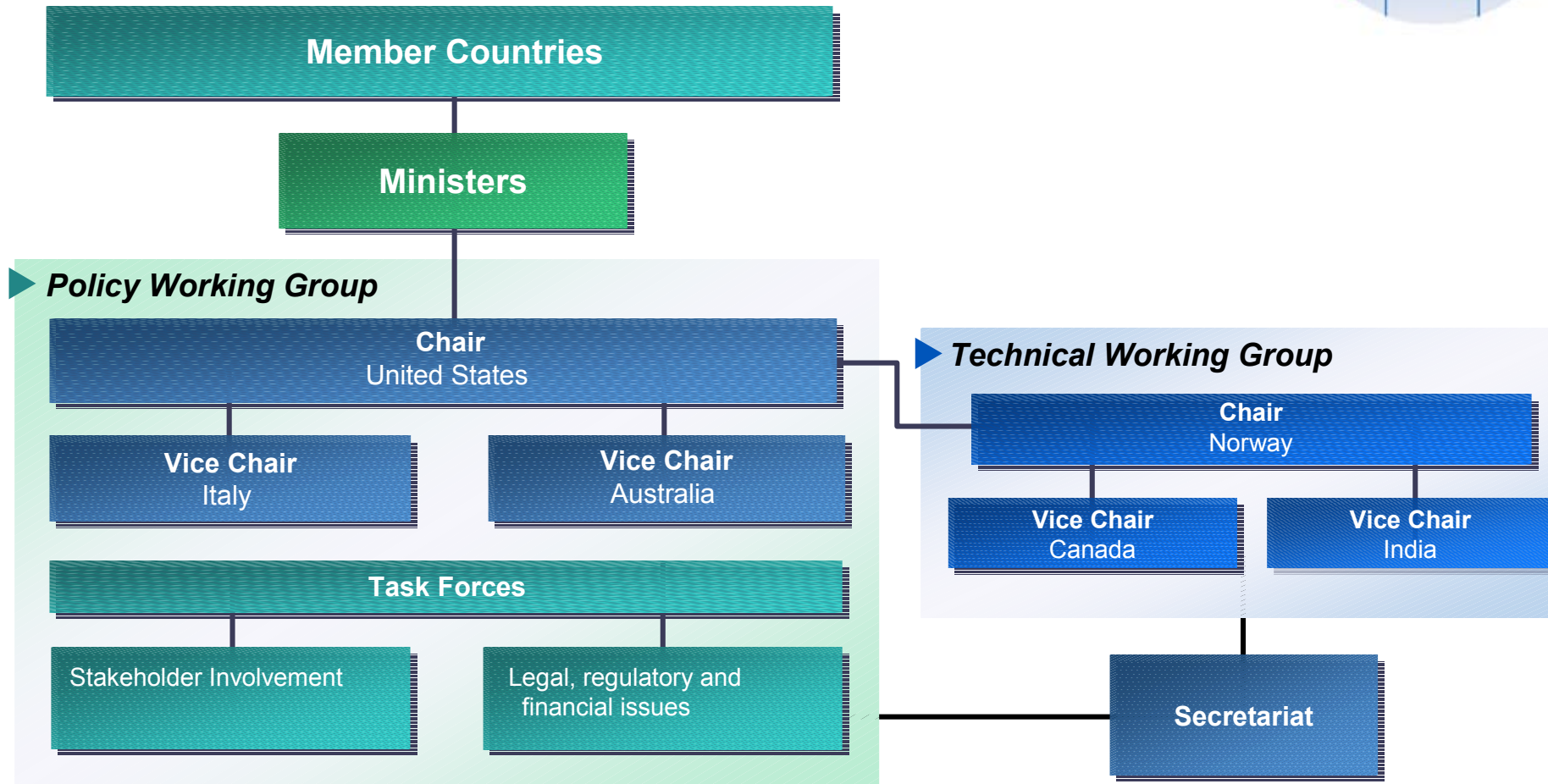


United States

**22 countries have signed the charter as of May 2006**



## CSLF Structure





## CSLF Activity

### Policy Group

- Develop Action Plan
- Approve Terms of Reference and Procedures
- Develop Legal, Regulatory and Financial Guidelines
- Establish procedures for stakeholder involvement
- Plan for creating public awareness
- Involve developing countries

### Technical Group

- Develop roadmap
- Evaluate numerous projects
- Develop sequestration databases

### Secretariat

- Support all activities



## Policy Group Activity (cont'd)

### Stakeholder Involvement

- Agenda to include:
  - Agreement on a charter
  - Issues
    - Valuing stored CO<sub>2</sub>
    - Public awareness and outreach
    - Environmental Regulations
    - Health and Safety
    - Long-term legal responsibility
    - Project finance and contractual relationships
    - Engineering design and optimization
    - Geographical Issues



## Technical Group Activity

### ➤ Technology Roadmap

- Purpose: A guide for carbon sequestration development
- Gap analysis ongoing

### ➤ CSLF Projects

- 18 projects proposed to CSLF for endorsement
  - Proposed projects came from different CSLF Members (Canada, EC, Japan, Norway, UK, and USA)
  - 6 projects feature CO<sub>2</sub> separation and capture
  - 11 projects feature geologic storage
  - 1 ocean sequestration project proposed
- 10 projects approved so far



## Project Recommendation Guidelines

- 1. The proposed project should be nominated by at least two CSLF Members.**
- 2. The proposed project should be consistent with the CSLF Charter.**
- 3. Project sponsors should be willing to share non-proprietary project information with other CSLF Members.**
- 4. Visits to the project site should be allowed for representatives of CSLF Members.**
- 5. The expected information from the project should be sufficient to allow others to make improved estimates of the technology's potential technical performance, costs, and benefits for any future applications.**
- 6. The project should be started and major milestones reported prior to the expiration of the CSLF Charter (currently 2013).**
- 7. Summaries should be made available, in English, for the CSLF website.**





## Technical Group Activity (cont'd)

### ➤ CSLF Database

- Will reside on CSLF web site
- CSLF working with IEA GHG to integrate databases
- Consists of CSLF endorsed projects, members carbon sequestration projects & major studies

### ➤ CSLF Web Site

- Includes information about CSLF activities and projects
- Developed by Secretariat; online since September 2003

**SUMMARIES OF PROJECTS  
NOMINATED FOR  
CSLF RECOGNITION**



*Carbon Sequestration  
Leadership Forum*

**Second CSLF  
Ministerial Meeting  
Melbourne, Australia  
September 13–15, 2004**





## The CSLF meets real needs for international collaboration

- **The challenge: carbon sequestration needs to become**
  - **Practical—under diverse conditions**
  - **Affordable—in a wide range of economies**
  - **Global—to solve a vital world-wide problem**
  
- **Collaboration creates substantial benefits.**
  - **Reach goals and solve problems faster**
  - **Reduce costs to each participant**
  - **Stimulate creativity and learn from each other**
  - **Use complementary capabilities to solve problems**



## **For More Information**

**Visit our website at:  
[www.csforum.org](http://www.csforum.org)**

**Or e-mail the Secretariat at:  
[CSLFSecretariat@hq.doe.gov](mailto:CSLFSecretariat@hq.doe.gov)**

# Backup





## Projects Interaction and Review Team

- **Core Group** : representation from
  - Australia
  - Canada (Vice chair TG)
  - Denmark
  - European Commission
  - Germany
  - India
  - Norway (Vice chair TG)
  - United Kingdom
  - United States of America (Chair TG)
- **Floating Group** :
  - Made up of representatives of CSLF recognised Projects and subject area experts



## Proposed Projects

### Canada:

CETC R&D Oxyfuel Combustion for CO<sub>2</sub> Capture  
ITC- CO<sub>2</sub> Capture with Chemical Solvents  
ARC-Enhanced Coal Bed Methane Recovery Project

### European Commission:

CO2SINK  
CASTOR

### Japan:

CO<sub>2</sub> Membrane Separation from High Pressure Gas Stream  
Estimate of CO<sub>2</sub> Storage Potential in East Asia  
Feasibility Study on CO<sub>2</sub> Storage in a Geothermal Field  
Ocean CO<sub>2</sub> Perturbation Experiment (Review Deferred)

### United Kingdom:

CO<sub>2</sub> Capture Project (Phases I and II)

### United States:

IEA Weyburn II CO<sub>2</sub> Storage Project (also nominated by Canada)  
Frio Brine Sequestration Project

### Norway:

CO<sub>2</sub> STORE