

# CSLF Technical Group Project Interaction and Review Team

Meeting #7
Cape Town, South Africa
13th April 2008

Chair: Nick Otter United Kingdom

# PIRT#7: Agenda

1. Opening Comments by PIRT Chair Nick Otter, Chair, United Kingdom

#### 2. Introduction of Meeting Attendees Attendees

#### **Tour de Table**

- 3. Progress on Joint Activities with IEA GHG R&D Programme and EC FP7
  Nick Otter, Chair, United Kingdom
  Tim Dixon, IEA GHG
- 4. Review of Update of CSLF Technology Roadmap Pierre Le Thiez, France
- 5. The Benefits of Being a CSLF Project: Feedback from Survey of Stakeholders and Projects John Panek, CSLF Secretariat
- 6. Status of CSLF Project Reporting (SPIR)

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#### **PIRT#7: Main Aims**



#### Review status of PIRT activities underway

TRM Review and Update

**CSLF** Project: revision of submission form

: project report status

: benefits survey feedback

: areas where new projects would be beneficial

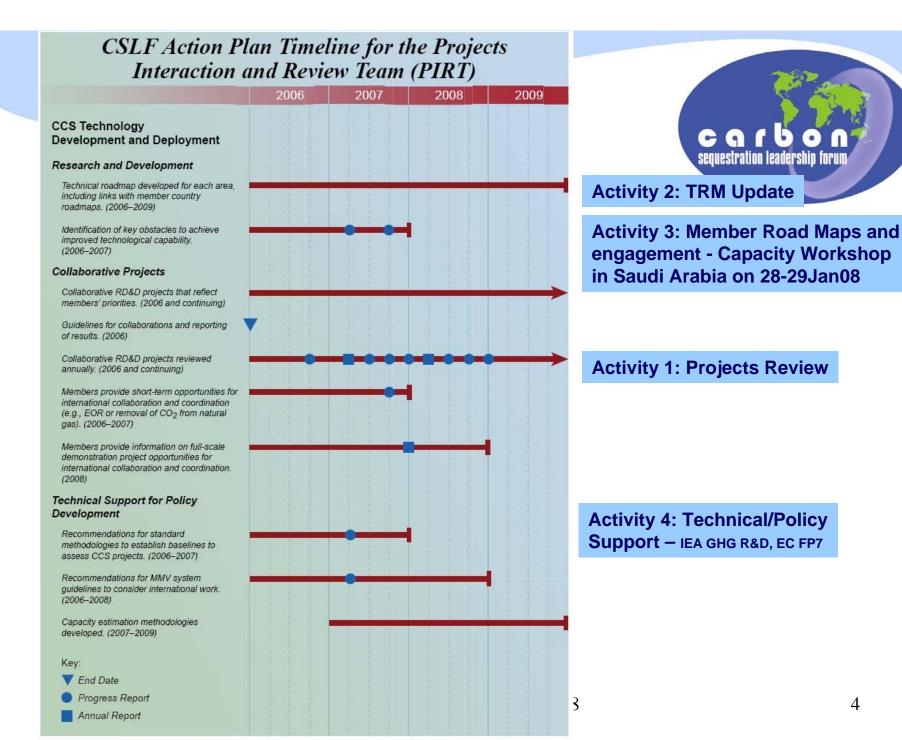
: encouragement for action

#### Position future PIRT actions in context of overall CSLF Action Plan 2008-09

Progress on linkage with IEA GHG R&D Programme Progress on linkage with EC FP7 Programme Input to CSLF Strategic Plan Review

## Consider procedural/administrative issues

Review membership and chair role



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Activity 4: Technical/Policy Support : IEA GHG, EC FP7

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#### PIRT#7: IEA GHG R&D

#### **Support Action**

#### Agreed by IEA GHG R&D ExCo on 26th October 2007

#### **IEA GHG R&D/CSLF Co-operative Arrangement**

- 1. There should be representation of the CSLF Technical Group at the ExCo meetings of the IEA GHG R&D Programme but with no voting rights.
- 2. There should be representation of the IEA GHG R&D Programme at the CSLF TG meetings, including those of the PIRT but with no voting rights.
- 3. A representative of the IEA GHG R&D Programme should meet with the co-chairs of the PIRT to discuss specific activities or projects that could be undertaken ........ to be done at times which would facilitate the feeding of ideas into both organisations. This is regarded as a two way process with ideas for work going in both directions depending upon the current activity plan of the two organisations.
- 4. It should be noted that in the discussion of possible items of work and the agreement that a specific topic would be appropriate, allocation of resource would depend upon the acceptance of the work by the ExCo or the CSLF TG as appropriate and should follow the selection procedure as defined in both organisations.
- 5. Where the work is to be performed and reported, due reference will be made to the organisation that resourced the activity.

Endorsed by PIRT and CSLF TG on 25th January 2008



#### PIRT#7: IEA GHG R&D

**Support Action - Status** 



- Ideas requested in December 2007 for consideration
- Proposed "trail blazer" project :
   Storage Capacity Coefficients
   submitted by Australia

to be reviewed at IEA GHG R&D ExCo Spring 2008

**Current Status: Tim Dixon of IEA GHG R&D** 

Way forward and follow up?
IEA GHG ExCo 21-23 April 2008 in Berlin

**Support Action: Proposed Route** 



- Specific International Co-operation Actions (SICA) in 2008
   Energy Theme Work Programme :
  - 'Capacity Building in Large Emerging Economies'
  - Need for 2+ EU Member States involved
  - ➤ Need for 2+ (CSLF Member) large emerging economies involved
  - ➤ Benefits of involving other CSLF (developed) Member Countries
  - Benefits of involving other stakeholders
- Outline proposals due in 29<sup>th</sup> February 2008
- Agreed at Al Khobar 25<sup>th</sup> January 2008 to pursue 2 topics
  - Global Atlas of Storage/Modeling of Storage in Aquifers
  - 2 lead organisations identified
    - ☐ BGS (UK)
    - ☐ TNO (NL)

**Support Action: Proposal Idea** 



## **Proposal 1:** Developing a Global Atlas of CO<sub>2</sub> Storage Including Large Emerging Economies

- Interested in participating: Italy, the Netherlands, UK, Denmark, France, Germany, Saudi Arabia, South Africa, Brazil, Australia, Canada, USA.
- Draft description: Several countries and organisations (eg IEA GHG PEACS) have established national/regional GISs of storage potential. These 'atlases' have been assessed at different levels using a variety of parameters and geological layers. This proposed project would assemble these into a consistent, international set with common layers and parameters. This would be extended to include large emerging economies at the most appropriate level given the data available. The resulting atlas would encourage other emerging economies to fill in storage potentials at higher levels of detail. The aim would be to deploy the atlas using the www.

**Support Action: Proposal Idea** 



## **Proposal 2:** Better Modelling to Estimate CO<sub>2</sub> Storage Capacities in Aquifers in Large Emerging Economies

- Interested in participating: Italy, the Netherlands, UK, Denmark, France, Germany, Saudi Arabia, South Africa, Brazil, Australia, Canada, USA.
- Draft description: Modelling CO<sub>2</sub> storage in aquifers is reliant on a number of parameters to establish the efficiency of storage in geological systems. Assessment of these parameters at a regional level needs to be based on site-specific information which needs to be developed. This proposed project would build on existing knowledge and practices to develop these assessments in order to better understand regional coefficients in large emerging economies. Case studies would be developed to support these assessments.

**Support Action: Status/Outcome** 



- Outline Submissions for Specific International Co-operation Actions (SICA)
  - > proved too difficult to embrace all countries in time available
  - limited to specific countries at this stage
- Understanding of outlines submitted by 29<sup>th</sup> February 2008
  - ➤ CO<sub>2</sub> Sink Mapping for India : BGS
  - ➤ CO<sub>2</sub> Sink mapping for Brazil : Delft
  - ➤ Modeling of aquifer storage to improve capacity estimation : TNO
- Way forward
  - > assessment by EC Committees in April 2008 : outcome not known
  - > could be basis for further action involving other (CSLF) countries?
  - ➤ list of activity and co-ordination role? ...... for PIRT?

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#### **Activity 2: TRM Update**

- 4. Review of Update of CSLF Technology Roadmap Pierre Le Thiez. France
- 5. The Benefits of Being a CSLF Project: Feedback from Survey of Stakeholders and Projects John Panek, CSLF Secretariat
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#### PIRT#7: CSLF TRM Review

as of 12th April 2008



Agreed at PIRT#6 in Al Khobar on 25th January 2008

#### **Revised Action Plan**

- Agree Plan between the PIRT co-leads
   12<sup>th</sup> September 2007
- Issue agreed Plan to PIRT members requesting nominations for a TRM Review Team
   18<sup>th</sup> September 2007
- 3. Finalise Review Team 30<sup>th</sup> September 2007
- Produce initial analysis of current TRM and review progress at PIRT meeting in Saudi Arabia.

  27<sup>th</sup> January 2008
- 5. Produce update draft of TRM. **29<sup>th</sup> February 2008**
- Issue final draft as papers for PIRT and Technical Group meetings in April 2008.
   31<sup>st</sup> March 2008

**Current Status: EC/Pierre Le Thiez** 

Way forward for completion?

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## PIRT#7: CSLF Projects



#### Current Project Portfolio

19 in total, update contained in CSLF SPIR of January 2008

..... 2 now completed

2004: 10 Melbourne

2005: 7 Berlin

2007: 2 Paris

2008: 1 Cape Town (recommended by PIRT/TG to PG)

#### Proposed Project : DYNAMIS

"Towards Hydrogen production with CO<sub>2</sub> Management" Sponsored by EC and Norway: Led by Nils Rokke SINTEF/Norway

#### Project Reporting

CSLF Secretariat review March 2008

# PIRT#7 : CSLF Projects Questionnaire/Recognition Survey



- Agreed at Al Khobar on 25<sup>th</sup> January 2008
- Questionnaire prepared by CSLF Secretariat
- CSLF Projects and Stakeholders approached
- February to March 2008 timeframe

Report by John Panek of CSLF Secretariat

## PIRT#7: CSLF Projects

#### Areas where projects should be encouraged



- Analysis of current project portfolio?
- Impact of questionnaire and survey?
- Not just technical but also policy related?
- How to use the `gap analysis`?
- Plan and how to resource it?

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### **Activity 3: Member Road Maps and engagement**

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## **PIRT#7: Reporting**



### TFIR: Task Force Implementation Report

Latest issue is March 2008
Input to Strategic Plan Implementation Report [SPIR]
Provides status of PIRT organisation, aims, milestones and actions

#### Current PIRT Activities

1. CSLF Projects : review current portfolio

: assess proposals for new projects

: identify areas for additional projects

2. CSLF TRM : review and update

3. National TRMs : encourage members to adopt this approach

4. TG Support : make use of complementary actions where

resource can be brought to bear

**IEA GHG R&D** 

EC FP7 Programme

#### CSLF Action Plan Timeline for the Projects Interaction and Review Team (PIRT)

2007

2008

2009



Technical roadmap developed for each area, including links with member country roadmaps. (2006-2009)

Identification of key obstacles to achieve improved technological capability. (2006-2007)

#### 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 and coordination (e.g., EOR or removal of CO2 from natural gas). (2006-2007)

Members provide information on full-scale demonstration project opportunities for international collaboration and coordination.

#### Technical Support for Policy Development

Recommendations for standard methodologies to establish baselines to assess CCS projects. (2006-2007)

Recommendations for MMV system quidelines to consider international work. (2006-2008)

Capacity estimation methodologies developed. (2007-2009)

#### Key:

V End Date

Progress Report

Annual Report



**Activity 3: Member Road Maps and** engagement

**Activity 1: Projects Review** 

**Activity 4: Technical/Policy** Support - IEA GHG R&D, EC FP7

**Review of CSLF Strategic Plan: implication for Technical Group and PIRT – proactive stance?** 

#### PIRT#7: CSLF Roundtable

Cape Town 15th April 2008



- Title: How to make CCS work?
  - > not technical, more market, finance and regulation oriented
  - > raising the key issues to deploy CCS
- Series of facilitated `Roundtable` discussions
  - Market Incentives
  - Financial Aspects
  - Legal and Regulation Issues
- Interactive CO<sub>2</sub> Trading Simulation Exercise
  - understand other peoples perspectives through role/game play

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## **PIRT#7: Membership**

as of 12th April 2008



 A Core Group comprising the Chair and Vice Chairs of the Technical Group and other delegates as designated by the Technical Group.

Australia Clinton Foster Canada Bill Reynen

Denmark Flemming Ole Rasmussen

**European Commission Jeroen Schuppers Germany Jürgen-Friedrich Hake** 

India Malti Goel

Netherlands Harry Scheurs
Norway Trude Sundset
Saudi Arabia Khalid Abuleif
UK Nick Otter

USA George Guthrie

- Co-chairs : Australia, EC and <u>UK</u>
- A Floating Group comprising representatives of CSLF recognized projects with overall management responsibility in the project (e.g. project manager), as well as other subject area experts.

#### PIRT#7: Chair Role



#### Position to date

PIRT#1: US April 2006

PIRT#2 : UK June 2006

PIRT#3 : UK August 2006

PIRT#4 : Australia November 2006

PIRT#5 : Australia March 2007

PIRT#6: UK January 2008

PIRT#7 : UK April 2008

#### Future Position

PIRT#8 : UK Autumn 2008

PIRT#9 : ?? Spring 2009

## PIRT#7: Meetings/New Business



#### Next CSLF Meetings

PIRT/Technical Group: Autumn 2008? ...... GHGT9 Washington 14<sup>th</sup> or 21<sup>st</sup> November 2008?

Joint Policy/Technical Group : Spring 2009? CSLF Ministerial Meeting : Autumn 2009?



# CSLF Technical Group Project Interaction and Review Team END

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#### PIRT: Tasks -1



- Assess projects proposed for recognition by the CSLF in accordance with the project selection criteria approved by the Policy Group. Based on this assessment, make recommendations to the Technical Group on whether a project should be accepted for recognition by the CSLF.
- Review the CSLF project portfolio and identify synergies, complementarities and gaps, providing feedback to the Technical Group and input for further revisions of the CSLF roadmap.
- Identify technology gaps where further RD&D would be required.
- Foster enhanced international collaboration for CSLF projects, both within individual projects (e.g. expanding partnership to entities from other CSLF members) and between different projects addressing similar issues

#### PIRT: Tasks - 2



- Promote awareness within the CSLF of new developments in CO2
   Capture and Storage by establishing and implementing a framework
   for periodically reporting to the Technical Group on the progress within
   CSLF projects and beyond.
- Organize periodic activities to facilitate the fulfilment of the above functions and to give an opportunity to individuals involved in CSLF recognized projects and other relevant individuals invited by the CSLF, to exchange experience and views on issues of common interest and provide feedback to the CSLF.
- Perform other such tasks that may be assigned to it by the CSLF Technical Group.



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